# MEMO

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Date:

June 21, 2019

Arcadis Project No.:

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Subject:

Plant 2 LNAPL PFAS Investigation

RACER Trust Site, Lansing, Michigan

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This memorandum has been prepared by Arcadis on behalf of the Revitalizing Auto Communities Environmental Response (RACER) Trust for Lansing Plant 2 located in Lansing Township, Michigan (Site). This report summarizes the field activities performed during the fourth quarter of 2018 and first quarter of 2019 to evaluate the potential presence of per- and polyfluoroalkyl substances (PFAS) within the Plant 2 light non-aqueous phase liquid area (Plant 2 LNAPL Area).

Work completed was consistent with the scope described in the *RACER Lansing – Plant 2 LNAPL PFAS Sampling Workplan* (work plan; Arcadis 2018) provided to the Michigan Department of Environment, Great Lakes, and Energy (EGLE) on October 5, 2018, and subsequent e-mail correspondence with EGLE. The revised work plan was approved by EGLE via email on November 20, 2018. The location of the investigation area and sampling locations are presented as **Figure 1**.

## BACKGROUND

Previous groundwater analytical results for perfluorooctane sulfonic acid (PFOS) and perfluorooctanoic acid (PFOA) showed exceedances of Part 201 DW and GSI Criteria in the central portion of Plant 2 (**Figure 1)**. Previous detections of PFAS on Plant 2 are summarized in the 2018 Plant 2 and 6 PFAS Sampling Memorandum (Arcadis 2018). PFOS and PFOA exceedances were observed in perched monitoring wells

MW-14-60 (located northeast of the Plant 2 LNAPL), and MW-14-62 (located to the south of the Plant 2 LNAPL).

LNAPL is present within the perched zone in the central portion of Plant 2 . A cross section of the Plant 2 LNAPL area is included as **Figure 2**. Based on sample analytical results and historical operations, the LNAPL observed at Plant 2 is believed to primarily be a former cutting oil or lubricating oil. Cutting oils and other petroleum products comprising the LNAPL do not commonly contain PFAS, however, it is possible that the LNAPL was part of a mixed waste stream containing products from various manufacturing activities or has potentially absorbed PFAS via partitioning from the surrounding perched groundwater.

LNAPL is located within two layers in the perched zone; shallow and deep. The shallow LNAPL is located within the fill material and typically encountered 3 to 5 feet below grade with LNAPL or residual LNAPL extending to approximately 10 feet below grade. The thickness of LNAPL observed in shallow monitoring wells ranges from a trace up to 3 feet or more (e.g. PMW-01). The deep LNAPL is encountered within a deeper more permeable sand seam that ranges from 2-4 feet thick and begins at a depth of approximately 20 feet below grade. Due to the confined conditions, groundwater is displaced within the deeper LNAPL monitoring wells and LNAPL can accumulate in thicknesses ranging up to 16 feet. In general, the deep LNAPL contains higher concentrations of both polychlorinated biphenyls and chlorinated volatile organic compounds such as 1,1,1-trichloroethane.

## INVESTIGATION METHODS

Due to the proximity of PFOS and PFOA impacts to the LNAPL, and lack of known historical sources in the immediate vicinity, this investigation was completed to determine if LNAPL in the central portion of Plant 2 represents a historical, or perhaps continuing, source of PFAS to perched groundwater. Investigation of LNAPL consisted of two components:

- Groundwater sampling from wells impacted with LNAPL to evaluate the equilibrium concentrations of PFAS in groundwater.
- Collection of LNAPL samples to evaluate concentrations of PFAS currently present in LNAPL. As there is no established method for quantifying PFAS in petroleum LNAPL, Arcadis contracted SGS Axys Laboratories of Sydney, BC to develop a custom extraction procedure and analysis for the LNAPL. A summary of Method MLA-110 is included as **Attachment 1.**
- Groundwater from LNAPL wells was also analyzed for 1,4-dioxane to further characterize dissolved phase 1,4-dioxane impacts within the perched groundwater.

### Sample Collection

Samples were collected from a total of nine monitoring wells within the LNAPL footprint. Of the nine wells, two did not contain sufficient LNAPL to collect a sample, and two did not contain sufficient groundwater. Co-located groundwater and LNAPL samples were collected from five of the nine wells. To avoid cross contamination, all sampling was conducted in accordance with the Arcadis PFAS Sampling Technical Guidance Instruction document (Arcadis 2018).

Seven groundwater samples were collected on December 12, 2018. To minimize mixing of LNAPL with the groundwater sample, a length of 5/8 inch diameter tubing was capped at the top and inserted into the well to approximately one foot below the LNAPL-water interface. The cap was removed once the tubing was below the LNAPL-water interface and a length of 5/16-inch diameter tubing was inserted through the

larger tubing, attached to a peristaltic pump, and used to collect the groundwater sample. Groundwater samples were collected using low-flow groundwater sampling techniques.

LNAPL samples were collected from seven locations on February 4 and February 5, 2019. The LNAPL has a very high viscosity and cannot be easily pumped; therefore, LNAPL samples were collected using disposable bailers.

## Laboratory Analysis

Groundwater samples were submitted to SGS Accutest Laboratory located in Orlando, Florida and analyzed for the 24 PFAS contained in the EGLE PFAS Minimum Laboratory Analyte List (EGLE, 2018) using modified United States Environmental Protection Agency (USEPA) Method 537 with isotope dilution (DoD QSM 5.1). Additionally, groundwater samples were submitted to Merit Laboratories in East Lansing, Michigan for analysis for 1,4-dioxane using USEPA Method 8260 SIM.

LNAPL samples were submitted to SGS Axys in Sydney, British Columbia, Canada for custom extraction and PFAS analysis using the MLA-110 method. Method MLA-110 involves analysis by liquid chromatography – dual mass spectrometry (LC-MS/MS), utilizing solid phase extraction of aqueous samples. The process is monitoring by isotopically labeled surrogate standards (isotope dilution). MLA-110 is NELAP and DoD 5.1 accredited for the standard 24 compounds plus 5 incremental PFAS compounds. A summary of Method MLA-110 is included as **Attachment 1**.

The extraction method is based on a custom method developed for PFAS analysis of gasoline LNAPL. LNAPL samples are converted from hydrocarbon phase samples to aqueous samples which are subsequently processed as standard MLA-110 samples. The phase transfer is monitored by isotope dilution (all labelled standards are added to the LNAPL samples at the commencement of the phase transfer process) plus two custom QA/QC samples (LNAPL method blank and LNAPL blank spiked matrix, using reagent grade hexane as the LNAPL QA matrix) plus one lab duplicate. The key steps in the LNAPL analysis process include:

1. Convert LNAPL samples to aqueous samples;
    a. Dilute 100 mL LNAPL samples with 100 mL reagent grade hexane to prevent emulsification issues affected phase separation and surrogate recovery.
    b. Create method blank (surrogate addition only at MLA-110 levels) and blank spiked matrix (surrogate and native spike at standard MLA-110 levels).
    c. Spike all unknown samples with surrogates at standard MLA-110 spiking levels based on 500 ml sample size.
    d. Perform 3 sequential water washes (200 ml, 200 ml, 100 ml) with PFAS free laboratory water adjusted to pH 10, decanting water after each wash, to create a 500 mL nominal aqueous sample.
2. Create standard MLA-110 batch QA/QC samples (method blank, blank spiked matrix).
3. Perform analysis of all samples as per MLA-110 with QA/QC criteria applicable for standard QA/QC samples.

Groundwater analytical data for the Plant 2 LNAPL PFAS investigation are summarized in **Table 1** and LNAPL analytical data are summarized in **Table 2**. The laboratory analytical reports are provided as **Attachment 2.**

## RESULTS

Comparison of the analytical results for both groundwater and LNAPL does not show a concentration bias toward either media. The highest concentrations of individual PFAS compounds within LNAPL are on the order of hundreds of nanograms per liter (ng/L) and typically less than 100 ng/L for PFOA and PFOS. These concentrations are similar to those observed in the surrounding perched groundwater.

The lack of a clear concentration gradient between LNAPL and groundwater suggests that PFAS concentrations are in equilibrium between the two media. Based on these results, LNAPL does not represent an ongoing source of PFAS and it is equally possible that concentrations observed in LNAPL have partitioned from groundwater and therefore related to a separate source. Further, the detected concentrations in both groundwater and LNAPL are low enough that differences in various PFAS concentrations could be attributed to sampling variability in addition to partitioning characteristics.

### LNAPL Results

LNAPL analytical results generally indicate low detections of various PFAS. Analytical results for total PFAS, PFOA, and PFOS within LNAPL are summarized on **Figure 3**. A comparison of the composition of PFAS detected in LNAPL and groundwater is provided as **Figure 4**. Observations based on the analysis of LNAPL are summarized below:

- PFOS was detected in six of the seven LNAPL samples at concentrations ranging from 4.4 ng/L to 51.6 ng/L.
- PFOA was detected in three LNAPL samples at concentrations ranging from 4.1 ng/L to 18.4 ng/L.
- PFBA - LNAPL in confined LNAPL monitoring well LMW-15-16D contained an elevated concentration of PFBA (220 ng/L). Further, the sample from this well was the only LNAPL sample that did not contain PFOS. The other three confined LNAPL samples, collected from LMW-12-03D, LMW-14-12D, and LMW-14-15D, contained PFBA at concentrations ranging from 18.9 ng/l to 76.4 ng/L. PFBA was not detected in any of the shallower, unconfined LNAPL samples.
- Except for PFOS and two detections of perfluorohexanesulfonic acid (PFHxS), perfluoroalkyl sulfonic acids (PFSAs) are not detected in the LNAPL.
- Perfluoroalkyl carboxyl acids (PFCAs), ranging in carbon chain length from 4 to 10 were detected in LNAPL. Except for the LNAPL sample from LMW-12-08, PFAS in the LNAPL appears to be made up primarily of short chain PFCAs. Although incongruent with the results, short chain PFCAs are considered to be relatively more mobile and water soluble (Guelfo and Higgins 2013) and may sometimes indicate the leading edge of a PFAS plume.
- 6:2 Fluorotelemer sulfonate (6:2 FTS) was detected in the laboratory method blank at concentrations similar to the concentrations detected in LMW-12-03D and LMW-15-16D, therefore the 6:2 FTS results may be a result of lab contamination and these results have been “B” flagged.

### Groundwater Results

Groundwater analytical results generally showed low detections of various PFAS. PFOA and PFOS results for the GW are shown on **Figure 3**. A comparison of the composition of PFAS detected in groundwater and LNAPL is provided as **Figure 4**. Observations based on the analysis of the groundwater are summarized below:

- PFOS was detected in four of the seven groundwater sampling locations at concentrations ranging from 16.8 ng/L to 188 ng/L. Exceeding the Part 201 Groundwater Surface Water Interface (GSI) criteria of 12 ng/L.
- PFOA was detected in all groundwater samples at concentrations ranging from 22.3 ng/L to 175 ng/L and do not exceed GSI Criteria (12,000 ng/L). Combined concentrations of PFOS and PFOA exceed the Part 201 Drinking Water (DW) criteria of 70 ng/L.
- Concentrations of both PFOS and PFOA are relatively low with the exception of monitoring well LMW-12-05, located within the western half off the shallow LNAPL footprint, which contains PFOS and PFOA concentrations of 188 ng/L and 175 ng/L, respectively.
- 1,4-dioxane was detected in all seven groundwater sampling locations at concentrations ranging from 87 micrograms per liter (µg/L) to 2,120 µg/L, consistent with concentrations observed in the core of the perched 1,4-dioxane plume during previous investigations. Previous characterization of 1,4-dioxane in the Plant 2 LNAPL (Arcadis 2017) showed LNAPL is depleted of 1,4-dioxane with concentrations <200 µg/L.

If you have any questions, please contact Patrick Curry (Arcadis) at 810-225-1926 or Dave Favero (RACER Trust) at 734-879-9525.

Sincerely,

Arcadis of Michigan, LLC

Alex Villhauer

Staff Geologist

Patrick Curry, PG, CPG

Technical Expert (Geo)

**Enclosures:**

Table 1 – Plant 2 Groundwater Analytical Results

Table 2 – Plant 2 LNAPL Analytical Results

Figure 1 – Plant 2 Sample Locations

Figure 2 – Plant 2 LNAPL Area Cross Section A-A’

Figure 3 - Summary of Groundwater and LNAPL Analytical Results

Figure 4 – Summary of Co-located LNAPL and Groundwater PFAS Composition

Attachment 1 – MLA-110 Method Summary

Attachment 2 – Laboratory Analytical Reports

## REFERENCES

Arcadis 2017. Plant 2 LNAPL Area 1,4-Dioxane Investigation Summary. RACER Trust, Lansing Plant 2, Lansing Township, Michigan. July 3.

Arcadis 2018. Monitoring Well PFAS Summary – Plants 2 and 6, RACER Trust Site. Lansing, Michigan. September 13.

J.L. Guelfo and Higgins, C.P. 2013. Subsurface Transport Potential of Perfluoroalkyl Acids at Aqueous Film-Forming Foam (AFFF)-Impacted Sites. Environmental Science and Technology. 47, 9, p. 4164-4171. April 25.

# TABLES

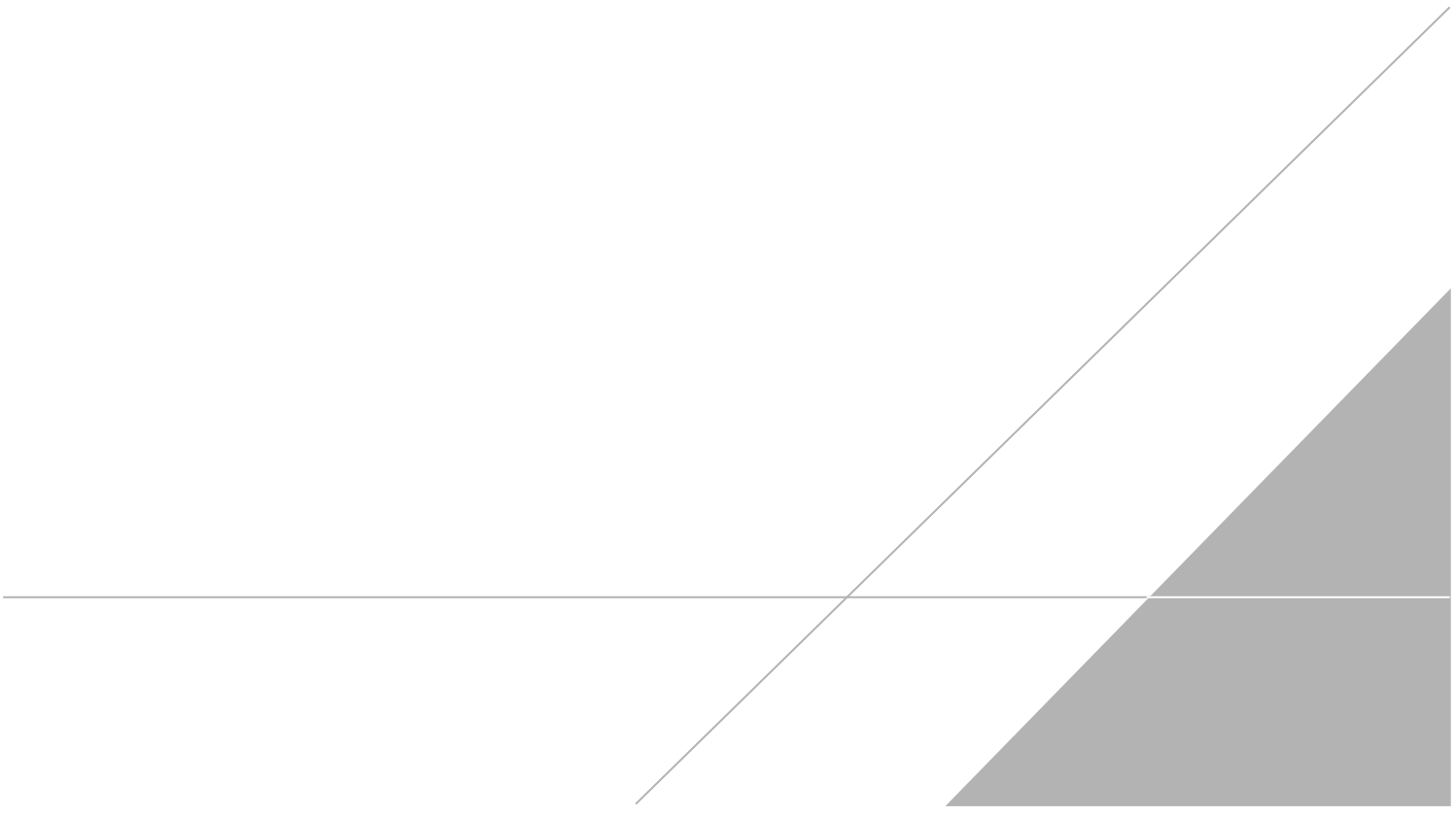


**Table 1**
**Plant 2 Groundwater Analytical Results**
**RACER Trust Plant 2 - Lansing, Michigan**

| Location ID:<br>Plant:<br>Date Collected:<br>Sample Name:<br>Lab Sample ID: | Units | MI GW (DEQ2017) RES DW | MI GSI | PMW-02<br>Plant 2<br>12/12/2018<br>PMW-02-2_12122018<br>FA60384-1 | LMW-12-03D<br>Plant 2<br>12/12/2018<br>LMW-12-03D_12122018<br>FA60384-3 | LMW-15-16D<br>Plant 2<br>12/12/2018<br>LMW-15-16D_12122018<br>FA60384-4 | LMW-12-08<br>Plant 2<br>12/12/2018<br>LMW-12-08_12122018<br>FA60384-5 | PZ-SB-37<br>Plant 2<br>12/12/2018<br>P2-SB-37_12122018<br>FA60384-6 | PMW-01<br>Plant 2<br>12/12/2018<br>PMW-01_12122018<br>FA60384-7 | LMW-12-05<br>Plant 2<br>12/12/2018<br>LMW-12-05_12122018<br>FA60384-8 |
|---|---|---|---|---|---|---|---|---|---|---|
| **1,4-Dioxane** | | | | | | | | | | |
| 1,4-Dioxane | µg/L | 7.2 | 2,800 | **2,120 Y** | **160** | **790** | **2,060** | **244** | **87** | **710** |
| **Poly- and Perfluorinated Alkyl Substances** | | | | | | | | | | |
| 4:2 Flourotelemer Sulfonate (4:2 FTS) | ng/L | - - | - - | <20 [<20] | <20 | <40 | <40 | <20 | <20 | <40 |
| 6:2 Flourotelemer Sulfonate (6:2 FTS) | ng/L | - - | - - | <20 [<20] | <20 | <40 | <40 | <20 | <20 | **9.40 J** |
| 8:2 Flourotelemer Sulfonate (8:2 FTS) | ng/L | - - | - - | <20 [<20] | <20 | <40 | <40 | <20 | <20 | **21.8** |
| N-ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA) | ng/L | - - | - - | <40 [<80] | <40 | <80 | <80 | <40 | <40 | <80 |
| N-methyl perfluorooctane sulfonamidoacetic acid (NMeFOSAA) | ng/L | - - | - - | <40 [<80] | <40 | <80 | <80 | <40 | <40 | <80 |
| Perfluorobutanesulfonic acid (PFBS) | ng/L | - - | - - | **70.4 [72.8]** | **3.08 J** | <2.00 | **15.7** | **24.8 J** | **23.1 J** | <2.00 |
| Perfluorobutanoic acid (PFBA) | ng/L | - - | - - | <40 [<40] | **12.3** | **10.8 J** | **10.8 J** | <40 | <20 | **37.1** |
| Perfluorodecanesulfonic acid (PFDS) | ng/L | - - | - - | <10 [b] [<10 b] | <10 [b] | <2.00 | <10 [b] | <10 [b] | <10 [b] | <10 [b] |
| Perfluorodecanoic acid (PFDA) | ng/L | - - | - - | <10 [<10] | **3.56 J** | <2.00 | <2.00 | <10 [b] | <10 [b] | **28.8** |
| Perfluorododecanoic acid (PFDoA) | ng/L | - - | - - | <15 [<15] | <15 | <3.00 | <3.00 | <15 | <15 | <3.00 |
| Perfluoroheptanesulfonic Acid (PFHpS) | ng/L | - - | - - | **37.2 J [35.5 J]** | <1.00 | **2.22 J** | <2.00 | **18.6 J** | <10 | **3.68 J** |
| Perfluoroheptanoic acid (PFHpA) | ng/L | - - | - - | **37.5 J [45.5]** | **15.1** | **11.2** | **17.1** | **26.9 J** | <10 | **111** |
| Perfluorohexanesulfonic acid (PFHxS) | ng/L | - - | - - | <10 [<10] | **3.83 J** | **5.10 J** | **8.94** | <10 | <10 | **15.4** |
| Perfluorohexanoic acid (PFHxA) | ng/L | - - | - - | **58.8 [32.7J]** | **20.4** | **9.14** | **24** | **40.7** | <10 | **80.7** |
| Perfluorononanesulfonic acid (PFNS) | ng/L | - - | - - | <10 [<10] | <10 | <2.00 | <10 | <10 | <10 | <10 |
| Perfluorononanoic acid (PFNA) | ng/L | - - | - - | <20 [<20] | <10 | <2.00 | <2.00 | <20 [a] | <10 | **23.2** |
| Perfluorooctane Sulfonamide (FOSA) | ng/L | - - | - - | <10 [<20] | <2.00 | <2.00 [c] | <10 | <20 | <10 [c] | <10 |
| Perfluorooctanesulfonic acid (PFOS) | ng/L | - - | 12 | **38.4 J [a] [41.2 [a]]** | **31.3** | **16.8** | <0.015 | <15 | <15 | **188** |
| Perfluorooctanoic acid (PFOA) | ng/L | - - | 12,000 | **35.9 J [39.8J]** | **48.2** | **43** | **29.8** | **34.3 J** | **22.3 J** | **175** |
| Combined PFOS and PFOA | ng/L | 70.000 | - - | **74.3 [81]** | **79.5** | **59.8** | **29.8** | **34.3** | **22.3** | **363** |
| Perfluoropentanesulfonic acid (PFPeS) | ng/L | - - | - - | <10 [<10] | <10 | <2.00 | <2.00 | <10 | <10 | **2.88 J** |
| Perfluoropentanoic acid (PFPeA) | ng/L | - - | - - | **38.1 J [42]** | **20.3** | **17.4** | **26.6** | **69.8** | <15 | **91.8** |
| Perfluorotetradecanoic acid (PFTeA) | ng/L | - - | - - | <10 [<10] | <10 | <2.00 | <2.00 | <10 | <10 | <2.00 |
| Perfluorotridecanoic Acid (PFTriA) | ng/L | - - | - - | <10 [<10] | <10 | <2.00 | <2.00 | <10 | <10 | <2.00 |
| Perfluoroundecanoic acid (PFUnA) | ng/L | - - | - - | <10 [<10] | <10 | <2.00 | <2.00 | <10 | <10 | <2.00 |

**Table 1**
**Plant 2 Groundwater Analytical Results**
**RACER Trust Plant 2 - Lansing, Michigan**

**Notes:**

**Bold** result denotes detection is above the laboratory reporting limit but below EGLE Res DW and Non-DW Criteria.

Shaded text denotes detection is above one or more EGLE Part 201 Criteria

Data shown in brackets [ ] represent duplicate sample analytical results.

< = Not Detected, less than reference level

**Footnotes:**

[a] Associated ID Standard outside control limits due to matrix interference. Confirmed by reanalysis.

[b] Associated BS recovery outside control limits.

[c] Associated ID Standard outside control limits due to matrix interference.

**Acronyms and Abbreviations:**

DW - 2017 MDEQ Part 201 Drinking Water Criteria

GSI - Groundwater surface water interface (based on 2016 MDEQ Rule 57 Human Non-Cancer Value for Surface Water from a Non-Drinking Water Source)

ng/L - nanograms per liter

µg/L - micrograms per liter

**Table 2**
**Plant 2 LNAPL Analytical Results**
**RACER Trust Plant 2 - Lansing, Michigan**

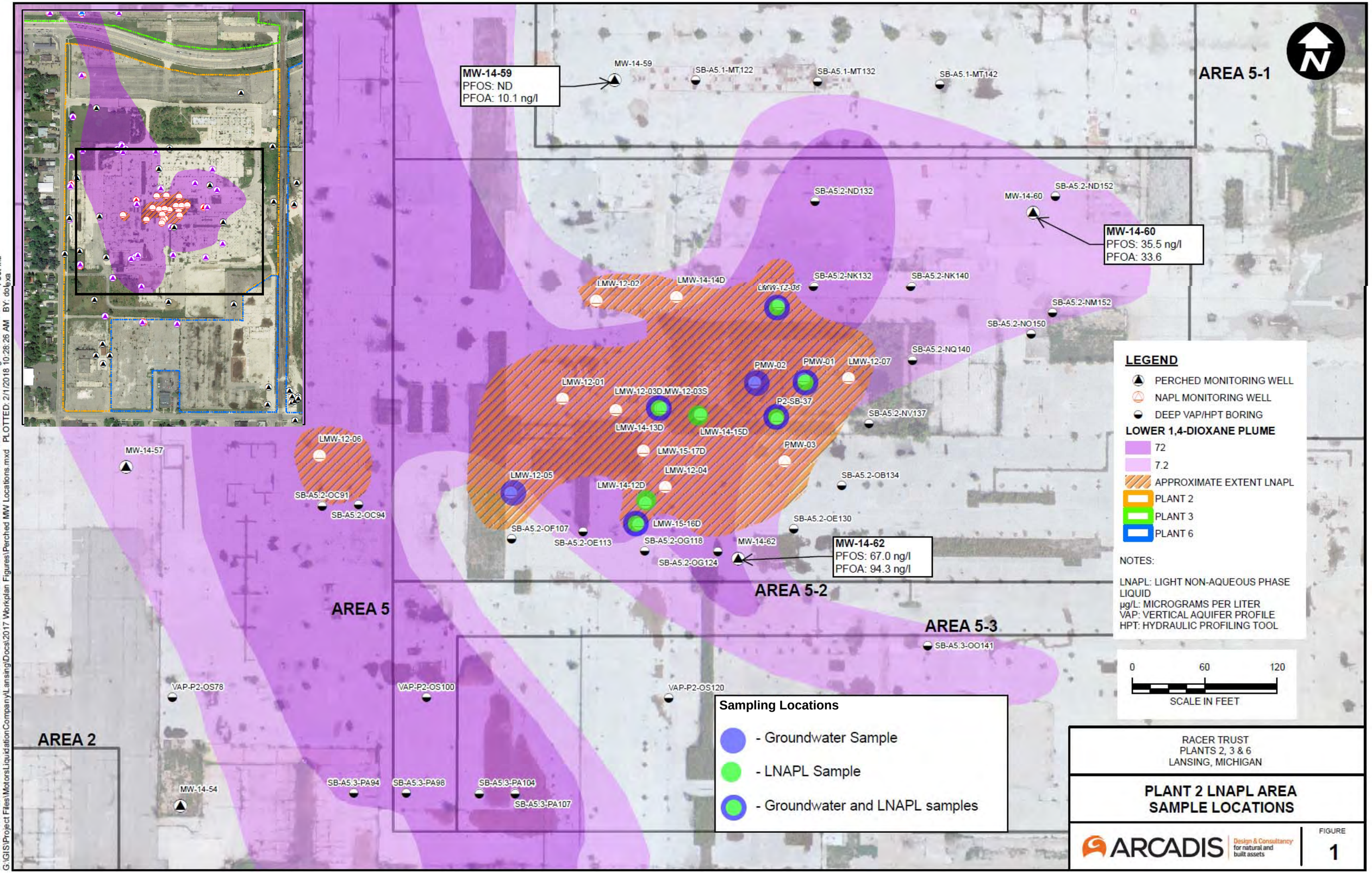
| Location ID: | | PZ-SB-37 | LMW-12-03D | PMW-01 | LMW-15-16D | LMW-14-12D | LMW-14-15D | LMW-12-08 |
|---|---|---|---|---|---|---|---|---|
| Plant: | | Plant 2 | Plant 2 | Plant 2 | Plant 2 | Plant 2 | Plant 2 | Plant 2 |
| Date Collected: | | 2/4/2019 | 2/5/2019 | 2/4/2019 | 2/4/2019 | 2/5/2019 | 2/5/2019 | 2/5/2019 |
| Sample Name: | Units | PZ-SB-37-020419 | LMW-12-03-020519 | PMW-01-020419 | LMW-15-160-020419 | LMW-14-120-020519 | LMW-14-150-020519 | LMW-12-08-020519 |
| **Poly- and Perfluorinated Alkyl Substances** | | | | | | | | |
| 4:2 Flourotelemer Sulfonate (4:2 FTS) | ng/L | <32 | <16 | <16 [<16] | <16 | <16 | <16 | <16 |
| 6:2 Flourotelemer Sulfonate (6:2 FTS) | ng/L | <28.8 | **18.1 B** | <14. 4[<14.4] | **37.4 B** | <14.4 | <14.4 | <14.4 |
| 8:2 Flourotelemer Sulfonate (8:2 FTS) | ng/L | <32 | <16 | NQ [NQ] | <16 | <16 | <16 | <16 |
| N-ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA) | ng/L | <8 | **6.9** | **254 [263]** | <4 | <4 | **7.43** | <4 |
| N-methyl perfluorooctane sulfonamidoacetic acid (NMeFOSAA) | ng/L | <8 | <4 | **5.63 [7.48]** | <4 | <4 | <4 | <4 |
| Perfluorobutanesulfonic acid (PFBS) | ng/L | <8.2 | <4.1 | <4.1 [<4.1] | <4.1 | <4.1 | <4.1 | <4.1 |
| Perfluorobutanoic acid (PFBA) | ng/L | <32.8 | **61.2** | <16.4[<16.4] | **220** | **18.9** | **76.4** | <16.4 |
| Perfluorodecanesulfonic acid (PFDS) | ng/L | <8.2 | <4.1 | <4.1 [<4.1] | <4.1 | <4.1 | <4.1 | <4.1 |
| Perfluorodecanoic acid (PFDA) | ng/L | <8 | **12.2** | <4 [<4] | <4 | <4 | <4 | **4.33** |
| Perfluorododecanoic acid (PFDoA) | ng/L | <8 | <4 | <4 [<4] | <4 | <4 | <4 | **10.1** |
| Perfluoroheptanesulfonic Acid (PFHpS) | ng/L | <7.6 | <3.8 | <4.44[<4.53] | <3.8 | <3.8 | <3.8 | <4.19 |
| Perfluoroheptanoic acid (PFHpA) | ng/L | **18.2** | **47.1** | <4.1[<4.1] | <20.1 | <4.1 | <4.1 | <4.1 |
| Perfluorohexanesulfonic acid (PFHxS) | ng/L | <8.2 | <8.29 | **37.4 [45.2]** | <4.1 | <4.1 | <4.1 | **30.1** |
| Perfluorohexanoic acid (PFHxA) | ng/L | <19.1 | **30.2** | <4.1 [<5.49] | <4.1 | <4.1 | <4.1 | <4.1 |
| Perfluorononanesulfonic acid (PFNS) | ng/L | <7.6 | <3.8 | <3.8 [<3.8] | <3.8 | <3.8 | <3.8 | <3.8 |
| Perfluorononanoic acid (PFNA) | ng/L | **8.23** | **14.7** | <4 [<4] | <4 | <4 | <4 | **4.83** |
| Perfluorooctane Sulfonamide (FOSA) | ng/L | <8.2 | **10.6** | <4.1 [<4.1] | <4.1 | <4.1 | **4.58** | **5.58** |
| Perfluorooctanesulfonic acid (PFOS) | ng/L | **51.6** | **35.2** | **13.4 [12.1]** | <4.1 | **4.37** | **10.4** | **19.1** |
| Perfluorooctanoic acid (PFOA) | ng/L | **10.8** | **18.4** | <4.1 [<4.1] | <5.07 | <4.1 | **4.19** | <4.1 |
| Perfluoropentanesulfonic acid (PFPeS) | ng/L | <7.6 | <4.14 | <3.8 [<3.8] | <3.8 | <3.8 | <3.8 | <8.34 |
| Perfluoropentanoic acid (PFPeA) | ng/L | **46.7** | **87.9** | <8.2 [<8.2] | <10.6 | <8.2 | <8.2 | <8.2 |
| Perfluorotetradecanoic acid (PFTeA) | ng/L | <8 | <7.06 | NQ [NQ] | <4 | <76.4 | <105 | <237 |
| Perfluorotridecanoic Acid (PFTriA) | ng/L | <27.1 | **17.3** | NQ [NQ] | <136 | <111 | <102 | <236 |
| Perfluoroundecanoic acid (PFUnA) | ng/L | <8 | **4.94** | 4 [<5.05] | <4 | <4 | <4 | **9.22** |

**Notes:**
**Bold** result denotes detection is above the laboratory reporting limit
Data shown in brackets [ ] represent duplicate sample analytical results.
< = Data below listed reference level
All analyis completed using SGS AXYS METHOD MLA-110 Rev 01

**Acronyms and Abbreviations:**
ng/L - nanograms per liter

**Qualifiers:**
J = Compound positively detected above laboratory method detection limit below the quantitative reporting limit. The value reported is an estimated concentration.
NQ = Data not quantifiable
B = Compound detected in laboratory method blank

# FIGURES

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A
WEST

A'
EAST

LMW-12-01
LMW-14-13D
LMW-12-03S
LMW-12-03D
LMW-14-15D
PMW-02
PMW-01
LMW-12-07

ELEVATION
(feet above mean sea level)

860
850
840
830

0
100
200
300

DISTANCE
(feet)

**BOREHOLE STRATIGRAPHY**

- Topsoil/Concrete/Asphalt
- Fill
- Gravelly Sand
- Sand
- Sandy Silt/Silt
- Silty/Sandy/Gravelly Clay
- Clay

Monitoring Well Screen

Monitoring Well Screen Included in PFAS Analysis

Residual LNAPL based on LIF Response and Observed Impacts (LIF %RE > 15%)

**HYDROSTRATIGRAPHY**

More Permeable (Silty Sand, Sand, Gravel)

Less Permeable (Sandy Silt, Silt, Clay)

Groundwater Elevation, June 2015 (prior to LNAPL removal activities)

LNAPL Elevation, June 2015

RACER TRUST
PLANT 2
LANSING, MICHIGAN

**LNAPL AREA CROSS SECTION**
**A – A'**

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FIGURE
**2**

CITY: Novi DIV: ENV DB: AV PIC: JB PM: RC TM: AV PROJECT #: B0064479.2019
\\arcadis-us.com\OfficeData\Novi-MI\COMMON\Racer Lansing\64479\11 Draft Reports and Presentations\2019 Plant 3 PFAS Well Install
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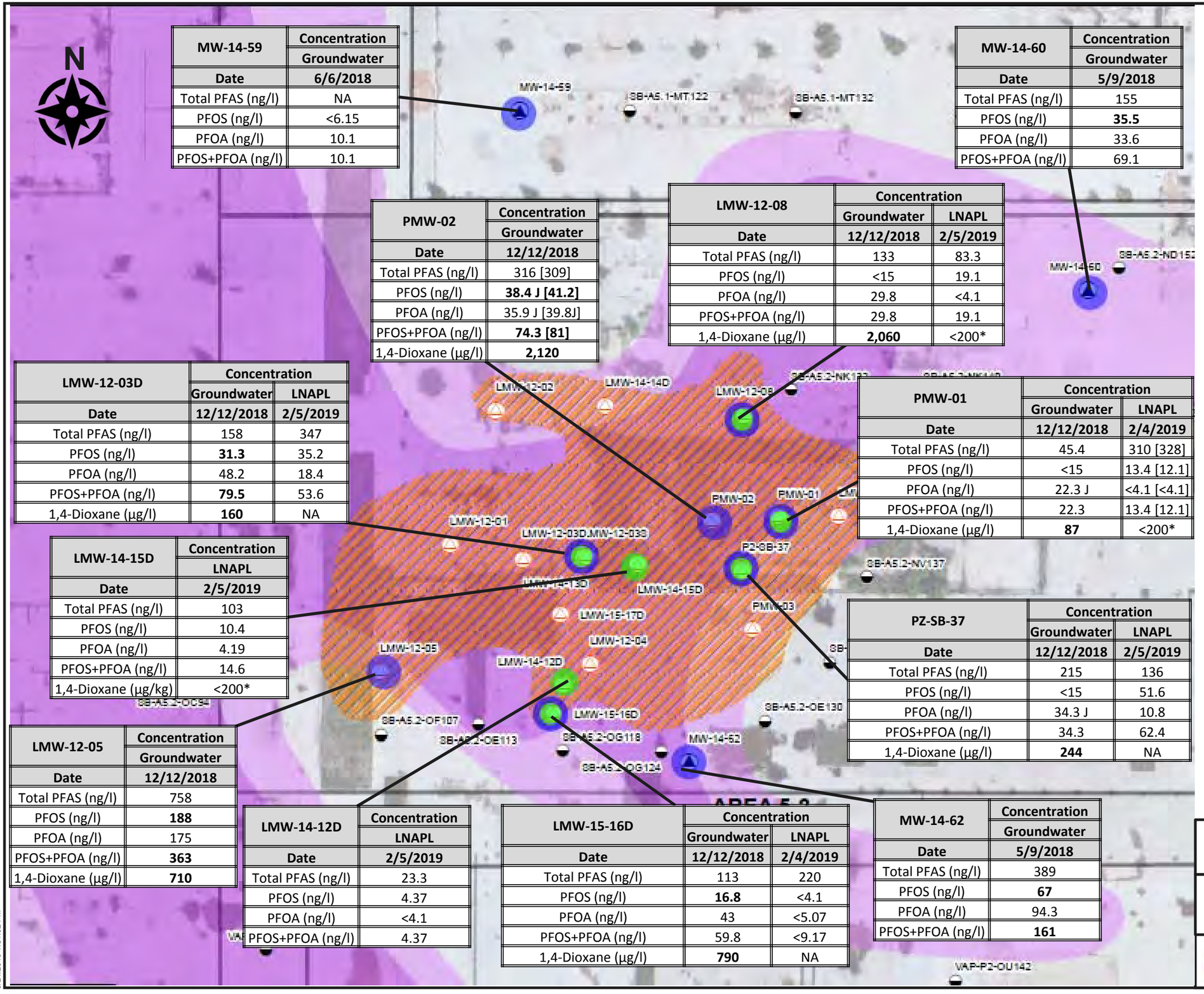


| MW-14-59 | Concentration |
|---|---|
| | Groundwater |
| Date | 6/6/2018 |
| Total PFAS (ng/l) | NA |
| PFOS (ng/l) | <6.15 |
| PFOA (ng/l) | 10.1 |
| PFOS+PFOA (ng/l) | 10.1 |

| MW-14-60 | Concentration |
|---|---|
| | Groundwater |
| Date | 5/9/2018 |
| Total PFAS (ng/l) | 155 |
| PFOS (ng/l) | **35.5** |
| PFOA (ng/l) | 33.6 |
| PFOS+PFOA (ng/l) | 69.1 |

| PMW-02 | Concentration |
|---|---|
| | Groundwater |
| Date | 12/12/2018 |
| Total PFAS (ng/l) | 316 [309] |
| PFOS (ng/l) | **38.4 J [41.2]** |
| PFOA (ng/l) | 35.9 J [39.8J] |
| PFOS+PFOA (ng/l) | **74.3 [81]** |
| 1,4-Dioxane (µg/l) | **2,120** |

| LMW-12-08 | Concentration | |
|---|---|---|
| | Groundwater | LNAPL |
| Date | 12/12/2018 | 2/5/2019 |
| Total PFAS (ng/l) | 133 | 83.3 |
| PFOS (ng/l) | <15 | 19.1 |
| PFOA (ng/l) | 29.8 | <4.1 |
| PFOS+PFOA (ng/l) | 29.8 | 19.1 |
| 1,4-Dioxane (µg/l) | **2,060** | <200* |

| LMW-12-03D | Concentration | |
|---|---|---|
| | Groundwater | LNAPL |
| Date | 12/12/2018 | 2/5/2019 |
| Total PFAS (ng/l) | 158 | 347 |
| PFOS (ng/l) | **31.3** | 35.2 |
| PFOA (ng/l) | 48.2 | 18.4 |
| PFOS+PFOA (ng/l) | **79.5** | 53.6 |
| 1,4-Dioxane (µg/l) | **160** | NA |

| PMW-01 | Concentration | |
|---|---|---|
| | Groundwater | LNAPL |
| Date | 12/12/2018 | 2/4/2019 |
| Total PFAS (ng/l) | 45.4 | 310 [328] |
| PFOS (ng/l) | <15 | 13.4 [12.1] |
| PFOA (ng/l) | 22.3 J | <4.1 [<4.1] |
| PFOS+PFOA (ng/l) | 22.3 | 13.4 [12.1] |
| 1,4-Dioxane (µg/l) | **87** | <200* |

| LMW-14-15D | Concentration |
|---|---|
| | LNAPL |
| Date | 2/5/2019 |
| Total PFAS (ng/l) | 103 |
| PFOS (ng/l) | 10.4 |
| PFOA (ng/l) | 4.19 |
| PFOS+PFOA (ng/l) | 14.6 |
| 1,4-Dioxane (µg/kg) | <200* |

| PZ-SB-37 | Concentration | |
|---|---|---|
| | Groundwater | LNAPL |
| Date | 12/12/2018 | 2/5/2019 |
| Total PFAS (ng/l) | 215 | 136 |
| PFOS (ng/l) | <15 | 51.6 |
| PFOA (ng/l) | 34.3 J | 10.8 |
| PFOS+PFOA (ng/l) | 34.3 | 62.4 |
| 1,4-Dioxane (µg/l) | **244** | NA |

| LMW-12-05 | Concentration |
|---|---|
| | Groundwater |
| Date | 12/12/2018 |
| Total PFAS (ng/l) | 758 |
| PFOS (ng/l) | **188** |
| PFOA (ng/l) | 175 |
| PFOS+PFOA (ng/l) | **363** |
| 1,4-Dioxane (µg/l) | **710** |

| LMW-14-12D | Concentration |
|---|---|
| | LNAPL |
| Date | 2/5/2019 |
| Total PFAS (ng/l) | 23.3 |
| PFOS (ng/l) | 4.37 |
| PFOA (ng/l) | <4.1 |
| PFOS+PFOA (ng/l) | 4.37 |

| LMW-15-16D | Concentration | |
|---|---|---|
| | Groundwater | LNAPL |
| Date | 12/12/2018 | 2/4/2019 |
| Total PFAS (ng/l) | 113 | 220 |
| PFOS (ng/l) | **16.8** | <4.1 |
| PFOA (ng/l) | 43 | <5.07 |
| PFOS+PFOA (ng/l) | 59.8 | <9.17 |
| 1,4-Dioxane (µg/l) | **790** | NA |

| MW-14-62 | Concentration |
|---|---|
| | Groundwater |
| Date | 5/9/2018 |
| Total PFAS (ng/l) | 389 |
| PFOS (ng/l) | **67** |
| PFOA (ng/l) | 94.3 |
| PFOS+PFOA (ng/l) | **161** |

## LEGEND

- PERCHED MONITORING WELL
- NAPL MONITORING WELL
- DEEP VAP/HPT BORING

**LOWER 1,4-DIOXANE PLUME**

- 72
- 7.2
- APPROXIMATE EXTENT LNAPL

- Groundwater Sample
- LNAPL Sample
- Groundwater and LNAPL samples

**NOTES**

BOLDED RESULTS EXCEED ONE OR MORE EGLE PART 201 CRITERIA

< = NOT DETECTED ABOVE REPORTING LIMIT

ng/l = NANOGRAMS PER LITER

µg/l = MICROGRAMS PER LITER

µg/kg = MICROGRAMS PER KILOGRAM

* LNAPL 1,4-DIOXANE RESULTS IN µg/kg FROM PLANT 2 LNAPL AREA 1,4-DIOXANE INVESTIGATION SUMMARY (ARCADIS 2017)

TOTAL PFAS = SUM OF DETECTED CONCENTRATIONS OF THE 24 COMPOUNDS LISTED IN THE EGLE RECOMMENDED PFAS ANALYTE LIST

0 60 120

SCALE IN FEET

RACER TRUST
PLANT 2
LANSING, MICHIGAN

**GROUNDWATER AND LNAPL ANALYTICAL RESULTS**

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FIGURE 3

CITY: Novi DIV: ENV DB: AV PIC: JB PM: RC TM: AV PROJECT #: B0064479.2019
\\arcadis-us.com\OfficeData\Novi-MI\COMMON\Racer Lansing\64479\11 Draft Reports and Presentations\2019 Plant 3 PFAS Well Install
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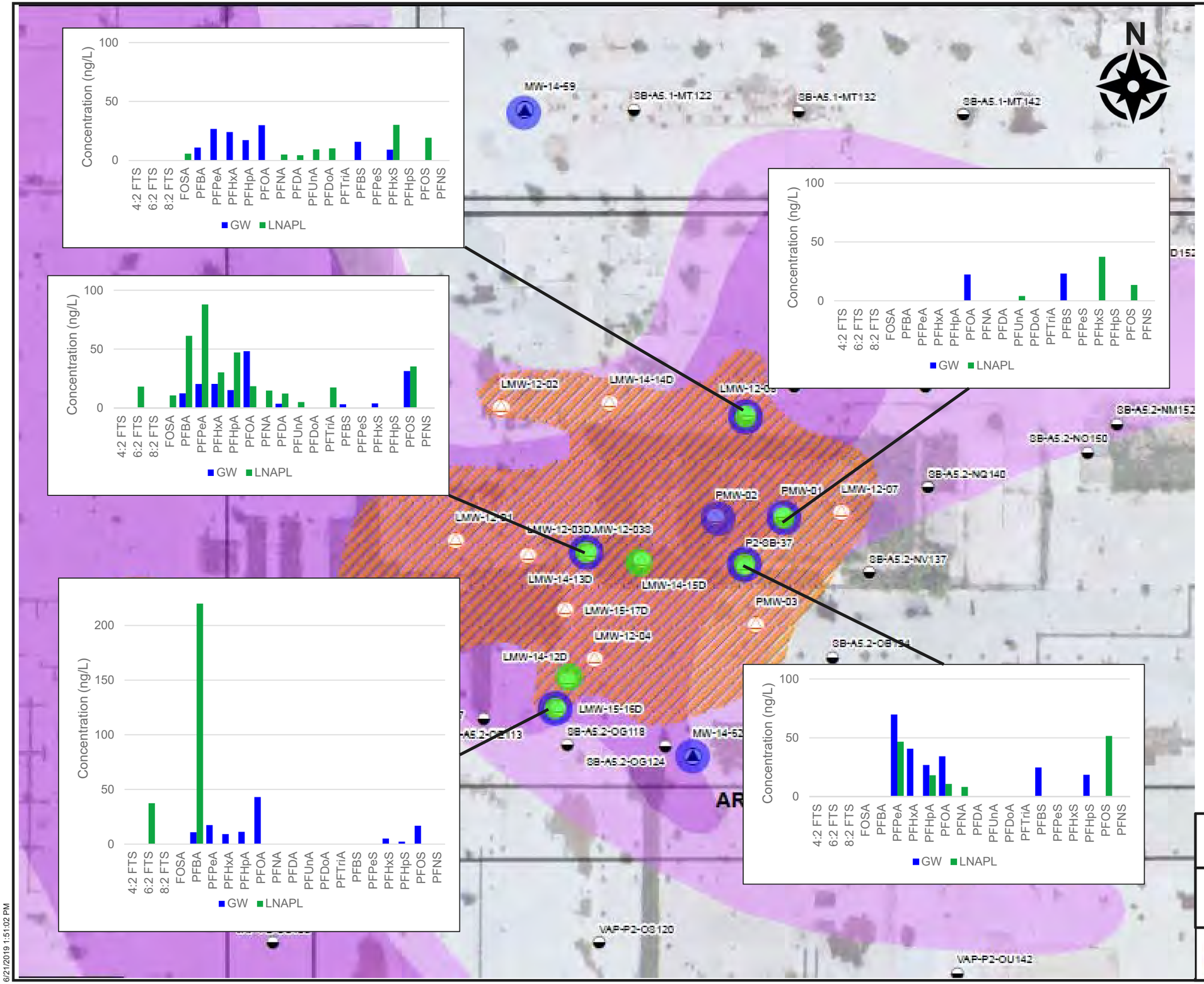


## LEGEND

- PERCHED MONITORING WELL
- NAPL MONITORING WELL
- DEEP VAP/HPT BORING

**LOWER 1,4-DIOXANE PLUME**

- 72
- 7.2
- APPROXIMATE EXTENT LNAPL

- Groundwater Sample
- LNAPL Sample
- Groundwater and LNAPL samples

**NOTES**

ng/l = NANOGRAMS PER LITER

PLOTS ONLY INCLUDE COMPOUNDS DETECTED DURING THIS EVALUATION

0 60 120

SCALE IN FEET

RACER TRUST
PLANT 2
LANSING, MICHIGAN

**PFAS DETECTIONS IN CO-LOCATED LNAPL AND GROUNDWATER SAMPLES**

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FIGURE 4

CITY: Novi DIV: ENV DB: AV PIC: JB PM: RC TM: AV PROJECT #: B0064479.2019
\\arcadis-us.com\OfficeData\Novi-MI\COMMON\Racer Lansing\64479\11 Draft Reports and Presentations\2019 Plant 3 PFAS Well Install
6/21/2019 1:51:02 PM

# ATTACHMENT 1

## MLA-110 Method Summary

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**SGS AXYS Analytical Services Ltd.**

**SUMMARY OF SGS AXYS METHOD MLA-110 REV. 01 VER. 07**

# Analytical Procedure for the Analysis of Per- and Polyfluoroalkyl Substances (PFAS) in Aqueous Samples, Solids and Solvent Extracts by LC-MS/MS

PROPRIETARY

This method describes the analysis of per- and polyfluoroalkyl substances (PFAS) in aqueous, solid and biosolid samples and solvent extracts, determined as the total of linear and branched isomers. After spiking with isotopically labeled surrogate standards and cleanup on SPE cartridges aqueous samples are analyzed by liquid chromatography/mass spectrometry (LC-MS/MS). Solid samples are spiked with isotopically labelled surrogate standards, extracted in acetic acid and basic methanol, and cleaned up by carbon and SPE cartridges before analysis by LC-MS/MS. Final sample concentrations are determined by isotope dilution/internal standard quantification.

Typical reporting limits for aqueous samples in ng/L and sample extracts are shown below, for the sample sizes provided:

| Analyte groups | Aqueous sample | Extract [1] |
|---|---|---|
| Typical sample size | 0.5 L | 0.75 mL |
| Perfluoroalkyl carboxylates | 0.4-1.6 | 270-1070 |
| Perfluoroalkyl sulfonates | 0.4 | 270 |
| Fluorotelomer sulfonates | 1.6 | 1070 |
| Perfluorooctane sulfonamides | 0.4 | 270 |
| Perfluorooctane sulfonamide ethanols | 4 | 2700 |
| Perfluorooctane sulfonamideacetic acids | 0.4 | 270 |
| Per- and polyfluoroether carboxylates | 1.6 | 1070 |

[1] Detection limits for extract samples depend on the samples size processed. The reporting limits provided here are based on the typical extract sample sizes listed above.


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Typical reporting limits for solid and biosolid samples, in ng/g, wet,:

| Analyte groups | Solid [1] | Biosolid [2] |
|---|---|---|
| Typical sample size | 5 g | 2.5 g |
| Perfluoroalkyl carboxylates | 0.04-0.16 | 0.08-0.32 |
| Perfluoroalkyl sulfonates | 0.04 | 0.08 |
| Fluorotelomer sulfonates | 0.16 | 0.32 |
| Perfluorooctane sulfonamides | 0.04 | 0.08 |
| Perfluorooctane sulfonamide ethanols | 0.4 | 0.8 |
| Perfluorooctane sulfonamideacetic acids | 0.04 | 0.08 |

[1] A maximum of 10 g, wet, or 5 g dry solid may be analyzed.
[2] A maximum of 5 g, wet, or 0.5 g dry biosolid may be analyzed.

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## PFAS Target Analytes

| Perfluoroalkyl carboxylates | Perfluoroalkyl sulfonates |
|---|---|
| Perfluorobutanoate (PFBA) | Perfluorobutanesulfonate (PFBS) |
| Perfluoropentanoate (PFPeA) | Perfluoropentanesulfonate (PFPeS) |
| Perfluorohexanoate (PFHxA) | Perfluorohexanesulfonate (PFHxS) |
| Perfluoroheptanoate (PFHpA) | Perfluoroheptanesulfonate (PFHpS) |
| Perfluorooctanoate (PFOA) | Perfluorooctanesulfonate (PFOS) |
| Perfluorononanoate (PFNA) | Perfluorononanesulfonate (PFNS) |
| Perfluorodecanoate (PFDA) | Perfluorodecanesulfonate (PFDS) |
| Perfluoroundecanoate (PFUnA) | Perfluorododecanesulfonate (PFDoS) |
| Perfluorododecanoate (PFDoA) | |
| Perfluorotridecanoate (PFTrDA) | |
| Perfluorotetradecanoate (PFTeDA) | |
| **Perfluorooctane sulfonamides** | **Fluorotelomer sulfonates** |
| Perfluorooctanesulfonamide (PFOSA, a.k.a FOSA) | 4:2 fluorotelomersulfonate (4:2 FTS) |
| N-Methylperfluorooctanesulfonamide (N-MeFOSA) | 6:2 fluorotelomersulfonate (6:2 FTS) |
| N-Ethylperfluorooctanesulfonamide (N-EtFOSA) | 8:2 fluorotelomersulfonate (8:2 FTS) |
| **Perfluorooctane sulfonamide ethanols** | **Ether carboxylates** |
| N-Methylperfluorooctanesulfonamidoethanol (N-MeFOSE) | Perfluoro-2-propoxypropanoate (HFPO-DA) |
| N-Ethylperfluorooctanesulfonamidoethanol (N-EtFOSE) | |
| **Perfluorooctane sulfonamideacetic acids** | |
| N-Methylperfluorooctanesulfonamidoacetic acid (N-MeFOSAA) | |
| N-Ethylperfluorooctanesulfonamidoacetic acid (N-EtFOSAA) | |

Target analytes are determined as the total of linear and branched isomers.
For the carboxylate and sulfonate analytes, the analyte concentrations are reported as the anion forms. The corresponding acid forms are shown in Appendix A of this summary.

PROPRIETARY

## 1.0 EXTRACTION AND CLEANUP PROCEDURES

Aqueous samples size may be up to 1000 mL for aqueous samples analyzed by this method, and up to 0.75 mL for extracts/solvents. Samples are stored in HDPE (high density polyethylene) containers. All samples are spiked with surrogate standards. Aqueous samples are extracted by solid phase extraction (SPE) using weak anion exchange cartridges; wash and elution procedures are chosen to meet various analysis requirements. Sample extracts may also be treated with carbon powder. Extract/solvent samples don't undergo solid phase extraction. The extracts are spiked with recovery standards and analyzed by LC-MS/MS.

Solid and biosolid sample size may be up to 5 g dry weight for solid samples or up to 5 g wet weight (max. 0.5 g dry weight) for biosolid samples. After addition of isotopically labelled surrogate


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standards the sample is extracted by shaking one time with dilute acetic acid solution and then two times with methanolic ammonium hydroxide solution, each time collecting the supernatants. The supernatants are combined and treated with ultra pure carbon powder. The resulting solution is diluted with water and cleaned up by solid phase extraction (SPE) using disposable cartridges containing a weak anion exchange sorbent. The eluate is spiked with recovery standards and analyzed by LC-MS/MS.

## 2.0 INSTRUMENTATION

Analysis of the sample extract is performed on a UPLC (ultrahigh performance liquid chromatography) reversed phase C18 column using a solvent gradient. The column is coupled to a triple quadrupole mass spectrometer run at unit mass resolution in the Multiple Reaction Monitoring (MRM) in negative electrospray ionization mode.

## 3.0 CALIBRATION

Initial calibration of the LC-MS/MS instrument is performed by the analysis of five or more calibration solutions. A mid-level calibration standard is analyzed to verify the initial calibration and injected after:

- at least every 12 hours.
- For DoD accredited work after every 10 client samples or every 12 hours, whichever occurs first, and at the end of the instrumental run sequence.

PROPRIETARY

**Nominal Concentrations of Calibration Solutions (ng/mL)**

| | CAL A | CAL B | CAL C | CAL D | CAL E (CAL-VER) | CAL F | CAL G | CAL H |
|---|---|---|---|---|---|---|---|---|
| **Perfluoroalkyl carboxylates** | | | | | | | | |
| PFBA | 0.2 | 0.4 | 0.8 | 2 | **10** | 50 | 250 | 1000 |
| PFPeA | 0.1 | 0.2 | 0.4 | 1 | **5** | 25 | 125 | 500 |
| PFHxA | 0.05 | 0.1 | 0.2 | 0.5 | **2.5** | 12.5 | 62.5 | 250 |
| PFHpA | 0.05 | 0.1 | 0.2 | 0.5 | **2.5** | 12.5 | 62.5 | 250 |
| PFOA | 0.05 | 0.1 | 0.2 | 0.5 | **2.5** | 12.5 | 62.5 | 250 |
| PFNA | 0.05 | 0.1 | 0.2 | 0.5 | **2.5** | 12.5 | 62.5 | 250 |
| PFDA | 0.05 | 0.1 | 0.2 | 0.5 | **2.5** | 12.5 | 62.5 | 250 |
| PFUnA | 0.05 | 0.1 | 0.2 | 0.5 | **2.5** | 12.5 | 62.5 | 250 |
| PFDoA | 0.05 | 0.1 | 0.2 | 0.5 | **2.5** | 12.5 | 62.5 | 250 |
| PFTrDA | 0.05 | 0.1 | 0.2 | 0.5 | **2.5** | 12.5 | 62.5 | 250 |
| PFTeDA | 0.05 | 0.1 | 0.2 | 0.5 | **2.5** | 12.5 | 62.5 | 250 |


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| | CAL A | CAL B | CAL C | CAL D | CAL E (CAL-VER) | CAL F | CAL G | CAL H |
|---|---|---|---|---|---|---|---|---|
| **Perfluoroalkyl sulfonates** | | | | | | | | |
| PFBS | 0.05 | 0.1 | 0.2 | 0.5 | **2.5** | 12.5 | 62.5 | 250 |
| PFPeS | 0.05 | 0.1 | 0.2 | 0.5 | **2.5** | 12.5 | 62.5 | 250 |
| PFHxS | 0.05 | 0.1 | 0.2 | 0.5 | **2.5** | 12.5 | 62.5 | 250 |
| PFHpS | 0.05 | 0.1 | 0.2 | 0.5 | **2.5** | 12.5 | 62.5 | 250 |
| PFOS | 0.05 | 0.1 | 0.2 | 0.5 | **2.5** | 12.5 | 62.5 | 250 |
| PFNS | 0.05 | 0.1 | 0.2 | 0.5 | **2.5** | 12.5 | 62.5 | 250 |
| PFDS | 0.05 | 0.1 | 0.2 | 0.5 | **2.5** | 12.5 | 62.5 | 250 |
| PFDoS | 0.05 | 0.1 | 0.2 | 0.5 | **2.5** | 12.5 | 62.5 | 250 |
| | | | | | | | | |
| **Flurorotelomer sulfonates** | | | | | | | | |
| 4:2 FTS | 0.2 | 0.4 | 0.8 | 2 | **10** | 50 | 250 | 1000 |
| 6:2 FTS | 0.2 | 0.4 | 0.8 | 2 | **10** | 50 | 250 | 1000 |
| 8:2 FTS | 0.2 | 0.4 | 0.8 | 2 | **10** | 50 | 250 | 1000 |
| | | | | | | | | |
| **Perfluorooctane sulfonamides** | | | | | | | | |
| PFOSA | 0.05 | 0.1 | 0.2 | 0.5 | **2.5** | 12.5 | 62.5 | 250 |
| N-MeFOSA | 0.05 | 0.1 | 0.2 | 0.5 | **2.5** | 12.5 | 62.5 | 250 |
| N-EtFOSA | 0.05 | 0.1 | 0.2 | 0.5 | **2.5** | 12.5 | 62.5 | 250 |
| | | | | | | | | |
| **Perfluorooctanesulfonamidoacetic acids** | | | | | | | | |
| N-MeFOSAA | 0.05 | 0.1 | 0.2 | 0.5 | **2.5** | 12.5 | 62.5 | 250 |
| N-EtFOSAA | 0.05 | 0.1 | 0.2 | 0.5 | **2.5** | 12.5 | 62.5 | 250 |
| | | | | | | | | |
| **Perfluorooctanesulfonamidoethanols** | | | | | | | | |
| N-MeFOSE | 0.5 | 1 | 2 | 5 | **25** | 125 | 625 | 2500 |
| N-EtFOSE | 0.5 | 1 | 2 | 5 | **25** | 125 | 625 | 2500 |
| | | | | | | | | |
| **Ether carboxylates** | | | | | | | | |
| HFPO-DA | 0.2 | 0.4 | 0.8 | 2 | **10** | 50 | 250 | 1000 |
| | | | | | | | | |
| **Surrogate Standards** | | | | | | | | |
| $^{13}C_4$-PFBA | 10 | 10 | 10 | 10 | **10** | 10 | 10 | 10 |
| $^{13}C_5$-PFPeA | 5 | 5 | 5 | 5 | **5** | 5 | 5 | 5 |
| $^{13}C_5$-PFHxA | 2.5 | 2.5 | 2.5 | 2.5 | **2.5** | 2.5 | 2.5 | 2.5 |
| $^{13}C_4$-PFHpA | 2.5 | 2.5 | 2.5 | 2.5 | **2.5** | 2.5 | 2.5 | 2.5 |
| $^{13}C_8$-PFOA | 2.5 | 2.5 | 2.5 | 2.5 | **2.5** | 2.5 | 2.5 | 2.5 |

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| | CAL A | CAL B | CAL C | CAL D | CAL E (CAL-VER) | CAL F | CAL G | CAL H |
|---|---|---|---|---|---|---|---|---|
| $^{13}C_9$-PFNA | 1.25 | 1.25 | 1.25 | 1.25 | **1.25** | 1.25 | 1.25 | 1.25 |
| $^{13}C_6$-PFDA | 1.25 | 1.25 | 1.25 | 1.25 | **1.25** | 1.25 | 1.25 | 1.25 |
| $^{13}C_7$-PFUnA | 1.25 | 1.25 | 1.25 | 1.25 | **1.25** | 1.25 | 1.25 | 1.25 |
| $^{13}C_2$-PFDoA | 1.25 | 1.25 | 1.25 | 1.25 | **1.25** | 1.25 | 1.25 | 1.25 |
| $^{13}C_2$-PFTeDA | 1.25 | 1.25 | 1.25 | 1.25 | **1.25** | 1.25 | 1.25 | 1.25 |
| | | | | | | | | |
| $^{13}C_3$-PFBS | 2.5 | 2.5 | 2.5 | 2.5 | **2.5** | 2.5 | 2.5 | 2.5 |
| $^{13}C_3$-PFHxS | 2.5 | 2.5 | 2.5 | 2.5 | **2.5** | 2.5 | 2.5 | 2.5 |
| $^{13}C_8$-PFOS | 2.5 | 2.5 | 2.5 | 2.5 | **2.5** | 2.5 | 2.5 | 2.5 |
| | | | | | | | | |
| $^{13}C_2$-4:2 FTS | 5 | 5 | 5 | 5 | **5** | 5 | 5 | 5 |
| $^{13}C_2$-6:2 FTS | 5 | 5 | 5 | 5 | **5** | 5 | 5 | 5 |
| $^{13}C_2$-8:2 FTS | 5 | 5 | 5 | 5 | **5** | 5 | 5 | 5 |
| | | | | | | | | |
| $^{13}C_8$-PFOSA | 2.5 | 2.5 | 2.5 | 2.5 | **2.5** | 2.5 | 2.5 | 2.5 |
| $D_3$-N-MeFOSA | 2.5 | 2.5 | 2.5 | 2.5 | **2.5** | 2.5 | 2.5 | 2.5 |
| $D_5$-N-EtFOSA | 2.5 | 2.5 | 2.5 | 2.5 | **2.5** | 2.5 | 2.5 | 2.5 |
| | | | | | | | | |
| $D_3$-N-MeFOSAA | 5 | 5 | 5 | 5 | **5** | 5 | 5 | 5 |
| $D_5$-N-EtFOSAA | 5 | 5 | 5 | 5 | **5** | 5 | 5 | 5 |
| | | | | | | | | |
| $D_7$-N-MeFOSE | 25 | 25 | 25 | 25 | **25** | 25 | 25 | 25 |
| $D_9$-N-EtFOSE | 25 | 25 | 25 | 25 | **25** | 25 | 25 | 25 |
| | | | | | | | | |
| $^{13}C_3$-HFPO-DA | 10 | 10 | 10 | 10 | **10** | 10 | 10 | 10 |
| | | | | | | | | |
| **Recovery standards** | | | | | | | | |
| $^{13}C_3$-PFBA | 1.25 | 1.25 | 1.25 | 1.25 | **1.25** | 1.25 | 1.25 | 1.25 |
| $^{13}C_2$-PFHxA | 0.625 | 0.625 | 0.625 | 0.625 | **0.625** | 0.625 | 0.625 | 0.625 |
| $^{13}C_4$-PFOA | 0.625 | 0.625 | 0.625 | 0.625 | **0.625** | 0.625 | 0.625 | 0.625 |
| $^{13}C_5$-PFNA | 0.313 | 0.313 | 0.313 | 0.313 | **0.313** | 0.313 | 0.313 | 0.313 |
| $^{13}C_2$-PFDA | 0.313 | 0.313 | 0.313 | 0.313 | **0.313** | 0.313 | 0.313 | 0.313 |
| $^{18}O_2$-PFHxS | 0.625 | 0.625 | 0.625 | 0.625 | **0.625** | 0.625 | 0.625 | 0.625 |
| $^{13}C_4$-PFOS | 0.625 | 0.625 | 0.625 | 0.625 | **0.625** | 0.625 | 0.625 | 0.625 |

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## 4.0 QUANTIFICATION PROCEDURES

### Calculations

Target compounds are quantified using the isotope dilution/internal standard method, comparing the area of the quantification ion to that of the $^{13}$C-labelled or deuterium labeled standard and correcting for response factors. Linear quantification equations are determined from a multi-point calibration series with 1/X weighting fit and expressed as below:

$$Y = \text{slope} \times X + \text{intercept}$$

where: $Y = \text{response ratio} = \left( \frac{\text{area of Target}}{\text{area of Surr}} \times \text{weight of Surr (ng)} \right)$ , and

$X$ = weight of target (ng)

The slope and intercept are used to convert raw peak areas in sample chromatograms to final concentrations as follows:

$$\text{Sample Conc.} = \left( \frac{\text{area of Target}}{\text{area of Surr}} \times \text{weight of Surr (ng)} - \text{intercept (ng)} \right) \text{x} \left( \frac{1}{\text{slope}} \right) \text{x} \left( \frac{1}{\text{sample size (L or g)}} \right)$$

where Surr is the surrogate standard

The recovery of the surrogate standard is calculated (by internal standard quantification against the recovery standard using an average RRF) and monitored as an indication of overall data quality. Final target concentrations are recovery corrected by this method of quantification.

### 4.1 Reporting Limits

Sample Specific Detection Limits (SDL) are determined by converting the area equivalent to 3.0 times the estimated chromatographic noise height to a concentration in the same manner that target peak responses are converted to final concentrations. The SDL accounts for any effect of matrix on the detection system and for recovery achieved through the analytical work-up.

Results are reported to the greater of the SDL or the concentration equivalent to the lowest calibration standard analyzed.

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### Analytes, Transition Ions and Quantification References

| | Typical Retention Time [1] | Parent Ion Mass | Quantification Daughter Ion Mass | Confirmation Daughter Ion Mass [2] | Typical Ion Ratio Quant./Conf.[3] | Quantified using |
|---|---|---|---|---|---|---|
| **Target analytes** | | | | | | |
| PFBA | 1.96 | 212.8 | 168.9 | n.a. | n.a. | $^{13}C_4$-PFBA |
| PFPeA | 4.18 | 263.0 | 219.0 | n.a. | n.a. | $^{13}C_5$-PFPeA |
| PFHxA | 4.81 | 313.0 | 269.0 | 118.9 | 13 | $^{13}C_5$-PFHxA |
| PFHpA | 5.32 | 363.1 | 319.0 | 169.0 | 3.5 | $^{13}C_4$-PFHpA |
| PFOA | 6.16 | 413.0 | 369.0 | 169.0 | 3.0 | $^{13}C_8$-PFOA |
| PFNA | 6.99 | 463.0 | 419.0 | 219.0 | 4.9 | $^{13}C_9$-PFNA |
| PFDA | 7.47 | 512.9 | 469.0 | 219.0 | 5.5 | $^{13}C_6$-PFDA |
| PFUnA | 7.81 | 563.1 | 519.0 | 269.1 | 6.9 | $^{13}C_7$-PFUnA |
| PFDoA | 8.13 | 613.1 | 569.0 | 319.0 | 10 | $^{13}C_2$-PFDoA |
| PFTrDA | 8.53 | 663.0 | 619.0 | 168.9 | 6.7 | $^{13}C_2$-PFTeDA |
| PFTeDA | 8.96 | 713.1 | 669.0 | 168.9 | 6.0 | $^{13}C_2$-PFTeDA |
| PFBS | 4.79 | 298.7 | 79.9 | 98.8 | 2.1 | $^{13}C_3$-PFBS |
| PFPeS | 5.38 | 349.1 | 79.9 | 98.9 | 1.8 | $^{13}C_3$-PFHxS |
| PFHxS | 6.31 | 398.7 | 98.9 | 79.9 | 1.9 | $^{13}C_3$-PFHxS |
| PFHpS | 7.11 | 449.0 | 79.9 | 98.8 | 1.7 | $^{13}C_8$-PFOS |
| PFOS | 7.59 | 498.9 | 79.9 | 98.8 | 2.3 | $^{13}C_8$-PFOS |
| PFNS | 7.92 | 548.8 | 79.9 | 98.8 | 1.9 | $^{13}C_8$-PFOS |
| PFDS | 8.28 | 599.0 | 79.9 | 98.8 | 1.9 | $^{13}C_8$-PFOS |
| PFDoS | 9.14 | 699.1 | 79.9 | 98.8 | 1.9 | $^{13}C_8$-PFOS |
| 4:2 FTS | 4.67 | 327.1 | 307.0 | 80.9 | 1.7 | $^{13}C_2$-4:2 FTS |
| 6:2 FTS | 5.81 | 427.1 | 407.0 | 80.9 | 1.9 | $^{13}C_2$-6:2 FTS |

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| | Typical Retention Time [1] | Parent Ion Mass | Quantification Daughter Ion Mass | Confirmation Daughter Ion Mass [2] | Typical Ion Ratio Quant./Conf.[3] | Quantified using |
|---|---|---|---|---|---|---|
| 8:2 FTS | 7.28 | 527.1 | 507.0 | 80.8 | 3.0 | $^{13}C_2$-8:2 FTS |
| PFOSA | 8.41 | 498.1 | 77.9 | 478.0 | 47 | $^{13}C_8$-PFOSA |
| N-MeFOSA | 9.70 | 511.9 | 219.0 | 169.0 | 0.66 | $D_3$-N-MeFOSA |
| N-EtFOSA | 9.94 | 526.0 | 219.0 | 169.0 | 0.63 | $D_5$-N-EtFOSA |
| N-MeFOSAA | 7.51 | 570.1 | 419.0 | 483.0 | 2.0 | $D_3$-N-MeFOSAA |
| N-EtFOSAA | 7.65 | 584.2 | 419.1 | 526.0 | 1.2 | $D_5$-N-EtFOSAA |
| N-MeFOSE | 9.57 | 616.1 | 58.9 | n.a. | n.a. | $D_7$-N-MeFOSE |
| N-EtFOSE | 9.85 | 630.0 | 58.9 | n.a. | n.a. | $D_9$-N-EtFOSE |
| HFPO-DA | 4.97 | 284.9 | 168.9 | 184.9 | 1.95 | $^{13}C_3$-HFPO-DA |
| **Surrogate standards** | | | | | | |
| $^{13}C_4$-PFBA | 1.95 | 216.8 | 171.9 | n.a. | | $^{13}C_3$-PFBA |
| $^{13}C_5$-PFPeA | 4.18 | 268.3 | 223.0 | n.a. | | $^{13}C_2$-PFHxA |
| $^{13}C_5$-PFHxA | 4.80 | 318.0 | 273.0 | 120.3 | | $^{13}C_2$-PFHxA |
| $^{13}C_4$-PFHpA | 5.32 | 367.1 | 322.0 | n.a. | | $^{13}C_4$-PFOA |
| $^{13}C_8$-PFOA | 6.16 | 421.1 | 376.0 | n.a. | | $^{13}C_4$-PFOA |
| $^{13}C_9$-PFNA | 6.99 | 472.1 | 427.0 | n.a. | | $^{13}C_5$-PFNA |
| $^{13}C_6$-PFDA | 7.47 | 519.1 | 474.1 | n.a. | | $^{13}C_2$-PFDA |
| $^{13}C_7$-PFUnA | 7.81 | 570.0 | 525.1 | n.a. | | $^{13}C_2$-PFDA |
| $^{13}C_2$-PFDoA | 8.13 | 615.1 | 570.0 | n.a. | | $^{13}C_2$-PFDA |
| $^{13}C_2$-PFTeDA | 8.96 | 715.17 | 670.0 | n.a. | | $^{13}C_2$-PFDA |
| $^{13}C_3$-PFBS | 4.78 | 302.1 | 79.9 | 98.9 | | $^{18}O_2$-PFHxS |
| $^{13}C_3$-PFHxS | 6.30 | 402.1 | 79.9 | 98.8 | | $^{18}O_2$-PFHxS |
| $^{13}C_8$-PFOS | 7.59 | 507.1 | 98.9 | 79.9 | | $^{13}C_4$-PFOS |

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## SGS AXYS Analytical Services Ltd.

| | Typical Retention Time [1] | Parent Ion Mass | Quantification Daughter Ion Mass | Confirmation Daughter Ion Mass [2] | Typical Ion Ratio Quant./Conf.[3] | Quantified using |
|---|---|---|---|---|---|---|
| $^{13}C_2$-4:2 FTS | 4.67 | 329.1 | 80.9 | 309.0 | | $^{18}O_2$-PFHxS |
| $^{13}C_2$-6:2 FTS | 5.82 | 429.1 | 80.9 | 409.0 | | $^{18}O_2$-PFHxS |
| $^{13}C_2$-8:2 FTS | 7.28 | 529.1 | 80.9 | 509.0 | | $^{18}O_2$-PFHxS |
| $^{13}C_8$-PFOSA | 8.41 | 506.1 | 77.8 | n.a. | | $^{13}C_4$-PFOS |
| $D_3$-N-MeFOSA | 9.70 | 515.0 | 219.0 | n.a. | | $^{13}C_4$-PFOS |
| $D_5$-N-EtFOSA | 9.94 | 531.1 | 219.0 | n.a. | | $^{13}C_4$-PFOS |
| $D_3$-N-MeFOSAA | 7.51 | 573.2 | 419.0 | n.a. | | $^{13}C_4$-PFOS |
| $D_5$-N-EtFOSAA | 7.65 | 589.2 | 419.0 | n.a. | | $^{13}C_4$-PFOS |
| $D_7$-N-MeFOSE | 9.56 | 623.2 | 58.9 | n.a. | | $^{13}C_4$-PFOS |
| $D_9$-N-EtFOSE | 9.83 | 639.2 | 58.9 | n.a. | | $^{13}C_4$-PFOS |
| $^{13}C_3$-HFPO-DA | 4.97 | 286.9 | 168.9 | 184.9 | | $^{13}C_2$-PFHxA |
| **Recovery standards** | | | | | | |
| $^{13}C_3$-PFBA | 1.95 | 216.0 | 172.0 | n.a. | | External |
| $^{13}C_2$-PFHxA | 4.80 | 315.1 | 270.0 | 119.4 | | External |
| $^{13}C_4$-PFOA | 6.16 | 417.1 | 172.0 | n.a. | | External |
| $^{13}C_5$-PFNA | 6.99 | 468.0 | 423.0 | n.a. | | External |
| $^{13}C_2$-PFDA | 7.47 | 515.1 | 470.1 | n.a. | | External |
| $^{18}O_2$-PFHxS | 6.30 | 403.0 | 83.9 | n.a. | | External |
| $^{13}C_4$-PFOS | 7.59 | 502.8 | 79.9 | 98.9 | | External |

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1 Times shown are in decimal minute units.

2 Alternate transition, second m/z, may be used if necessary to avoid interference.

3 Transition ion ratios may vary by instrument, values shown are examples. Ion ratios applicable to qualitative identification are determined from instrumental calibration data.



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## 5.0 QUALITY ACCEPTANCE CRITERIA

Samples are analyzed in batches consisting of a maximum of twenty samples, one procedural blank and one spiked matrix (OPR) sample. A duplicate is analyzed, provided there is sufficient sample, with batches containing 7-20 samples. Matrix spike/matrix spike duplicate (MS/MSD) pairs may be analyzed on an individual contract basis. The batch is carried through the complete analytical process as a unit. For sample data to be reportable, the batch QC data must meet the established acceptance criteria presented on the analysis reports.

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## SGS AXYS Analytical Services Ltd.

### QC Specifications for Aqueous Samples: Procedural Blank Levels and OPR Recoveries

| Compound | Procedural Blank Level (ng/sample) | OPR Recovery Range [1] (%) |
|---|---|---|
| PFBA | ≤ 0.8 | 70-130 |
| PFPeA | ≤ 0.4 | 70-130 |
| PFHxA | ≤ 0.2 | 70-130 |
| PFHpA | ≤ 0.2 | 70-130 |
| PFOA | ≤ 0.2 | 70-130 |
| PFNA | ≤ 0.2 | 70-130 |
| PFDA | ≤ 0.2 | 70-130 |
| PFUnA | ≤ 0.2 | 70-130 |
| PFDoA | ≤ 0.2 | 70-130 |
| PFTrDA | ≤ 0.2 | 60-140 |
| PFTeDA | ≤ 0.2 | 70-130 |
| | | |
| PFBS | ≤ 0.2 | 70-130 |
| PFPeS | ≤ 0.2 | 60-140 |
| PFHxS | ≤ 0.2 | 70-130 |
| PFHpS | ≤ 0.2 | 60-140 |
| PFOS | ≤ 0.2 | 60-140 |
| PFNS | ≤ 0.2 | 60-140 |
| PFDS | ≤ 0.2 | 60-140 |
| PFDoS | ≤ 0.2 | 50-150 |
| | | |
| 4:2 FTS | ≤ 0.8 | 70-130 |
| 6:2 FTS | ≤ 5 | 60-160 |
| 8:2 FTS | ≤ 0.8 | 70-130 |
| | | |
| PFOSA | ≤ 0.2 | 70-130 |
| N-MeFOSA | ≤ 0.2 | 70-130 |
| N-EtFOSA | ≤ 0.2 | 70-130 |
| | | |
| N-MeFOSAA | ≤ 0.2 | 70-130 |
| N-EtFOSAA | ≤ 0.2 | 70-130 |
| | | |
| N-MeFOSE | ≤ 2 | 70-130 |
| N-EtFOSE | ≤ 2 | 70-130 |
| | | |
| HFPO-DA | ≤ 0.8 | 70-130 |

[1] Marginal exceedance allowance – results for one compound may fall outside of these limits by a maximum of 10% of the value.

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## QC Specifications for Aqueous Samples: Surrogate Standard Recoveries, OPR and Samples

| Surrogate Standard | OPR and Sample Recovery range [1] (%) |
|---|---|
| $^{13}C_4$-PFBA | 50-150 |
| $^{13}C_5$-PFPeA | 50-150 |
| $^{13}C_5$-PFHxA | 50-150 |
| $^{13}C_4$-PFHpA | 50-150 |
| $^{13}C_8$-PFOA | 50-150 |
| $^{13}C_9$-PFNA | 50-150 |
| $^{13}C_6$-PFDA | 50-150 |
| $^{13}C_7$-PFUnA | 50-150 |
| $^{13}C_2$-PFDoA | 50-150 |
| $^{13}C_2$-PFTeDA | 50-150 |
| | |
| $^{13}C_3$-PFBS | 50-150 |
| $^{13}C_3$-PFHxS | 50-150 |
| $^{13}C_8$-PFOS | 50-150 |
| | |
| $^{13}C_2$-4:2 FTS | 50-150 |
| $^{13}C_2$-6:2 FTS | 50-150 |
| $^{13}C_2$-8:2 FTS | 50-150 |
| | |
| $^{13}C_8$-PFOSA | 50-150 |
| $D_3$-N-MeFOSA | 30-150 |
| $D_5$-N-EtFOSA | 30-150 |
| | |
| $D_3$-N-MeFOSAA | 50-150 |
| $D_5$-N-EtFOSAA | 50-150 |
| | |
| $D_7$-N-MeFOSE | 10-150 |
| $D_9$-N-EtFOSE | 10-150 |
| | |
| $^{13}C_3$-HFPO-DA | 50-150 |

[1] For applications other than US DoD work, lower surrogate recoveries may be accepted

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## SGS AXYS Analytical Services Ltd.

### QC Specifications for Solid Samples: Procedural Blank Levels and OPR Recoveries

| Compound | Procedural Blank Level (ng/sample) | OPR Recovery Range [1] (%) |
|---|---|---|
| PFBA | ≤ 0.8 | 70-130 |
| PFPeA | ≤ 0.4 | 70-130 |
| PFHxA | ≤ 0.2 | 70-130 |
| PFHpA | ≤ 0.2 | 70-130 |
| PFOA | ≤ 0.2 | 70-130 |
| PFNA | ≤ 0.2 | 70-130 |
| PFDA | ≤ 0.2 | 70-130 |
| PFUnA | ≤ 0.2 | 70-130 |
| PFDoA | ≤ 0.2 | 70-130 |
| PFTrDA | ≤ 0.2 | 60-140 |
| PFTeDA | ≤ 0.2 | 70-130 |
| | | |
| PFBS | ≤ 0.2 | 70-130 |
| PFPeS | ≤ 0.2 | 60-140 |
| PFHxS | ≤ 0.2 | 70-130 |
| PFHpS | ≤ 0.2 | 60-140 |
| PFOS | ≤ 0.2 | 60-140 |
| PFNS | ≤ 0.2 | 50-150 |
| PFDS | ≤ 0.2 | 30-140 |
| PFDoS | ≤ 0.2 | 30-150 |
| | | |
| 4:2 FTS | ≤ 0.8 | 70-130 |
| 6:2 FTS | ≤ 5 | 70-130 |
| 8:2 FTS | ≤ 0.8 | 70-130 |
| | | |
| PFOSA | ≤ 0.2 | 70-130 |
| N-MeFOSA | ≤ 0.2 | 70-130 |
| N-EtFOSA | ≤ 0.2 | 70-130 |
| | | |
| N-MeFOSAA | ≤ 0.2 | 70-130 |
| N-EtFOSAA | ≤ 0.2 | 70-130 |
| | | |
| N-MeFOSE | ≤ 2 | 70-130 |
| N-EtFOSE | ≤ 2 | 70-130 |

[1] Marginal exceedance allowance – results for one compound may fall outside of these limits by a maximum of 10% of the mid-point range value.

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## SGS AXYS Analytical Services Ltd.

### QC Specification Table for Solid Samples: Surrogate Standard Recoveries, OPR and Samples

| Surrogate standard | OPR and Sample Recovery Range [1] (%) |
|---|---|
| $^{13}C_4$-PFBA | 50-150 |
| $^{13}C_5$-PFPeA | 50-150 |
| $^{13}C_5$-PFHxA | 50-150 |
| $^{13}C_4$-PFHpA | 50-150 |
| $^{13}C_8$-PFOA | 50-150 |
| $^{13}C_9$-PFNA | 50-150 |
| $^{13}C_6$-PFDA | 50-150 |
| $^{13}C_7$-PFUnA | 50-150 |
| $^{13}C_2$-PFDoA | 50-150 |
| $^{13}C_2$-PFTeDA | 15-150 |
| | |
| $^{13}C_3$-PFBS | 50-150 |
| $^{13}C_3$-PFHxS | 50-150 |
| $^{13}C_8$-PFOS | 50-150 |
| | |
| $^{13}C_2$-4:2 FTS | 50-150 |
| $^{13}C_2$-6:2 FTS | 50-150 |
| $^{13}C_2$-8:2 FTS | 50-150 |
| | |
| $^{13}C_8$-PFOSA | 50-150 |
| $D_3$-N-MeFOSA | 20-130 |
| $D_5$-N-EtFOSA | 20-130 |
| | |
| $D_3$-N-MeFOSAA | 50-150 |
| $D_5$-N-EtFOSAA | 50-150 |
| | |
| $D_7$-N-MeFOSE | 20-130 |
| $D_9$-N-EtFOSE | 20-130 |

[1] For applications other than US DoD work, lower surrogate recoveries may be accepted

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### QC Specification Table: Other Parameters

| QC Parameter | Specification |
|---|---|
| Instrument Sensitivity | Daily, S:N ≥ 10:1 for all analytes for the lowest calibration standard.<br>Additional requirement for DoD QSM 5.1.1: Instrument sensitivity checks with analyte concentrations at the LOQ levels (refer to VER-102 "*LOD and LOQ Verification Summary*") shall be performed prior to analysis and then at least once every 12 hours. The found analyte concentrations must be within ±30% of the true values. |
| Initial Calibration (I-CAL) | Run initially, and as required to maintain calibration verification and instrument sensitivity.<br>(1/x) weighted linear fit, exclude origin.<br>Calculated conc. 75-125 % of actual (lowest cal may be 70-130%). %).<br>Internal guideline for the coefficient of determination: $R^2 \geq 0.990$.<br>Surrogate recoveries must fall within 50-150%.<br>Initial Calibration Verification: Prior to sample analysis; use a second source standard; quantify against I-Cal, results must meet Cal/Ver accuracy specifications.<br>Peak asymmetry: 0.8-1.5 for PFBA and PFPeA measured in Cal E (mid point) at 10% of the peak height. |
| Calibration Verification (Cal/Ver) | Continuing Calibration Verification:<br>Every 12 hours, quantify against I-CAL.<br>Requirement for DoD QSM 5.1: Every 10 client samples or every 12 hours whichever occurs first, and at the end of the analytical sequence; quantify against I-CAL<br>Calculated conc. 70-130% of actual for a maximum of three compounds with the remainder 80–120 % of actual.<br>Surrogate recoveries must fall within 50-150%. |
| Instrumental Carryover and Instrument Background | Every Initial Calibration, Cal/Ver, or OPR: ≤ 0.3 % carryover and area response of analytes in instrument blank ≤ 800.<br>Additional requirement for DoD QSM 5.1: Instrument blanks shall be run immediately following the highest standard analyzed and daily prior to sample analysis. The concentration of each analyte must be ≤ ½ of the LOQ (refer to VER-102 "*LOD and LOQ Verification Summary*") |
| Duplicate Samples or MS/MSD | If conc. ≥ 5 times R.L., RPD ≤ 40%<br>If conc. < 5 times R.L., guideline RPD ≤ 100%<br>Additional requirements for MS/MSD according to DoD QSM 5.1:<br>Recoveries shall be evaluated against in-house LCS limits (if project limits are not specified). RPD ≤30% between MS and MSD. |
| Mass Calibration (DoD requirement) | Initially prior to use and then after major maintenance (refer to SIN-033) the entire range shall be mass calibrated.<br>The maximal allowed residual error is ≤ 0.1 Da for each mode with no more than two calibration points missed. |
| MS Acquisition Rate | Minimum acquisition rate for every native analyte and labeled compound peak: At least 10 data points per peak. |

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## Appendix A: Naming Convention and CAS Numbers

### PFAS: Naming Convention and CAS Numbers

| *Abbreviation* | *Name - Anion Form* | *CAS#* |
|---|---|---|
| PFBA | Perfluorobutanoate | 45048-62-2 |
| PFPeA | Perfluoropentanoate | 45167-47-3 |
| PFHxA | Perfluorohexanoate | 92612-52-7 |
| PFHpA | Perfluoroheptanoate | 120885-29-2 |
| PFOA | Perfluorooctanoate | 45285-51-6 |
| PFNA | Perfluorononanoate | 72007-68-2 |
| PFDA | Perfluorodecanoate | 73829-36-4 |
| PFUnA | Perfluoroundecanoate | 196859-54-8 |
| PFDoA | Perfluorododecanoate | 171978-95-3 |
| PFTrDA | Perfluorotridecanoate | 862374-87-6 |
| PFTeDA | Perfluorotetradecanoate | 365971-87-5 |
| | | |
| PFBS | Perfluorobutanesulfonate | 45187-15-3 |
| PFPeS | Perfluoropentanesulfonate | 175905-36-9 |
| PFHxS | Perfluorohexanesulfonate | 108427-53-8 |
| PFHpS | Perfluoroheptanesulfonate | 146689-46-5 |
| PFOS | Perfluorooctanesulfonate | 45298-90-6 |
| PFNS | Perfluorononanesulfonate | 474511-07-4 |
| PFDS | Perfluorodecanesulfonate | 126105-34-8 |
| PFDoS | Perfluorododecanesulfonate | 343629-43-6 |
| | | |
| 4:2 FTS | 4:2 fluorotelomersulfonate | 414911-30-1 |
| 6:2 FTS | 6:2 fluorotelomersulfonate | 425670-75-3 |
| 8:2 FTS | 8:2 fluorotelomersulfonate | 481071-78-7 |

| *Abbreviation* | *Name - Acid Form* | *CAS#* |
|---|---|---|
| PFBA | Perfluorobutyric acid | 375-22-4 |
| PFPeA | Perfluoropentanoic acid | 2706-90-3 |
| PFHxA | Perfluorohexanoic acid | 307-24-4 |
| PFHpA | Perfluoroheptanoic acid | 375-85-9 |
| PFOA | Perfluorooctanoic acid | 335-67-1 |
| PFNA | Perfluorononanoic acid | 375-95-1 |
| PFDA | Perfluorodecanoic acid | 335-76-2 |
| PFUnA | Perfluoroundecanoic acid | 2058-94-8 |
| PFDoA | Perfluorododecanoic acid | 307-55-1 |
| PFTrDA | Perfluorotridecanoic acid | 72629-94-8 |

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| **PFAS: Naming Convention and CAS Numbers** | | |
|---|---|---|
| PFTeDA | Perfluorotetradecanoic acid | 376-06-7 |
| PFBS | Perfluorobutanesulfonic acid | 375-73-5 |
| PFPeS | Perfluoropentanesulfonic acid | 2706-91-4 |
| PFHxS | Perfluorohexanesulfonic acid | 355-46-4 |
| PFHpS | Perfluoroheptanesulfonic acid | 375-92-8 |
| PFOS | Perfluorooctanesulfonic acid | 1763-23-1 |
| PFNS | Perfluorononanesulfonic acid | 68259-12-1 |
| PFDS | Perfluorodecanesulfonic acid | 335-77-3 |
| PFDoS | Perfluorododecanesulfonic acid | 79780-39-5 |
| 4:2 FTS | 4:2 fluorotelomersulfonic acid | 757124-72-4 |
| 6:2 FTS | 6:2 fluorotelomersulfonic acid | 27619-97-2 |
| 8:2 FTS | 8:2 fluorotelomersulfonic acid | 39108-34-4 |
| ***Abbreviation*** | ***Name - Sulfonamide*** | ***CAS#*** |
| PFOSA | Perfluorooctanesulfonamide | 754-91-6 |
| N-MeFOSA | N-Methylperfluorooctanesulfonamide | 31506-32-8 |
| N-EtFOSA | N-Ethylperfluorooctanesulfonamide | 4151-50-2 |
| ***Abbreviation*** | ***Name - Sulfonamideacetic acids*** | ***CAS#*** |
| N-MeFOSAA | N-Methylperfluorooctanesulfonamidoacetic acid | 2355-31-9 |
| N-EtFOSAA | N-Ethylperfluorooctanesulfonamidoacetic acid | 2991-50-6 |
| ***Abbreviation*** | ***Name - Sulfonamidoethanol*** | ***CAS#*** |
| N-MeFOSE | N-Methylperfluorooctanesulfonamidoethanol | 24448-09-7 |
| N-EtFOSE | N-Ethylperfluorooctanesulfonamidoethanol | 1691-99-2 |
| ***Abbreviation*** | ***Name - Ether Carboxylic acids*** | ***CAS#*** |
| HFPO-DA | 2,3,3,3-Tetrafluoro-2-(1,1,2,2,3,3,3-heptafluoropropoxy)propanoic (acid) form | 13252-13-6 |
| HFPO-DA | 2,3,3,3-Tetrafluoro-2-(1,1,2,2,3,3,3-heptafluoropropoxy)propanoate (anion) form | 122499-17-6 |

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## Appendix: Branched/Linear Speciation of PFOA, PFNA and PFOS

This appendix describes the analysis of PFOS, PFOA, and PFNA in aqueous, solid and biosolid samples and solvent extracts, determined as homolog groups of isomers determined by the extent of branching. Analytes in this section are separated and reported as linear, monomethyl-substituted, dimethyl-substituted and trimethyl-substituted. Extraction, cleanup and instrumental analysis procedures and QC acceptance criteria are unchanged from the default method procedures.

| |
|---|
| Perfluorooctanoate (PFOA)-linear |
| PFOA-dimethyl |
| Perfluorononanoate (PFNA)-linear |
| PFNA-monomethyl |
| PFNA-dimethyl |
| PFNA-trimethyl |
| Perfluorooctanesulfonate (PFOS)-linear [1] |
| PFOS-monomethyl [1] |
| PFOS-dimethyl |

[1] 1-Methyl PFOS, a minor contributor to branched PFOS, coelutes with linear PFOS and is included in the linear PFOS concentration measurement. Note that response for 1-methyl PFOS in the 499 → 80 transition is very low and any inference of a large 1-methyl PFOS presence in a sample can only be made by comparing concentration ratios between the 499 → 80 and 499 → 99 transitions.

The typical reporting limits for the branched isomers are identical to those of the corresponding linear isomers.

A native standard containing the analytes listed in the table below is prepared in order to confirm retention times and assess recovery of branched isomers.

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### Specific Isomers used in Preparation of Branched Standard Mix, and their Concentrations

| Name | Isomer | Concentration (ng/mL) | Analyte Group |
|---|---|---|---|
| **P4MOA** | Perfluoro-4-methyloctanoic acid | 1538.5 | PFNA-MONOMETHYL |
| **P7MOA** | Perfluoro-7-methyloctanoic acid | 76.9 | PFNA-MONOMETHYL |
| **P355TMHxA** | Perfluoro-3,5,5-trimethylhexanoic acid | 115.4 | PFNA-TRIMETHYL |
| **P3MHpA** | Perfluoro-3-methylheptanoic acid | 1923.1 | PFOA-MONOMETHYL |
| **P3MHpS** | Sodium perfluoro-3-methylheptanesulfonate | 229.8 | PFOS-MONOMETHYL |
| **P4MHpS** | Mix of Sodium perfluoro-4-methylheptanesulfonate | 144.2 | PFOS-MONOMETHYL |
| **P4MHpA** | and Perfluoro-4-methylheptanoic acid | 317.3 | PFOA-MONOMETHYL |
| **P5MHpS** | Mix of Sodium perfluoro-5-methylheptanesulfonate | 134.6 | PFOS-MONOMETHYL |
| **P5MHpA** | and Perfluoro-5-methylheptanoic acid | 263.8 | PFOA-MONOMETHYL |
| **P6MHpS** | Mix of Sodium perfluoro-6-methylheptanesulfonate | 144.2 | PFOS-MONOMETHYL |
| **P6MHpA** | and Perfluoro-6-methylheptanoic acid | 447.1 | PFOA-MONOMETHYL |
| **P44DMHxS** | Mix of Sodium perfluoro-4,4-dimethylhexanesulfonate | 134.6 | PFOS-DIMETHYL |
| **P44DMHxA** | and perfluoro-4,4-dimethylhexanoic acid | 422.7 | PFOA-DIMETHYL |
| **P45DMHxS** | Mixture of sodium perfluoro-4,5-dimethylhexanesulfonate | 105.8 | PFOS-DIMETHYL |
| **P35DMHxS** | and sodium perfluoro-3,5-dimethylhexanesulfonate | 52.9 | PFOS-DIMETHYL |
| **P45DMHxA** | and perfluoro-4,5-dimethylhexanoic acid | 129.0 | PFOA-DIMETHYL |
| **P35DMHxA** | and perfluoro-3,5-dimethylhexanoic acid | 63.5 | PFOA-DIMETHYL |
| **P55DMHxS** | Mixture of Sodium perfluoro-5,5-dimethylhexanesulfonate | 125.0 | PFOS-DIMETHYL |
| **P55DMHxA** | and perfluoro-5,5-dimethylhexanoic acid | 243.8 | PFOA-DIMETHYL |
| **P1MHpS** | Sodium Perfluoro-1-methylheptane sulfonate | 115.4 | PFOS-MONOMETHYL |

Totals of the branched species arising from the standard preparation in the table above are shown in the table below. The quantified amounts reflect masses as measured using the default calibration standards, which are mostly linear. The response factor for each branched standard differs from that of the linear isomer.

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**Branched isomer amounts.**

| Analyte | Nominal Amount (ng) | Quantified Amount (ng) |
|---|---|---|
| **PFOA-MONOMETHYL** | 148 | 57 |
| **PFOA-DIMETHYL** | 42.9 | 11.1 |
| **PFNA-MONOMETHYL** | 80.8 | 59.8 |
| **PFNA-DIMETHYL** | 0 | 0 |
| **PFNA-TRIMETHYL** | 5.77 | 2.8 |
| **PFOS-MONOMETHYL** | 38.4 | 41.3 |
| **PFOS-DIMETHYL** | 20.9 | 29.6 |

Qualitative and quantitative determination follows procedures outlined in Section **Error! Reference source not found.**. The table below lists the analytes, transition ions and quantitation references used for branched speciation. Information in this table is used in combination with information in Table 11 to provide both linear and branched species quantitation.

**Analytes, Transition Ions and Quantification References**

| Target Analytes | Typical Retention Time (UPLC Column Option) [1] | Parent Ion Mass | Quantification Daughter Ion Mass | Confirmation Daughter Ion Mass | Quantified Using |
|---|---|---|---|---|---|
| PFOA-Linear | 6.16 | 413.0 | 369.0 | 169.0 | $^{13}C_8$-PFOA |
| PFOA-Monomethyl | 5.6-5.8 | 413.0 | 369.0 | 169.0 | $^{13}C_8$-PFOA |
| PFOA-Dimethyl | 5.4-5.6 | 413.0 | 169.0 | 369.0 | $^{13}C_8$-PFOA |
| PFNA-Linear | 6.99 | 463.0 | 419.0 | 219.0 | $^{13}C_9$-PFNA |
| PFNA-Monomethyl | 6.57-6.66 | 463.0 | 419.0 | 219.0 | $^{13}C_9$-PFNA |
| PFNA-Dimethyl | 5.92 | 463.0 | 219.0 | 419.0 | $^{13}C_9$-PFNA |
| PFNA-Trimethyl | 5.92 | 463.0 | 219.0 | 419.0 | $^{13}C_9$-PFNA |
| PFOS-Linear[1] | 8.74 | 498.9 | 79.9 | 98.8 | $^{13}C_8$-PFOS |
| PFOS-Monomethyl | 7.59 | 498.9 | 79.9 | 98.8 | $^{13}C_8$-PFOS |
| PFOS-Dimethyl | 7.59 | 498.9 | 79.9 | 98.8 | $^{13}C_8$-PFOS |

[1] Note that 1-methyl PFOS, a PFOS-monomethyl constituent, and a minor contributor to branched PFOS, coelutes with the linear PFOS. The compound has very low response in the quantification transition for linear PFOS and hence reporting of linear PFOS is not affected.

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### Retention times of individual/mixtures of branched isomers of PFOS, PFOA and PFNA

| Isomer | PFAS Family | Retention Time (minutes) | Notes |
|---|---|---|---|
| **PFOA-6-methyl** | PFOA | 5.73 | |
| **PFOA-3, 4 and 5 methyl** | PFOA | 5.66 | 3, 4 and 5 coelute |
| **PFOA-4,5 and 3,5-dimethyl** | PFOA | | 2 peaks at 5.35 and 5.41 min |
| **PFOA-4,4-dimethyl** | PFOA | 5.41 | |
| **PFOA-5,5-dimethyl** | PFOA | 5.68 | Tentative |
| **PFNA-4-methyl** | PFNA | 6.57 | |
| **PFNA-7-methyl** | PFNA | 6.66 | |
| **PFNA-3,5,5-trimethyl** | PFNA | 5.92 | No signal in 463 → 419, only 463 → 219 |
| **PFOS-1-methyl** | PFOS | 7.38 | Coelution with linear. Very weak PFOS-1 499 → 80 transition |
| **PFOS-3, 4 and 5-methyl** | PFOS | 7.3 | 3, 4 and 5 coelute |
| **PFOS-7-methyl** | PFOS | 7.34 | Shoulder to the right of 3, 4, and 5-methyls |
| **PFOS-4,4-dimethyl** | PFOS | 7.19 | |
| **PFOS-4,5 and 3,5-dimethyl** | PFOS | 7.16 and a shoulder at 7.19? | Low response in 499 → 99 |
| **PFOS-5,5-dimethyl** | PFOS | 7.19 | Low response in 499 → 99 |

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# ATTACHMENT 2

## Laboratory Analytical Reports

SGS AXYS

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The SGS AXYS contact for these data is Ivona Zysk.

# PERFLUORINATED ORGANIC AND FTS ANALYSIS

## AQUEOUS & OIL SAMPLES

### PROJECT NAME: RACER LANSING PLANT -2

**Contract: 4951**
**Data Package Identification: DPWG67854**

**Analysis WG67438 & WG67663**

## 1 May 201930 April 2019

**SGS NORTH AMERICA**
**AQUEOUS AND OIL (LNAPL) SAMPLES**

**PERFLUORINATED ORGANIC AND FTS ANALYSIS**
**SGS AXYS METHOD: MLA-110**

**4951:** L30820-1 to -2, L30821-1 to -7

**PROJECT NAME: RACER LANSING PLANT -2**

**30 April 2019**

## NARRATIVE

This narrative describes the analysis of two aqueous and seven oil (low density non-aqueous phase liquid; LNAPL) samples for the determination of perfluorinated organic compounds using High-Performance Liquid Chromatography tandem mass spectrometry (HPLC-MS/MS).

## SAMPLE RECEIPT AND STORAGE

The samples were received on the 4th of March, 2019. The temperature of the samples upon receipt ranged from 10.7°C to 14.6°C, exceeding the method recommended maximum storage temperature guideline of <4°C for aqueous samples. The effect of this deviation from the recommended sample storage temperature is unknown. The samples were stored at 4°C prior to sample preparation, extraction and analysis. Details of sample conditions upon receipt are provided on the sample receiving records included with this data package.

## SAMPLE PREPARATION, EXTRACTION AND ANALYSIS

The samples and QC samples (described below) were prepared and analyzed in two analysis batches (WG67438 and WG67663). The composition of each analysis batch is shown on the correlation Table and the Batch List which are included with this data package.

For the WG67438 analysis batch the QC samples consisted of a laboratory procedural blank, a laboratory generated reference sample referred to as an Ongoing Precision and Recovery (OPR), a custom laboratory procedural blank, a custom OPR, and a duplicate (DUP) sample. The laboratory procedural blank (SGS AXYS ID: WG67438-101) and OPR (SGS AXYS ID: WG67438-103) samples were prepared using Canadian springs ultra-pure water as the sample matrix. Two additional non-routine (custom) QC samples were prepared using hexane as the sample matrix instead of Canadian Springs ultra-pure water: a laboratory procedural blank (SGS AXYS ID: WG67438-102) and alternate Ongoing Precision and Recovery (OPR) sample (SGS AXYS ID: WG64743-104). The PMW-01-020419 sample (SGS AXYS ID: L30821-1) was used as the parent material for the DUP sample.

For the WG67663 analysis batch a laboratory procedural blank sample (SGS AXYS ID: WG67663-101) was prepared using Canadian springs ultra-pure water as the sample matrix. The Ongoing Precision and Recovery (OPR) sample (SGS AXYS ID: WG67663-102) is a non-routine (custom) QC sample prepared using hexane as a sample matrix instead of Canadian springs ultra-pure water.

The sample preparation, extraction and analysis procedures followed were in accordance with SGS AXYS Method MLA-110: ***Analytical Procedure for the Analysis of Per- and Polyfluoroalkyl Substances (PFAS) in Aqueous Samples, Solids and Solvent Extracts by LC-MS/MS.*** A method summary (MSU-110) of SGS AXYS Method MLA-110 is included with this data package.

Approximately 0.100 L (for the oil samples) and 0.500 L (for the aqueous samples) was accurately weighed and spiked with isotope labeled quantification standards. For the oil samples, 100 mL of hexane was added prior to addition of the isotope labeled quantification standards to dilute and reduce the tendency for emulsion formation. Each oil sample was washed three times using Canadian Springs water (adjusted to alkaline conditions with concentrated ammonia) with the aqueous rinses collected and combined together for cleanup. All samples (aqueous and oil) were then adjusted to acidic conditions.

The resulting extracts were cleaned up using individual SPE cartridges. The analytes of interest were eluted using basic methanol and then spiked with labeled recovery (internal) standards and analyzed using a HPLC reversed

phase C18 column and solvent gradient. The column was coupled to a triple quadrupole mass spectrometer run at unit mass resolution in the Multiple Reaction Monitoring (MRM) mode with negative electrospray ionization. Analyte concentrations were determined by isotope dilution/internal standard method, comparing the area of the quantification ion to that of the $^{13}C$-labelled standard and correcting for response factors. Linear regression equations with 1/X weighting fit were determined from a multi-point calibration series prepared alongside the samples. Final results were calculated in terms of the whole sample extracted.

**REPORTING CONVENTIONS**

The SGS AXYS contract number assigned for internal tracking was 4951. Each field sample was assigned a unique laboratory identifier as L30820-X (for the aqueous samples) and L30821-X (for the oil samples) where 'X' is a numeral. All data reports reference both the SGS AXYS ID and the client sample identifier.

Any extra work required and performed after the initial instrumental analysis of the sample extract is given an extra "test suffix" code. The single letter code per extra work performed was added to the SGS AXYS sample ID as a suffix and combined with any other applicable test suffix codes. The extra work codes used to report data in this package include:

| | | |
|---|---|---|
| (A) | = | parent sample for a duplicate pair |
| i | = | instrumental re-analysis performed on the sample extract |

The laboratory qualifiers used were as follows:

| | | |
|---|---|---|
| N | = | target analyte recovery was not within method control limits for the OPR sample |
| NQ | = | data was not quantifiable |
| U | = | identifies a target analyte that was not detected |
| V | = | surrogate recovery was not within method control limits |

The final results were reported with concentration units of nanograms per litre (ng/L). Concentrations and detection limits were reported to three significant figures. The analytical results for each sample are provided on Analysis Report forms 1A and 2.

**QA/QC NOTES**

The field and QC samples were carried intact throughout the entire analytical process. The sample data were reviewed and evaluated in relation to the batch QC samples.

- Sample analyte concentrations are not blank corrected.
- By virtue of the isotope dilution/internal standard quantification procedures, data are recovery corrected for possible losses during extraction and cleanup.
- The Signal/Noise (S/N) ratios were measured as '0' for some compounds in the QC samples and sample data. This has been determined to be a limitation of the software and was deemed to not affect the data.
- Blank data should be evaluated against specifications using the same blank sample size as the size of the client samples.
- All CAL/VER, OPR and surrogate compound percent recovery specifications were met with the following exceptions:

***WG67438***

For the on-going calibration verification solution injection (FC9W_130 S:14), the percent recoveries for some surrogate compounds were above the upper method criteria limit (150%). Given that the results for the related target analytes passed the method criteria requirements, for all samples, the results were reported with no data flags applied.

For the alternate OPR sample (SGS AXYS ID: WG67438-104), the percent recoveries for some target analytes did not meet the method criteria limits and were flagged with an 'N'.

For the L30821 series of samples, the instrument response for some surrogate compounds was below the minimum method criteria requirements for accurate quantification of the related target analytes. The results for the affected compounds (both surrogates and analytes) were deemed to be non-quantifiable and flagged as "NQ'.

For some samples, the percent recoveries for some surrogate compounds did not meet the method criteria limits and were flagged with a 'V'. As the isotope dilution method of quantification produces data that is recovery corrected, these variances from method criteria were deemed to not affect the quantification of the target analytes. Percent surrogate recoveries are used as general method performance indicator only.

***WG67663***

For the laboratory procedural blank sample (SGS AXYS ID: WG67663-101), the target analyte 6:2 FTS was detected above the reporting limit. The same compound was detected in the LMW-12-03-020519 sample (SGS AXYS ID: L30821-7) at a lower concentration. Data are not blank corrected and should be taken into consideration during data review and interpretation.

For the OPR sample (SGS AXYS ID: WG67663-102), the percent recoveries for some target analytes did not meet the method criteria limits and were flagged with an 'N'. The same compounds were not detected in either field sample.

For both field samples, the instrument response for some surrogate compounds were below the minimum method criteria requirements for accurate quantification of the related target analytes. The results for the affected compounds (both surrogates and target analytes) were deemed to be non-quantifiable and flagged as "NQ'.

For some samples, the percent recoveries for some surrogate compounds did not meet the method criteria limits and were flagged with a 'V'. As the isotope dilution method of quantification produces data that is recovery corrected, these variances from method criteria were deemed to not affect the quantification of the target analytes. Percent surrogate recoveries are used as general method performance indicator only.

## ANALYTICAL DISCUSSION

### WG67438

No analytical difficulties were encountered.

***WG67663***

For the PZ-SB-37-020419 and LMW-12-03-020519 samples (SGS AXYS IDs: L30821-3 and -7 respectively), during sample preparation, a large quantity of water was observed below the oil layer for each sample. Following discussion and approval from the client, the aqueous layer was separated and discarded to leave the oil layer only for extraction and instrumental analysis.

For all samples (both client and QC), the peak for PFHpS was observed beyond the expected retention time and the instrument response for some surrogate compounds were poor. As remedial action, the extracts for all samples were instrumentally re-analyzed. Improvement for the above issues was observed for all samples for the re-injection data. The results were subsequently reported from the re-injection data (indicated with the suffix 'i' following the SGS AXYS ID).

## DATA PACKAGE

This data package has been assigned a unique identifier, DPWG67854 shown on the cover page. Included in this data package is the following documentation:

- Method Summary
- Sample 'Correlation Table'
- Sample Receiving Documentation

- Extraction Workup Sheets
- Sample data reports (in order of SGS AXYS Sample ID)
- Laboratory QC data reports
- Instrumental QC data reports (organized by analysis date)
- Audit reports
- Sample Raw Data (in order of SGS AXYS ID)
- Laboratory QC raw data
- Instrumental QC raw data (organized by analysis date)
- Accreditation Scope

**I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, except for the conditions detailed above. In addition, I certify, that to the best of my knowledge and belief, the data as reported are true and accurate. The following signature, on behalf of SGS AXYS Analytical Services Ltd, authorizes the release of the data contained in this data package.**

*Andrew Porat* — 30-April-2019

Signed: Andrew Porat, Data Validation Chemist — Date signed

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**SUMMARY OF SGS AXYS METHOD MLA-110 REV. 01 VER. 08**

# Analytical Procedure for the Analysis of Per- and Polyfluoroalkyl Substances (PFAS) in Aqueous Samples, Solids and Solvent Extracts by LC-MS/MS

This method describes the analysis of per- and polyfluoroalkyl substances (PFAS) in aqueous, solid and biosolid samples and solvent extracts, determined as the total of linear and branched isomers. After spiking with isotopically labeled surrogate standards and cleanup on SPE cartridges aqueous samples are analyzed by liquid chromatography/mass spectrometry (LC-MS/MS). Solid samples are spiked with isotopically labelled surrogate standards, extracted in acetic acid and basic methanol, and cleaned up by carbon and SPE cartridges before analysis by LC-MS/MS. Final sample concentrations are determined by isotope dilution/internal standard quantification.

Typical reporting limits (in ng/L for aqueous and extract samples and ng/g for solid and biosolid samples) are shown below, for the method default sample sizes:

| Analyte groups | Aqueous sample | Extract [1] | Solid [2] | Biosolid [3] |
|---|---|---|---|---|
| Typical sample size | 0.5 L | 0.75 mL | 5 g | 2.5 g |
| Perfluoroalkyl carboxylates | 0.8-3.2 | 530-2100 | 0.08-0.32 | 0.16-0.64 |
| Perfluoroalkyl sulfonates | 0.8 | 530 | 0.08 | 0.16 |
| Fluorotelomer sulfonates | 3.2 | 2100 | 0.32 | 0.64 |
| Perfluorooctane sulfonamides | 0.8 | 530 | 0.08 | 0.16 |
| Perfluorooctane sulfonamideacetic acids | 0.8 | 530 | 0.08 | 0.16 |
| Perfluorooctane sulfonamide ethanols | 8 | 5300 | 0.8 | 1.6 |
| Per- and polyfluoroether carboxylates | 3.2 | 2100 | 0.32 | 0.64 |
| Ether sulfonates | 3.2 | 2100 | 0.32 | 0.64 |

[1] Detection limits for extract samples depend on the samples size processed. The reporting limits provided here are based on the typical extract sample size listed above.

[2] A maximum of 10 g wet, or 5 g dry, solid may be analyzed.

[3] A maximum of 5 g wet, or 0.5 g dry, biosolid may be analyzed.

Refer to Appendix C for sample storage conditions.

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### PFAS Target Analytes

#### Perfluoroalkyl carboxylates

Perfluorobutanoate (PFBA)
Perfluoropentanoate (PFPeA)
Perfluorohexanoate (PFHxA)
Perfluoroheptanoate (PFHpA)
Perfluorooctanoate (PFOA)
Perfluorononanoate (PFNA)
Perfluorodecanoate (PFDA)
Perfluoroundecanoate (PFUnA)
Perfluorododecanoate (PFDoA)
Perfluorotridecanoate (PFTrDA)
Perfluorotetradecanoate (PFTeDA)

#### Perfluoroalkyl sulfonates

Perfluorobutanesulfonate (PFBS)
Perfluoropentanesulfonate (PFPeS)
Perfluorohexanesulfonate (PFHxS)
Perfluoroheptanesulfonate (PFHpS)
Perfluorooctanesulfonate (PFOS)
Perfluorononanesulfonate (PFNS)
Perfluorodecanesulfonate (PFDS)
Perfluorododecanesulfonate (PFDoS)

#### Fluorotelomer sulfonates

1H, 1H, 2H, 2H-perfluorohexane sulfonate (4:2 FTS)
1H, 1H, 2H, 2H-perfluorooctane sulfonate (6:2 FTS)
1H, 1H, 2H, 2H-perfluorodecane sulfonate (8:2 FTS)

#### Perfluorooctane sulfonamides

Perfluorooctanesulfonamide (PFOSA) [2]
N-Methylperfluorooctanesulfonamide (N-MeFOSA)
N-Ethylperfluorooctanesulfonamide (N-EtFOSA)

#### Perfluorooctane sulfonamideacetic acids

N-Methylperfluoro-1-octanesulfonamidoacetic acid (N-MeFOSAA)
N-Ethylperfluoro-1-octanesulfonamidoacetic acid (N-EtFOSAA)

#### Perfluorooctane sulfonamide ethanols

N-Methylperfluoro-1-octanesulfonamidoethanol (N-MeFOSE)
N-Ethylperfluoro-1-octanesulfonamidoethanol (N-EtFOSE)

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**Ether carboxylates**

Hexafluoropropylene oxide dimer acid (HFPO-DA) [1]

4,8-dioxa-3H-perfluorononanoate (ADONA)

**Ether sulfonates**

9-chlorohexadecafluoro-3-oxanonane-1-sulfonate (9Cl-PF3ONS) [3]

11-chloroeicosafluoro-3-oxaundecane-1-sulfonate (11Cl-PF3OUdS) [4]

[1] GenX major component
[2] PFOSA also called FOSA
[3] F53-B main component
[4] F53-B minor component

Target analytes are determined as the total of linear and branched isomers.
For the carboxylate and sulfonate analytes, the analyte concentrations are reported as the anion forms. The corresponding acid forms are shown in Appendix A of this summary.

## 1.0 EXTRACTION AND CLEANUP PROCEDURES

Aqueous samples size may be up to 1000 mL for aqueous samples analyzed by this method, and up to 0.75 mL for extracts/solvents. Samples are stored in HDPE (high density polyethylene) containers. All samples are spiked with surrogate standards. Aqueous samples are extracted by solid phase extraction (SPE) using weak anion exchange cartridges; wash and elution procedures are chosen to meet various analysis requirements. Sample extracts may also be treated with carbon powder. Extract/solvent samples don't undergo solid phase extraction. The extracts are spiked with recovery standards and analyzed by LC-MS/MS.

Solid and biosolid sample size may be up to 5 g dry weight for solid samples or up to 5 g wet weight (max. 0.5 g dry weight) for biosolid samples. After addition of isotopically labelled surrogate standards the sample is extracted by shaking three times with methanolic ammonium hydroxide solution, each time collecting the supernatants. The supernatants are combined and treated with ultra pure carbon powder. The resulting solution is diluted with water and cleaned up by solid phase extraction (SPE) using disposable cartridges containing a weak anion exchange sorbent. The eluate is spiked with recovery standards and analyzed by LC-MS/MS.

## 2.0 INSTRUMENTATION

Analysis of the sample extract is performed on a UPLC (ultrahigh performance liquid chromatography) reversed phase C18 column using a solvent gradient. The column is coupled to a triple quadrupole mass spectrometer run at unit mass resolution in the Multiple Reaction Monitoring (MRM) in negative electrospray ionization mode.

## 3.0 CALIBRATION

Initial calibration of the LC-MS/MS instrument is performed by the analysis of five or more calibration solutions. A mid-level calibration standard is analyzed to verify the initial calibration and injected after:

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- at least every 12 hours.
- For DoD accredited work after every 10 client samples or every 12 hours, whichever occurs first, and at the end of the instrumental run sequence.

**Nominal Concentrations of Calibration Solutions (ng/mL)**

| | CAL A* | CAL B | CAL C | CAL D | CAL E (CAL-VER) | CAL F | CAL G | CAL H |
|---|---|---|---|---|---|---|---|---|
| **Perfluoroalkyl carboxylates** | | | | | | | | |
| PFBA | 0.2 | 0.4 | 0.8 | 2 | **10** | 50 | 250 | 1000 |
| PFPeA | 0.1 | 0.2 | 0.4 | 1 | **5** | 25 | 125 | 500 |
| PFHxA | 0.05 | 0.1 | 0.2 | 0.5 | **2.5** | 12.5 | 62.5 | 250 |
| PFHpA | 0.05 | 0.1 | 0.2 | 0.5 | **2.5** | 12.5 | 62.5 | 250 |
| PFOA | 0.05 | 0.1 | 0.2 | 0.5 | **2.5** | 12.5 | 62.5 | 250 |
| PFNA | 0.05 | 0.1 | 0.2 | 0.5 | **2.5** | 12.5 | 62.5 | 250 |
| PFDA | 0.05 | 0.1 | 0.2 | 0.5 | **2.5** | 12.5 | 62.5 | 250 |
| PFUnA | 0.05 | 0.1 | 0.2 | 0.5 | **2.5** | 12.5 | 62.5 | 250 |
| PFDoA | 0.05 | 0.1 | 0.2 | 0.5 | **2.5** | 12.5 | 62.5 | 250 |
| PFTrDA | 0.05 | 0.1 | 0.2 | 0.5 | **2.5** | 12.5 | 62.5 | 250 |
| PFTeDA | 0.05 | 0.1 | 0.2 | 0.5 | **2.5** | 12.5 | 62.5 | 250 |
| | | | | | | | | |
| **Perfluoroalkyl sulfonates** | | | | | | | | |
| PFBS | 0.05 | 0.1 | 0.2 | 0.5 | **2.5** | 12.5 | 62.5 | 250 |
| PFPeS | 0.05 | 0.1 | 0.2 | 0.5 | **2.5** | 12.5 | 62.5 | 250 |
| PFHxS | 0.05 | 0.1 | 0.2 | 0.5 | **2.5** | 12.5 | 62.5 | 250 |
| PFHpS | 0.05 | 0.1 | 0.2 | 0.5 | **2.5** | 12.5 | 62.5 | 250 |
| PFOS | 0.05 | 0.1 | 0.2 | 0.5 | **2.5** | 12.5 | 62.5 | 250 |
| PFNS | 0.05 | 0.1 | 0.2 | 0.5 | **2.5** | 12.5 | 62.5 | 250 |
| PFDS | 0.05 | 0.1 | 0.2 | 0.5 | **2.5** | 12.5 | 62.5 | 250 |
| PFDoS | 0.05 | 0.1 | 0.2 | 0.5 | **2.5** | 12.5 | 62.5 | 250 |
| | | | | | | | | |
| **Flurorotelomer sulfonates** | | | | | | | | |
| 4:2 FTS | 0.2 | 0.4 | 0.8 | 2 | **10** | 50 | 250 | 1000 |
| 6:2 FTS | 0.2 | 0.4 | 0.8 | 2 | **10** | 50 | 250 | 1000 |
| 8:2 FTS | 0.2 | 0.4 | 0.8 | 2 | **10** | 50 | 250 | 1000 |
| | | | | | | | | |



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| | CAL A* | CAL B | CAL C | CAL D | CAL E (CAL-VER) | CAL F | CAL G | CAL H |
|---|---|---|---|---|---|---|---|---|
| **Perfluorooctane sulfonamides** | | | | | | | | |
| PFOSA | 0.05 | 0.1 | 0.2 | 0.5 | **2.5** | 12.5 | 62.5 | 250 |
| N-MeFOSA | 0.05 | 0.1 | 0.2 | 0.5 | **2.5** | 12.5 | 62.5 | 250 |
| N-EtFOSA | 0.05 | 0.1 | 0.2 | 0.5 | **2.5** | 12.5 | 62.5 | 250 |
| | | | | | | | | |
| **Perfluorooctane sulfonamidoacetic acids** | | | | | | | | |
| N-MeFOSAA | 0.05 | 0.1 | 0.2 | 0.5 | **2.5** | 12.5 | 62.5 | 250 |
| N-EtFOSAA | 0.05 | 0.1 | 0.2 | 0.5 | **2.5** | 12.5 | 62.5 | 250 |
| | | | | | | | | |
| **Perfluorooctane sulfonamide ethanols** | | | | | | | | |
| N-MeFOSE | 0.5 | 1 | 2 | 5 | **25** | 125 | 625 | 2500 |
| N-EtFOSE | 0.5 | 1 | 2 | 5 | **25** | 125 | 625 | 2500 |
| | | | | | | | | |
| **Per- and polyfluoroether carboxylates** | | | | | | | | |
| HFPO-DA | 0.2 | 0.4 | 0.8 | 2 | **10** | 50 | 250 | 1000 |
| ADONA | 0.2 | 0.4 | 0.8 | 2 | **10** | 50 | 250 | 1000 |
| | | | | | | | | |
| **Ether sulfonates** | | | | | | | | |
| 9Cl-PF3ONS | 0.2 | 0.4 | 0.8 | 2 | **10** | 50 | 250 | 1000 |
| 11Cl-PF3OUdS | 0.2 | 0.4 | 0.8 | 2 | **10** | 50 | 250 | 1000 |
| | | | | | | | | |
| **Surrogate Standards** | | | | | | | | |
| $^{13}C_4$-PFBA | 10 | 10 | 10 | 10 | **10** | 10 | 10 | 10 |
| $^{13}C_5$-PFPeA | 5 | 5 | 5 | 5 | **5** | 5 | 5 | 5 |
| $^{13}C_5$-PFHxA | 2.5 | 2.5 | 2.5 | 2.5 | **2.5** | 2.5 | 2.5 | 2.5 |
| $^{13}C_4$-PFHpA | 2.5 | 2.5 | 2.5 | 2.5 | **2.5** | 2.5 | 2.5 | 2.5 |
| $^{13}C_8$-PFOA | 2.5 | 2.5 | 2.5 | 2.5 | **2.5** | 2.5 | 2.5 | 2.5 |
| $^{13}C_9$-PFNA | 1.25 | 1.25 | 1.25 | 1.25 | **1.25** | 1.25 | 1.25 | 1.25 |
| $^{13}C_6$-PFDA | 1.25 | 1.25 | 1.25 | 1.25 | **1.25** | 1.25 | 1.25 | 1.25 |
| $^{13}C_7$-PFUnA | 1.25 | 1.25 | 1.25 | 1.25 | **1.25** | 1.25 | 1.25 | 1.25 |
| $^{13}C_2$-PFDoA | 1.25 | 1.25 | 1.25 | 1.25 | **1.25** | 1.25 | 1.25 | 1.25 |
| $^{13}C_2$-PFTeDA | 1.25 | 1.25 | 1.25 | 1.25 | **1.25** | 1.25 | 1.25 | 1.25 |
| | | | | | | | | |
| $^{13}C_3$-PFBS | 2.5 | 2.5 | 2.5 | 2.5 | **2.5** | 2.5 | 2.5 | 2.5 |

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| | CAL A* | CAL B | CAL C | CAL D | CAL E (CAL-VER) | CAL F | CAL G | CAL H |
|---|---|---|---|---|---|---|---|---|
| $^{13}C_3$-PFHxS | 2.5 | 2.5 | 2.5 | 2.5 | **2.5** | 2.5 | 2.5 | 2.5 |
| $^{13}C_8$-PFOS | 2.5 | 2.5 | 2.5 | 2.5 | **2.5** | 2.5 | 2.5 | 2.5 |
| | | | | | | | | |
| $^{13}C_2$-4:2 FTS | 5 | 5 | 5 | 5 | **5** | 5 | 5 | 5 |
| $^{13}C_2$-6:2 FTS | 5 | 5 | 5 | 5 | **5** | 5 | 5 | 5 |
| $^{13}C_2$-8:2 FTS | 5 | 5 | 5 | 5 | **5** | 5 | 5 | 5 |
| | | | | | | | | |
| $^{13}C_8$-PFOSA | 2.5 | 2.5 | 2.5 | 2.5 | **2.5** | 2.5 | 2.5 | 2.5 |
| $D_3$-N-MeFOSA | 2.5 | 2.5 | 2.5 | 2.5 | **2.5** | 2.5 | 2.5 | 2.5 |
| $D_5$-N-EtFOSA | 2.5 | 2.5 | 2.5 | 2.5 | **2.5** | 2.5 | 2.5 | 2.5 |
| | | | | | | | | |
| $D_3$-N-MeFOSAA | 5 | 5 | 5 | 5 | **5** | 5 | 5 | 5 |
| $D_5$-N-EtFOSAA | 5 | 5 | 5 | 5 | **5** | 5 | 5 | 5 |
| | | | | | | | | |
| $D_7$-N-MeFOSE | 25 | 25 | 25 | 25 | **25** | 25 | 25 | 25 |
| $D_9$-N-EtFOSE | 25 | 25 | 25 | 25 | **25** | 25 | 25 | 25 |
| | | | | | | | | |
| $^{13}C_3$-HFPO-DA | 10 | 10 | 10 | 10 | **10** | 10 | 10 | 10 |
| | | | | | | | | |
| **Recovery standards** | | | | | | | | |
| $^{13}C_3$-PFBA | 5 | 5 | 5 | 5 | **5** | 5 | 5 | 5 |
| $^{13}C_2$-PFHxA | 2.5 | 2.5 | 2.5 | 2.5 | **2.5** | 2.5 | 2.5 | 2.5 |
| $^{13}C_4$-PFOA | 2.5 | 2.5 | 2.5 | 2.5 | **2.5** | 2.5 | 2.5 | 2.5 |
| $^{13}C_5$-PFNA | 1.25 | 1.25 | 1.25 | 1.25 | **1.25** | 1.25 | 1.25 | 1.25 |
| $^{13}C_2$-PFDA | 1.25 | 1.25 | 1.25 | 1.25 | **1.25** | 1.25 | 1.25 | 1.25 |
| $^{18}O_2$-PFHxS | 2.5 | 2.5 | 2.5 | 2.5 | **2.5** | 2.5 | 2.5 | 2.5 |
| $^{13}C_4$-PFOS | 2.5 | 2.5 | 2.5 | 2.5 | **2.5** | 2.5 | 2.5 | 2.5 |

* CAL A is an optional calibration level only used with prior approval.

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## 4.0 QUANTIFICATION PROCEDURES

### Calculations

Target compounds are quantified using the isotope dilution/internal standard method, comparing the area of the quantification ion to that of the $^{13}C$-labelled or deuterium labeled standard and correcting for response factors. Linear quantification equations are determined from a multi-point calibration series with 1/X weighting fit and expressed as below:

$$Y = \text{slope} \times X + \text{intercept}$$

where: $Y = \text{response ratio} = \left( \frac{\text{area of Target}}{\text{area of Surr}} \times \text{weight of Surr (ng)} \right)$ , and

$X$ = weight of target (ng)

The slope and intercept are used to convert raw peak areas in sample chromatograms to final concentrations as follows:

$$\text{Sample Conc.} = \left( \frac{\text{area of Target}}{\text{area of Surr}} \times \text{weight of Surr (ng)} - \text{intercept (ng)} \right) x \left( \frac{1}{\text{slope}} \right) x \left( \frac{1}{\text{sample size (L or g)}} \right)$$

where Surr is the surrogate standard

The recovery of the surrogate standard is calculated (by internal standard quantification against the recovery standard using an average RRF) and monitored as an indication of overall data quality. Final target concentrations are recovery corrected by this method of quantification.

## 4.1 Reporting Limits

Sample Specific Detection Limits (SDL) are determined by converting the area equivalent to 3.0 times the estimated chromatographic noise height to a concentration in the same manner that target peak responses are converted to final concentrations. The SDL accounts for any effect of matrix on the detection system and for recovery achieved through the analytical work-up.

Results are reported to the greater of the SDL or the concentration equivalent to the lowest calibration standard analyzed.

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### Analytes, Transition Ions and Quantification References

| | Typical Retention Time [1] | Parent Ion Mass | Quantification Daughter Ion Mass[4] | Confirmation Daughter Ion Mass [2,4] | Typical Ion Ratio Quant./Conf.[3] | Quantified using |
|---|---|---|---|---|---|---|
| **Target analytes** | | | | | | |
| PFBA | 1.96 | 212.8 | 168.9 | n.a. | n.a. | $^{13}C_4$-PFBA |
| PFPeA | 4.18 | 263.0 | 219.0 | 68.9 | n.a. | $^{13}C_5$-PFPeA |
| PFHxA | 4.81 | 313.0 | 269.0 | 118.9 | 13 | $^{13}C_5$-PFHxA |
| PFHpA | 5.32 | 363.1 | 319.0 | 169.0 | 3.5 | $^{13}C_4$-PFHpA |
| PFOA | 6.16 | 413.0 | 369.0 | 169.0 | 3.0 | $^{13}C_8$-PFOA |
| PFNA | 6.99 | 463.0 | 419.0 | 219.0 | 4.9 | $^{13}C_9$-PFNA |
| PFDA | 7.47 | 512.9 | 469.0 | 219.0 | 5.5 | $^{13}C_6$-PFDA |
| PFUnA | 7.81 | 563.1 | 519.0 | 269.1 | 6.9 | $^{13}C_7$-PFUnA |
| PFDoA | 8.13 | 613.1 | 569.0 | 319.0 | 10 | $^{13}C_2$-PFDoA |
| PFTrDA | 8.53 | 663.0 | 619.0 | 168.9 | 6.7 | $^{13}C_2$-PFTeDA |
| PFTeDA | 8.96 | 713.1 | 669.0 | 168.9 | 6.0 | $^{13}C_2$-PFTeDA |
| PFBS | 4.79 | 298.7 | 79.9 | 98.8 | 2.1 | $^{13}C_3$-PFBS |
| PFPeS | 5.38 | 349.1 | 79.9 | 98.9 | 1.8 | $^{13}C_3$-PFHxS |
| PFHxS | 6.31 | 398.7 | 98.9 | 79.9 | 1.9 | $^{13}C_3$-PFHxS |
| PFHpS | 7.11 | 449.0 | 79.9 | 98.8 | 1.7 | $^{13}C_8$-PFOS |
| PFOS | 7.59 | 498.9 | 79.9 | 98.8 | 2.3 | $^{13}C_8$-PFOS |
| PFNS | 7.92 | 548.8 | 79.9 | 98.8 | 1.9 | $^{13}C_8$-PFOS |
| PFDS | 8.28 | 599.0 | 79.9 | 98.8 | 1.9 | $^{13}C_8$-PFOS |
| PFDoS | 9.14 | 699.1 | 79.9 | 98.8 | 1.9 | $^{13}C_8$-PFOS |
| 4:2 FTS | 4.67 | 327.1 | 307.0 | 80.9 | 1.7 | $^{13}C_2$-4:2 FTS |
| 6:2 FTS | 5.81 | 427.1 | 407.0 | 80.9 | 1.9 | $^{13}C_2$-6:2 FTS |
| 8:2 FTS | 7.28 | 527.1 | 507.0 | 80.8 | 3.0 | $^{13}C_2$-8:2 FTS |

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| | Typical Retention Time [1] | Parent Ion Mass | Quantification Daughter Ion Mass[4] | Confirmation Daughter Ion Mass [2,4] | Typical Ion Ratio Quant./Conf.[3] | Quantified using |
|---|---|---|---|---|---|---|
| PFOSA | 8.41 | 498.1 | 77.9 | 478.0 | 47 | $^{13}C_8$-PFOSA |
| N-MeFOSA | 9.70 | 511.9 | 219.0 | 169.0 | 0.66 | $D_3$-N-MeFOSA |
| N-EtFOSA | 9.94 | 526.0 | 219.0 | 169.0 | 0.63 | $D_5$-N-EtFOSA |
| N-MeFOSAA | 7.51 | 570.1 | 419.0 | 483.0 | 2.0 | $D_3$-N-MeFOSAA |
| N-EtFOSAA | 7.65 | 584.2 | 419.1 | 526.0 | 1.2 | $D_5$-N-EtFOSAA |
| N-MeFOSE | 9.57 | 616.1 | 58.9 | n.a. | n.a. | $D_7$-N-MeFOSE |
| N-EtFOSE | 9.85 | 630.0 | 58.9 | n.a. | n.a. | $D_9$-N-EtFOSE |
| HFPO-DA | 4.97 | 284.9 | 168.9 | 184.9 | 1.95 | $^{13}C_3$-HFPO-DA |
| ADONA | 5.79 | 376.9 | 250.9 | 84.8 | 2.8 | $^{13}C_3$-HFPO-DA |
| 9Cl-PF3ONS | 7.82 | 530.8 | 351.0 | 532.8 → 353.0 | 3.2 | $^{13}C_3$-HFPO-DA |
| 11Cl-PF3OUdS | 8.62 | 630.9 | 450.9 | 632.9 → 452.9 | 3.0 | $^{13}C_3$-HFPO-DA |
| **Surrogate standards** | | | | | | |
| $^{13}C_4$-PFBA | 1.95 | 216.8 | 171.9 | n.a. | | $^{13}C_3$-PFBA |
| $^{13}C_5$-PFPeA | 4.18 | 268.3 | 223.0 | n.a. | | $^{13}C_2$-PFHxA |
| $^{13}C_5$-PFHxA | 4.80 | 318.0 | 273.0 | 120.3 | | $^{13}C_2$-PFHxA |
| $^{13}C_4$-PFHpA | 5.32 | 367.1 | 322.0 | n.a. | | $^{13}C_4$-PFOA |
| $^{13}C_8$-PFOA | 6.16 | 421.1 | 376.0 | n.a. | | $^{13}C_4$-PFOA |
| $^{13}C_9$-PFNA | 6.99 | 472.1 | 427.0 | n.a. | | $^{13}C_5$-PFNA |
| $^{13}C_6$-PFDA | 7.47 | 519.1 | 474.1 | n.a. | | $^{13}C_2$-PFDA |
| $^{13}C_7$-PFUnA | 7.81 | 570.0 | 525.1 | n.a. | | $^{13}C_2$-PFDA |
| $^{13}C_2$-PFDoA | 8.13 | 615.1 | 570.0 | n.a. | | $^{13}C_2$-PFDA |
| $^{13}C_2$-PFTeDA | 8.96 | 715.1 | 670.0 | n.a. | | $^{13}C_2$-PFDA |
| $^{13}C_3$-PFBS | 4.78 | 302.1 | 79.9 | 98.9 | | $^{18}O_2$-PFHxS |
| $^{13}C_3$-PFHxS | 6.30 | 402.1 | 79.9 | 98.8 | | $^{18}O_2$-PFHxS |

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| | Typical Retention Time [1] | Parent Ion Mass | Quantification Daughter Ion Mass[4] | Confirmation Daughter Ion Mass [2,4] | Typical Ion Ratio Quant./Conf.[3] | Quantified using |
|---|---|---|---|---|---|---|
| $^{13}C_8$-PFOS | 7.59 | 507.1 | 79.9 | 98.9 | | $^{13}C_4$-PFOS |
| $^{13}C_2$-4:2 FTS | 4.67 | 329.1 | 80.9 | 309.0 | | $^{18}O_2$-PFHxS |
| $^{13}C_2$-6:2 FTS | 5.82 | 429.1 | 80.9 | 409.0 | | $^{18}O_2$-PFHxS |
| $^{13}C_2$-8:2 FTS | 7.28 | 529.1 | 80.9 | 509.0 | | $^{18}O_2$-PFHxS |
| $^{13}C_8$-PFOSA | 8.41 | 506.1 | 77.8 | n.a. | | $^{13}C_4$-PFOS |
| $D_3$-N-MeFOSA | 9.70 | 515.0 | 219.0 | n.a. | | $^{13}C_4$-PFOS |
| $D_5$-N-EtFOSA | 9.94 | 531.1 | 219.0 | n.a. | | $^{13}C_4$-PFOS |
| $D_3$-N-MeFOSAA | 7.51 | 573.2 | 419.0 | n.a. | | $^{13}C_4$-PFOS |
| $D_5$-N-EtFOSAA | 7.65 | 589.2 | 419.0 | n.a. | | $^{13}C_4$-PFOS |
| $D_7$-N-MeFOSE | 9.56 | 623.2 | 58.9 | n.a. | | $^{13}C_4$-PFOS |
| $D_9$-N-EtFOSE | 9.83 | 639.2 | 58.9 | n.a. | | $^{13}C_4$-PFOS |
| $^{13}C_3$-HFPO-DA | 4.97 | 286.9 | 168.9 | 184.9 | | $^{13}C_2$-PFHxA |
| **Recovery standards** | | | | | | |
| $^{13}C_3$-PFBA | 1.95 | 216.0 | 172.0 | n.a. | | External |
| $^{13}C_2$-PFHxA | 4.80 | 315.1 | 270.0 | 119.4 | | External |
| $^{13}C_4$-PFOA | 6.16 | 417.1 | 172.0 | n.a. | | External |
| $^{13}C_5$-PFNA | 6.99 | 468.0 | 423.0 | n.a. | | External |
| $^{13}C_2$-PFDA | 7.47 | 515.1 | 470.1 | n.a. | | External |
| $^{18}O_2$-PFHxS | 6.30 | 403.0 | 83.9 | n.a. | | External |
| $^{13}C_4$-PFOS | 7.59 | 502.8 | 79.9 | 98.9 | | External |

1 Times shown are in decimal minute units.
2 Alternate transition, second m/z, may be used if necessary to avoid interference.
3 Transition ion ratios may vary by instrument, values shown are examples. Ion ratios applicable to qualitative identification are determined from instrumental calibration data.
4 Unit mass resolution of this instrument suggests ± 0.5 amu uncertainty in indicated masses.

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## 5.0 QUALITY ACCEPTANCE CRITERIA

Samples are analyzed in batches consisting of a maximum of twenty samples, one procedural blank and one spiked matrix (OPR) sample. A duplicate is analyzed, provided there is sufficient sample, with batches containing 7-20 samples. Matrix spike/matrix spike duplicate (MS/MSD) pairs may be analyzed on an individual contract basis. The batch is carried through the complete analytical process as a unit. For sample data to be reportable, the batch QC data must meet the established acceptance criteria presented on the analysis reports.

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### QC Specifications for Aqueous and Solid Samples: Blank Levels and OPR Recoveries

| Compound | Procedural Blank Level (ng/sample) | OPR Recovery Range [1] (%) |
|---|---|---|
| PFBA | ≤ 1.6 | 70-130 |
| PFPeA | ≤ 0.8 | 70-130 |
| PFHxA | ≤ 0.4 | 70-130 |
| PFHpA | ≤ 0.4 | 70-130 |
| PFOA | ≤ 0.4 | 70-130 |
| PFNA | ≤ 0.4 | 70-130 |
| PFDA | ≤ 0.4 | 70-130 |
| PFUnA | ≤ 0.4 | 70-130 |
| PFDoA | ≤ 0.4 | 70-130 |
| PFTrDA | ≤ 0.4 | 70-130 |
| PFTeDA | ≤ 0.4 | 70-130 |
| PFBS | ≤ 0.4 | 70-130 |
| PFPeS | ≤ 0.4 | 70-130 |
| PFHxS | ≤ 0.4 | 70-130 |
| PFHpS | ≤ 0.4 | 70-130 |
| PFOS | ≤ 0.4 | 70-130 |
| PFNS | ≤ 0.4 | 70-130 |
| PFDS | ≤ 0.4 | 70-130 |
| PFDoS | ≤ 0.4 | 60-130 |
| 4:2 FTS | ≤ 1.6 | 70-130 |
| 6:2 FTS | ≤ 5 | 70-130 |
| 8:2 FTS | ≤ 1.6 | 70-130 |
| PFOSA | ≤ 0.4 | 70-130 |
| N-MeFOSA | ≤ 0.4 | 70-130 |
| N-EtFOSA | ≤ 0.4 | 70-130 |
| N-MeFOSAA | ≤ 0.4 | 70-130 |
| N-EtFOSAA | ≤ 0.4 | 70-130 |
| N-MeFOSE | ≤ 4 | 70-130 |
| N-EtFOSE | ≤ 4 | 70-130 |
| HFPO-DA | ≤ 1.6 | 70-130 |
| ADONA | ≤ 1.6 | 70-130 |
| 9Cl-PF3ONS | ≤1.6 | 70-130 |
| 11Cl-PF3OUdS | ≤ 1.6 | 70-130 |

[1] Marginal exceedance allowance – results for one compound may fall outside of these limits by a maximum of 10% of the value.

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### QC Specifications for Aqueous and Solid Samples: Surrogate Standard Recoveries, OPR and Samples

| Surrogate Standard | OPR and Sample Recovery range [1] (%) |
|---|---|
| $^{13}C_4$-PFBA | 50-150 |
| $^{13}C_5$-PFPeA | 50-150 |
| $^{13}C_5$-PFHxA | 50-150 |
| $^{13}C_4$-PFHpA | 50-150 |
| $^{13}C_8$-PFOA | 50-150 |
| $^{13}C_9$-PFNA | 50-150 |
| $^{13}C_6$-PFDA | 50-150 |
| $^{13}C_7$-PFUnA | 50-150 |
| $^{13}C_2$-PFDoA | 50-150 |
| $^{13}C_2$-PFTeDA | 50-150 |
| | |
| $^{13}C_3$-PFBS | 50-150 |
| $^{13}C_3$-PFHxS | 50-150 |
| $^{13}C_8$-PFOS | 50-150 |
| | |
| $^{13}C_2$-4:2 FTS | 50-150 |
| $^{13}C_2$-6:2 FTS | 50-150 |
| $^{13}C_2$-8:2 FTS | 50-150 |
| | |
| $^{13}C_8$-PFOSA | 50-150 |
| $D_3$-N-MeFOSA | 30-150 |
| $D_5$-N-EtFOSA | 20-150 |
| | |
| $D_3$-N-MeFOSAA | 50-150 |
| $D_5$-N-EtFOSAA | 50-150 |
| | |
| $D_7$-N-MeFOSE | 30-150 |
| $D_9$-N-EtFOSE | 30-150 |
| | |
| $^{13}C_3$-HFPO-DA | 50-150 |

[1] For applications other than US DoD work, lower surrogate recoveries may be accepted based on application and professional judgment.

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### QC Specification Table: Other Parameters

| QC Parameter | Specification |
|---|---|
| Instrument Sensitivity | Daily, S:N ≥ 10:1 for all analytes for the lowest calibration standard (CAL B).<br>Additional requirement for DoD QSM 5.1.1: Instrument sensitivity checks with analyte concentrations at the LOQ levels (refer to VER-102 "*LOD and LOQ Verification Summary*") shall be performed prior to analysis and then at least once every 12 hours. The found analyte concentrations must be within ±30% of the true values. |
| Initial Calibration (I-CAL) | Run initially, and as required to maintain calibration verification and instrument sensitivity. CAL B is the default lowest calibration standard.<br>(1/x) weighted linear fit, exclude origin.<br>Calculated conc. 75-125 % of actual (lowest cal may be 70-130%). Internal guideline for the coefficient of determination: $R^2 \geq 0.990$.<br>Surrogate recoveries must fall within 50-150%.<br>Initial Calibration Verification: Prior to sample analysis; use a second source standard; quantify against I-Cal, results must meet Cal/Ver accuracy specifications.<br>Peak Asymmetry: 0.8-1.5 for PFBA and PFPeA measured in Cal E (mid cal point) at 10% of the peak height. If this is not achieved, perform instrument maintenance and re-run I-CAL. |
| Calibration Verification (Cal/Ver) | Continuing Calibration Verification:<br>Every 12 hours, quantify against I-CAL.<br>Requirement for DoD QSM 5.1.1: Every 10 client samples or every 12 hours whichever occurs first, and at the end of the analytical sequence; quantify against I-CAL.<br>Calculated conc. 70-130% of actual for a maximum of three compounds with the remainder 80–120 % of actual.<br>Surrogate recoveries must fall within 50-150%.<br>For internal purposes monitor Peak Asymmetry for every Cal Ver |
| Instrumental Carryover and Instrument Background | Every Initial Calibration, Cal/Ver, or OPR: ≤ 0.3 % carryover .<br>Additional requirement for DoD QSM 5.1.1: Instrument blanks shall be run immediately following the highest standard analyzed and daily prior to sample analysis. The concentration of each analyte must be ≤ ½ of the LOQ (refer to VER-102 "*LOD and LOQ Verification Summary*") |
| Duplicate Samples or MS/MSD | If conc. ≥ 5 times R.L., RPD ≤ 40%<br>If conc. < 5 times R.L., guideline RPD ≤ 100%<br>Additional requirements for MS/MSD according to DoD QSM 5.1.1: Recoveries shall be evaluated against in-house LCS limits (if project limits are not specified). RPD ≤30% between MS and MSD. |

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| QC Parameter | Specification |
|---|---|
| Mass Calibration<br>(DoD requirement) | Initially prior to use and then after major maintenance (refer to SIN-033) the entire range shall be mass calibrated.<br>The maximal allowed residual error is ≤ 0.1 Da for each mode with no more than two calibration points missed. |
| MS Acquisition Rate | Minimum acquisition rate for every native analyte and labeled compound peak: At least 10 data points per peak. |

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## Appendix A: Naming Convention and CAS Numbers

### PFAS: Naming Convention and CAS Numbers

| *Abbreviation* | *Name - Anion Form* | *CAS#* |
|---|---|---|
| PFBA | Perfluorobutanoate | 45048-62-2 |
| PFPeA | Perfluoropentanoate | 45167-47-3 |
| PFHxA | Perfluorohexanoate | 92612-52-7 |
| PFHpA | Perfluoroheptanoate | 120885-29-2 |
| PFOA | Perfluorooctanoate | 45285-51-6 |
| PFNA | Perfluorononanoate | 72007-68-2 |
| PFDA | Perfluorodecanoate | 73829-36-4 |
| PFUnA | Perfluoroundecanoate | 196859-54-8 |
| PFDoA | Perfluorododecanoate | 171978-95-3 |
| PFTrDA | A Perfluorotridecanoate | 862374-87-6 |
| PFTeDA | B Perfluorotetradecanoate | 365971-87-5 |
| | | |
| PFBS | Perfluorobutanesulfonate | 45187-15-3 |
| PFPeS | Perfluoropentanesulfonate | 175905-36-9 |
| PFHxS | Perfluorohexanesulfonate | 108427-53-8 |
| PFHpS | Perfluoroheptanesulfonate | 146689-46-5 |
| PFOS | Perfluorooctanesulfonate | 45298-90-6 |
| PFNS | Perfluorononanesulfonate | 474511-07-4 |
| PFDS | Perfluorodecanesulfonate | 126105-34-8 |
| PFDoS | Perfluorododecanesulfonate | 343629-43-6 |
| | | |
| 4:2 FTS | 4:2 fluorotelomersulfonate | 414911-30-1 |
| 6:2 FTS | 6:2 fluorotelomersulfonate | 425670-75-3 |
| 8:2 FTS | 8:2 fluorotelomersulfonate | 481071-78-7 |
| | | |
| N-MeFOSAA | N-Methylperfluorooctanesulfonamidoacetate | n.a. |
| N-EtFOSAA | N-Ethylperfluorooctanesulfonamidoacetate | n.a. |
| | | |
| HFPO-DA | 2,3,3,3-Tetrafluoro-2-(1,1,2,2,3,3,3-heptafluoropropoxy)propanoate | 122499-17-6 |
| ADONA | Dodecafluoro-3H-4,8-dioxanonanoate | 2127366-90-7 |
| | | |
| 9Cl-PF3ONS | 9-chlorohexadecafluoro-3-oxanonane-1-sulfonate | 1621485-21-9 |
| 11Cl-PF3OUdS | 11-chloroeicosafluoro-3-oxaundecane-1-sulfonate | 2196242-82-5 |



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**PFAS: Naming Convention and CAS Numbers**

| *Abbreviation* | *Name - Acid Form* | *CAS#* |
|---|---|---|
| PFBA | Perfluorobutyric acid | 375-22-4 |
| PFPeA | Perfluoropentanoic acid | 2706-90-3 |
| PFHxA | Perfluorohexanoic acid | 307-24-4 |
| PFHpA | Perfluoroheptanoic acid | 375-85-9 |
| PFOA | Perfluorooctanoic acid | 335-67-1 |
| PFNA | Perfluorononanoic acid | 375-95-1 |
| PFDA | Perfluorodecanoic acid | 335-76-2 |
| PFUnA | Perfluoroundecanoic acid | 2058-94-8 |
| PFDoA | Perfluorododecanoic acid | 307-55-1 |
| PFTrDA | Perfluorotridecanoic acid | 72629-94-8 |
| PFTeDA | Perfluorotetradecanoic acid | 376-06-7 |
| | | |
| PFBS | Perfluorobutanesulfonic acid | 375-73-5 |
| PFPeS | Perfluoropentanesulfonic acid | 2706-91-4 |
| PFHxS | Perfluorohexanesulfonic acid | 355-46-4 |
| PFHpS | Perfluoroheptanesulfonic acid | 375-92-8 |
| PFOS | Perfluorooctanesulfonic acid | 1763-23-1 |
| PFNS | Perfluorononanesulfonic acid | 68259-12-1 |
| PFDS | Perfluorodecanesulfonic acid | 335-77-3 |
| PFDoS | Perfluorododecanesulfonic acid | 79780-39-5 |
| | | |
| 4:2 FTS | 4:2 fluorotelomersulfonic acid | 757124-72-4 |
| 6:2 FTS | 6:2 fluorotelomersulfonic acid | 27619-97-2 |
| 8:2 FTS | 8:2 fluorotelomersulfonic acid | 39108-34-4 |
| | | |
| N-MeFOSAA | N-Methylperfluorooctanesulfonamidoacetic acid | 2355-31-9 |
| N-EtFOSAA | N-Ethylperfluorooctanesulfonamidoacetic acid | 2991-50-6 |
| | | |
| HFPO-DA | 2,3,3,3-Tetrafluoro-2-(1,1,2,2,3,3,3-heptafluoropropoxy)propanoic acid | 13252-13-6 |
| ADONA | Dodecafluoro-3H-4,8-dioxanonanoic acid | 919005-14-4 |
| | | |
| 9Cl-PF3ONS | 9-chlorohexadecafluoro-3-oxanonane-1-sulfonic acid | 756426-58-1 |
| 11Cl-PF3OUdS | 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid | 763051-92-9 |

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## SGS AXYS Analytical Services Ltd.

**PFAS: Naming Convention and CAS Numbers**

| ***Abbreviation*** | ***Name - Sulfonamide*** | ***CAS#*** |
|---|---|---|
| PFOSA | Perfluorooctanesulfonamide | 754-91-6 |
| N-MeFOSA | N-Methylperfluorooctanesulfonamide | 31506-32-8 |
| N-EtFOSA | N-Ethylperfluorooctanesulfonamide | 4151-50-2 |

| ***Abbreviation*** | ***Name - Sulfonamidoethanol*** | ***CAS#*** |
|---|---|---|
| N-MeFOSE | N-Methylperfluorooctanesulfonamidoethanol | 24448-09-7 |
| N-EtFOSE | N-Ethylperfluorooctanesulfonamidoethanol | 1691-99-2 |

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## Appendix B: Branched/Linear Speciation of PFOA, PFNA and PFOS

This appendix describes the analysis of PFOS, PFOA, and PFNA in aqueous, solid and biosolid samples and solvent extracts, determined as homolog groups of isomers determined by the extent of branching. Analytes in this section are separated and reported as linear, monomethyl-substituted, dimethyl-substituted and trimethyl-substituted. Extraction, cleanup and instrumental analysis procedures and QC acceptance criteria are unchanged from the default method procedures.

| |
|---|
| Perfluorooctanoate (PFOA)-linear |
| PFOA-dimethyl |
| Perfluorononanoate (PFNA)-linear |
| PFNA-monomethyl |
| PFNA-dimethyl |
| PFNA-trimethyl |
| Perfluorooctanesulfonate (PFOS)-linear [1] |
| PFOS-monomethyl [1] |
| PFOS-dimethyl |

[1] 1-Methyl PFOS, a minor contributor to branched PFOS, coelutes with linear PFOS and is included in the linear PFOS concentration measurement. Note that response for 1-methyl PFOS in the 499 → 80 transition is very low and any inference of a large 1-methyl PFOS presence in a sample can only be made by comparing concentration ratios between the 499 → 80 and 499 → 99 transitions.

The typical reporting limits for the branched isomers are identical to those of the corresponding linear isomers.

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## Appendix C: Sample Storage Conditions

### Sample Storage Requirements

| Matrix | Sample Size (per analysis) | Sample Container [1] | Sample Condition Upon Receipt | Storage Condition [2] | Sample Hold Time [3] | Extract Hold Time [4] | Preservation |
|---|---|---|---|---|---|---|---|
| Aqueous | Up to 1000 mL, but typically 500 mL or less (max. 50 mg solids) | High density polyethylene (HDPE) | 0-4°C, dark | ≤ -20°C, dark | 90 days | 30 days | None Required |
| Solvent extracts | Typically 0.75 mL | High density polyethylene (HDPE) | 0-4°C, dark | 0-4°C, dark | 60 days | 30 days | None Required |
| Solid | Maximum 10 g wet or 5 g dry | High density polyethylene (HDPE) | 0-4°C, dark | ≤ -20°C, dark | 1 Year | 30 days | None required |
| Biosolid | Maximum 5 g wet or 0.5 g dry | High density polyethylene (HDPE) | 0-4°C, dark | ≤ -20°C, dark | 1 Year | 30 days | None required |

[1] HDPE containers are preferred; amber glass containers are also acceptable. All containers should be organically clean; i.e. solvent-rinsed or purchased 'certified' clean. All containers should be tightly sealed with screw cap lids.

[2] Storage temperatures quoted are nominal temperatures.

[3] Hold times are from time of sampling. Client negotiated requests for specific holding times or other method-specific holding times are adhered to. This 90 day holding time on freezing is based on SGS Axys' storage stability studies. For aqueous samples under DoD accreditation, the sample hold time is ≤14 days.

[4] Hold times for sample extracts are from time of extraction with storage at 4°C. This 30-day holding time is a guideline, longer hold times may be accepted based on professional judgement. For samples under DoD accreditation the extract hold time is ≤28 days with storage at room temperature.

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### Stability of PFAS in Aqueous Samples

SGS AXYS has completed an extended-time storage study for the 29 PFAS listed in the table below. The study was conducted in reagent water, surface water and two wastewater treatment plant (WWTP) effluents. PFAS concentrations were measured at 0, 7, 14, 30, 90, and 180-day timepoints with data analysis of a 180-day timepoint in progress. Data analysis up to the 90-day timepoint shows that precursors present in samples containing matrix and biological activity can transform under room temperature and cold storage conditions within 7 days. At this time, only freezing of aqueous samples was demonstrated to stabilize the analytes over a period of up to 90 days. We are recommending freezing non-potable aqueous samples as soon as practicable if not analyzed within 3-4 days.

### Summary of Analyte Stability in Aqueous Samples by Storage Condition

| | Stability (days) | | Remarks |
|---|---|---|---|
| **Analyte** | **4°C** | **-20°C** | |
| $C_4$-$C_{14}$ Perfluorinated carboxylates including PFOA | 90 | 90 | |
| $C_4$-$C_{10}$ perfluorinated sulfonates including PFOS | 90 | 90 | |
| PFDoS | 90 | 90 | |
| 4:2 FTS | 90 | 90 | |
| 6:2 FTS | 90 | 90 | |
| 8:2 FTS | 14 | 90 | Decreasing trend seen from day 7 at 4°C |
| PFOSA | 14 | 90 | Increasing trend seen day 14 onwards at 4°C |
| N-MeFOSA | 7 | 90 | Decreasing trend seen at first stability point 4°C |
| N-EtFOSA | 7 | 90 | Decreasing trend seen at first stability point 4°C |
| N-MeFOSAA | <7 | 90 | Increase from transformation of MeFOSE |
| N-EtFOSAA | 7 | 90 | Increase from transformation of EtFOSE |
| N-MeFOSE | <7 | 90 | Loss seen at first stability point 4°C |
| N-EtFOSE | <7 | 90 | Loss seen at first stability point 4°C |

# Bias and Precision at the LOQ for PFAS in Water Samples by MLA-110

**4-Apr-2018**

**SGS AXYS Method:** MLA-110 rev. 01 ver. 06
**Extraction Type:** SPE
**Instrument Type:** UPLC-MS/MS
**Matrix Spiked:** WATER
**Work Group:** WG63020, WG63022, WG63150
**GC Column Type:** C18MS

| | **LOQ** (ng/L) (in 0.5 L sample) | **Accuracy** (% bias) | **Precision** (% RSD) |
|---|---|---|---|
| PFBA | 6.6 | 4 | 3 |
| PFPEA | 3.3 | 1 | 6 |
| PFHXA | 1.6 | 22 | 15 |
| PFHPA | 1.6 | 5 | 11 |
| PFOA | 1.6 | 8 | 8 |
| PFNA | 1.6 | 2 | 4 |
| PFDA | 1.6 | 2 | 7 |
| PFUNA | 1.6 | -2 | 6 |
| PFDOA | 1.6 | 2 | 4 |
| PFTRDA | 1.6 | 18 | 10 |
| PFTEDA | 1.6 | 0 | 9 |
| PFBS | 1.6 | -4 | 8 |
| PFPES | 1.5 | 0 | 5 |
| PFHXS | 1.6 | -5 | 10 |
| PFHPS | 1.5 | 2 | 8 |
| PFOS | 1.6 | -10 | 7 |
| PFNS | 1.5 | 1 | 12 |
| PFDS | 1.6 | -17 | 20 |
| 4:2 FTS | 6.4 | 3 | 9 |
| 6:2 FTS | 6.4 | 20 | 19 |
| 8:2 FTS | 6.4 | 24 | 14 |
| PFOSA | 1.6 | 8 | 7 |
| MEFOSAA | 1.6 | 2 | 12 |
| ETFOSAA | 1.6 | -3 | 15 |

PFAS = Per- and Polyfluoroalkyl Substances
LOQ = Limit of quantification
RSD = Relative standard deviation

# SGS NORTH AMERICA - ACCUTEST

## CORRELATION TABLE

## PERFLUORINATED ORGANIC and FTS ANALYSIS

| | |
|---|---|
| **Lab Name: SGS AXYS Analytical Services Ltd.** | **Project Manager: Ivona Zysk** |
| **Project: N/A** | **Contract No: 4951** |
| **Project Name: Racer Lansing Plant - 2** | **SGS AXYS Method: MLA-110** |
| **Data Package Identification: DPWG67854** | **Program: Aqueous & Oil Samples** |

| **Client Sample No.** | **Lab Sample ID** |
|---|---|
| | |
| LAB BLANK | WG67438-101 |
| LAB BLANK | WG67438-102 |
| OPR | WG67438-103 |
| OPR | WG67438-104 |
| | |
| EB-01-020419 | L30820-1 |
| EB-02-020419 | L30820-2 |
| PMW-01-020419 | L30821-1 WG67438-105 DUPLICATE |
| LMW-15-160-020419 | L30821-2 |
| LMW-14-120-020519 | L30821-4 |
| LMW-14-150-020519 | L30821-5 |
| LMW-12-08-020519 | L30821-6 |
| | |
| LAB BLANK | WG67663-101 |
| OPR | WG67663-102 |
| | |
| PZ-SB-37-020419 | L30821-3 |
| LMW-12-03-020519 | L30821-7 |
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www.axysanalytical.com

SGS AXYS

# CHAIN OF CUSTODY

2045 Mills Road West TEL: (250) 655-5800 TOLL FREE 1-888-373-0881
Sidney, British Columbia, Canada V8L 5X2 FAX: (250) 655-5811

SGS AXYS CLIENT #: 4951

**REPORT TO:**
Company: ARCADIS
Address: 28550 CABOT DR. SUITE 500 NOVI, MI 48377
Contact: ALEX VILLMANN
Phone: 248-994-2240
FAX: 248-994-2241
E-mail: ALEX.VILLMANN@ARCADIS.COM

**INVOICE TO:**
Company: ARCADIS
Address:
Contact:
Phone:
FAX:
E-mail:

Project Name/Number: RACER LANSING PLANT-2

Sampler's Name: BILLY J COBERN
Signature:

| Client Sample Identification | Matrix | Sampling Date | Sampling Time | Container Type/No. | SGS AXYS Lab Sample ID (Lab use only) | ANALYSIS REQUESTED: PFAS (MLA-110) |
|---|---|---|---|---|---|---|
| EB-01_020419 | AQ | 2/4/19 | 11:05 | 12 poly | L30820-1 | X |
| PMW-01_020419 | OIL | 2/4/19 | 11:35 | 12 Amber | L30821-1 | X |
| LMW-15-100_020419 | OIL | 2/4/19 | 15:05 | 12 Amber | -2 | X |
| PZ-SB-37_020419 | OIL | 2/4/19 | 15:30 | 12 amber | -3 | X |
| LMW-14-120_020519 | OIL | 2/5/19 | 9:30 | 12 Amber | -4 | X |
| LMW-14-150_020519 | OIL | 2/5/19 | 11:05 | 12 Amber | -5 | X |
| LMW-12-08_020519 | OIL | 2/5/19 | 12:30 | 12 Amber | -6 | X |
| LMW-12-03_020519 | OIL | 2/5/19 | 14:50 | 12 Amber | -7 | X |
| EB-02_020419 | AQ | 2/5/19 | 15:35 | 12 poly | L30820-2 | X |
| | | | | | | |
| | | | | | | |

Relinquished by (Signature) Date 2-8-19 Time 17:00 AV
Received by (Signature) Date 2/9/19 Time 17:00

Relinquished by (Signature) Date 2/14/19 Time 17:30
Received by (Signature) Date 2/14/19 Time 17:30 Fed Ex

Courier:
Waybill No.:

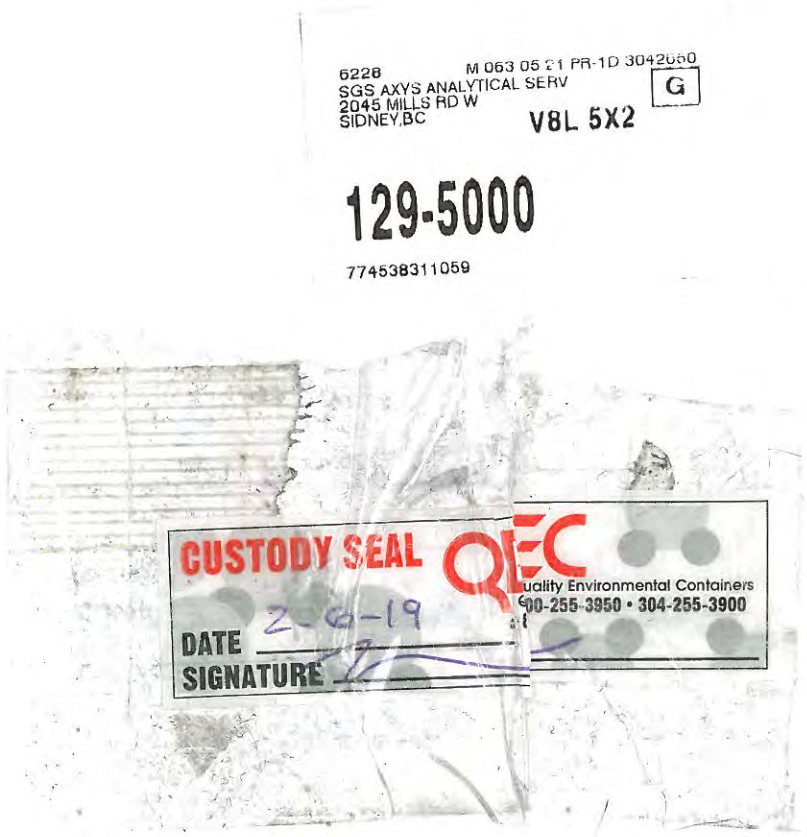
Remarks:

Sample Receipt

| | Cooler |
|---|---|
| Temp °C | |
| Custody Seal # | |
| Seal Intact Y / N | |
| Sample Tags Y / N | |

Received by: [illegible] 14: SGS AXYS
04-MAR-2019

4951




14:30
04-mar-2019
Shipped ambient
11.0°c 5644
Received by:

4951

6228 M 063 05.19 PR-1D 3042650
SGS AXYS ANALYTICAL SERV
2045 MILLS RD W
SIDNEY,BC V8L 5X2
G

**129-5000**

774538310968

04-mar-2019 14.0°C
5643 Shipped ambient
Received by: Ale

# SGS AXYS Analytical Services Ltd
## SAMPLE RECEIVING RECORD

Waybill : Yes /No
Waybill #: 774538310968
Date Shipped: 22-FEB-19
Date /Time Received: 04-MAR-19 14:30

**SGS AXYS Client & Contract #** 4951-SGS North America

Project Number:
Receipt No: WB25217
Login Number:

Received By: AVOSKNUDSEN
Log in by: AvaVosknudsen Signature: AVK

Axys Sample ID's: L30821-1 to -4

Matrix Type: aq/oil

Condition of Shipping Container: Intact.

Temperature upon Receipt: 14 Celcius shipped ambient
Thermometer ID: 5643
Corrected Temperature: 14.6 Celcius

Custody Seals: Shipping Containers Yes /No Intact Yes /No Seal Numbers Yes /No
Samples Yes /No Intact Yes /No Seal Numbers Yes /No

| | | | |
|---|---|---|---|
| Chain of Custody or Documents: | Yes /No | Tracking Report /Packing List: | Yes /No |
| Sample ID's | Yes /No | Sample Tag Numbers | Yes /No |
| Collection Location | Yes /No | Sample Type | Yes /No |
| Date & Time Collection | Yes /No | Preservative Added | Yes /No |
| Collector's Name | Yes /No | Preservation Requested | Yes /No |

| | | | |
|---|---|---|---|
| Sample Tags | Yes /No | | |
| Sample Labels | Yes /No | | |
| Sample Labels Cross Referenced to COC | Yes /No | Information Agrees | Yes /No |
| Sample Tags Cross Referenced to Sample Labels | Yes /No | Information Agrees | Yes /No |
| Sample Tags Cross Referenced to COC | Yes /No | Information Agrees | Yes /No |

Comments: Samples were Shipped ambient and arrived above Temperature.

Action Taken:

FSA-015 Rev09, 22-Jan-2013

# SGS AXYS Analytical Services Ltd
## SAMPLE RECEIVING RECORD

Waybill : (Yes)/No
Waybill #: 774538311059
Date Shipped: 22-FEB-19
Date /Time Received: 04-MAR-19 14:30

**SGS AXYS Client & Contract #** 4951-SGS North America

Project Number:
Receipt No: WB25216

Login Number:

Received By: AVOSKNUDSEN
Log in by: Ava Vosknudsen
Signature:

Axys Sample ID's: L30820-1,-2, L30821-5 to -7

Matrix Type: oil/aq

Condition of Shipping Container: Intact.

Temperature upon Receipt: 11 Celcius shipped ambient

Thermometer ID: 5644
Corrected Temperature: 10.7 Celcius

Custody Seals: Shipping Containers (Yes)/No Intact (Yes)/No Seal Numbers Yes /(No)
Samples Yes /(No) Intact Yes /No Seal Numbers Yes /No

| | | | |
|---|---|---|---|
| Chain of Custody or Documents: | (Yes) /No | Tracking Report /Packing List: | Yes /(No) |
| Sample ID's | (Yes) /No | Sample Tag Numbers | Yes /(No) |
| Collection Location | Yes /(No) | Sample Type | (Yes) /No |
| Date & Time Collection | (Yes) /No | Preservative Added | Yes /(No) |
| Collector's Name | (Yes) /No | Preservation Requested | Yes /(No) |

| | | | |
|---|---|---|---|
| Sample Tags | Yes /(No) | | |
| Sample Labels | (Yes) /No | | |
| Sample Labels Cross Referenced to COC | (Yes) /No | Information Agrees | (Yes) /No |
| Sample Tags Cross Referenced to Sample Labels | Yes /No | Information Agrees | Yes /No |
| Sample Tags Cross Referenced to COC | Yes /No | Information Agrees | Yes /No |

Comments: Samples were Shipped ambient and arrived above Temperature.

Action Taken:

## SGS AXYS Analytical Services Ltd.

### Login Chain of Custody Report (ln01)

*Mar. 06, 2019*
*02:02 PM*

12
06-Mar-19

**Login Number:** L30820
**Account:** 4951 SGS North America
**Project:** RACER



| Axys ID versus Client Sample Identification | | Received | Due | PR |
|---|---|---|---|---|
| **L30820-1** | | 04-MAR-19 | | |
| | Storage: WIF-4 7B | | | |
| EB-01-020419<br>04-FEB-19 11:05 | Project #: RACER | | | |
| EDataDeliv | FC110 EDD | | : | USD |
| Data Package | FC110 DPKG | | : | USD |
| Aqueous | FC110 | | : | USD |
| ANY | SAMPLE RECEIPT | 1 | : 1 L plastic | USD |
| **L30820-2** | | 04-MAR-19 | | |
| | Storage: WIF-4 7B | | | |
| EB-02-020419<br>05-FEB-19 15:35 | Project #: RACER | | | |
| EDataDeliv | FC110 EDD | | : | USD |
| Data Package | FC110 DPKG | | : | USD |
| Aqueous | FC110 | | : | USD |
| ANY | SAMPLE RECEIPT | 1 | : 1 L plastic | USD |

**SGS AXYS Analytical Services Ltd.**

**Login Chain of Custody Report (In01)**

*Mar. 06, 2019*
*02:02 PM*

**Login Number:** L30821
**Account:** 4951 SGS North America
**Project:** RACER



| Axys ID versus Client Sample Identification | | Received | Due | PR |
|---|---|---|---|---|
| **L30821-1** | | 04-MAR-19 | | |
| | Storage: WIC-2 6C IN A BIN | | | |
| PMW-01-020419<br>04-FEB-19 11:35 | Project #: RACER | | | |
| Oil | FC110 | | : | USD |
| EDataDeliv | FC110 EDD | | : | USD |
| Data Package | FC110 DPKG | | : | USD |
| ANY | SAMPLE RECEIPT | 2 | : 1 L glass AMB | USD |
| **L30821-2** | | 04-MAR-19 | | |
| | Storage: WIC-2 6C IN A BIN | | | |
| LMW-15-160-020419<br>04-FEB-19 15:05 | Project #: RACER | | | |
| Oil | FC110 | | : | USD |
| EDataDeliv | FC110 EDD | | : | USD |
| Data Package | FC110 DPKG | | : | USD |
| ANY | SAMPLE RECEIPT | 2 | : 1 L glass AMB | USD |
| **L30821-3** | | 04-MAR-19 | | |
| | Storage: WIC-2 6C IN A BIN | | | |
| PZ-SB-37-020419<br>04-FEB-19 15:30 | Project #: RACER | | | |
| Oil | FC110 | | : | USD |
| EDataDeliv | FC110 EDD | | : | USD |
| Data Package | FC110 DPKG | | : | USD |
| ANY | SAMPLE RECEIPT | 2 | : 1 L glass AMB | USD |
| **L30821-4** | | 04-MAR-19 | | |
| | Storage: WIC-2 6C IN A BIN | | | |
| LMW-14-120-020519<br>05-FEB-19 09:30 | Project #: RACER | | | |
| Oil | FC110 | | : | USD |
| EDataDeliv | FC110 EDD | | : | USD |
| Data Package | FC110 DPKG | | : | USD |
| ANY | SAMPLE RECEIPT | 2 | : 1 L glass AMB | USD |

**SGS AXYS Analytical Services Ltd.**

**Login Chain of Custody Report (In01)**

*Mar. 06, 2019*
*02:02 PM*

**Login Number:** L30821
**Account:** 4951 SGS North America
**Project:** RACER



| Axys ID versus Client Sample Identification | | Received | Due | PR |
|---|---|---|---|---|
| **L30821-5** | | 04-MAR-19 | | |
| | Storage: WIC-2 6C IN A BIN | | | |
| LMW-14-150-020519<br>05-FEB-19 11:05 | Project #: RACER | | | |
| Oil | FC110 | | : | USD |
| EDataDeliv | FC110 EDD | | : | USD |
| Data Package | FC110 DPKG | | : | USD |
| ANY | SAMPLE RECEIPT | 2 | : 1 L glass AMB | USD |
| **L30821-6** | | 04-MAR-19 | | |
| | Storage: WIC-2 6C IN A BIN | | | |
| LMW-12-08-020519<br>05-FEB-19 12:30 | Project #: RACER | | | |
| Oil | FC110 | | : | USD |
| EDataDeliv | FC110 EDD | | : | USD |
| Data Package | FC110 DPKG | | : | USD |
| ANY | SAMPLE RECEIPT | 2 | : 1 L glass AMB | USD |
| **L30821-7** | | 04-MAR-19 | | |
| | Storage: WIC-2 6C IN A BIN | | | |
| LMW-12-03-020519<br>05-FEB-19 14:50 | Project #: RACER | | | |
| Oil | FC110 | | : | USD |
| EDataDeliv | FC110 EDD | | : | USD |
| Data Package | FC110 DPKG | | : | USD |
| ANY | SAMPLE RECEIPT | 2 | : 1 L glass AMB | USD |

4951

WB25216

L30820-1,-2

L30821-5to-7

WB25217

L30821-1to-4

processed by: AVK

05-mar-2019

BATCH LIST PART ONE

SGS AXYS Analytical Services Ltd.

Samples, Batch Surrogate, Recovery Spiking details

# BATCH ID: WG67438

| | |
|---|---|
| Method ID: MLA-110 R01.08 | |
| Method ID: | |
| Method ID: | |
| Start Date: | 27-Mar-2019 |
| WIP Date/Chemist: | 27Mar2019 FS |
| Batch List Author: | PTHALER |
| Checked By: | MP |
| Project Manager: | Ivona Z |
| Glassware Type: | Regular |
| Glassware Treatment: | Regular |
| Rotovap Type: | N/A |

| | |
|---|---|
| Matrix: | Aqueous, Oil |
| Sample size: | see comments |
| Moistures required? | NO |
| Lipids required? | NO |
| Extraction Solvent: | |
| Biohazard Type: | None |

**Comments:**

1. Dilute 100 mL LNAPL samples (L30821) with 100 mL reagent grade hexane. 7 samples + 1 dup
2. Create 2x custom QC: LNAPL method blank and LNAPL spiked matrix (see below)
3. Spike L30821 samples with surrogates at standard MLA-110 spiking levels based on 500 ml sample size.
4. Using a separatory funnel, perform 3 sequential alkaline water washes (200 ml, 200 ml, 100 ml) with Canadian Springs water adjusted to pH 10 with concentrated ammonia, decanting water after each wash, to create a 500 mL nominal aqueous sample.
5. The extract (500mL of alkaline water) will be adjusted with dilute ~~HCl~~ Formic Acid to pH=6.5±0.5 and analyzed using MLA-110
6. Create standard MLA-110 QC samples (blank and SPM)
7. Spike surrogate into L20820 (equipment blanks)
8. Proceed as per MLA-110 with the 14 sample (including QC) batch

28Mar2019 FS

**Custom QC:** use 100mL of hexane as sample. They will be spiked as per below and treated the same as L30821 (L-L extracted and pH adjustments). See spiking below:
LNAPL Method Blank: Spike ONLY surrogates at standard MLA-110 levels based on 500mL sample size
LNAPL SPM: Spike BOTH surrogates and natives at standard MLA-110 levels based on 500mL sample size
**Standard QC:**
Blank and SPM as per MLA-110 (500mL PFAS free water- routine spiking)

Calibration: | FC027(A-H)-CAL/01

| Contract # | Sample | Wt | Contract # | Sample | Wt |
|---|---|---|---|---|---|
| 4951 | L30820-1 | 500mL | | | |
| 4951 | L30820-2 | 500mL | | | |
| 4951 | L30821-1 | | | | |
| 4951 | L30821-2 | | | | |
| ~~4951~~ | ~~L30821-3~~ | moved | to another batch, 28Mar2019 FS | | |
| 4951 | L30821-4 | | | | |
| 4951 | L30821-5 | | | | |
| 4951 | L30821-6 | | | | |
| ~~4951~~ | ~~L30821-7~~ | moved | to another batch, 28Mar2019 FS | | |

IMPORTANT

- Please use appropriate precautions as for hexane
- These samples are very volatile please minimize the time you take to measure these sample sizes!

Emulsions
- During extraction emulsions are expected and if they form allow time for them to break up. If they take too long to breakup, decant the water layer leaving behind the emulsion for successive extractions. During the final extraction sonication may be used to break up the emulsion.

Spiking:

| Product | Samples required: | Before Extraction: Surrogate | After Extraction: Cleanup Surrogate | Recovery | F.V. | U-vial | Instructions and Comments: |
|---|---|---|---|---|---|---|---|
| Q:FC110 | L30820-1, 2, L30821-1, 2, 3, 4, 5, 6, 7, WG67438-101, 102, 103, 104, 105, 106 | 50uL FC052A-SUR/01 #8 (5648) Yfa | N/A | 200uL FC027A-REC/01 (22Apr) FS #29.19 | 4000 uL | PPROP SNAP W/ PVCD | In Basic Methanol |

BATCH ID: WG67438

| QC Samples | Type and Weight | Analysis QC required for: | Authentic spiking: | Comments: |
|---|---|---|---|---|
| WG67438-101 BLANK | 500ML CANADIAN SPRINGS WATER | FC110 | | |
| WG67438-102 BLANK | 100ML OF HEXANE | O:FC110 | | |
| WG67438-103 SPM | 500ML CANADIAN SPRINGS WATER | FC110 | 50uL FC083A-AUT/ (3206) #6 yfa | |
| WG67438-104 SPM | 100ML OF HEXANE | O:FC110 | 50uL FC083A-AUT/ | |
| WG67438-105 DUP | CHOOSE LARGEST SAMPLE from L30821 AND UPDATE LIMS | O:FC110 | | |

| QC Samples | Type and Weight | Analysis QC required for: | Authentic spiking: | Comments: |
|---|---|---|---|---|
| WG67438-106 SAR | SAR | FC110 | 50uL FC083A-AUT/ | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

**SGS AXYS Analytical Services Ltd**

**Sample Labeling Information:** Batch ID: WG67438 Date: 27Mar2019 Chemist: FS Contract #: 4951

| Bottle/Jar Type | |
|---|---|
| ☒ Glass | ☒ * Plastic |

Method: MLA-110 R01.08

| Sample ID | Sample Type and Description | Original Labelling | LIMS label correct as per client |
|---|---|---|---|
| L30820-1 * | Colorless Water | EB-01-020419 | N/A |
| L30820-2 * | Colorless Water | EB-02-020419 | ☐ |
| L30821-1 | Brown thick liquid | PMW-01-020419 | ☐ |
| L30821-2 | Black Brown thick liquid | LMW-15-160-020419 | ☐ |
| ~~L30821-3~~ | top Black Brown thick liquid<br>bottom clear liquid | PZ-SB-37-020419 28Mar2019 FS | ☐ |
| L30821-4 | Black Brown thick liquid | LMW-14-120-020519 | ☐ |
| L30821-5 | Brown thick liquid | LMW-14-150-020519 | ☐ |
| L30821-6 | Black thick liquid | LMW-12-08-020519 | ☐ |
| ~~L30821-7~~ | top Black Brown liquid<br>bottom Colorless liquid | LMW-12-03-020519 28Mar2019 FS | ☑ |
| | | | ☐ |
| | | | ☐ |
| | | | ☐ |
| | | | ☐ |
| | | | ☐ |
| | | | ☐ |
| | | | ☐ |

**SGS AXYS Analytical Services Ltd**

**Sample Labeling Information:** Batch ID: WG67438 Date: 27Mar2019 Chemist: FS Contract #: NONE

| Bottle/Jar Type | |
|---|---|
| ☒* Glass | ☒ Plastic |

Method: MLA-110 R01.08

| Sample ID | Sample Type and Description | Original Labelling | LIMS label correct as per client |
|---|---|---|---|
| WG67438-101 (BLANK) | Clear Colorless Water<br>Procedural Blank | Canadian Springs Water 594-03LC | NO ☑ |
| WG67438-102 (BLANK) * | Clear Colorless liquid<br>Method Blank | Hexane #103980 | ☐ |
| WG67438-103 (SPM) | Clear Colorless Water<br>Spiked Matrix | Canadian Springs Water 594-03LC | ☐ |
| WG67438-104 (SPM) * | Clear Colorless liquid<br>Spiked Matrix | Hexane #103980 | ☐ |
| WG67438-106 (SAR) | SAR | SAR | ☐ |
| | | | ☐ |
| | | | ☐ |
| | | | ☐ |
| | | | ☐ |
| | | | ☐ |
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| | | | ☐ |
| | | | ☐ |

**SGS AXYS Analytical Services Ltd**

**Sample Labeling Information:** Batch ID: WG67438 Date: 27Mar2019 Chemist: FS Contract #: 4951

| Bottle/Jar Type | |
|---|---|
| ☒ Glass | ☐ Plastic |

Method: MLA-110 R01.08

| Sample ID | Sample Type and Description | Original Labelling | LIMS label correct as per client |
|---|---|---|---|
| WG67438-105 (DUP) | Brown thick liquid<br>Dup of L30821-1 | PMW-01-020419 | N/A |
| | | | ☐ |
| | | | ☐ |
| | | | ☐ |
| | | | ☐ |
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| | | | ☐ |

**SGS AXYS Analytical Services Ltd**

**Sample Wt #2 :** Batch ID: WG67438 Chemist FS Date: 27Mar2019 Balance #: 3541 Vol.

Method: MLA-110 R01.08

Solids Stored (Y/N): ___ Chemist: ___

Date: _____ (See Notes for IDs)

| Sample ID | Sample wt (g) (Compositing SLA-084 ____) | | | | | | Subsample required (SLA-084 (g) _____) | | | | Sample Wt. (g) mL 27Mar2019 FS | Filtered Y/N Date: Chemist: | Sol & Ag extracts combined Y/N Date: Chemist: |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Container _____ + Sample | Container _____ + Sample | Container _____ | Container _____ | Sample wt ___ | Sample wt ___ | Container + sample | Container | Total sample | Remaining sample | | | |
| L30820-1 | | | | | | | | | | | 494.19 | | |
| L30820-2 | | | | | | | | | | | 501.73 | | |
| L30821-1 | | | | | | | | | | | 100mL | | |
| L30821-2 | | | | | | | | | | | 100mL | | |
| L30821-3 | | | | | | | | | | 02Apr2019 FS | ~~100mL~~ 100mL | | |
| L30821-4 | | | | | | | | | | | 100mL | | |
| L30821-5 | | | | | | | | | | | 100mL | | |
| L30821-6 | | | | | | | | | | | 100mL | | |
| L30821-7 | | | | | | | | | | 02Apr2019 FS | ~~100mL~~ 500.46 | | |
| WG67438-101 (BLANK) | | | | | | | | | | | 100mL | | |
| WG67438-102 (BLANK) | | | | | | | | | | | 499.17 | | |
| WG67438-103 (SPM) | | | | | | | | | | | 100mL | | |
| WG67438-104 (SPM) | | | | | | | | | | | N/A | | |
| WG67438-105 (DUP) | | | | | | | | | | | | | |
| WG67438-106 (SAR) | | | | | | | | | | | | | |

28 Mar2019 FS

AXYS Analytical Services Ltd

**Spiking Sheet**: Batch ID: WG67438 Method: MLA-110 R01.08 Witness name/ initials: Emmaliberge

| Sample ID | Before extraction<br>Surr. ID: FC052A-SURR01<br>Date: 27March2019 / 28March2019 ★<br>Vol.: 50 µL<br>Syringe#: 5648<br>Ampoule: 8<br>Chemist: FS | | Before extraction<br>Surr. ID:<br>Date:<br>Vol.: µL<br>Syringe#:<br>Ampoule:<br>Chemist: | | Cleanup Std.<br>Surr. ID:<br>Date:<br>Vol.: µL<br>Syringe#:<br>Ampoule:<br>Start time:<br>Finish time: | Cleanup Std.<br>Surr. ID:<br>Date:<br>Vol.: µL<br>Syringe#:<br>Ampoule:<br>Start time:<br>Finish time: | Recovery<br>ID: FC027A-REC01<br>Date: 29 Mar 2019<br>Vol.: 200 µL<br>F.V.: 5000 µL<br>Syringe#: 3244<br>Ampoule: 20,19<br>Start time: 13:47<br>Finish time: 13:53 | Recovery<br>ID:<br>Date:<br>Vol.: µL<br>F.V.: µL<br>Syringe#:<br>Ampoule:<br>Start time:<br>Finish time: |
|---|---|---|---|---|---|---|---|---|
| | Time | Witness | Time | Witness | Chemist: | Chemist: | Chemist: KCE | Chemist: |
| L30820-1 | 11:31 ★ | EL | | | ☐ | ☐ | ★ ☑ | ☐ |
| L30820-2 | 11:31 ★ | EL | | | ☐ | ☐ | ★ ☑ | ☐ |
| L30821-1 | 12:15 | EL | | | ☐ | ☐ | ★ ☑ | ☐ |
| L30821-2 | 12:15 | EL | | | ☐ | ☐ | ★ ☑ | ☐ |
| L30821-3 | N/A | N/A | | | ☐ | ☐ | N/A | ☐ |
| L30821-4 | 12:15 | EL | | | 29 Mar 2019 KCE ☐ | ☐ | ★ ☑ | 29 Mar 2019 KCE ☐ |
| L30821-5 | 12:15 | EL | | | ☐ | ☐ | ☑ | ☐ |
| L30821-6 | 12:15 | EL | | | ☐ | ☐ | ☑ | ☐ |
| L30821-7 | N/A | N/A | | | ☐ | ☐ | N/A | ☐ |
| WG67438-101 (BLANK) | 11:31 ★ | EL | | | ☐ | ☐ | ☑ | ☐ |
| WG67438-102 (BLANK) | 12:15 | EL | | | ☐ | ☐ | ☑ | ☐ |
| WG67438-103 (SPM) | 11:31 ★ | EL | | | ☐ | ☐ | ☑ | ☐ |
| WG67438-104 (SPM) | 12:15 | EL | | | ☐ | ☐ | ☑ | ☐ |
| WG67438-105 (DUP) | 12:15 | EL | | | ☐ | ☐ | ☑ | ☐ |
| WG67438-106 (SAR) | 11:31 ★ | EL | | | ☐ | ☐ | ☑ | ☐ |
| | | | | | ☐ | ☐ | ☐ | ☐ |
| | | | | | 29 Mar 2019 KCE ☐ | ☐ | ☐ | ☐ |
| | | | | | ☐ | ☐ | ☐ | ☐ |
| | | | | | ☐ | ☐ | ☐ | ☐ |
| | | | | | ☐ | ☐ | ☐ | ☐ |

| Sample ID | Aut. ID: FC083A-AUT101<br>Date: 27March2019 / 28March2019 ★<br>Vol.: 50 µL<br>Syringe#: 6 3200<br>Ampoule#: 6<br>Chemist: FS | | Aut. ID:<br>Date:<br>Vol.: µL<br>Syringe#:<br>Ampoule#:<br>Chemist: | | Aut. ID:<br>Date:<br>Vol.: µL<br>Syringe#:<br>Ampoule#:<br>Chemist: 29 Mar 2019 KCE | | Aut. ID:<br>Date:<br>Vol.: µL<br>Syringe#:<br>Ampoule#:<br>Chemist: | |
|---|---|---|---|---|---|---|---|---|
| | Time | Witness | Time | Witness | Time | Witness | Time | Witness |
| WG67438-103 SPM | ~~12:14~~ 11:30 ★ | EL | | | | | | |
| WG67438-104 SPM | ~~27March2019 EC~~ 12:14 | EL | | | | | | |
| WG67438-106 SAR | 11:30 ★ | EL | | | | | | |
| | | | | | | | | |

FWO-310 Rev 10, 07-Mar-2019

Reviewed by FS date 02Apr2019

SGS AXYS Analytical Services Ltd.

## LC Methods, CLAM and POCIS Worksheet

Workgroup: **WG67438** Balance #: _____ Method: **MLA-110 R01.08**

### Sample Preparation - Extraction - Derivatization

| Reagent | Lot# | Vol. mL | Time | Vol. mL | Time | Vol. mL | Time |
|---|---|---|---|---|---|---|---|
| CS Water | | 29 Mar 2019 LCE | | | | | |
| 50% Formic Acid | 517-031LC | ~30 drops | 9:15 | | | | |
| Ammonium Hydroxide conc. | | 29 Mar 2019 LCE | | | | 29 Mar 2019 LCE | |
| Hexane | 103980 | 100 | 11:35 | 100 | 13:00 | 200 | 15:00 |
| PH 10.0 $cSH_2O$ | 595-03LC | 200 | 12:30 | | 29 Mar 2019 LCE | | |
| | | | 29 Mar 2019 LCE | | | | |

Moistures into oven: Oven #: 3264
Date: _____ Time: _____ Temperature: ____ Chemist: ____

Out of Oven:
Date: _____ Time: _____ Temperature: ____ Chemist: ____

| Shake /tipper ☐ | Sonication ☐ | Millipore ☐ |
|---|---|---|

Analyst: 29 Mar 2019 LCE
Date:
Time:
#times

**Extract pH check/adjust**

**1.pH:** 6.5 ± 0.5
Date: 29 Mar 2019
Time: 9:15
Analyst: LCE
Reagent/ amt: ~30 drops 50% Formic acid

**2.pH:**
Date:
Time:
Analyst:
Reagent/ amt:

**3.pH:**
Date:
Time: 29 Mar 2019 LCE
Analyst:
Reagent/ amt:

**Derivatization**
Analyst:
Date:
Start time:
End time:

**Incubation:**
Analyst:
Date:
Start time:
End time:

| Sample ID: | # of Filters - Millipore |
|---|---|
| L30820-1 | NA |
| L30820-2 | |
| L30821-1 | |
| L30821-2 | |
| L30821-3 | |
| L30821-4 | |
| L30821-5 | |
| L30821-6 | |
| L30821-7 | |
| WG67438-101 (BLANK) | |
| WG67438-102 (BLANK) | |
| WG67438-103 (SPM) | |
| WG67438-104 (SPM) | |
| WG67438-105 (DUP) | |
| WG67438-106 (SAR) | |

SGS AXYS Analytical Services Ltd.

## SPE Cleanup Worksheet

Chemist: KCE

Workgroup: WG67438

Date: 29 Mar 2019

Method: MLA-110 R01.08

Manifold ID: P8

| Sample ID | Manifold Position | Syringe Filter - u-vialing | Single Step Filter vial |
|---|---|---|---|
| L30820-1 | 1 | Y | ~ |
| L30820-2 | 2 | ↓ | ↓ |
| L30821-1 | 3 | ↓ | ↓ |
| L30821-2 | 4 | ↓ | ↓ |
| ~~L30821-3~~ 29 Mar 2019 KCE | | | |
| L30821-4 | 5 | Y | ~ |
| L30821-5 | 6 | ↓ | ↓ |
| L30821-6 | 7 | ↓ | ↓ |
| ~~L30821-7~~ 29 Mar 2019 KCE | | | |
| WG67438-101 (BLANK) | 8 | Y | ~ |
| WG67438-102 (BLANK) | 16 | ↓ | ↓ |
| WG67438-103 (SPM) | 15 | ↓ | ↓ |
| WG67438-104 (SPM) | 14 | ↓ | ↓ |
| WG67438-105 (DUP) | 13 | ↓ | ↓ |
| WG67438-106 (SAR) | NA | ~ | ↓ |

29 Mar 2019 KCE

**SPE Type:** Oasis WAX 6cc 150mg

**Lot#:** 0186301 4A

**SPE Pre-Elution/Conditioning:**

| Reagent | Lot# | Vol. (mL) | Time |
|---|---|---|---|
| 1% Basic Methanol | 540-03LC | 2x6 | 9:25 |
| 0.3M Formic Acid | 478-03LC | 5 | 9:44 |

29 Mar 2019 KCE

Load sample: ✓

**Wash:**

| Reagent | Lot# | Vol. (mL) | Time |
|---|---|---|---|
| CS Water | 594-03LC | 10 | 13:06 |
| 1:1 MeOH:0.1M Formic Ac. | 561-03LC | 5 | 13:20 |

29 Mar 2019 KCE

Position of collection tubes verified:

Chemist: FS Date: 29/Mar/2019

**Elution:**

| Reagent | Lot# | Vol. (mL) | Time |
|---|---|---|---|
| 1% Basic Methanol | 540-03LC | 5 | 14:20 |

29 Mar 2019 KCE

Chemist: KCE

Date: 29 Mar 2019

**Reconstitute:**

| Reagent | Lot# | Vol. (mL) | Time |
|---|---|---|---|
| 2 drops acetic acid. SAR included | 181472 | 25mL | 14:53 |

29 Mar 2019 KCE



Reviewed by: FS Date: 12 Apr 2019

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**Notes**: Batch ID: WG67438 Method: MLA-110 R01.08

| Date: | Analyst | Fraction | Notes: |
|---|---|---|---|
| 27Mar2019 | FS | N/A | for the 2,3,7,8-TCDD/F, 1,2,3,4,7,8-HxCDD/F, Custom QC :<br>(A) During extraction, emulsions are formed, 100mL of Hex was added to break up emulsions after 1st shake ~~and after three extraction.~~<br>28Mar2019<br>(B) Sample was leave in Sep funnel over night after 1st shake for emulsion to break.<br>(C) After three extraction, 200mL of Hex was used to back extraction for the Aq. water layer (combined)<br>perform a<br>(D) about 80% of the alkaline water was recovered for 2,3,7,8-TCDD/F, 1,2,3,4,7,8-HxCDD/F after extraction<br>28Mar2019FS<br>(E) about 55% of the alkaline water was recovered for 2,3,7,8-TCDD/F and dup after extraction<br>(F) for 2,3,7,8-TCDD/F-1.Dup, in addition of step (A), (B), (C), 100mL of Hex was added after 3rd extraction to help break the emulsions.<br>29 Mar2019 KCC |

Reviewed by FS date 02Apr2019

# BATCH ID: WG67663

| | |
|---|---|
| Method ID: | |
| Method ID: | |
| Method ID: | |
| Start Date: | 4-Apr-2019 |
| WIP Date/Chemist: | 04Apr2019 FS |
| Batch List Author: | PTHALER |
| Checked By: | FS |
| Project Manager: | Ivona Z |
| Glassware Type: | Regular |
| Glassware Treatment: | Regular |
| Rotovap Type: | N/A |
| Matrix: | Oil |
| Sample size: | 100 mL |
| Moistures required? | NO |
| Lipids required? | NO |
| Extraction Solvent: | |
| Biohazard Type: | None |

**Comments:**

(Use 100mL of LNAPL). If there is less than 100mL please consume and record volume accurately (ie graduated cylinder not volumetric flask). Use an additional 100mL of hexane to speed emulsification process as with previous samples.

1. Dilute 100 mL LNAPL samples (L30821) with 100 mL reagent grade hexane.

**2. Spike L30821 samples with surrogates at standard MLA-110 spiking levels based on 500 ml sample size.**

3. Using a separatory funnel, perform 3 sequential alkaline water washes (200 ml, 200 ml, 100 mls) with Canadian Springs water adjusted to pH 10 with concentrated ammonia, decanting water after each wash, to create a 500 mL nominal aqueous sample.

**4. The extract (500mL of alkaline water) will be adjusted with dilute HCl to pH=6.5±0.5 and analyzed using MLA-110**

5. Create standard MLA-110 QC samples (blank and SPM)

**6. Proceed as per MLA-110.**

previous WG's associated with samples:

; #Keep Discards: 0

| Contract # | Sample | Wt | Contract # | Sample | Wt |
|---|---|---|---|---|---|
| 4951 | L30821-3 | 100 mL | | | |
| 4951 | L30821-7 | 100 mL | | | |

L30821-3 and-7 were found to have an LNAPL layer floating on a large quantity of standing water. As per client we will proceed with analysis of the oil by decanting (discard the aqueous).

Client samples:
2 x LNAPL samples

Batch QC:
1 x standard MLA-110 blank
1 x custom LNAPL SPM

Use same process as above (Use 100mL of LNAPL). If there is less than 100mL please consume and record volume accurately (ie graduated cylinder not volumetric flask). Use an additional 100mL of hexane to speed emulsification process as with previous samples.

Spiking:

| Product | Samples required: | Before Extraction: Surrogate | After Extraction: Cleanup Surrogate | Recovery | F.V. | U-vial | Instructions and Comments: |
|---|---|---|---|---|---|---|---|
| Q:FC110 | L30821-3, 7, WG67663-101, 102, 103 | 50uL FC052A-SUR/ 01 #7 Ya (5648) | N/A | 200uL FC027A-REC/ 01 (3544) #16 Ya | 4000 uL | PPROP SNAP W/ PVCD | In Basic Methanol |

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BATCH ID: WG67663

| QC Samples | Type and Weight | Analysis QC required for: | Authentic spiking: | Comments: |
|---|---|---|---|---|
| WG67663-101 BLANK | 500ML CANADIAN SPRINGS WATER | Q:FC110 | | |
| WG67663-102 SPM | 100ML OF HEXANE | Q:FC110 | 50uL FC083A-AUT/01 #6 (3206) Yfa | |
| WG67663-103 SAR | SAR | Q:FC110 | 50uL FC083A-AUT/ | |
| | | | | |
| | | | | |

| QC Samples | Type and Weight | Analysis QC required for: | Authentic spiking: | Comments: |
|---|---|---|---|---|
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

**SGS AXYS Analytical Services Ltd**

| Bottle/Jar Type | |
|---|---|
| ☒ Glass | ☐ Plastic |

**Sample Labeling Information:** Batch ID: WG67663 Date: 04Apr2019 Chemist: FS Contract #: 4951

Method: MLA-110 R01.08

| Sample ID | Sample Type and Description | Original Labelling | LIMS label correct as per client |
|---|---|---|---|
| | 04Apr2019 FS | | |
| L30821-3 | Clear liquid with ~1mL cm Black layer on top | PZ-SB-37-020419 | N/A |
| L30821-7 | Black liquid with ~3cm Colorless layer on bottom | LMW-12-03-020519 | ☐ |
| WG67663-101 (BLANK) | Clear Colorless liquid Procedural Blank | Canadian Springs Water 607-53LC | ☐ |
| WG67663-102 (SPM) | Clear Colorless liquid Spiked Matrix | Hexane #1039180 Caledon | ☐ |
| WG67663-103 (SAR) | SAR | SAR | ☐ |
| | | | ☐ |
| | | | ☐ |
| | | | ☐ |
| | | | ☐ |
| | | | ☐ |
| | | | ☐ |
| | | | ☐ |
| | | | ☐ |
| | | | ☐ |
| | | | ☐ |
| | | | ☐ |

**SGS AXYS Analytical Services Ltd**

**Sample Wt #2 :** Batch ID: WG67663 Chemist FS Date: 04Apr2019 Balance #: 3541

Method: MLA-110 R01.08

Solids Stored (Y/N): ___ Chemist: ___

Date: ___ (See Notes for IDs)

| Sample ID | Sample wt (g) (Compositing SLA-084 ____) | | | | | | Subsample required (SLA-084 (g) ____) | | | | Sample Wt. (g) | Filtered Y/N Date: Chemist: | Sol & Aq extracts combined Y/N Date: Chemist: |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Container ____ + Sample | Container ____ + Sample | Container ____ | Container ____ | Sample wt ___ | Sample wt ___ | Container + sample | Container | Total sample | Remaining sample | | | |
| L30821-3 | | | | | | | | | | | 50mL | | |
| L30821-7 | | | | | | | | | | | 100mL | | |
| WG67663-101 (BLANK) | | | | | | | | | | | 500g | | |
| WG67663-102 (SPM) | | | | | | | | | | | 100mL | | |
| WG67663-103 (SAR) | | | | | | | | | | | N/A | | |

05Apr2019 FS

FWO-307 Rev 13, 05-Nov-2018

Reviewed by FS date 05Apr2019

AXYS Analytical Services Ltd

**Spiking Sheet**: Batch ID: WG67663 Method: MLA-110 R01.08 Witness name/ initials: Aaron Kyle, AK

| Sample ID | **Before extraction** Surr. ID: FC053A-SUR\|01 Date: 04 APR 2019 Vol.: 50 µL Syringe#: 5648 Ampoule: 7 Chemist: FS | | **Before extraction** Surr. ID: Date: Vol.: µL Syringe#: Ampoule: Chemist: | | **Cleanup Std.** Surr. ID: Date: Vol.: µL Syringe#: Ampoule: Start time: Finish time: | **Cleanup Std.** Surr. ID: Date: Vol.: µL Syringe#: Ampoule: Start time: Finish time: | **Recovery** ID: Date: Vol.: µL F.V.: µL Syringe#: Ampoule: Start time: Finish time: | **Recovery** ID: FL027A-REC\| Date: 05Apr2019 Vol.: 200 µL F.V.: 4000 µL Syringe#: 3244 Ampoule: 16 Start time: 13:30 Finish time: 13:32 |
|---|---|---|---|---|---|---|---|---|
| | Time | Witness | Time | Witness | Chemist: | Chemist: | Chemist: | Chemist: FS |
| L30821-3 | 10:47 | AK | | | ☐ | ☐ | ☐ | ☑ |
| L30821-7 | 10:47 | AK | | | ☐ | ☐ | ☐ | ☑ |
| WG67663-101 (BLANK) | 10:47 | AK | | | ☐ | ☐ | ☐ | ☑ |
| WG67663-102 (SPM) | 10:47 | AK | | | ☐ | ☐ | ☐ | ☑ |
| WG67663-103 (SAR) | 10:47 | AK | | | ☐ | ☐ | ☐ | ☑ |
| | | | | | ☐ | ☐ | ☐ | ☐ |
| | | | | | ☐ | ☐ | ☐ | ☐ |
| | | | | | ☐ | ☐ | ☐ | ☐ |
| | | | | | ☐ | ☐ | ☐ | ☐ |
| | | | | | ☐ | ☐ | ☐ | ☐ |
| | | | | | ☐ | ☐ | ☐ | ☐ |
| | | | | | ☐ | ☐ | ☐ | ☐ |
| | | | | | ☐ | ☐ | ☐ | ☐ |
| | | | | | ☐ | ☐ | ☐ | ☐ |
| | | | | | ☐ | ☐ | ☐ | ☐ |
| | | | | | ☐ | ☐ | ☐ | ☐ |
| | | | | | ☐ | ☐ | ☐ | ☐ |
| | | | | | ☐ | ☐ | ☐ | ☐ |
| | | | | | ☐ | ☐ | ☐ | ☐ |
| | | | | | ☐ | ☐ | ☐ | ☐ |

AK 04 APR 2019

| Sample ID | Aut. ID: FC093A-AUT\|01 Date: 04 APR 2019 Vol.: 50 µL Syringe#: 3806 Ampoule#: 6 Chemist: FS | | Aut. ID: Date: Vol.: µL Syringe#: Ampoule#: Chemist: | | Aut. ID: Date: Vol.: µL Syringe#: Ampoule#: Chemist: | | Aut. ID: Date: Vol.: µL Syringe#: Ampoule#: Chemist: | |
|---|---|---|---|---|---|---|---|---|
| | Time | Witness | Time | Witness | Time | Witness | Time | Witness |
| WG67663-102 SPM | 10:46 | AK | | | | | | |
| -103 SAR | 10:46 | AK | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

AK 04 APR 2019

SGS AXYS Analytical Services Ltd.

## LC Methods, CLAM and POCIS Worksheet

Workgroup: WG67663 Balance #: _____ Method: MLA-110 R01.08

### Sample Preparation - Extraction - Derivatization

| Reagent | Lot# | Vol. mL | Time | Vol. mL | Time | Vol. mL | Time |
|---|---|---|---|---|---|---|---|
| Hexane | 103980 | 100 | 10:00 | 100 | 11:15 | | |
| PH 10 $CsH_2O$ | 609-032C | 200 | 11:00 | 200 | 14:00 | 100 | 16:00 |
| 50% Formic Acid | 083-032C | 35drops | 8:05 | | | | |

Moistures into oven: Oven #: 3264
Date: _____ Time: _____ Temperature: ____ Chemist: ____

Out of Oven:
Date: _____ Time: _____ Temperature: ____ Chemist: ____

05Apr2019 FS

Shake /tipper ☒ | Sonication ☐ | Millipore ☐

Analyst: FS
Date: 04Apr2019
Time: 3x2min
#times 11:10 14:05 16:05

**Extract pH check/adjust**

**1.pH:** 6.5
Date: 05Apr2019
Time: 8:05
Analyst: FS
Reagent/ amt: 50% Formic Acid / 35drops

**2.pH:**
Date:
Time:
Analyst:
Reagent/ amt:

**3.pH:**
Date:
Time:
Analyst:
Reagent/ amt:

**Derivatization**
Analyst:
Date:
Start time:
End time:

**Incubation:**
Analyst:
Date:
Start time:
End time:

| Sample ID: | # of Filters - Millipore |
|---|---|
| L30821-3 | NO |
| L30821-7 | ↓ |
| WG67663-101 (BLANK) | |
| WG67663-102 (SPM) | |
| WG67663-103 (SAR) | |

SGS AXYS Analytical Services Ltd.

## SPE Cleanup Worksheet

Workgroup: WG67663 Method: MLA-110 R01.08

Chemist: AK / FS 05Apr2019 FS Date: 05 APR 2019 Manifold ID: HLPL

| Sample ID | Manifold Position | Syringe Filter - u-vialing | Single Step Filter vial |
|---|---|---|---|
| L30821-3 | 3\|6 | Yes | NO |
| L30821-7 | 4\|5 | ↓ | ↓ |
| WG67663-101 (BLANK) | 5 | ↓ | ↓ |
| WG67663-102 (SPM) | 6 | ↓ | ↓ |
| WG67663-103 (SAR) | N/A | NO | ✓ |

**SPE Type:** Oasis WAX 150mg 30µm 6cc
**Lot#:** 0186390144

**SPE Pre-Elution/Conditioning:**

| Reagent | Lot# | Vol. (mL) | Time |
|---|---|---|---|
| 1% $NH_4OH$ in MeOH | 604-03LC | 15.2 | 08:05 |
| 0.3 M Formic Acid | 606-03LC | 5.0 | 08:15 |

Load sample: ✓

**Wash:**

| Reagent | Lot# | Vol. (mL) | Time |
|---|---|---|---|
| $CSH_2O$ | 610-03LC | 10 | 13:10 |
| 1:1 MeOH : 0.1 M Formic Ac | 561-03LC | 5 | 13:20 |

Position of collection tubes verified:
Chemist: EC Date: 05Apr2019

**Elution:**

| Reagent | Lot# | Vol. (mL) | Time |
|---|---|---|---|
| 1% $NH_4OH$ in MeOH | 604-03LC | 5 | 13:45 |

Chemist: FS
Date: 05Apr2019

**Reconstitute:**

| Reagent | Lot# | Vol. (mL) | Time |
|---|---|---|---|
| Acetic Acid | 181476 | 25µL | 13:55 |



Reviewed by: FS Date: 05Apr2019

AXYS Analytical Services Ltd

**Notes**: Batch ID: WG67663 Method: MLA-110 R01.08

| Date: | Analyst | Fraction | Notes: |
|---|---|---|---|
| 04Apr2019 | FS | N/A | 100ml of Hex was added after the first shake to break the emulsion. |
| | | | Samplesize of L30821-3 is measured by Grade A graduated cylinder (#08-55D) |
| | | | Samplesize of L30821-7 is measured by Volumetric flask. |
| | | | about 95% of alkaline water was recovery for L30821-3 after extraction. |
| | | | about 70% of alkaline water was recovery for L30821-7 after extraction. |
| | | | 1025PM go through the same procedural as L30821-3.7. |
| 05Apr2019 | FS | N/A | L30821-3: the last 200mL of sample need syringe push when loading to SPE. |

Reviewed by FS date 05Apr2019

**SGS AXYS METHOD MLA-110 Rev 01**

**CLIENT SAMPLE NO.**
**EB-01-020419**
**Sample Collection:**
**04-Feb-2019 11:05**

**Form 1A**

**PERFLUORINATED ORGANICS ANALYSIS REPORT**

**SGS AXYS ANALYTICAL SERVICES**
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

| | | | |
|---|---|---|---|
| **Project No.** | RACER LANSING PLANT -2 | | |
| **Contract No.:** | 4951 | **Lab Sample I.D.:** | L30820-1 |
| **Matrix:** | AQUEOUS | **Sample Size:** | 0.494 L |
| **Sample Receipt Date:** | 04-Mar-2019 | **Initial Calibration Date:** | 08-Mar-2019 |
| **Extraction Date:** | 27-Mar-2019 | **Instrument ID:** | LC MS/MS |
| **Analysis Date:** | 31-Mar-2019 **Time:** 02:09:32 | **Column ID:** | C18 |
| **Extract Volume (uL):** | 4000 | **Sample Data Filename:** | **FC9W_130 S: 26** |
| **Injection Volume (uL):** | 2 | **Blank Data Filename:** | FC9W_130 S: 24 |
| **Dilution Factor:** | N/A | **Cal. Ver. Data Filename:** | FC9W_130 S: 18 |
| **Concentration Units:** | ng/L | | |

This page is part of a total report that contains information necessary for accreditation compliance.
Results are compliant with NELAP accreditation described in the total report. Sample results relate only to the sample tested.

| COMPOUND | LAB FLAG [1] | CONC. FOUND | REPORTING LIMIT (RL)[2] | RETENTION TIME |
|---|---|---|---|---|
| **PFBA** | U | | 3.32 (L) | |
| **PFPeA** | U | | 1.66 (L) | |
| **PFHxA** | U | | 0.830 (L) | |
| **PFHpA** | U | | 0.830 (L) | |
| **PFOA** | U | | 0.830 (L) | |
| **PFNA** | U | | 0.809 (L) | |
| **PFDA** | U | | 0.809 (L) | |
| **PFUnA** | U | | 0.809 (L) | |
| **PFDoA** | U | | 0.809 (L) | |
| **PFTrDA** | U | | 0.809 (L) | |
| **PFTeDA** | U | | 0.809 (L) | |
| **PFBS** | U | | 0.830 (L) | |
| **PFPeS** | U | | 0.769 (L) | |
| **PFHxS** | U | | 0.830 (L) | |
| **PFHpS** | U | | 0.769 (L) | |
| **PFOS** | U | | 0.830 (L) | |
| **PFNS** | U | | 0.769 (L) | |
| **PFDS** | U | | 0.830 (L) | |
| **PFDoS** | U | | 0.769 (L) | |
| **4:2 FTS** | U | | 3.24 (L) | |
| **6:2 FTS** | U | | 2.91 (L) | |
| **8:2 FTS** | U | | 3.24 (L) | |
| **PFOSA** | U | | 0.830 (L) | |
| **N-MeFOSA** | U | | 0.931 (L) | |
| **N-EtFOSA** | U | | 2.02 (L) | |
| **MeFOSAA** | U | | 0.809 (L) | |
| **EtFOSAA** | U | | 0.809 (L) | |
| **N-MeFOSE** | U | | 8.26 (L) | |
| **N-EtFOSE** | U | | 6.19 (L) | |

(1) Where applicable, custom lab flags have been used on this report; U = not detected at RL.
(2) Reporting Limit (Code): S = sample detection limit; M = method detection limit; L = lowest calibration level equivalent; Q = minimum reporting level.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Andrew Porat_____

For Axys Internal Use Only [ XSL Template: FC-Form1A.xsl; Created: 16-Apr-2019 17:38:09; Application: XMLTransformer-1.17.7;
Report Filename: PFC_FC_LC_PFAS_L30820-1_Form1A_FC9W_130S26_SJ2545314.html; Workgroup: WG67438; Design ID: 3161 ]

**SGS AXYS METHOD MLA-110 Rev 01**

**CLIENT SAMPLE NO.**
**EB-01-020419**
**Sample Collection:**
**04-Feb-2019 11:05**

**Form 2**

**PERFLUORINATED ORGANICS ANALYSIS REPORT**

**SGS AXYS ANALYTICAL SERVICES**
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

| | | | |
|---|---|---|---|
| **Project No.** | RACER LANSING PLANT -2 | | |
| **Contract No.:** | 4951 | **Lab Sample I.D.:** | L30820-1 |
| **Matrix:** | AQUEOUS | **Sample Size:** | 0.494 L |
| **Sample Receipt Date:** | 04-Mar-2019 | **Initial Calibration Date:** | 08-Mar-2019 |
| **Extraction Date:** | 27-Mar-2019 | **Instrument ID:** | LC MS/MS |
| **Analysis Date:** | 31-Mar-2019 **Time:** 02:09:32 | **Column ID:** | C18 |
| **Extract Volume (uL):** | 4000 | **Sample Data Filename:** | **FC9W_130 S: 26** |
| **Injection Volume (uL):** | 2 | **Blank Data Filename:** | FC9W_130 S: 24 |
| **Dilution Factor:** | N/A | **Cal. Ver. Data Filename:** | FC9W_130 S: 18 |
| **Concentration Units:** | ng absolute | | |

This page is part of a total report that contains information necessary for accreditation compliance.
Results are compliant with NELAP accreditation described in the total report. Sample results relate only to the sample tested.

| LABELED COMPOUND | LAB FLAG [1] | SPIKE CONC. | CONC. FOUND | R(%) [2] | RETENTION TIME |
|---|---|---|---|---|---|
| **13C4-PFBA** | | 40.0 | 40.7 | 102 | 1:59 |
| **13C5-PFPeA** | | 20.0 | 20.2 | 101 | 4:20 |
| **13C5-PFHxA** | | 10.0 | 10.7 | 107 | 5:02 |
| **13C4-PFHpA** | | 10.0 | 10.1 | 101 | 5:33 |
| **13C8-PFOA** | | 10.0 | 9.24 | 92.4 | 6:23 |
| **13C9-PFNA** | | 5.00 | 5.14 | 103 | 7:08 |
| **13C6-PFDA** | | 5.00 | 5.72 | 114 | 7:31 |
| **13C7-PFUnA** | | 5.00 | 5.22 | 104 | 7:49 |
| **13C2-PFDoA** | | 5.00 | 5.87 | 117 | 8:08 |
| **13C2-PFTeDA** | | 5.00 | 4.64 | 92.9 | 8:53 |
| **13C3-PFBS** | | 10.0 | 11.9 | 119 | 5:00 |
| **13C3-PFHxS** | | 10.0 | 10.3 | 103 | 6:31 |
| **13C8-PFOS** | | 10.0 | 10.8 | 108 | 7:37 |
| **13C2-4:2 FTS** | | 20.0 | 18.5 | 92.7 | 4:55 |
| **13C2-6:2 FTS** | | 20.0 | 13.6 | 68.1 | 6:03 |
| **13C2-8:2 FTS** | | 20.0 | 15.7 | 78.6 | 7:23 |
| **13C8-PFOSA** | V | 10.0 | 18.8 | 188 | 8:32 |
| **D3-N-MeFOSA** | | 10.0 | 7.62 | 76.2 | 9:52 |
| **D5-N-EtFOSA** | | 10.0 | 5.83 | 58.3 | 10:08 |
| **D3-MeFOSAA** | | 20.0 | 12.3 | 61.6 | 7:33 |
| **D5-EtFOSAA** | | 20.0 | 16.8 | 84.2 | 7:40 |
| **d7-NMe-FOSE** | V | 100 | 181 | 181 | 9:45 |
| **d9-NEt-FOSE** | V | 100 | 155 | 155 | 10:01 |

(1) Where applicable, custom lab flags have been used on this report; V = surrogate recovery is not within method/contract control limits.
(2) R(%) = percent recovery.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Andrew Porat_____

For Axys Internal Use Only [ XSL Template: FC-Form2.xsl; Created: 16-Apr-2019 17:38:09; Application: XMLTransformer-1.17.7;
Report Filename: PFC_FC_LC_PFAS_L30820-1_Form2_FC9W_130S26_SJ2545314.html; Workgroup: WG67438; Design ID: 3161 ]

**SGS AXYS METHOD MLA-110 Rev 01**

**CLIENT SAMPLE NO.**
**EB-02-020419**
**Sample Collection:**
**05-Feb-2019 15:35**

**Form 1A**

**PERFLUORINATED ORGANICS ANALYSIS REPORT**

**SGS AXYS ANALYTICAL SERVICES**
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

| | | | |
|---|---|---|---|
| **Project No.** | RACER LANSING PLANT -2 | | |
| **Contract No.:** | 4951 | **Lab Sample I.D.:** | L30820-2 |
| **Matrix:** | AQUEOUS | **Sample Size:** | 0.502 L |
| **Sample Receipt Date:** | 04-Mar-2019 | **Initial Calibration Date:** | 08-Mar-2019 |
| **Extraction Date:** | 27-Mar-2019 | **Instrument ID:** | LC MS/MS |
| **Analysis Date:** | 31-Mar-2019 **Time:** 02:23:01 | **Column ID:** | C18 |
| **Extract Volume (uL):** | 4000 | **Sample Data Filename:** | **FC9W_130 S: 27** |
| **Injection Volume (uL):** | 2 | **Blank Data Filename:** | FC9W_130 S: 24 |
| **Dilution Factor:** | N/A | **Cal. Ver. Data Filename:** | FC9W_130 S: 18 |
| **Concentration Units:** | ng/L | | |

This page is part of a total report that contains information necessary for accreditation compliance.
Results are compliant with NELAP accreditation described in the total report. Sample results relate only to the sample tested.

| COMPOUND | LAB FLAG [1] | CONC. FOUND | REPORTING LIMIT (RL)[2] | RETENTION TIME |
|---|---|---|---|---|
| **PFBA** | U | | 3.27 (L) | |
| **PFPeA** | U | | 1.63 (L) | |
| **PFHxA** | U | | 0.817 (L) | |
| **PFHpA** | U | | 0.817 (L) | |
| **PFOA** | U | | 0.817 (L) | |
| **PFNA** | U | | 0.797 (L) | |
| **PFDA** | U | | 0.797 (L) | |
| **PFUnA** | U | | 0.797 (L) | |
| **PFDoA** | U | | 0.797 (L) | |
| **PFTrDA** | U | | 0.797 (L) | |
| **PFTeDA** | U | | 0.797 (L) | |
| **PFBS** | U | | 0.817 (L) | |
| **PFPeS** | U | | 0.757 (L) | |
| **PFHxS** | U | | 0.817 (L) | |
| **PFHpS** | U | | 0.757 (L) | |
| **PFOS** | U | | 0.817 (L) | |
| **PFNS** | U | | 0.757 (L) | |
| **PFDS** | U | | 0.817 (L) | |
| **PFDoS** | U | | 0.757 (L) | |
| **4:2 FTS** | U | | 3.19 (L) | |
| **6:2 FTS** | U | | 2.87 (L) | |
| **8:2 FTS** | U | | 3.19 (L) | |
| **PFOSA** | U | | 0.817 (L) | |
| **N-MeFOSA** | U | | 0.917 (L) | |
| **N-EtFOSA** | U | | 1.99 (L) | |
| **MeFOSAA** | U | | 0.797 (L) | |
| **EtFOSAA** | U | | 0.797 (L) | |
| **N-MeFOSE** | U | | 8.13 (L) | |
| **N-EtFOSE** | U | | 6.10 (L) | |

(1) Where applicable, custom lab flags have been used on this report; U = not detected at RL.
(2) Reporting Limit (Code): S = sample detection limit; M = method detection limit; L = lowest calibration level equivalent; Q = minimum reporting level.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Andrew Porat_____

For Axys Internal Use Only [ XSL Template: FC-Form1A.xsl; Created: 16-Apr-2019 17:38:09; Application: XMLTransformer-1.17.7;
Report Filename: PFC_FC_LC_PFAS_L30820-2_Form1A_FC9W_130S27_SJ2545315.html; Workgroup: WG67438; Design ID: 3161 ]

**SGS AXYS METHOD MLA-110 Rev 01**

**CLIENT SAMPLE NO.**
**EB-02-020419**
**Sample Collection:**
**05-Feb-2019 15:35**

**Form 2**

**PERFLUORINATED ORGANICS ANALYSIS REPORT**

**SGS AXYS ANALYTICAL SERVICES**
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

| | | | |
|---|---|---|---|
| **Project No.** | RACER LANSING PLANT -2 | | |
| **Contract No.:** | 4951 | **Lab Sample I.D.:** | L30820-2 |
| **Matrix:** | AQUEOUS | **Sample Size:** | 0.502 L |
| **Sample Receipt Date:** | 04-Mar-2019 | **Initial Calibration Date:** | 08-Mar-2019 |
| **Extraction Date:** | 27-Mar-2019 | **Instrument ID:** | LC MS/MS |
| **Analysis Date:** | 31-Mar-2019 **Time:** 02:23:01 | **Column ID:** | C18 |
| **Extract Volume (uL):** | 4000 | **Sample Data Filename:** | **FC9W_130 S: 27** |
| **Injection Volume (uL):** | 2 | **Blank Data Filename:** | FC9W_130 S: 24 |
| **Dilution Factor:** | N/A | **Cal. Ver. Data Filename:** | FC9W_130 S: 18 |
| **Concentration Units:** | ng absolute | | |

This page is part of a total report that contains information necessary for accreditation compliance.
Results are compliant with NELAP accreditation described in the total report. Sample results relate only to the sample tested.

| LABELED COMPOUND | LAB FLAG [1] | SPIKE CONC. | CONC. FOUND | R(%) [2] | RETENTION TIME |
|---|---|---|---|---|---|
| **13C4-PFBA** | | 40.0 | 40.2 | 101 | 1:58 |
| **13C5-PFPeA** | | 20.0 | 19.6 | 98.2 | 4:20 |
| **13C5-PFHxA** | | 10.0 | 10.5 | 105 | 5:03 |
| **13C4-PFHpA** | | 10.0 | 9.85 | 98.5 | 5:34 |
| **13C8-PFOA** | | 10.0 | 9.00 | 90.0 | 6:24 |
| **13C9-PFNA** | | 5.00 | 5.16 | 103 | 7:08 |
| **13C6-PFDA** | | 5.00 | 5.59 | 112 | 7:31 |
| **13C7-PFUnA** | | 5.00 | 5.28 | 106 | 7:49 |
| **13C2-PFDoA** | | 5.00 | 5.80 | 116 | 8:08 |
| **13C2-PFTeDA** | | 5.00 | 4.01 | 80.1 | 8:52 |
| **13C3-PFBS** | | 10.0 | 11.4 | 114 | 5:01 |
| **13C3-PFHxS** | | 10.0 | 10.2 | 102 | 6:32 |
| **13C8-PFOS** | | 10.0 | 10.5 | 105 | 7:37 |
| **13C2-4:2 FTS** | | 20.0 | 15.9 | 79.4 | 4:55 |
| **13C2-6:2 FTS** | | 20.0 | 13.9 | 69.6 | 6:03 |
| **13C2-8:2 FTS** | | 20.0 | 14.6 | 72.8 | 7:22 |
| **13C8-PFOSA** | V | 10.0 | 18.3 | 183 | 8:31 |
| **D3-N-MeFOSA** | | 10.0 | 6.72 | 67.2 | 9:53 |
| **D5-N-EtFOSA** | | 10.0 | 5.71 | 57.1 | 10:09 |
| **D3-MeFOSAA** | | 20.0 | 11.0 | 55.2 | 7:33 |
| **D5-EtFOSAA** | | 20.0 | 14.4 | 71.9 | 7:40 |
| **d7-NMe-FOSE** | V | 100 | 165 | 165 | 9:46 |
| **d9-NEt-FOSE** | | 100 | 146 | 146 | 10:02 |

(1) Where applicable, custom lab flags have been used on this report; V = surrogate recovery is not within method/contract control limits.
(2) R(%) = percent recovery.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Andrew Porat_____

For Axys Internal Use Only [ XSL Template: FC-Form2.xsl; Created: 16-Apr-2019 17:38:09; Application: XMLTransformer-1.17.7;
Report Filename: PFC_FC_LC_PFAS_L30820-2_Form2_FC9W_130S27_SJ2545315.html; Workgroup: WG67438; Design ID: 3161 ]

**SGS AXYS METHOD MLA-110 Rev 01**

**CLIENT SAMPLE NO.**
**PMW-01-020419**
**Sample Collection:**
**04-Feb-2019 11:35**

**Form 1A**

**PERFLUORINATED ORGANICS ANALYSIS REPORT**

**SGS AXYS ANALYTICAL SERVICES**
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

| | | | |
|---|---|---|---|
| **Project No.** | RACER LANSING PLANT -2 | | |
| **Contract No.:** | 4951 | **Lab Sample I.D.:** | L30821-1 (A) |
| **Matrix:** | OIL | **Sample Size:** | 0.100 L |
| **Sample Receipt Date:** | 04-Mar-2019 | **Initial Calibration Date:** | 08-Mar-2019 |
| **Extraction Date:** | 27-Mar-2019 | **Instrument ID:** | LC MS/MS |
| **Analysis Date:** | 31-Mar-2019 **Time:** 02:36:21 | **Column ID:** | C18 |
| **Extract Volume (uL):** | 4000 | **Sample Data Filename:** | **FC9W_130 S: 28** |
| **Injection Volume (uL):** | 2 | **Blank Data Filename:** | FC9W_130 S: 24 |
| **Dilution Factor:** | N/A | **Cal. Ver. Data Filename:** | FC9W_130 S: 18 |
| **Concentration Units:** | ng/L | | |

This page is part of a total report that contains information necessary for accreditation compliance.
This test is not NELAP accredited. Sample results relate only to the sample tested.

| COMPOUND | LAB FLAG [1] | CONC. FOUND | REPORTING LIMIT (RL)[2] | RETENTION TIME |
|---|---|---|---|---|
| **PFBA** | U | | 16.4 (L) | |
| **PFPeA** | U | | 8.20 (L) | |
| **PFHxA** | U | | 4.10 (L) | |
| **PFHpA** | U | | 4.10 (L) | |
| **PFOA** | U | | 4.10 (L) | |
| **PFNA** | U | | 4.00 (L) | |
| **PFDA** | U | | 4.00 (L) | |
| **PFUnA** | U | | 4.00 (L) | |
| **PFDoA** | U | | 4.00 (L) | |
| **PFTrDA** | NQ | | | |
| **PFTeDA** | NQ | | | |
| **PFBS** | U | | 4.10 (L) | |
| **PFPeS** | U | | 3.80 (L) | |
| **PFHxS** | | 37.4 | 6.57 (S) | 6:28 |
| **PFHpS** | U | | 4.44 (S) | |
| **PFOS** | | 13.4 | 4.17 (S) | 7:33 |
| **PFNS** | U | | 3.80 (L) | |
| **PFDS** | U | | 4.10 (L) | |
| **PFDoS** | U | | 3.80 (L) | |
| **4:2 FTS** | U | | 16.0 (L) | |
| **6:2 FTS** | U | | 14.4 (L) | |
| **8:2 FTS** | NQ | | | |
| **PFOSA** | U | | 4.10 (L) | |
| **N-MeFOSA** | NQ | | | |
| **N-EtFOSA** | NQ | | | |
| **MeFOSAA** | | 5.63 | 4.00 (L) | 7:30 |
| **EtFOSAA** | | 254 | 4.00 (L) | 7:37 |
| **N-MeFOSE** | NQ | | | |
| **N-EtFOSE** | NQ | | | |

(1) Where applicable, custom lab flags have been used on this report; U = not detected at RL; NQ = data not quantifiable.
(2) Reporting Limit (Code): S = sample detection limit; M = method detection limit; L = lowest calibration level equivalent; Q = minimum reporting level.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Andrew Porat_____

For Axys Internal Use Only [ XSL Template: FC-Form1A.xsl; Created: 16-Apr-2019 17:38:09; Application: XMLTransformer-1.17.7;
Report Filename: PFC_FC_LC_PFAS_L30821-1_Form1A_FC9W_130S28_SJ2545316.html; Workgroup: WG67438; Design ID: 3161 ]

**SGS AXYS METHOD MLA-110 Rev 01**

**CLIENT SAMPLE NO.**
**PMW-01-020419**
**Sample Collection:**
**04-Feb-2019 11:35**

**Form 2**

**PERFLUORINATED ORGANICS ANALYSIS REPORT**

**SGS AXYS ANALYTICAL SERVICES**
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

| | | | |
|---|---|---|---|
| **Project No.** | RACER LANSING PLANT -2 | | |
| **Contract No.:** | 4951 | **Lab Sample I.D.:** | L30821-1 (A) |
| **Matrix:** | OIL | **Sample Size:** | 0.100 L |
| **Sample Receipt Date:** | 04-Mar-2019 | **Initial Calibration Date:** | 08-Mar-2019 |
| **Extraction Date:** | 27-Mar-2019 | **Instrument ID:** | LC MS/MS |
| **Analysis Date:** | 31-Mar-2019 **Time:** 02:36:21 | **Column ID:** | C18 |
| **Extract Volume (uL):** | 4000 | **Sample Data Filename:** | **FC9W_130 S: 28** |
| **Injection Volume (uL):** | 2 | **Blank Data Filename:** | FC9W_130 S: 24 |
| **Dilution Factor:** | N/A | **Cal. Ver. Data Filename:** | FC9W_130 S: 18 |
| **Concentration Units:** | ng absolute | | |

This page is part of a total report that contains information necessary for accreditation compliance.
This test is not NELAP accredited. Sample results relate only to the sample tested.

| LABELED COMPOUND | LAB FLAG [1] | SPIKE CONC. | CONC. FOUND | R(%) [2] | RETENTION TIME |
|---|---|---|---|---|---|
| **13C4-PFBA** | V | 40.0 | 13.5 | 33.6 | 1:57 |
| **13C5-PFPeA** | | 20.0 | 11.7 | 58.3 | 4:16 |
| **13C5-PFHxA** | | 10.0 | 6.66 | 66.6 | 5:02 |
| **13C4-PFHpA** | | 10.0 | 5.91 | 59.1 | 5:32 |
| **13C8-PFOA** | | 10.0 | 6.00 | 60.0 | 6:20 |
| **13C9-PFNA** | | 5.00 | 3.89 | 77.8 | 7:04 |
| **13C6-PFDA** | | 5.00 | 4.22 | 84.4 | 7:27 |
| **13C7-PFUnA** | V | 5.00 | 1.03 | 20.7 | 7:44 |
| **13C2-PFDoA** | V | 5.00 | 1.03 | 20.6 | 8:04 |
| **13C2-PFTeDA** | NQ | | | | |
| **13C3-PFBS** | | 10.0 | 7.50 | 75.0 | 4:59 |
| **13C3-PFHxS** | | 10.0 | 6.42 | 64.2 | 6:28 |
| **13C8-PFOS** | | 10.0 | 7.36 | 73.6 | 7:33 |
| **13C2-4:2 FTS** | | 20.0 | 19.0 | 94.9 | 4:55 |
| **13C2-6:2 FTS** | | 20.0 | 16.7 | 83.6 | 6:01 |
| **13C2-8:2 FTS** | NQ | | | | |
| **13C8-PFOSA** | | 10.0 | 5.33 | 53.3 | 8:39 |
| **D3-N-MeFOSA** | NQ | | | | |
| **D5-N-EtFOSA** | NQ | | | | |
| **D3-MeFOSAA** | | 20.0 | 10.1 | 50.3 | 7:29 |
| **D5-EtFOSAA** | V | 20.0 | 6.57 | 32.8 | 7:36 |
| **d7-NMe-FOSE** | NQ | | | | |
| **d9-NEt-FOSE** | NQ | | | | |

(1) Where applicable, custom lab flags have been used on this report; V = surrogate recovery is not within method/contract control limits; NQ = data not quantifiable.
(2) R(%) = percent recovery.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Andrew Porat_____

For Axys Internal Use Only [ XSL Template: FC-Form2.xsl; Created: 16-Apr-2019 17:38:09; Application: XMLTransformer-1.17.7;
Report Filename: PFC_FC_LC_PFAS_L30821-1_Form2_FC9W_130S28_SJ2545316.html; Workgroup: WG67438; Design ID: 3161 ]

**SGS AXYS METHOD MLA-110 Rev 01**

**CLIENT SAMPLE NO.**
**PMW-01-020419 (Duplicate)**
**Sample Collection:**
**04-Feb-2019 11:35**

**Form 1A**

**PERFLUORINATED ORGANICS ANALYSIS REPORT**

**SGS AXYS ANALYTICAL SERVICES**
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

| | | | |
|---|---|---|---|
| **Project No.** | RACER LANSING PLANT -2 | | |
| **Contract No.:** | 4951 | **Lab Sample I.D.:** | WG67438-105 (FDUP L30821-1) |
| **Matrix:** | OIL | **Sample Size:** | 0.100 L |
| **Sample Receipt Date:** | 04-Mar-2019 | **Initial Calibration Date:** | 08-Mar-2019 |
| **Extraction Date:** | 27-Mar-2019 | **Instrument ID:** | LC MS/MS |
| **Analysis Date:** | 31-Mar-2019 **Time:** 02:49:49 | **Column ID:** | C18 |
| **Extract Volume (uL):** | 4000 | **Sample Data Filename:** | **FC9W_130 S: 29** |
| **Injection Volume (uL):** | 2 | **Blank Data Filename:** | FC9W_130 S: 24 |
| **Dilution Factor:** | N/A | **Cal. Ver. Data Filename:** | FC9W_130 S: 18 |
| **Concentration Units:** | ng/L | | |

This page is part of a total report that contains information necessary for accreditation compliance.
This test is not NELAP accredited. Sample results relate only to the sample tested.

| COMPOUND | LAB FLAG [1] | CONC. FOUND | REPORTING LIMIT (RL)[2] | RETENTION TIME |
|---|---|---|---|---|
| **PFBA** | U | | 16.4 (L) | |
| **PFPeA** | U | | 8.20 (L) | |
| **PFHxA** | U | | 5.49 (S) | |
| **PFHpA** | U | | 4.10 (L) | |
| **PFOA** | U | | 4.10 (L) | |
| **PFNA** | U | | 4.00 (L) | |
| **PFDA** | U | | 4.00 (L) | |
| **PFUnA** | U | | 5.05 (S) | |
| **PFDoA** | U | | 4.00 (L) | |
| **PFTrDA** | NQ | | | |
| **PFTeDA** | NQ | | | |
| **PFBS** | U | | 4.10 (L) | |
| **PFPeS** | U | | 3.80 (L) | |
| **PFHxS** | | 45.2 | 4.75 (S) | 6:29 |
| **PFHpS** | U | | 4.53 (S) | |
| **PFOS** | | 12.1 | 4.10 (L) | 7:33 |
| **PFNS** | U | | 3.80 (L) | |
| **PFDS** | U | | 4.10 (L) | |
| **PFDoS** | U | | 3.80 (L) | |
| **4:2 FTS** | U | | 16.0 (L) | |
| **6:2 FTS** | U | | 14.4 (L) | |
| **8:2 FTS** | NQ | | | |
| **PFOSA** | U | | 4.10 (L) | |
| **N-MeFOSA** | NQ | | | |
| **N-EtFOSA** | NQ | | | |
| **MeFOSAA** | | 7.48 | 4.00 (L) | 7:30 |
| **EtFOSAA** | | 263 | 4.40 (S) | 7:37 |
| **N-MeFOSE** | NQ | | | |
| **N-EtFOSE** | NQ | | | |

(1) Where applicable, custom lab flags have been used on this report; U = not detected at RL; NQ = data not quantifiable.
(2) Reporting Limit (Code): S = sample detection limit; M = method detection limit; L = lowest calibration level equivalent; Q = minimum reporting level.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Andrew Porat_____

For Axys Internal Use Only [ XSL Template: FC-Form1A.xsl; Created: 16-Apr-2019 17:38:09; Application: XMLTransformer-1.17.7;
Report Filename: PFC_FC_LC_PFAS_WG67438-105_Form1A_FC9W_130S29_SJ2545317.html; Workgroup: WG67438; Design ID: 3161 ]

**SGS AXYS METHOD MLA-110 Rev 01**

**Form 2**

**PERFLUORINATED ORGANICS ANALYSIS REPORT**

**CLIENT SAMPLE NO.**
**PMW-01-020419 (Duplicate)**
**Sample Collection:**
**04-Feb-2019 11:35**

**SGS AXYS ANALYTICAL SERVICES**
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

| | | | |
|---|---|---|---|
| **Project No.** | RACER LANSING PLANT -2 | | |
| **Contract No.:** | 4951 | **Lab Sample I.D.:** | WG67438-105 (FDUP L30821-1) |
| **Matrix:** | OIL | **Sample Size:** | 0.100 L |
| **Sample Receipt Date:** | 04-Mar-2019 | **Initial Calibration Date:** | 08-Mar-2019 |
| **Extraction Date:** | 27-Mar-2019 | **Instrument ID:** | LC MS/MS |
| **Analysis Date:** | 31-Mar-2019 **Time:** 02:49:49 | **Column ID:** | C18 |
| **Extract Volume (uL):** | 4000 | **Sample Data Filename:** | **FC9W_130 S: 29** |
| **Injection Volume (uL):** | 2 | **Blank Data Filename:** | FC9W_130 S: 24 |
| **Dilution Factor:** | N/A | **Cal. Ver. Data Filename:** | FC9W_130 S: 18 |
| **Concentration Units:** | ng absolute | | |

This page is part of a total report that contains information necessary for accreditation compliance.
This test is not NELAP accredited. Sample results relate only to the sample tested.

| LABELED COMPOUND | LAB FLAG [1] | SPIKE CONC. | CONC. FOUND | R(%) [2] | RETENTION TIME |
|---|---|---|---|---|---|
| **13C4-PFBA** | | 40.0 | 25.1 | 62.8 | 1:57 |
| **13C5-PFPeA** | | 20.0 | 12.2 | 61.1 | 4:15 |
| **13C5-PFHxA** | | 10.0 | 7.01 | 70.1 | 5:02 |
| **13C4-PFHpA** | | 10.0 | 6.57 | 65.7 | 5:32 |
| **13C8-PFOA** | | 10.0 | 7.08 | 70.8 | 6:21 |
| **13C9-PFNA** | | 5.00 | 3.91 | 78.1 | 7:04 |
| **13C6-PFDA** | | 5.00 | 4.78 | 95.7 | 7:28 |
| **13C7-PFUnA** | V | 5.00 | 0.875 | 17.5 | 7:43 |
| **13C2-PFDoA** | V | 5.00 | 1.15 | 22.9 | 8:04 |
| **13C2-PFTeDA** | NQ | | | | |
| **13C3-PFBS** | | 10.0 | 7.10 | 71.0 | 4:59 |
| **13C3-PFHxS** | | 10.0 | 7.74 | 77.4 | 6:28 |
| **13C8-PFOS** | | 10.0 | 9.48 | 94.8 | 7:33 |
| **13C2-4:2 FTS** | | 20.0 | 18.9 | 94.5 | 4:54 |
| **13C2-6:2 FTS** | | 20.0 | 15.4 | 77.1 | 6:01 |
| **13C2-8:2 FTS** | NQ | | | | |
| **13C8-PFOSA** | | 10.0 | 5.26 | 52.6 | 8:38 |
| **D3-N-MeFOSA** | NQ | | | | |
| **D5-N-EtFOSA** | NQ | | | | |
| **D3-MeFOSAA** | | 20.0 | 10.6 | 52.9 | 7:30 |
| **D5-EtFOSAA** | V | 20.0 | 6.00 | 30.0 | 7:36 |
| **d7-NMe-FOSE** | NQ | | | | |
| **d9-NEt-FOSE** | NQ | | | | |

(1) Where applicable, custom lab flags have been used on this report; V = surrogate recovery is not within method/contract control limits; NQ = data not quantifiable.
(2) R(%) = percent recovery.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Andrew Porat_____

For Axys Internal Use Only [ XSL Template: FC-Form2.xsl; Created: 16-Apr-2019 17:38:09; Application: XMLTransformer-1.17.7;
Report Filename: PFC_FC_LC_PFAS_WG67438-105_Form2_FC9W_130S29_SJ2545317.html; Workgroup: WG67438; Design ID: 3161 ]

**SGS AXYS METHOD MLA-110 Rev 01**

**PERFLUORINATED ORGANICS ANALYSIS REPORT**
**RELATIVE PERCENT DIFFERENCE**

**SGS AXYS ANALYTICAL SERVICES**
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

**Project No.** RACER LANSING PLANT -2

**Contract No.:** 4951

**Client ID:** PMW-01-020419

**Concentration Units:** ng/L

| COMPOUND | L30821-1 (A) | | WG67438-105 | | MEAN | RELATIVE PERCENT DIFFERENCE |
|---|---|---|---|---|---|---|
| | LAB FLAG [1] | CONC. FOUND | LAB FLAG [1] | CONC. FOUND | | |
| **PFBA** | U | | U | | | |
| **PFPeA** | U | | U | | | |
| **PFHxA** | U | | U | | | |
| **PFHpA** | U | | U | | | |
| **PFOA** | U | | U | | | |
| **PFNA** | U | | U | | | |
| **PFDA** | U | | U | | | |
| **PFUnA** | U | | U | | | |
| **PFDoA** | U | | U | | | |
| **PFTrDA** | NQ | | NQ | | | |
| **PFTeDA** | NQ | | NQ | | | |
| **PFBS** | U | | U | | | |
| **PFPeS** | U | | U | | | |
| **PFHxS** | | 37.4 | | 45.2 | 41.3 | 18.8 |
| **PFHpS** | U | | U | | | |
| **PFOS** | | 13.4 | | 12.1 | 12.7 | 10.2 |
| **PFNS** | U | | U | | | |
| **PFDS** | U | | U | | | |
| **PFDoS** | U | | U | | | |
| **4:2 FTS** | U | | U | | | |
| **6:2 FTS** | U | | U | | | |
| **8:2 FTS** | NQ | | NQ | | | |
| **PFOSA** | U | | U | | | |
| **N-MeFOSA** | NQ | | NQ | | | |
| **N-EtFOSA** | NQ | | NQ | | | |
| **MeFOSAA** | | 5.63 | | 7.48 | 6.55 | 28.2 |
| **EtFOSAA** | | 254 | | 263 | 258 | 3.62 |
| **N-MeFOSE** | NQ | | NQ | | | |
| **N-EtFOSE** | NQ | | NQ | | | |

(1) Where applicable, custom lab flags have been used on this report; U = not detected at RL; NQ = data not quantifiable.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.
Signed: _____Andrew Porat_____

These pages are part of a larger report that may contain information necessary for full data evaluation. Results reported relate only to the sample tested.

For Axys Internal Use Only [ XSL Template: RPD.xsl; Created: 16-Apr-2019 17:39:31; Application: XMLTransformer-1.17.7;
Report Filename: RPD_FC_LC_PFAS-RPD_WG67438-105_L30821-1_.html; Workgroup: WG67438; Design ID: 3161 ]

**SGS AXYS METHOD MLA-110 Rev 01**

**CLIENT SAMPLE NO.**
**LMW-15-160-020419**
**Sample Collection:**
**04-Feb-2019 15:05**

**Form 1A**

**PERFLUORINATED ORGANICS ANALYSIS REPORT**

**SGS AXYS ANALYTICAL SERVICES**
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

| | | | |
|---|---|---|---|
| **Project No.** | RACER LANSING PLANT -2 | | |
| **Contract No.:** | 4951 | **Lab Sample I.D.:** | L30821-2 |
| **Matrix:** | OIL | **Sample Size:** | 0.100 L |
| **Sample Receipt Date:** | 04-Mar-2019 | **Initial Calibration Date:** | 08-Mar-2019 |
| **Extraction Date:** | 27-Mar-2019 | **Instrument ID:** | LC MS/MS |
| **Analysis Date:** | 31-Mar-2019 **Time:** 03:03:09 | **Column ID:** | C18 |
| **Extract Volume (uL):** | 4000 | **Sample Data Filename:** | **FC9W_130 S: 30** |
| **Injection Volume (uL):** | 2 | **Blank Data Filename:** | FC9W_130 S: 24 |
| **Dilution Factor:** | N/A | **Cal. Ver. Data Filename:** | FC9W_130 S: 18 |
| **Concentration Units:** | ng/L | | |

This page is part of a total report that contains information necessary for accreditation compliance.
This test is not NELAP accredited. Sample results relate only to the sample tested.

| COMPOUND | LAB FLAG [1] | CONC. FOUND | REPORTING LIMIT (RL)[2] | RETENTION TIME |
|---|---|---|---|---|
| **PFBA** | | 220 | 28.0 (S) | 1:57 |
| **PFPeA** | U | | 10.6 (S) | |
| **PFHxA** | U | | 4.10 (L) | |
| **PFHpA** | U | | 20.1 (S) | |
| **PFOA** | U | | 5.07 (S) | |
| **PFNA** | U | | 4.00 (L) | |
| **PFDA** | U | | 4.00 (L) | |
| **PFUnA** | U | | 4.00 (L) | |
| **PFDoA** | U | | 4.00 (L) | |
| **PFTrDA** | U | | 136 (S) | |
| **PFTeDA** | U | | 4.00 (L) | |
| **PFBS** | U | | 4.10 (L) | |
| **PFPeS** | U | | 3.80 (L) | |
| **PFHxS** | U | | 4.10 (L) | |
| **PFHpS** | U | | 3.80 (L) | |
| **PFOS** | U | | 4.10 (L) | |
| **PFNS** | U | | 3.80 (L) | |
| **PFDS** | U | | 4.10 (L) | |
| **PFDoS** | U | | 3.80 (L) | |
| **4:2 FTS** | U | | 16.0 (L) | |
| **6:2 FTS** | | 37.4 | 14.4 (L) | 6:01 |
| **8:2 FTS** | U | | 16.0 (L) | |
| **PFOSA** | U | | 4.10 (L) | |
| **N-MeFOSA** | NQ | | | |
| **N-EtFOSA** | NQ | | | |
| **MeFOSAA** | U | | 4.00 (L) | |
| **EtFOSAA** | U | | 4.00 (L) | |
| **N-MeFOSE** | NQ | | | |
| **N-EtFOSE** | NQ | | | |

(1) Where applicable, custom lab flags have been used on this report; U = not detected at RL; NQ = data not quantifiable.
(2) Reporting Limit (Code): S = sample detection limit; M = method detection limit; L = lowest calibration level equivalent; Q = minimum reporting level.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Andrew Porat_____

For Axys Internal Use Only [ XSL Template: FC-Form1A.xsl; Created: 16-Apr-2019 17:38:09; Application: XMLTransformer-1.17.7;
Report Filename: PFC_FC_LC_PFAS_L30821-2_Form1A_FC9W_130S30_SJ2545318.html; Workgroup: WG67438; Design ID: 3161 ]

**SGS AXYS METHOD MLA-110 Rev 01**

**CLIENT SAMPLE NO.**
**LMW-15-160-020419**
**Sample Collection:**
**04-Feb-2019 15:05**

**Form 2**

**PERFLUORINATED ORGANICS ANALYSIS REPORT**

**SGS AXYS ANALYTICAL SERVICES**
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

| | | | |
|---|---|---|---|
| **Project No.** | RACER LANSING PLANT -2 | | |
| **Contract No.:** | 4951 | **Lab Sample I.D.:** | L30821-2 |
| **Matrix:** | OIL | **Sample Size:** | 0.100 L |
| **Sample Receipt Date:** | 04-Mar-2019 | **Initial Calibration Date:** | 08-Mar-2019 |
| **Extraction Date:** | 27-Mar-2019 | **Instrument ID:** | LC MS/MS |
| **Analysis Date:** | 31-Mar-2019 **Time:** 03:03:09 | **Column ID:** | C18 |
| **Extract Volume (uL):** | 4000 | **Sample Data Filename:** | **FC9W_130 S: 30** |
| **Injection Volume (uL):** | 2 | **Blank Data Filename:** | FC9W_130 S: 24 |
| **Dilution Factor:** | N/A | **Cal. Ver. Data Filename:** | FC9W_130 S: 18 |
| **Concentration Units:** | ng absolute | | |

This page is part of a total report that contains information necessary for accreditation compliance.
This test is not NELAP accredited. Sample results relate only to the sample tested.

| LABELED COMPOUND | LAB FLAG [1] | SPIKE CONC. | CONC. FOUND | R(%) [2] | RETENTION TIME |
|---|---|---|---|---|---|
| **13C4-PFBA** | V | 40.0 | 0.609 | 1.52 | 1:57 |
| **13C5-PFPeA** | V | 20.0 | 0.447 | 2.24 | 4:19 |
| **13C5-PFHxA** | V | 10.0 | 0.633 | 6.33 | 5:02 |
| **13C4-PFHpA** | V | 10.0 | 0.999 | 9.99 | 5:32 |
| **13C8-PFOA** | V | 10.0 | 1.74 | 17.4 | 6:21 |
| **13C9-PFNA** | V | 5.00 | 2.16 | 43.2 | 7:07 |
| **13C6-PFDA** | | 5.00 | 4.00 | 80.0 | 7:30 |
| **13C7-PFUnA** | | 5.00 | 3.78 | 75.5 | 7:48 |
| **13C2-PFDoA** | | 5.00 | 3.09 | 61.8 | 8:06 |
| **13C2-PFTeDA** | V | 5.00 | 0.114 | 2.28 | 8:50 |
| **13C3-PFBS** | V | 10.0 | 1.64 | 16.4 | 4:59 |
| **13C3-PFHxS** | | 10.0 | 5.01 | 50.1 | 6:28 |
| **13C8-PFOS** | | 10.0 | 9.97 | 99.7 | 7:36 |
| **13C2-4:2 FTS** | V | 20.0 | 0.578 | 2.89 | 4:54 |
| **13C2-6:2 FTS** | V | 20.0 | 1.41 | 7.05 | 6:01 |
| **13C2-8:2 FTS** | V | 20.0 | 7.52 | 37.6 | 7:22 |
| **13C8-PFOSA** | | 10.0 | 5.11 | 51.1 | 8:39 |
| **D3-N-MeFOSA** | NQ | | | | |
| **D5-N-EtFOSA** | NQ | | | | |
| **D3-MeFOSAA** | | 20.0 | 12.3 | 61.4 | 7:32 |
| **D5-EtFOSAA** | | 20.0 | 15.7 | 78.6 | 7:39 |
| **d7-NMe-FOSE** | NQ | | | | |
| **d9-NEt-FOSE** | NQ | | | | |

(1) Where applicable, custom lab flags have been used on this report; V = surrogate recovery is not within method/contract control limits; NQ = data not quantifiable.
(2) R(%) = percent recovery.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Andrew Porat_____

For Axys Internal Use Only [ XSL Template: FC-Form2.xsl; Created: 16-Apr-2019 17:38:09; Application: XMLTransformer-1.17.7;
Report Filename: PFC_FC_LC_PFAS_L30821-2_Form2_FC9W_130S30_SJ2545318.html; Workgroup: WG67438; Design ID: 3161 ]

**SGS AXYS METHOD MLA-110 Rev 01**

**CLIENT SAMPLE NO.**
**PZ-SB-37-020419**
**Sample Collection:**
**04-Feb-2019 15:30**

**Form 1A**

**PERFLUORINATED ORGANICS ANALYSIS REPORT**

**SGS AXYS ANALYTICAL SERVICES**
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

| | | | |
|---|---|---|---|
| **Project No.** | RACER LANSING PLANT -2 | | |
| **Contract No.:** | 4951 | **Lab Sample I.D.:** | L30821-3 i |
| **Matrix:** | OIL | **Sample Size:** | 0.0500 L |
| **Sample Receipt Date:** | 04-Mar-2019 | **Initial Calibration Date:** | 08-Mar-2019 |
| **Extraction Date:** | 04-Apr-2019 | **Instrument ID:** | LC MS/MS |
| **Analysis Date:** | 08-Apr-2019 **Time:** 18:05:51 | **Column ID:** | C18 |
| **Extract Volume (uL):** | 4000 | **Sample Data Filename:** | **FC9W_144 S: 19** |
| **Injection Volume (uL):** | 2 | **Blank Data Filename:** | FC9W_144 S: 18 |
| **Dilution Factor:** | N/A | **Cal. Ver. Data Filename:** | FC9W_144 S: 14 |
| **Concentration Units:** | ng/L | | |

This page is part of a total report that contains information necessary for accreditation compliance.
This test is not NELAP accredited. Sample results relate only to the sample tested.

| COMPOUND | LAB FLAG [1] | CONC. FOUND | REPORTING LIMIT (RL)[2] | RETENTION TIME |
|---|---|---|---|---|
| **PFBA** | U | | 32.8 (L) | |
| **PFPeA** | | 46.7 | 16.4 (L) | 4:21 |
| **PFHxA** | U | | 19.1 (S) | |
| **PFHpA** | | 18.2 | 8.20 (L) | 5:35 |
| **PFOA** | | 10.8 | 8.20 (L) | 6:28 |
| **PFNA** | | 8.23 | 8.00 (L) | 7:07 |
| **PFDA** | U | | 8.00 (L) | |
| **PFUnA** | U | | 8.00 (L) | |
| **PFDoA** | U | | 8.00 (L) | |
| **PFTrDA** | U | | 27.1 (S) | |
| **PFTeDA** | U | | 8.00 (L) | |
| **PFBS** | U | | 8.20 (L) | |
| **PFPeS** | U | | 7.60 (L) | |
| **PFHxS** | U | | 8.20 (L) | |
| **PFHpS** | U | | 7.60 (L) | |
| **PFOS** | | 51.6 | 8.20 (L) | 7:35 |
| **PFNS** | U | | 7.60 (L) | |
| **PFDS** | U | | 8.20 (L) | |
| **PFDoS** | U | | 7.60 (L) | |
| **4:2 FTS** | U | | 32.0 (L) | |
| **6:2 FTS** | U | | 28.8 (L) | |
| **8:2 FTS** | U | | 32.0 (L) | |
| **PFOSA** | U | | 8.20 (L) | |
| **N-MeFOSA** | NQ | | | |
| **N-EtFOSA** | NQ | | | |
| **MeFOSAA** | U | | 8.00 (L) | |
| **EtFOSAA** | U | | 8.00 (L) | |
| **N-MeFOSE** | U | | 81.6 (L) | |
| **N-EtFOSE** | NQ | | | |

(1) Where applicable, custom lab flags have been used on this report; U = not detected at RL; NQ = data not quantifiable.
(2) Reporting Limit (Code): S = sample detection limit; M = method detection limit; L = lowest calibration level equivalent; Q = minimum reporting level.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Andrew Porat_____

For Axys Internal Use Only [ XSL Template: FC-Form1A.xsl; Created: 22-Apr-2019 09:44:06; Application: XMLTransformer-1.17.7;
Report Filename: PFC_FC_LC_PFAS_L30821-3_Form1A_FC9W_144S19_SJ2546990.html; Workgroup: WG67663; Design ID: 3161 ]

**SGS AXYS METHOD MLA-110 Rev 01**

**CLIENT SAMPLE NO.**
**PZ-SB-37-020419**
**Sample Collection:**
**04-Feb-2019 15:30**

**Form 2**

**PERFLUORINATED ORGANICS ANALYSIS REPORT**

**SGS AXYS ANALYTICAL SERVICES**
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

| | | | |
|---|---|---|---|
| **Project No.** | RACER LANSING PLANT -2 | | |
| **Contract No.:** | 4951 | **Lab Sample I.D.:** | L30821-3 i |
| **Matrix:** | OIL | **Sample Size:** | 0.0500 L |
| **Sample Receipt Date:** | 04-Mar-2019 | **Initial Calibration Date:** | 08-Mar-2019 |
| **Extraction Date:** | 04-Apr-2019 | **Instrument ID:** | LC MS/MS |
| **Analysis Date:** | 08-Apr-2019 **Time:** 18:05:51 | **Column ID:** | C18 |
| **Extract Volume (uL):** | 4000 | **Sample Data Filename:** | **FC9W_144 S: 19** |
| **Injection Volume (uL):** | 2 | **Blank Data Filename:** | FC9W_144 S: 18 |
| **Dilution Factor:** | N/A | **Cal. Ver. Data Filename:** | FC9W_144 S: 14 |
| **Concentration Units:** | ng absolute | | |

This page is part of a total report that contains information necessary for accreditation compliance.
This test is not NELAP accredited. Sample results relate only to the sample tested.

| LABELED COMPOUND | LAB FLAG [1] | SPIKE CONC. | CONC. FOUND | R(%) [2] | RETENTION TIME |
|---|---|---|---|---|---|
| **13C4-PFBA** | | 40.0 | 30.9 | 77.3 | 2:12 |
| **13C5-PFPeA** | | 20.0 | 18.4 | 92.2 | 4:21 |
| **13C5-PFHxA** | | 10.0 | 8.82 | 88.2 | 5:01 |
| **13C4-PFHpA** | | 10.0 | 8.57 | 85.7 | 5:35 |
| **13C8-PFOA** | | 10.0 | 8.72 | 87.2 | 6:28 |
| **13C9-PFNA** | | 5.00 | 4.95 | 99.1 | 7:07 |
| **13C6-PFDA** | | 5.00 | 5.58 | 112 | 7:30 |
| **13C7-PFUnA** | | 5.00 | 4.97 | 99.4 | 7:46 |
| **13C2-PFDoA** | | 5.00 | 5.29 | 106 | 8:05 |
| **13C2-PFTeDA** | V | 5.00 | 0.512 | 10.2 | 8:56 |
| **13C3-PFBS** | | 10.0 | 9.10 | 91.0 | 4:59 |
| **13C3-PFHxS** | | 10.0 | 10.2 | 102 | 6:35 |
| **13C8-PFOS** | | 10.0 | 10.7 | 107 | 7:35 |
| **13C2-4:2 FTS** | V | 20.0 | 37.0 | 185 | 4:53 |
| **13C2-6:2 FTS** | V | 20.0 | 49.7 | 248 | 6:07 |
| **13C2-8:2 FTS** | V | 20.0 | 50.0 | 250 | 7:22 |
| **13C8-PFOSA** | | 10.0 | 9.14 | 91.4 | 8:33 |
| **D3-N-MeFOSA** | NQ | | | | |
| **D5-N-EtFOSA** | NQ | | | | |
| **D3-MeFOSAA** | | 20.0 | 24.4 | 122 | 7:31 |
| **D5-EtFOSAA** | | 20.0 | 26.7 | 133 | 7:37 |
| **d7-NMe-FOSE** | V | 100 | 0.363 | 0.363 | 9:42 |
| **d9-NEt-FOSE** | NQ | | | | |

(1) Where applicable, custom lab flags have been used on this report; V = surrogate recovery is not within method/contract control limits; NQ = data not quantifiable.
(2) R(%) = percent recovery.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Andrew Porat_____

For Axys Internal Use Only [ XSL Template: FC-Form2.xsl; Created: 22-Apr-2019 09:44:06; Application: XMLTransformer-1.17.7;
Report Filename: PFC_FC_LC_PFAS_L30821-3_Form2_FC9W_144S19_SJ2546990.html; Workgroup: WG67663; Design ID: 3161 ]

**SGS AXYS METHOD MLA-110 Rev 01**

**CLIENT SAMPLE NO.**
**LMW-14-120-020519**
**Sample Collection:**
**05-Feb-2019 09:30**

**Form 1A**

**PERFLUORINATED ORGANICS ANALYSIS REPORT**

**SGS AXYS ANALYTICAL SERVICES**
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

| | | | |
|---|---|---|---|
| **Project No.** | RACER LANSING PLANT -2 | | |
| **Contract No.:** | 4951 | **Lab Sample I.D.:** | L30821-4 |
| **Matrix:** | OIL | **Sample Size:** | 0.100 L |
| **Sample Receipt Date:** | 04-Mar-2019 | **Initial Calibration Date:** | 08-Mar-2019 |
| **Extraction Date:** | 27-Mar-2019 | **Instrument ID:** | LC MS/MS |
| **Analysis Date:** | 31-Mar-2019 **Time:** 03:16:29 | **Column ID:** | C18 |
| **Extract Volume (uL):** | 4000 | **Sample Data Filename:** | **FC9W_130 S: 31** |
| **Injection Volume (uL):** | 2 | **Blank Data Filename:** | FC9W_130 S: 24 |
| **Dilution Factor:** | N/A | **Cal. Ver. Data Filename:** | FC9W_130 S: 18 |
| **Concentration Units:** | ng/L | | |

This page is part of a total report that contains information necessary for accreditation compliance.
This test is not NELAP accredited. Sample results relate only to the sample tested.

| COMPOUND | LAB FLAG [1] | CONC. FOUND | REPORTING LIMIT (RL)[2] | RETENTION TIME |
|---|---|---|---|---|
| **PFBA** | | 18.9 | 16.4 (L) | 1:56 |
| **PFPeA** | U | | 8.20 (L) | |
| **PFHxA** | U | | 4.10 (L) | |
| **PFHpA** | U | | 4.10 (L) | |
| **PFOA** | U | | 4.10 (L) | |
| **PFNA** | U | | 4.00 (L) | |
| **PFDA** | U | | 4.00 (L) | |
| **PFUnA** | U | | 4.00 (L) | |
| **PFDoA** | U | | 4.00 (L) | |
| **PFTrDA** | U | | 111 (S) | |
| **PFTeDA** | U | | 76.4 (S) | |
| **PFBS** | U | | 4.10 (L) | |
| **PFPeS** | U | | 3.80 (L) | |
| **PFHxS** | U | | 4.10 (L) | |
| **PFHpS** | U | | 3.80 (L) | |
| **PFOS** | | 4.37 | 4.10 (L) | 7:36 |
| **PFNS** | U | | 3.80 (L) | |
| **PFDS** | U | | 4.10 (L) | |
| **PFDoS** | U | | 3.80 (L) | |
| **4:2 FTS** | U | | 16.0 (L) | |
| **6:2 FTS** | U | | 14.4 (L) | |
| **8:2 FTS** | U | | 16.0 (L) | |
| **PFOSA** | U | | 4.10 (L) | |
| **N-MeFOSA** | NQ | | | |
| **N-EtFOSA** | NQ | | | |
| **MeFOSAA** | U | | 4.00 (L) | |
| **EtFOSAA** | U | | 4.00 (L) | |
| **N-MeFOSE** | NQ | | | |
| **N-EtFOSE** | NQ | | | |

(1) Where applicable, custom lab flags have been used on this report; U = not detected at RL; NQ = data not quantifiable.
(2) Reporting Limit (Code): S = sample detection limit; M = method detection limit; L = lowest calibration level equivalent; Q = minimum reporting level.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Andrew Porat_____

For Axys Internal Use Only [ XSL Template: FC-Form1A.xsl; Created: 16-Apr-2019 17:38:09; Application: XMLTransformer-1.17.7;
Report Filename: PFC_FC_LC_PFAS_L30821-4_Form1A_FC9W_130S31_SJ2545319.html; Workgroup: WG67438; Design ID: 3161 ]

**SGS AXYS METHOD MLA-110 Rev 01**

**CLIENT SAMPLE NO.**
**LMW-14-120-020519**
**Sample Collection:**
**05-Feb-2019 09:30**

**Form 2**

**PERFLUORINATED ORGANICS ANALYSIS REPORT**

**SGS AXYS ANALYTICAL SERVICES**
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

| | | | |
|---|---|---|---|
| **Project No.** | RACER LANSING PLANT -2 | | |
| **Contract No.:** | 4951 | **Lab Sample I.D.:** | L30821-4 |
| **Matrix:** | OIL | **Sample Size:** | 0.100 L |
| **Sample Receipt Date:** | 04-Mar-2019 | **Initial Calibration Date:** | 08-Mar-2019 |
| **Extraction Date:** | 27-Mar-2019 | **Instrument ID:** | LC MS/MS |
| **Analysis Date:** | 31-Mar-2019 **Time:** 03:16:29 | **Column ID:** | C18 |
| **Extract Volume (uL):** | 4000 | **Sample Data Filename:** | **FC9W_130 S: 31** |
| **Injection Volume (uL):** | 2 | **Blank Data Filename:** | FC9W_130 S: 24 |
| **Dilution Factor:** | N/A | **Cal. Ver. Data Filename:** | FC9W_130 S: 18 |
| **Concentration Units:** | ng absolute | | |

This page is part of a total report that contains information necessary for accreditation compliance.
This test is not NELAP accredited. Sample results relate only to the sample tested.

| LABELED COMPOUND | LAB FLAG [1] | SPIKE CONC. | CONC. FOUND | R(%) [2] | RETENTION TIME |
|---|---|---|---|---|---|
| **13C4-PFBA** | V | 40.0 | 7.71 | 19.3 | 1:56 |
| **13C5-PFPeA** | V | 20.0 | 9.20 | 46.0 | 4:18 |
| **13C5-PFHxA** | | 10.0 | 6.62 | 66.2 | 5:00 |
| **13C4-PFHpA** | | 10.0 | 8.79 | 87.9 | 5:30 |
| **13C8-PFOA** | | 10.0 | 8.75 | 87.5 | 6:17 |
| **13C9-PFNA** | | 5.00 | 4.96 | 99.3 | 7:06 |
| **13C6-PFDA** | | 5.00 | 5.71 | 114 | 7:31 |
| **13C7-PFUnA** | | 5.00 | 4.41 | 88.2 | 7:48 |
| **13C2-PFDoA** | | 5.00 | 4.00 | 80.0 | 8:06 |
| **13C2-PFTeDA** | V | 5.00 | 0.236 | 4.73 | 8:50 |
| **13C3-PFBS** | | 10.0 | 9.12 | 91.2 | 4:57 |
| **13C3-PFHxS** | | 10.0 | 9.83 | 98.3 | 6:25 |
| **13C8-PFOS** | | 10.0 | 10.1 | 101 | 7:36 |
| **13C2-4:2 FTS** | | 20.0 | 10.3 | 51.6 | 4:53 |
| **13C2-6:2 FTS** | | 20.0 | 14.5 | 72.5 | 5:57 |
| **13C2-8:2 FTS** | | 20.0 | 14.9 | 74.5 | 7:22 |
| **13C8-PFOSA** | | 10.0 | 5.64 | 56.4 | 8:45 |
| **D3-N-MeFOSA** | NQ | | | | |
| **D5-N-EtFOSA** | NQ | | | | |
| **D3-MeFOSAA** | | 20.0 | 16.1 | 80.3 | 7:32 |
| **D5-EtFOSAA** | | 20.0 | 19.5 | 97.6 | 7:39 |
| **d7-NMe-FOSE** | NQ | | | | |
| **d9-NEt-FOSE** | NQ | | | | |

(1) Where applicable, custom lab flags have been used on this report; V = surrogate recovery is not within method/contract control limits; NQ = data not quantifiable.
(2) R(%) = percent recovery.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Andrew Porat_____

For Axys Internal Use Only [ XSL Template: FC-Form2.xsl; Created: 16-Apr-2019 17:38:09; Application: XMLTransformer-1.17.7;
Report Filename: PFC_FC_LC_PFAS_L30821-4_Form2_FC9W_130S31_SJ2545319.html; Workgroup: WG67438; Design ID: 3161 ]

**SGS AXYS METHOD MLA-110 Rev 01**

**CLIENT SAMPLE NO.**
**LMW-14-150-020519**
**Sample Collection:**
**05-Feb-2019 11:05**

**Form 1A**

**PERFLUORINATED ORGANICS ANALYSIS REPORT**

**SGS AXYS ANALYTICAL SERVICES**
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

| | | | |
|---|---|---|---|
| **Project No.** | RACER LANSING PLANT -2 | | |
| **Contract No.:** | 4951 | **Lab Sample I.D.:** | L30821-5 |
| **Matrix:** | OIL | **Sample Size:** | 0.100 L |
| **Sample Receipt Date:** | 04-Mar-2019 | **Initial Calibration Date:** | 08-Mar-2019 |
| **Extraction Date:** | 27-Mar-2019 | **Instrument ID:** | LC MS/MS |
| **Analysis Date:** | 31-Mar-2019 **Time:** 03:29:49 | **Column ID:** | C18 |
| **Extract Volume (uL):** | 4000 | **Sample Data Filename:** | **FC9W_130 S: 32** |
| **Injection Volume (uL):** | 2 | **Blank Data Filename:** | FC9W_130 S: 24 |
| **Dilution Factor:** | N/A | **Cal. Ver. Data Filename:** | FC9W_130 S: 18 |
| **Concentration Units:** | ng/L | | |

This page is part of a total report that contains information necessary for accreditation compliance.
This test is not NELAP accredited. Sample results relate only to the sample tested.

| COMPOUND | LAB FLAG [1] | CONC. FOUND | REPORTING LIMIT (RL)[2] | RETENTION TIME |
|---|---|---|---|---|
| **PFBA** | | 76.4 | 16.4 (L) | 1:57 |
| **PFPeA** | U | | 8.20 (L) | |
| **PFHxA** | U | | 4.10 (L) | |
| **PFHpA** | U | | 4.10 (L) | |
| **PFOA** | | 4.19 | 4.10 (L) | 6:18 |
| **PFNA** | U | | 4.00 (L) | |
| **PFDA** | U | | 4.00 (L) | |
| **PFUnA** | U | | 4.00 (L) | |
| **PFDoA** | U | | 4.00 (L) | |
| **PFTrDA** | U | | 102 (S) | |
| **PFTeDA** | U | | 105 (S) | |
| **PFBS** | U | | 4.10 (L) | |
| **PFPeS** | U | | 3.80 (L) | |
| **PFHxS** | U | | 4.10 (L) | |
| **PFHpS** | U | | 3.80 (L) | |
| **PFOS** | | 10.4 | 4.10 (L) | 7:37 |
| **PFNS** | U | | 3.80 (L) | |
| **PFDS** | U | | 4.10 (L) | |
| **PFDoS** | U | | 3.80 (L) | |
| **4:2 FTS** | U | | 16.0 (L) | |
| **6:2 FTS** | U | | 14.4 (L) | |
| **8:2 FTS** | U | | 16.0 (L) | |
| **PFOSA** | | 4.58 | 4.10 (L) | 8:38 |
| **N-MeFOSA** | NQ | | | |
| **N-EtFOSA** | NQ | | | |
| **MeFOSAA** | U | | 4.00 (L) | |
| **EtFOSAA** | | 7.43 | 4.00 (L) | 7:40 |
| **N-MeFOSE** | NQ | | | |
| **N-EtFOSE** | NQ | | | |

(1) Where applicable, custom lab flags have been used on this report; U = not detected at RL; NQ = data not quantifiable.
(2) Reporting Limit (Code): S = sample detection limit; M = method detection limit; L = lowest calibration level equivalent; Q = minimum reporting level.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Andrew Porat_____

For Axys Internal Use Only [ XSL Template: FC-Form1A.xsl; Created: 16-Apr-2019 17:38:09; Application: XMLTransformer-1.17.7;
Report Filename: PFC_FC_LC_PFAS_L30821-5_Form1A_FC9W_130S32_SJ2545320.html; Workgroup: WG67438; Design ID: 3161 ]

**SGS AXYS METHOD MLA-110 Rev 01**

**CLIENT SAMPLE NO.**
**LMW-14-150-020519**
**Sample Collection:**
**05-Feb-2019 11:05**

**Form 2**

**PERFLUORINATED ORGANICS ANALYSIS REPORT**

**SGS AXYS ANALYTICAL SERVICES**
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

| | | | |
|---|---|---|---|
| **Project No.** | RACER LANSING PLANT -2 | | |
| **Contract No.:** | 4951 | **Lab Sample I.D.:** | L30821-5 |
| **Matrix:** | OIL | **Sample Size:** | 0.100 L |
| **Sample Receipt Date:** | 04-Mar-2019 | **Initial Calibration Date:** | 08-Mar-2019 |
| **Extraction Date:** | 27-Mar-2019 | **Instrument ID:** | LC MS/MS |
| **Analysis Date:** | 31-Mar-2019 **Time:** 03:29:49 | **Column ID:** | C18 |
| **Extract Volume (uL):** | 4000 | **Sample Data Filename:** | **FC9W_130 S: 32** |
| **Injection Volume (uL):** | 2 | **Blank Data Filename:** | FC9W_130 S: 24 |
| **Dilution Factor:** | N/A | **Cal. Ver. Data Filename:** | FC9W_130 S: 18 |
| **Concentration Units:** | ng absolute | | |

This page is part of a total report that contains information necessary for accreditation compliance.
This test is not NELAP accredited. Sample results relate only to the sample tested.

| LABELED COMPOUND | LAB FLAG [1] | SPIKE CONC. | CONC. FOUND | R(%) [2] | RETENTION TIME |
|---|---|---|---|---|---|
| **13C4-PFBA** | V | 40.0 | 3.04 | 7.59 | 1:57 |
| **13C5-PFPeA** | V | 20.0 | 6.14 | 30.7 | 4:19 |
| **13C5-PFHxA** | | 10.0 | 5.89 | 58.9 | 5:00 |
| **13C4-PFHpA** | | 10.0 | 6.64 | 66.4 | 5:30 |
| **13C8-PFOA** | | 10.0 | 7.58 | 75.8 | 6:18 |
| **13C9-PFNA** | | 5.00 | 4.79 | 95.9 | 7:06 |
| **13C6-PFDA** | | 5.00 | 5.08 | 102 | 7:32 |
| **13C7-PFUnA** | | 5.00 | 3.77 | 75.5 | 7:48 |
| **13C2-PFDoA** | | 5.00 | 2.88 | 57.5 | 8:06 |
| **13C2-PFTeDA** | V | 5.00 | 0.101 | 2.02 | 8:50 |
| **13C3-PFBS** | | 10.0 | 8.72 | 87.2 | 4:58 |
| **13C3-PFHxS** | | 10.0 | 10.3 | 103 | 6:25 |
| **13C8-PFOS** | | 10.0 | 10.3 | 103 | 7:37 |
| **13C2-4:2 FTS** | V | 20.0 | 9.03 | 45.1 | 4:53 |
| **13C2-6:2 FTS** | | 20.0 | 12.7 | 63.7 | 5:58 |
| **13C2-8:2 FTS** | | 20.0 | 17.6 | 88.1 | 7:23 |
| **13C8-PFOSA** | | 10.0 | 6.64 | 66.4 | 8:38 |
| **D3-N-MeFOSA** | NQ | | | | |
| **D5-N-EtFOSA** | NQ | | | | |
| **D3-MeFOSAA** | | 20.0 | 16.8 | 83.8 | 7:33 |
| **D5-EtFOSAA** | | 20.0 | 16.8 | 84.2 | 7:40 |
| **d7-NMe-FOSE** | NQ | | | | |
| **d9-NEt-FOSE** | NQ | | | | |

(1) Where applicable, custom lab flags have been used on this report; V = surrogate recovery is not within method/contract control limits; NQ = data not quantifiable.
(2) R(%) = percent recovery.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Andrew Porat_____

For Axys Internal Use Only [ XSL Template: FC-Form2.xsl; Created: 16-Apr-2019 17:38:09; Application: XMLTransformer-1.17.7;
Report Filename: PFC_FC_LC_PFAS_L30821-5_Form2_FC9W_130S32_SJ2545320.html; Workgroup: WG67438; Design ID: 3161 ]

**SGS AXYS METHOD MLA-110 Rev 01**

**CLIENT SAMPLE NO.**
**LMW-12-08-020519**
**Sample Collection:**
**05-Feb-2019 12:30**

**Form 1A**

**PERFLUORINATED ORGANICS ANALYSIS REPORT**

**SGS AXYS ANALYTICAL SERVICES**
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

| | | | |
|---|---|---|---|
| **Project No.** | RACER LANSING PLANT -2 | | |
| **Contract No.:** | 4951 | **Lab Sample I.D.:** | L30821-6 |
| **Matrix:** | OIL | **Sample Size:** | 0.100 L |
| **Sample Receipt Date:** | 04-Mar-2019 | **Initial Calibration Date:** | 08-Mar-2019 |
| **Extraction Date:** | 27-Mar-2019 | **Instrument ID:** | LC MS/MS |
| **Analysis Date:** | 31-Mar-2019 **Time:** 03:43:09 | **Column ID:** | C18 |
| **Extract Volume (uL):** | 4000 | **Sample Data Filename:** | **FC9W_130 S: 33** |
| **Injection Volume (uL):** | 2 | **Blank Data Filename:** | FC9W_130 S: 24 |
| **Dilution Factor:** | N/A | **Cal. Ver. Data Filename:** | FC9W_130 S: 18 |
| **Concentration Units:** | ng/L | | |

This page is part of a total report that contains information necessary for accreditation compliance.
This test is not NELAP accredited. Sample results relate only to the sample tested.

| COMPOUND | LAB FLAG [1] | CONC. FOUND | REPORTING LIMIT (RL)[2] | RETENTION TIME |
|---|---|---|---|---|
| **PFBA** | U | | 16.4 (L) | |
| **PFPeA** | U | | 8.20 (L) | |
| **PFHxA** | U | | 4.10 (L) | |
| **PFHpA** | U | | 4.10 (L) | |
| **PFOA** | U | | 4.10 (L) | |
| **PFNA** | | 4.83 | 4.00 (L) | 7:06 |
| **PFDA** | | 4.33 | 4.00 (L) | 7:30 |
| **PFUnA** | | 9.22 | 4.00 (L) | 7:48 |
| **PFDoA** | | 10.1 | 4.00 (L) | 8:06 |
| **PFTrDA** | U | | 236 (S) | |
| **PFTeDA** | U | | 237 (S) | |
| **PFBS** | U | | 4.10 (L) | |
| **PFPeS** | U | | 8.34 (S) | |
| **PFHxS** | | 30.1 | 4.84 (S) | 6:26 |
| **PFHpS** | U | | 4.19 (S) | |
| **PFOS** | | 19.1 | 4.10 (L) | 7:36 |
| **PFNS** | U | | 3.80 (L) | |
| **PFDS** | U | | 4.10 (L) | |
| **PFDoS** | U | | 3.80 (L) | |
| **4:2 FTS** | U | | 16.0 (L) | |
| **6:2 FTS** | U | | 14.4 (L) | |
| **8:2 FTS** | U | | 16.0 (L) | |
| **PFOSA** | | 5.58 | 4.10 (L) | 8:38 |
| **N-MeFOSA** | NQ | | | |
| **N-EtFOSA** | NQ | | | |
| **MeFOSAA** | U | | 4.00 (L) | |
| **EtFOSAA** | U | | 4.00 (L) | |
| **N-MeFOSE** | NQ | | | |
| **N-EtFOSE** | NQ | | | |

(1) Where applicable, custom lab flags have been used on this report; U = not detected at RL; NQ = data not quantifiable.
(2) Reporting Limit (Code): S = sample detection limit; M = method detection limit; L = lowest calibration level equivalent; Q = minimum reporting level.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Andrew Porat_____

For Axys Internal Use Only [ XSL Template: FC-Form1A.xsl; Created: 16-Apr-2019 17:38:09; Application: XMLTransformer-1.17.7;
Report Filename: PFC_FC_LC_PFAS_L30821-6_Form1A_FC9W_130S33_SJ2545321.html; Workgroup: WG67438; Design ID: 3161 ]

**SGS AXYS METHOD MLA-110 Rev 01**

**CLIENT SAMPLE NO.**
**LMW-12-08-020519**
**Sample Collection:**
**05-Feb-2019 12:30**

**Form 2**

**PERFLUORINATED ORGANICS ANALYSIS REPORT**

**SGS AXYS ANALYTICAL SERVICES**
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

| | | | |
|---|---|---|---|
| **Project No.** | RACER LANSING PLANT -2 | | |
| **Contract No.:** | 4951 | **Lab Sample I.D.:** | L30821-6 |
| **Matrix:** | OIL | **Sample Size:** | 0.100 L |
| **Sample Receipt Date:** | 04-Mar-2019 | **Initial Calibration Date:** | 08-Mar-2019 |
| **Extraction Date:** | 27-Mar-2019 | **Instrument ID:** | LC MS/MS |
| **Analysis Date:** | 31-Mar-2019 **Time:** 03:43:09 | **Column ID:** | C18 |
| **Extract Volume (uL):** | 4000 | **Sample Data Filename:** | **FC9W_130 S: 33** |
| **Injection Volume (uL):** | 2 | **Blank Data Filename:** | FC9W_130 S: 24 |
| **Dilution Factor:** | N/A | **Cal. Ver. Data Filename:** | FC9W_130 S: 18 |
| **Concentration Units:** | ng absolute | | |

This page is part of a total report that contains information necessary for accreditation compliance.
This test is not NELAP accredited. Sample results relate only to the sample tested.

| LABELED COMPOUND | LAB FLAG [1] | SPIKE CONC. | CONC. FOUND | R(%) [2] | RETENTION TIME |
|---|---|---|---|---|---|
| **13C4-PFBA** | | 40.0 | 24.2 | 60.5 | 1:55 |
| **13C5-PFPeA** | | 20.0 | 21.8 | 109 | 4:18 |
| **13C5-PFHxA** | | 10.0 | 8.42 | 84.2 | 4:59 |
| **13C4-PFHpA** | | 10.0 | 7.44 | 74.4 | 5:30 |
| **13C8-PFOA** | | 10.0 | 7.84 | 78.4 | 6:17 |
| **13C9-PFNA** | | 5.00 | 4.85 | 97.1 | 7:06 |
| **13C6-PFDA** | | 5.00 | 5.50 | 110 | 7:30 |
| **13C7-PFUnA** | | 5.00 | 4.12 | 82.5 | 7:48 |
| **13C2-PFDoA** | | 5.00 | 2.73 | 54.7 | 8:06 |
| **13C2-PFTeDA** | V | 5.00 | 0.057 | 1.14 | 8:50 |
| **13C3-PFBS** | | 10.0 | 7.12 | 71.2 | 4:56 |
| **13C3-PFHxS** | | 10.0 | 8.87 | 88.7 | 6:25 |
| **13C8-PFOS** | | 10.0 | 10.4 | 104 | 7:36 |
| **13C2-4:2 FTS** | | 20.0 | 11.1 | 55.7 | 4:52 |
| **13C2-6:2 FTS** | | 20.0 | 17.7 | 88.5 | 5:58 |
| **13C2-8:2 FTS** | | 20.0 | 15.3 | 76.6 | 7:22 |
| **13C8-PFOSA** | | 10.0 | 6.19 | 61.9 | 8:38 |
| **D3-N-MeFOSA** | NQ | | | | |
| **D5-N-EtFOSA** | NQ | | | | |
| **D3-MeFOSAA** | | 20.0 | 17.8 | 89.1 | 7:32 |
| **D5-EtFOSAA** | | 20.0 | 18.9 | 94.5 | 7:39 |
| **d7-NMe-FOSE** | NQ | | | | |
| **d9-NEt-FOSE** | NQ | | | | |

(1) Where applicable, custom lab flags have been used on this report; V = surrogate recovery is not within method/contract control limits; NQ = data not quantifiable.
(2) R(%) = percent recovery.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Andrew Porat_____

For Axys Internal Use Only [ XSL Template: FC-Form2.xsl; Created: 16-Apr-2019 17:38:09; Application: XMLTransformer-1.17.7;
Report Filename: PFC_FC_LC_PFAS_L30821-6_Form2_FC9W_130S33_SJ2545321.html; Workgroup: WG67438; Design ID: 3161 ]

**SGS AXYS METHOD MLA-110 Rev 01**

**CLIENT SAMPLE NO.**
**LMW-12-03-020519**
**Sample Collection:**
**05-Feb-2019 14:50**

**Form 1A**

**PERFLUORINATED ORGANICS ANALYSIS REPORT**

**SGS AXYS ANALYTICAL SERVICES**
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

| | | | |
|---|---|---|---|
| **Project No.** | RACER LANSING PLANT -2 | | |
| **Contract No.:** | 4951 | **Lab Sample I.D.:** | L30821-7 i |
| **Matrix:** | OIL | **Sample Size:** | 0.100 L |
| **Sample Receipt Date:** | 04-Mar-2019 | **Initial Calibration Date:** | 08-Mar-2019 |
| **Extraction Date:** | 04-Apr-2019 | **Instrument ID:** | LC MS/MS |
| **Analysis Date:** | 08-Apr-2019 **Time:** 18:19:19 | **Column ID:** | C18 |
| **Extract Volume (uL):** | 4000 | **Sample Data Filename:** | **FC9W_144 S: 20** |
| **Injection Volume (uL):** | 2 | **Blank Data Filename:** | FC9W_144 S: 18 |
| **Dilution Factor:** | N/A | **Cal. Ver. Data Filename:** | FC9W_144 S: 14 |
| **Concentration Units:** | ng/L | | |

This page is part of a total report that contains information necessary for accreditation compliance.
This test is not NELAP accredited. Sample results relate only to the sample tested.

| COMPOUND | LAB FLAG [1] | CONC. FOUND | REPORTING LIMIT (RL)[2] | RETENTION TIME |
|---|---|---|---|---|
| **PFBA** | | 61.2 | 16.4 (L) | 2:12 |
| **PFPeA** | | 87.9 | 8.20 (L) | 4:20 |
| **PFHxA** | | 30.2 | 9.69 (S) | 5:01 |
| **PFHpA** | | 47.1 | 4.10 (L) | 5:35 |
| **PFOA** | | 18.4 | 4.10 (L) | 6:27 |
| **PFNA** | | 14.7 | 4.00 (L) | 7:06 |
| **PFDA** | | 12.2 | 4.00 (L) | 7:29 |
| **PFUnA** | | 4.94 | 4.00 (L) | 7:45 |
| **PFDoA** | U | | 4.00 (L) | |
| **PFTrDA** | | 17.3 | 11.6 (S) | 8:27 |
| **PFTeDA** | U | | 7.06 (S) | |
| **PFBS** | U | | 4.10 (L) | |
| **PFPeS** | U | | 4.14 (S) | |
| **PFHxS** | U | | 8.29 (S) | |
| **PFHpS** | U | | 3.80 (L) | |
| **PFOS** | | 35.2 | 4.10 (L) | 7:34 |
| **PFNS** | U | | 3.80 (L) | |
| **PFDS** | U | | 4.10 (L) | |
| **PFDoS** | U | | 3.80 (L) | |
| **4:2 FTS** | U | | 16.0 (L) | |
| **6:2 FTS** | | 18.1 | 14.4 (L) | 6:06 |
| **8:2 FTS** | U | | 16.0 (L) | |
| **PFOSA** | | 10.6 | 4.10 (L) | 8:35 |
| **N-MeFOSA** | NQ | | | |
| **N-EtFOSA** | NQ | | | |
| **MeFOSAA** | U | | 4.00 (L) | |
| **EtFOSAA** | | 6.90 | 4.00 (L) | 7:37 |
| **N-MeFOSE** | NQ | | | |
| **N-EtFOSE** | NQ | | | |

(1) Where applicable, custom lab flags have been used on this report; U = not detected at RL; NQ = data not quantifiable.
(2) Reporting Limit (Code): S = sample detection limit; M = method detection limit; L = lowest calibration level equivalent; Q = minimum reporting level.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Andrew Porat_____

For Axys Internal Use Only [ XSL Template: FC-Form1A.xsl; Created: 22-Apr-2019 09:44:06; Application: XMLTransformer-1.17.7;
Report Filename: PFC_FC_LC_PFAS_L30821-7_Form1A_FC9W_144S20_SJ2546991.html; Workgroup: WG67663; Design ID: 3161 ]

**SGS AXYS METHOD MLA-110 Rev 01**

**CLIENT SAMPLE NO.**
**LMW-12-03-020519**
**Sample Collection:**
**05-Feb-2019 14:50**

**Form 2**

**PERFLUORINATED ORGANICS ANALYSIS REPORT**

**SGS AXYS ANALYTICAL SERVICES**
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

| | | | |
|---|---|---|---|
| **Project No.** | RACER LANSING PLANT -2 | | |
| **Contract No.:** | 4951 | **Lab Sample I.D.:** | L30821-7 i |
| **Matrix:** | OIL | **Sample Size:** | 0.100 L |
| **Sample Receipt Date:** | 04-Mar-2019 | **Initial Calibration Date:** | 08-Mar-2019 |
| **Extraction Date:** | 04-Apr-2019 | **Instrument ID:** | LC MS/MS |
| **Analysis Date:** | 08-Apr-2019 **Time:** 18:19:19 | **Column ID:** | C18 |
| **Extract Volume (uL):** | 4000 | **Sample Data Filename:** | **FC9W_144 S: 20** |
| **Injection Volume (uL):** | 2 | **Blank Data Filename:** | FC9W_144 S: 18 |
| **Dilution Factor:** | N/A | **Cal. Ver. Data Filename:** | FC9W_144 S: 14 |
| **Concentration Units:** | ng absolute | | |

This page is part of a total report that contains information necessary for accreditation compliance.
This test is not NELAP accredited. Sample results relate only to the sample tested.

| LABELED COMPOUND | LAB FLAG [1] | SPIKE CONC. | CONC. FOUND | R(%) [2] | RETENTION TIME |
|---|---|---|---|---|---|
| **13C4-PFBA** | | 40.0 | 22.9 | 57.3 | 2:12 |
| **13C5-PFPeA** | | 20.0 | 12.4 | 62.0 | 4:19 |
| **13C5-PFHxA** | | 10.0 | 6.80 | 68.0 | 5:01 |
| **13C4-PFHpA** | | 10.0 | 6.61 | 66.1 | 5:35 |
| **13C8-PFOA** | | 10.0 | 7.27 | 72.7 | 6:27 |
| **13C9-PFNA** | | 5.00 | 4.21 | 84.3 | 7:06 |
| **13C6-PFDA** | | 5.00 | 5.14 | 103 | 7:29 |
| **13C7-PFUnA** | | 5.00 | 3.96 | 79.2 | 7:45 |
| **13C2-PFDoA** | | 5.00 | 4.21 | 84.1 | 8:04 |
| **13C2-PFTeDA** | V | 5.00 | 0.575 | 11.5 | 8:54 |
| **13C3-PFBS** | | 10.0 | 6.65 | 66.5 | 4:59 |
| **13C3-PFHxS** | | 10.0 | 7.15 | 71.5 | 6:36 |
| **13C8-PFOS** | | 10.0 | 9.90 | 99.0 | 7:34 |
| **13C2-4:2 FTS** | | 20.0 | 29.6 | 148 | 4:53 |
| **13C2-6:2 FTS** | V | 20.0 | 39.7 | 199 | 6:06 |
| **13C2-8:2 FTS** | V | 20.0 | 45.8 | 229 | 7:21 |
| **13C8-PFOSA** | | 10.0 | 5.33 | 53.3 | 8:34 |
| **D3-N-MeFOSA** | NQ | | | | |
| **D5-N-EtFOSA** | NQ | | | | |
| **D3-MeFOSAA** | | 20.0 | 26.8 | 134 | 7:31 |
| **D5-EtFOSAA** | V | 20.0 | 31.0 | 155 | 7:37 |
| **d7-NMe-FOSE** | NQ | | | | |
| **d9-NEt-FOSE** | NQ | | | | |

(1) Where applicable, custom lab flags have been used on this report; V = surrogate recovery is not within method/contract control limits; NQ = data not quantifiable.
(2) R(%) = percent recovery.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Andrew Porat_____

For Axys Internal Use Only [ XSL Template: FC-Form2.xsl; Created: 22-Apr-2019 09:44:06; Application: XMLTransformer-1.17.7;
Report Filename: PFC_FC_LC_PFAS_L30821-7_Form2_FC9W_144S20_SJ2546991.html; Workgroup: WG67663; Design ID: 3161 ]

**SGS AXYS METHOD MLA-110 Rev 01**

**CLIENT SAMPLE NO.**
**Lab Blank**
**Sample Collection:**
**N/A**

**Form 1A**

**PERFLUORINATED ORGANICS ANALYSIS REPORT**

**SGS AXYS ANALYTICAL SERVICES**
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

| | | | |
|---|---|---|---|
| **Project No.** | N/A | | |
| **Contract No.:** | 4951 | **Lab Sample I.D.:** | WG67438-101 |
| **Matrix:** | AQUEOUS | **Sample Size:** | 0.500 L |
| **Sample Receipt Date:** | N/A | **Initial Calibration Date:** | 08-Mar-2019 |
| **Extraction Date:** | 27-Mar-2019 | **Instrument ID:** | LC MS/MS |
| **Analysis Date:** | 31-Mar-2019 **Time:** 01:42:45 | **Column ID:** | C18 |
| **Extract Volume (uL):** | 4000 | **Sample Data Filename:** | **FC9W_130 S: 24** |
| **Injection Volume (uL):** | 2 | **Blank Data Filename:** | FC9W_130 S: 24 |
| **Dilution Factor:** | N/A | **Cal. Ver. Data Filename:** | FC9W_130 S: 18 |
| **Concentration Units:** | ng/L | | |

This page is part of a total report that contains information necessary for accreditation compliance.
Results are compliant with NELAP accreditation described in the total report. Sample results relate only to the sample tested.

| COMPOUND | LAB FLAG [1] | CONC. FOUND | REPORTING LIMIT (RL)[2] | RETENTION TIME |
|---|---|---|---|---|
| **PFBA** | U | | 3.28 (L) | |
| **PFPeA** | U | | 1.64 (L) | |
| **PFHxA** | U | | 0.820 (L) | |
| **PFHpA** | U | | 0.820 (L) | |
| **PFOA** | U | | 0.820 (L) | |
| **PFNA** | U | | 0.800 (L) | |
| **PFDA** | U | | 0.800 (L) | |
| **PFUnA** | U | | 0.800 (L) | |
| **PFDoA** | U | | 0.800 (L) | |
| **PFTrDA** | U | | 0.800 (L) | |
| **PFTeDA** | U | | 0.800 (L) | |
| **PFBS** | U | | 0.820 (L) | |
| **PFPeS** | U | | 0.760 (L) | |
| **PFHxS** | U | | 0.820 (L) | |
| **PFHpS** | U | | 0.760 (L) | |
| **PFOS** | U | | 0.820 (L) | |
| **PFNS** | U | | 0.760 (L) | |
| **PFDS** | U | | 0.820 (L) | |
| **PFDoS** | U | | 0.760 (L) | |
| **4:2 FTS** | U | | 3.20 (L) | |
| **6:2 FTS** | U | | 2.88 (L) | |
| **8:2 FTS** | U | | 3.20 (L) | |
| **PFOSA** | U | | 0.820 (L) | |
| **N-MeFOSA** | U | | 0.920 (L) | |
| **N-EtFOSA** | U | | 2.00 (L) | |
| **MeFOSAA** | U | | 0.800 (L) | |
| **EtFOSAA** | U | | 0.800 (L) | |
| **N-MeFOSE** | U | | 8.16 (L) | |
| **N-EtFOSE** | U | | 6.12 (L) | |

(1) Where applicable, custom lab flags have been used on this report; U = not detected at RL.
(2) Reporting Limit (Code): S = sample detection limit; M = method detection limit; L = lowest calibration level equivalent; Q = minimum reporting level.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Andrew Porat_____

For Axys Internal Use Only [ XSL Template: FC-Form1A.xsl; Created: 16-Apr-2019 17:38:09; Application: XMLTransformer-1.17.7;
Report Filename: PFC_FC_LC_PFAS_WG67438-101_Form1A_FC9W_130S24_SJ2545311.html; Workgroup: WG67438; Design ID: 3161 ]

**SGS AXYS METHOD MLA-110 Rev 01**

**CLIENT SAMPLE NO.**
**Lab Blank**
**Sample Collection:**
**N/A**

**Form 2**

**PERFLUORINATED ORGANICS ANALYSIS REPORT**

**SGS AXYS ANALYTICAL SERVICES**
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

| | | | |
|---|---|---|---|
| **Project No.** | N/A | | |
| **Contract No.:** | 4951 | **Lab Sample I.D.:** | WG67438-101 |
| **Matrix:** | AQUEOUS | **Sample Size:** | 0.500 L |
| **Sample Receipt Date:** | N/A | **Initial Calibration Date:** | 08-Mar-2019 |
| **Extraction Date:** | 27-Mar-2019 | **Instrument ID:** | LC MS/MS |
| **Analysis Date:** | 31-Mar-2019 **Time:** 01:42:45 | **Column ID:** | C18 |
| **Extract Volume (uL):** | 4000 | **Sample Data Filename:** | **FC9W_130 S: 24** |
| **Injection Volume (uL):** | 2 | **Blank Data Filename:** | FC9W_130 S: 24 |
| **Dilution Factor:** | N/A | **Cal. Ver. Data Filename:** | FC9W_130 S: 18 |
| **Concentration Units:** | ng absolute | | |

This page is part of a total report that contains information necessary for accreditation compliance.
Results are compliant with NELAP accreditation described in the total report. Sample results relate only to the sample tested.

| LABELED COMPOUND | LAB FLAG [1] | SPIKE CONC. | CONC. FOUND | R(%) [2] | RETENTION TIME |
|---|---|---|---|---|---|
| **13C4-PFBA** | | 40.0 | 41.2 | 103 | 1:58 |
| **13C5-PFPeA** | | 20.0 | 20.0 | 99.9 | 4:21 |
| **13C5-PFHxA** | | 10.0 | 10.8 | 108 | 5:00 |
| **13C4-PFHpA** | | 10.0 | 10.5 | 105 | 5:31 |
| **13C8-PFOA** | | 10.0 | 9.35 | 93.5 | 6:20 |
| **13C9-PFNA** | | 5.00 | 4.97 | 99.4 | 7:05 |
| **13C6-PFDA** | | 5.00 | 5.90 | 118 | 7:32 |
| **13C7-PFUnA** | | 5.00 | 5.37 | 107 | 7:51 |
| **13C2-PFDoA** | | 5.00 | 5.57 | 111 | 8:09 |
| **13C2-PFTeDA** | | 5.00 | 4.07 | 81.4 | 8:53 |
| **13C3-PFBS** | | 10.0 | 11.8 | 118 | 4:58 |
| **13C3-PFHxS** | | 10.0 | 10.3 | 103 | 6:27 |
| **13C8-PFOS** | | 10.0 | 11.2 | 112 | 7:38 |
| **13C2-4:2 FTS** | | 20.0 | 17.5 | 87.4 | 4:53 |
| **13C2-6:2 FTS** | | 20.0 | 13.6 | 68.0 | 6:00 |
| **13C2-8:2 FTS** | | 20.0 | 14.2 | 70.8 | 7:23 |
| **13C8-PFOSA** | V | 10.0 | 18.7 | 187 | 8:34 |
| **D3-N-MeFOSA** | | 10.0 | 7.14 | 71.4 | 9:53 |
| **D5-N-EtFOSA** | | 10.0 | 6.05 | 60.5 | 10:08 |
| **D3-MeFOSAA** | | 20.0 | 10.7 | 53.6 | 7:34 |
| **D5-EtFOSAA** | | 20.0 | 15.7 | 78.4 | 7:42 |
| **d7-NMe-FOSE** | V | 100 | 195 | 195 | 9:46 |
| **d9-NEt-FOSE** | V | 100 | 175 | 175 | 10:01 |

(1) Where applicable, custom lab flags have been used on this report; V = surrogate recovery is not within method/contract control limits.
(2) R(%) = percent recovery.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Andrew Porat_____

For Axys Internal Use Only [ XSL Template: FC-Form2.xsl; Created: 16-Apr-2019 17:38:09; Application: XMLTransformer-1.17.7;
Report Filename: PFC_FC_LC_PFAS_WG67438-101_Form2_FC9W_130S24_SJ2545311.html; Workgroup: WG67438; Design ID: 3161 ]

**SGS AXYS METHOD MLA-110 Rev 01**

**CLIENT SAMPLE NO.**
**Lab Blank**
**Sample Collection:**
**N/A**

**Form 1A**

**PERFLUORINATED ORGANICS ANALYSIS REPORT**

**SGS AXYS ANALYTICAL SERVICES**
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

| | | | |
|---|---|---|---|
| **Project No.** | N/A | | |
| **Contract No.:** | 4951 | **Lab Sample I.D.:** | WG67438-102 |
| **Matrix:** | AQUEOUS | **Sample Size:** | 0.100 L |
| **Sample Receipt Date:** | N/A | **Initial Calibration Date:** | 08-Mar-2019 |
| **Extraction Date:** | 27-Mar-2019 | **Instrument ID:** | LC MS/MS |
| **Analysis Date:** | 31-Mar-2019 **Time:** 01:56:13 | **Column ID:** | C18 |
| **Extract Volume (uL):** | 4000 | **Sample Data Filename:** | **FC9W_130 S: 25** |
| **Injection Volume (uL):** | 2 | **Blank Data Filename:** | FC9W_130 S: 24 |
| **Dilution Factor:** | N/A | **Cal. Ver. Data Filename:** | FC9W_130 S: 18 |
| **Concentration Units:** | ng/L | | |

This page is part of a total report that contains information necessary for accreditation compliance.
This test is not NELAP accredited. Sample results relate only to the sample tested.

| COMPOUND | LAB FLAG [1] | CONC. FOUND | REPORTING LIMIT (RL)[2] | RETENTION TIME |
|---|---|---|---|---|
| **PFBA** | U | | 16.4 (L) | |
| **PFPeA** | U | | 8.20 (L) | |
| **PFHxA** | U | | 4.10 (L) | |
| **PFHpA** | U | | 4.10 (L) | |
| **PFOA** | U | | 4.10 (L) | |
| **PFNA** | U | | 4.00 (L) | |
| **PFDA** | U | | 4.00 (L) | |
| **PFUnA** | U | | 4.00 (L) | |
| **PFDoA** | U | | 4.00 (L) | |
| **PFTrDA** | U | | 4.00 (L) | |
| **PFTeDA** | U | | 4.00 (L) | |
| **PFBS** | U | | 4.10 (L) | |
| **PFPeS** | U | | 3.80 (L) | |
| **PFHxS** | U | | 4.10 (L) | |
| **PFHpS** | U | | 3.80 (L) | |
| **PFOS** | U | | 4.10 (L) | |
| **PFNS** | U | | 3.80 (L) | |
| **PFDS** | U | | 4.10 (L) | |
| **PFDoS** | U | | 3.80 (L) | |
| **4:2 FTS** | U | | 16.0 (L) | |
| **6:2 FTS** | U | | 14.4 (L) | |
| **8:2 FTS** | U | | 16.0 (L) | |
| **PFOSA** | U | | 4.10 (L) | |
| **N-MeFOSA** | U | | 4.60 (L) | |
| **N-EtFOSA** | U | | 10.0 (L) | |
| **MeFOSAA** | U | | 4.00 (L) | |
| **EtFOSAA** | U | | 4.00 (L) | |
| **N-MeFOSE** | U | | 40.8 (L) | |
| **N-EtFOSE** | U | | 38.1 (S) | |

(1) Where applicable, custom lab flags have been used on this report; U = not detected at RL.
(2) Reporting Limit (Code): S = sample detection limit; M = method detection limit; L = lowest calibration level equivalent; Q = minimum reporting level.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Andrew Porat_____

For Axys Internal Use Only [ XSL Template: FC-Form1A.xsl; Created: 16-Apr-2019 17:38:09; Application: XMLTransformer-1.17.7;
Report Filename: PFC_FC_LC_PFAS_WG67438-102_Form1A_FC9W_130S25_SJ2545313.html; Workgroup: WG67438; Design ID: 3161 ]

**SGS AXYS METHOD MLA-110 Rev 01**

**CLIENT SAMPLE NO.**
**Lab Blank**
**Sample Collection:**
**N/A**

**Form 2**

**PERFLUORINATED ORGANICS ANALYSIS REPORT**

**SGS AXYS ANALYTICAL SERVICES**
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

| | | | |
|---|---|---|---|
| **Project No.** | N/A | | |
| **Contract No.:** | 4951 | **Lab Sample I.D.:** | WG67438-102 |
| **Matrix:** | AQUEOUS | **Sample Size:** | 0.100 L |
| **Sample Receipt Date:** | N/A | **Initial Calibration Date:** | 08-Mar-2019 |
| **Extraction Date:** | 27-Mar-2019 | **Instrument ID:** | LC MS/MS |
| **Analysis Date:** | 31-Mar-2019 **Time:** 01:56:13 | **Column ID:** | C18 |
| **Extract Volume (uL):** | 4000 | **Sample Data Filename:** | **FC9W_130 S: 25** |
| **Injection Volume (uL):** | 2 | **Blank Data Filename:** | FC9W_130 S: 24 |
| **Dilution Factor:** | N/A | **Cal. Ver. Data Filename:** | FC9W_130 S: 18 |
| **Concentration Units:** | ng absolute | | |

This page is part of a total report that contains information necessary for accreditation compliance.
This test is not NELAP accredited. Sample results relate only to the sample tested.

| LABELED COMPOUND | LAB FLAG [1] | SPIKE CONC. | CONC. FOUND | R(%) [2] | RETENTION TIME |
|---|---|---|---|---|---|
| **13C4-PFBA** | | 40.0 | 41.5 | 104 | 1:58 |
| **13C5-PFPeA** | | 20.0 | 20.1 | 100 | 4:20 |
| **13C5-PFHxA** | | 10.0 | 10.3 | 103 | 5:01 |
| **13C4-PFHpA** | | 10.0 | 10.1 | 101 | 5:32 |
| **13C8-PFOA** | | 10.0 | 9.25 | 92.5 | 6:21 |
| **13C9-PFNA** | | 5.00 | 5.20 | 104 | 7:07 |
| **13C6-PFDA** | | 5.00 | 5.38 | 108 | 7:32 |
| **13C7-PFUnA** | | 5.00 | 3.17 | 63.5 | 7:50 |
| **13C2-PFDoA** | V | 5.00 | 1.37 | 27.5 | 8:09 |
| **13C2-PFTeDA** | V | 5.00 | 0.507 | 10.1 | 8:53 |
| **13C3-PFBS** | | 10.0 | 11.5 | 115 | 4:59 |
| **13C3-PFHxS** | | 10.0 | 10.4 | 104 | 6:29 |
| **13C8-PFOS** | | 10.0 | 11.3 | 113 | 7:38 |
| **13C2-4:2 FTS** | | 20.0 | 18.7 | 93.7 | 4:54 |
| **13C2-6:2 FTS** | | 20.0 | 13.2 | 65.9 | 6:01 |
| **13C2-8:2 FTS** | | 20.0 | 14.3 | 71.4 | 7:23 |
| **13C8-PFOSA** | V | 10.0 | 19.1 | 191 | 8:32 |
| **D3-N-MeFOSA** | V | 10.0 | 1.52 | 15.2 | 9:52 |
| **D5-N-EtFOSA** | V | 10.0 | 0.448 | 4.48 | 10:08 |
| **D3-MeFOSAA** | V | 20.0 | 8.08 | 40.4 | 7:34 |
| **D5-EtFOSAA** | V | 20.0 | 7.52 | 37.6 | 7:41 |
| **d7-NMe-FOSE** | V | 100 | 3.14 | 3.14 | 9:45 |
| **d9-NEt-FOSE** | V | 100 | 2.31 | 2.31 | 10:01 |

(1) Where applicable, custom lab flags have been used on this report; V = surrogate recovery is not within method/contract control limits.
(2) R(%) = percent recovery.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Andrew Porat_____

For Axys Internal Use Only [ XSL Template: FC-Form2.xsl; Created: 16-Apr-2019 17:38:09; Application: XMLTransformer-1.17.7;
Report Filename: PFC_FC_LC_PFAS_WG67438-102_Form2_FC9W_130S25_SJ2545313.html; Workgroup: WG67438; Design ID: 3161 ]

**SGS AXYS METHOD MLA-110 Rev 01**

**CLIENT SAMPLE NO.**
**Lab Blank**
**Sample Collection:**
**N/A**

**Form 1A**

**PERFLUORINATED ORGANICS ANALYSIS REPORT**

**SGS AXYS ANALYTICAL SERVICES**
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

| | | | |
|---|---|---|---|
| **Project No.** | N/A | | |
| **Contract No.:** | 4951 | **Lab Sample I.D.:** | WG67663-101 i |
| **Matrix:** | AQUEOUS | **Sample Size:** | 0.0500 L |
| **Sample Receipt Date:** | N/A | **Initial Calibration Date:** | 08-Mar-2019 |
| **Extraction Date:** | 04-Apr-2019 | **Instrument ID:** | LC MS/MS |
| **Analysis Date:** | 08-Apr-2019 **Time:** 17:52:22 | **Column ID:** | C18 |
| **Extract Volume (uL):** | 4000 | **Sample Data Filename:** | **FC9W_144 S: 18** |
| **Injection Volume (uL):** | 2 | **Blank Data Filename:** | FC9W_144 S: 18 |
| **Dilution Factor:** | N/A | **Cal. Ver. Data Filename:** | FC9W_144 S: 14 |
| **Concentration Units:** | ng/L | | |

This page is part of a total report that contains information necessary for accreditation compliance.
This test is not NELAP accredited. Sample results relate only to the sample tested.

| COMPOUND | LAB FLAG [1] | CONC. FOUND | REPORTING LIMIT (RL)[2] | RETENTION TIME |
|---|---|---|---|---|
| **PFBA** | U | | 32.8 (L) | |
| **PFPeA** | U | | 16.4 (L) | |
| **PFHxA** | U | | 8.20 (L) | |
| **PFHpA** | U | | 8.20 (L) | |
| **PFOA** | U | | 8.20 (L) | |
| **PFNA** | U | | 8.00 (L) | |
| **PFDA** | U | | 8.00 (L) | |
| **PFUnA** | U | | 8.00 (L) | |
| **PFDoA** | U | | 8.00 (L) | |
| **PFTrDA** | U | | 8.00 (L) | |
| **PFTeDA** | U | | 8.00 (L) | |
| **PFBS** | U | | 8.20 (L) | |
| **PFPeS** | U | | 7.60 (L) | |
| **PFHxS** | U | | 8.20 (L) | |
| **PFHpS** | U | | 7.60 (L) | |
| **PFOS** | U | | 8.20 (L) | |
| **PFNS** | U | | 7.60 (L) | |
| **PFDS** | U | | 8.20 (L) | |
| **PFDoS** | U | | 7.60 (L) | |
| **4:2 FTS** | U | | 32.0 (L) | |
| **6:2 FTS** | | 41.9 | 28.8 (L) | 6:09 |
| **8:2 FTS** | U | | 32.0 (L) | |
| **PFOSA** | U | | 8.20 (L) | |
| **N-MeFOSA** | U | | 9.20 (L) | |
| **N-EtFOSA** | U | | 20.0 (L) | |
| **MeFOSAA** | U | | 8.00 (L) | |
| **EtFOSAA** | U | | 8.00 (L) | |
| **N-MeFOSE** | U | | 81.6 (L) | |
| **N-EtFOSE** | U | | 61.2 (L) | |

(1) Where applicable, custom lab flags have been used on this report; U = not detected at RL.
(2) Reporting Limit (Code): S = sample detection limit; M = method detection limit; L = lowest calibration level equivalent; Q = minimum reporting level.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Andrew Porat_____

For Axys Internal Use Only [ XSL Template: FC-Form1A.xsl; Created: 22-Apr-2019 09:44:06; Application: XMLTransformer-1.17.7;
Report Filename: PFC_FC_LC_PFAS_WG67663-101_Form1A_FC9W_144S18_SJ2546989.html; Workgroup: WG67663; Design ID: 3161 ]

**SGS AXYS METHOD MLA-110 Rev 01**

**CLIENT SAMPLE NO.**
**Lab Blank**
**Sample Collection:**
**N/A**

**Form 2**

**PERFLUORINATED ORGANICS ANALYSIS REPORT**

**SGS AXYS ANALYTICAL SERVICES**
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

| | | | |
|---|---|---|---|
| **Project No.** | N/A | | |
| **Contract No.:** | 4951 | **Lab Sample I.D.:** | WG67663-101 i |
| **Matrix:** | AQUEOUS | **Sample Size:** | 0.0500 L |
| **Sample Receipt Date:** | N/A | **Initial Calibration Date:** | 08-Mar-2019 |
| **Extraction Date:** | 04-Apr-2019 | **Instrument ID:** | LC MS/MS |
| **Analysis Date:** | 08-Apr-2019 **Time:** 17:52:22 | **Column ID:** | C18 |
| **Extract Volume (uL):** | 4000 | **Sample Data Filename:** | **FC9W_144 S: 18** |
| **Injection Volume (uL):** | 2 | **Blank Data Filename:** | FC9W_144 S: 18 |
| **Dilution Factor:** | N/A | **Cal. Ver. Data Filename:** | FC9W_144 S: 14 |
| **Concentration Units:** | ng absolute | | |

This page is part of a total report that contains information necessary for accreditation compliance.
This test is not NELAP accredited. Sample results relate only to the sample tested.

| LABELED COMPOUND | LAB FLAG [1] | SPIKE CONC. | CONC. FOUND | R(%) [2] | RETENTION TIME |
|---|---|---|---|---|---|
| **13C4-PFBA** | | 40.0 | 38.0 | 95.0 | 2:14 |
| **13C5-PFPeA** | | 20.0 | 18.1 | 90.4 | 4:22 |
| **13C5-PFHxA** | | 10.0 | 9.73 | 97.3 | 5:02 |
| **13C4-PFHpA** | | 10.0 | 9.16 | 91.6 | 5:37 |
| **13C8-PFOA** | | 10.0 | 8.84 | 88.4 | 6:31 |
| **13C9-PFNA** | | 5.00 | 4.74 | 94.9 | 7:09 |
| **13C6-PFDA** | | 5.00 | 5.42 | 108 | 7:31 |
| **13C7-PFUnA** | | 5.00 | 4.76 | 95.2 | 7:47 |
| **13C2-PFDoA** | | 5.00 | 4.55 | 91.0 | 8:06 |
| **13C2-PFTeDA** | | 5.00 | 4.56 | 91.3 | 8:58 |
| **13C3-PFBS** | | 10.0 | 10.7 | 107 | 5:01 |
| **13C3-PFHxS** | | 10.0 | 9.82 | 98.2 | 6:40 |
| **13C8-PFOS** | | 10.0 | 10.6 | 106 | 7:36 |
| **13C2-4:2 FTS** | V | 20.0 | 36.5 | 183 | 4:53 |
| **13C2-6:2 FTS** | | 20.0 | 21.9 | 110 | 6:10 |
| **13C2-8:2 FTS** | | 20.0 | 22.1 | 110 | 7:23 |
| **13C8-PFOSA** | | 10.0 | 9.07 | 90.7 | 8:28 |
| **D3-N-MeFOSA** | | 10.0 | 4.60 | 46.0 | 9:50 |
| **D5-N-EtFOSA** | | 10.0 | 5.38 | 53.8 | 10:06 |
| **D3-MeFOSAA** | | 20.0 | 19.9 | 99.4 | 7:32 |
| **D5-EtFOSAA** | | 20.0 | 20.7 | 104 | 7:38 |
| **d7-NMe-FOSE** | | 100 | 58.3 | 58.3 | 9:41 |
| **d9-NEt-FOSE** | | 100 | 48.3 | 48.3 | 9:59 |

(1) Where applicable, custom lab flags have been used on this report; V = surrogate recovery is not within method/contract control limits.
(2) R(%) = percent recovery.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Andrew Porat_____

For Axys Internal Use Only [ XSL Template: FC-Form2.xsl; Created: 22-Apr-2019 09:44:06; Application: XMLTransformer-1.17.7;
Report Filename: PFC_FC_LC_PFAS_WG67663-101_Form2_FC9W_144S18_SJ2546989.html; Workgroup: WG67663; Design ID: 3161 ]

**SGS AXYS METHOD MLA-110 Rev 01**

**Form 8A**

**PERFLUORINATED ORGANICS ONGOING PRECISION AND RECOVERY (OPR)**

**SGS AXYS ANALYTICAL SERVICES**
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

| | | | |
|---|---|---|---|
| **Contract No.:** | 4951 | **Lab Sample I.D.:** | WG67438-103 |
| **Matrix:** | AQUEOUS | **Initial Calibration Date:** | 08-Mar-2019 |
| **Extraction Date:** | 27-Mar-2019 | **Instrument ID:** | LC MS/MS |
| **Analysis Date:** | 31-Mar-2019 **Time:** 01:02:28 | **Column ID:** | C18 |
| **Extract Volume (uL):** | 4000 | **OPR Data Filename:** | **FC9W_130 S: 21** |
| **Injection Volume (uL):** | 2 | **Blank Data Filename:** | FC9W_130 S: 24 |
| **Dilution Factor:** | N/A | **Cal. Ver. Data Filename:** | FC9W_130 S: 18 |

**ALL CONCENTRATIONS REPORTED ON THIS FORM ARE CONCENTRATIONS IN EXTRACT, BASED ON A 1 mL EXTRACT VOLUME.**

| COMPOUND | LAB FLAG [1] | SPIKE CONC. (ng/mL) | CONC. FOUND (ng/mL) | % RECOVERY | RETENTION TIME |
|---|---|---|---|---|---|
| **PFBA** | | 39.7 | 42.6 | 107 | 1:58 |
| **PFPeA** | | 19.9 | 19.5 | 98.2 | 4:21 |
| **PFHxA** | | 9.94 | 10.2 | 103 | 5:03 |
| **PFHpA** | | 9.95 | 10.9 | 110 | 5:33 |
| **PFOA** | | 9.95 | 10.6 | 106 | 6:24 |
| **PFNA** | | 9.98 | 10.6 | 106 | 7:08 |
| **PFDA** | | 9.94 | 8.49 | 85.4 | 7:31 |
| **PFUnA** | | 9.97 | 11.1 | 112 | 7:49 |
| **PFDoA** | | 10.0 | 10.4 | 104 | 8:07 |
| **PFTrDA** | | 10.1 | 12.8 | 127 | 8:27 |
| **PFTeDA** | | 9.95 | 11.1 | 112 | 8:52 |
| **PFBS** | | 9.86 | 9.21 | 93.4 | 5:00 |
| **PFPeS** | | 9.38 | 11.3 | 120 | 5:36 |
| **PFHxS** | | 9.98 | 9.23 | 92.4 | 6:32 |
| **PFHpS** | | 9.52 | 9.82 | 103 | 7:14 |
| **PFOS** | | 9.92 | 9.77 | 98.5 | 7:37 |
| **PFNS** | | 9.60 | 10.0 | 104 | 7:55 |
| **PFDS** | | 9.90 | 10.2 | 103 | 8:15 |
| **PFDoS** | | 9.68 | 7.35 | 75.9 | 9:03 |
| **4:2 FTS** | | 40.1 | 38.0 | 94.7 | 4:55 |
| **6:2 FTS** | | 36.1 | 33.8 | 93.6 | 6:03 |
| **8:2 FTS** | | 40.0 | 43.9 | 110 | 7:23 |
| **PFOSA** | | 9.93 | 9.99 | 101 | 8:31 |
| **N-MeFOSA** | | 11.5 | 13.8 | 120 | 9:53 |
| **N-EtFOSA** | | 25.0 | 24.5 | 98.1 | 10:09 |
| **MeFOSAA** | | 10.0 | 12.2 | 122 | 7:33 |
| **EtFOSAA** | | 10.0 | 11.2 | 112 | 7:40 |
| **N-MeFOSE** | | 99.0 | 106 | 107 | 9:47 |
| **N-EtFOSE** | | 74.2 | 82.4 | 111 | 10:03 |

(1) Where applicable, custom lab flags have been used on this report.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Andrew Porat_____

These pages are part of a larger report that may contain information necessary for full data evaluation. Results reported relate only to the sample tested.

For Axys Internal Use Only [ XSL Template: FC-Form8A.xsl; Created: 16-Apr-2019 17:38:09; Application: XMLTransformer-1.17.7;
Report Filename: PFC_FC_LC_PFAS_WG67438-103_Form8A_SJ2545307.html; Workgroup: WG67438; Design ID: 3161 ]

**SGS AXYS METHOD MLA-110 Rev 01**

**Form 8B**

**PERFLUORINATED ORGANICS ONGOING PRECISION AND RECOVERY (OPR)**

**SGS AXYS ANALYTICAL SERVICES**
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

| | | | |
|---|---|---|---|
| **Contract No.:** | 4951 | **Lab Sample I.D.:** | WG67438-103 |
| **Matrix:** | AQUEOUS | **Initial Calibration Date:** | 08-Mar-2019 |
| **Extraction Date:** | 27-Mar-2019 | **Instrument ID:** | LC MS/MS |
| **Analysis Date:** | 31-Mar-2019 **Time:** 01:02:28 | **Column ID:** | C18 |
| **Extract Volume (uL):** | 4000 | **OPR Data Filename:** | **FC9W_130 S: 21** |
| **Injection Volume (uL):** | 2 | **Blank Data Filename:** | FC9W_130 S: 24 |
| **Dilution Factor:** | N/A | **Cal. Ver. Data Filename:** | FC9W_130 S: 18 |

**ALL CONCENTRATIONS REPORTED ON THIS FORM ARE CONCENTRATIONS IN EXTRACT, BASED ON A 1 mL EXTRACT VOLUME.**

| LABELED COMPOUND | LAB FLAG [1] | SPIKE CONC. (ng/mL) | CONC. FOUND (ng/mL) | % RECOVERY | RETENTION TIME |
|---|---|---|---|---|---|
| **13C4-PFBA** | | 40.0 | 41.0 | 103 | 1:58 |
| **13C5-PFPeA** | | 20.0 | 20.0 | 100 | 4:20 |
| **13C5-PFHxA** | | 10.0 | 10.9 | 109 | 5:03 |
| **13C4-PFHpA** | | 10.0 | 10.9 | 109 | 5:33 |
| **13C8-PFOA** | | 10.0 | 9.55 | 95.5 | 6:24 |
| **13C9-PFNA** | | 5.00 | 5.34 | 107 | 7:08 |
| **13C6-PFDA** | | 5.00 | 6.32 | 126 | 7:31 |
| **13C7-PFUnA** | | 5.00 | 5.40 | 108 | 7:49 |
| **13C2-PFDoA** | | 5.00 | 5.45 | 109 | 8:07 |
| **13C2-PFTeDA** | | 5.00 | 4.01 | 80.1 | 8:52 |
| **13C3-PFBS** | | 10.0 | 11.9 | 119 | 5:00 |
| **13C3-PFHxS** | | 10.0 | 10.4 | 104 | 6:32 |
| **13C8-PFOS** | | 10.0 | 11.3 | 113 | 7:37 |
| **13C2-4:2 FTS** | | 20.0 | 18.5 | 92.5 | 4:55 |
| **13C2-6:2 FTS** | | 20.0 | 13.4 | 67.0 | 6:03 |
| **13C2-8:2 FTS** | | 20.0 | 16.1 | 80.5 | 7:23 |
| **13C8-PFOSA** | V | 10.0 | 18.1 | 181 | 8:31 |
| **D3-N-MeFOSA** | | 10.0 | 7.04 | 70.4 | 9:52 |
| **D5-N-EtFOSA** | | 10.0 | 6.38 | 63.8 | 10:08 |
| **D3-MeFOSAA** | | 20.0 | 11.4 | 57.0 | 7:33 |
| **D5-EtFOSAA** | | 20.0 | 14.4 | 71.9 | 7:40 |
| **d7-NMe-FOSE** | V | 100 | 180 | 180 | 9:45 |
| **d9-NEt-FOSE** | V | 100 | 165 | 165 | 10:01 |

(1) Where applicable, custom lab flags have been used on this report; V = surrogate recovery is not within method/contract control limits.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Andrew Porat_____

These pages are part of a larger report that may contain information necessary for full data evaluation. Results reported relate only to the sample tested.

For Axys Internal Use Only [ XSL Template: FC-Form8B.xsl; Created: 16-Apr-2019 17:38:09; Application: XMLTransformer-1.17.7; Report Filename: PFC_FC_LC_PFAS_WG67438-103_Form8B_SJ2545307.html; Workgroup: WG67438; Design ID: 3161 ]

**SGS AXYS METHOD MLA-110 Rev 01**

**Form 8A**

**PERFLUORINATED ORGANICS ONGOING PRECISION AND RECOVERY (OPR)**

**SGS AXYS ANALYTICAL SERVICES**
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

| | | | |
|---|---|---|---|
| **Contract No.:** | 4951 | **Lab Sample I.D.:** | WG67438-104 |
| **Matrix:** | AQUEOUS | **Initial Calibration Date:** | 08-Mar-2019 |
| **Extraction Date:** | 27-Mar-2019 | **Instrument ID:** | LC MS/MS |
| **Analysis Date:** | 31-Mar-2019 **Time:** 01:15:56 | **Column ID:** | C18 |
| **Extract Volume (uL):** | 4000 | **OPR Data Filename:** | **FC9W_130 S: 22** |
| **Injection Volume (uL):** | 2 | **Blank Data Filename:** | FC9W_130 S: 24 |
| **Dilution Factor:** | N/A | **Cal. Ver. Data Filename:** | FC9W_130 S: 18 |

**ALL CONCENTRATIONS REPORTED ON THIS FORM ARE CONCENTRATIONS IN EXTRACT, BASED ON A 1 mL EXTRACT VOLUME.**

| COMPOUND | LAB FLAG [1] | SPIKE CONC. (ng/mL) | CONC. FOUND (ng/mL) | % RECOVERY | RETENTION TIME |
|---|---|---|---|---|---|
| **PFBA** | | 41.0 | 42.2 | 103 | 1:59 |
| **PFPeA** | | 20.4 | 20.2 | 99.0 | 4:21 |
| **PFHxA** | | 10.3 | 9.97 | 97.2 | 5:03 |
| **PFHpA** | | 10.3 | 10.4 | 101 | 5:34 |
| **PFOA** | | 10.3 | 10.3 | 101 | 6:24 |
| **PFNA** | | 10.0 | 10.8 | 108 | 7:09 |
| **PFDA** | | 10.0 | 9.06 | 90.6 | 7:31 |
| **PFUnA** | | 10.0 | 11.6 | 116 | 7:49 |
| **PFDoA** | | 10.0 | 9.39 | 93.9 | 8:07 |
| **PFTrDA** | N | 10.0 | 19.1 | 191 | 8:27 |
| **PFTeDA** | | 10.0 | 11.1 | 111 | 8:52 |
| **PFBS** | | 10.3 | 8.72 | 85.1 | 5:01 |
| **PFPeS** | | 9.50 | 10.8 | 114 | 5:36 |
| **PFHxS** | | 10.3 | 9.50 | 92.7 | 6:32 |
| **PFHpS** | | 9.50 | 10.4 | 110 | 7:15 |
| **PFOS** | | 10.3 | 9.80 | 95.6 | 7:37 |
| **PFNS** | | 9.50 | 8.19 | 86.2 | 7:55 |
| **PFDS** | N | 10.3 | 4.20 | 41.0 | 8:15 |
| **PFDoS** | N | 9.50 | 0.784 | 8.2 | 9:03 |
| **4:2 FTS** | | 40.0 | 34.8 | 87.0 | 4:55 |
| **6:2 FTS** | | 36.0 | 35.0 | 97.3 | 6:03 |
| **8:2 FTS** | | 40.0 | 45.1 | 113 | 7:23 |
| **PFOSA** | | 10.3 | 9.46 | 92.3 | 8:32 |
| **N-MeFOSA** | N | 11.5 | 15.5 | 135 | 9:52 |
| **N-EtFOSA** | | 25.0 | 26.4 | 106 | 10:08 |
| **MeFOSAA** | | 10.0 | 11.4 | 114 | 7:33 |
| **EtFOSAA** | | 10.0 | 8.97 | 89.7 | 7:40 |
| **N-MeFOSE** | | 102 | 83.0 | 81.4 | 9:46 |
| **N-EtFOSE** | N | 76.5 | 39.2 | 51.3 | 10:02 |

(1) Where applicable, custom lab flags have been used on this report; N = authentic recovery in the OPR is not within method/contract control limits.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Andrew Porat_____

These pages are part of a larger report that may contain information necessary for full data evaluation. Results reported relate only to the sample tested.

For Axys Internal Use Only [ XSL Template: FC-Form8A.xsl; Created: 16-Apr-2019 17:38:09; Application: XMLTransformer-1.17.7;
Report Filename: PFC_FC_LC_PFAS_WG67438-104_Form8A_SJ2545309.html; Workgroup: WG67438; Design ID: 3161 ]

**SGS AXYS METHOD MLA-110 Rev 01**

**Form 8B**

**PERFLUORINATED ORGANICS ONGOING PRECISION AND RECOVERY (OPR)**

**SGS AXYS ANALYTICAL SERVICES**
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

| | | | |
|---|---|---|---|
| **Contract No.:** | 4951 | **Lab Sample I.D.:** | WG67438-104 |
| **Matrix:** | AQUEOUS | **Initial Calibration Date:** | 08-Mar-2019 |
| **Extraction Date:** | 27-Mar-2019 | **Instrument ID:** | LC MS/MS |
| **Analysis Date:** | 31-Mar-2019 **Time:** 01:15:56 | **Column ID:** | C18 |
| **Extract Volume (uL):** | 4000 | **OPR Data Filename:** | **FC9W_130 S: 22** |
| **Injection Volume (uL):** | 2 | **Blank Data Filename:** | FC9W_130 S: 24 |
| **Dilution Factor:** | N/A | **Cal. Ver. Data Filename:** | FC9W_130 S: 18 |

**ALL CONCENTRATIONS REPORTED ON THIS FORM ARE CONCENTRATIONS IN EXTRACT, BASED ON A 1 mL EXTRACT VOLUME.**

| LABELED COMPOUND | LAB FLAG [1] | SPIKE CONC. (ng/mL) | CONC. FOUND (ng/mL) | % RECOVERY | RETENTION TIME |
|---|---|---|---|---|---|
| **13C4-PFBA** | | 40.0 | 40.7 | 102 | 1:58 |
| **13C5-PFPeA** | | 20.0 | 19.4 | 97.0 | 4:20 |
| **13C5-PFHxA** | | 10.0 | 10.6 | 106 | 5:03 |
| **13C4-PFHpA** | | 10.0 | 10.3 | 103 | 5:34 |
| **13C8-PFOA** | | 10.0 | 9.17 | 91.7 | 6:24 |
| **13C9-PFNA** | | 5.00 | 5.17 | 103 | 7:09 |
| **13C6-PFDA** | | 5.00 | 5.77 | 115 | 7:31 |
| **13C7-PFUnA** | | 5.00 | 3.54 | 70.9 | 7:49 |
| **13C2-PFDoA** | V | 5.00 | 1.92 | 38.3 | 8:07 |
| **13C2-PFTeDA** | V | 5.00 | 0.473 | 9.46 | 8:52 |
| **13C3-PFBS** | | 10.0 | 11.6 | 116 | 5:01 |
| **13C3-PFHxS** | | 10.0 | 10.4 | 104 | 6:32 |
| **13C8-PFOS** | | 10.0 | 11.8 | 118 | 7:37 |
| **13C2-4:2 FTS** | | 20.0 | 19.5 | 97.3 | 4:55 |
| **13C2-6:2 FTS** | | 20.0 | 13.1 | 65.7 | 6:03 |
| **13C2-8:2 FTS** | | 20.0 | 14.3 | 71.5 | 7:23 |
| **13C8-PFOSA** | V | 10.0 | 20.5 | 205 | 8:32 |
| **D3-N-MeFOSA** | V | 10.0 | 1.75 | 17.5 | 9:52 |
| **D5-N-EtFOSA** | V | 10.0 | 0.693 | 6.93 | 10:07 |
| **D3-MeFOSAA** | V | 20.0 | 9.25 | 46.2 | 7:33 |
| **D5-EtFOSAA** | V | 20.0 | 7.72 | 38.6 | 7:40 |
| **d7-NMe-FOSE** | V | 100 | 3.52 | 3.52 | 9:45 |
| **d9-NEt-FOSE** | V | 100 | 2.51 | 2.51 | 10:01 |

(1) Where applicable, custom lab flags have been used on this report; V = surrogate recovery is not within method/contract control limits.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Andrew Porat_____

These pages are part of a larger report that may contain information necessary for full data evaluation. Results reported relate only to the sample tested.

For Axys Internal Use Only [ XSL Template: FC-Form8B.xsl; Created: 16-Apr-2019 17:38:09; Application: XMLTransformer-1.17.7; Report Filename: PFC_FC_LC_PFAS_WG67438-104_Form8B_SJ2545309.html; Workgroup: WG67438; Design ID: 3161 ]

**SGS AXYS METHOD MLA-110 Rev 01**

**Form 8A**

**PERFLUORINATED ORGANICS ONGOING PRECISION AND RECOVERY (OPR)**

**SGS AXYS ANALYTICAL SERVICES**
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

| | | | |
|---|---|---|---|
| **Contract No.:** | 4951 | **Lab Sample I.D.:** | WG67663-102 i |
| **Matrix:** | SOLVENT | **Initial Calibration Date:** | 08-Mar-2019 |
| **Extraction Date:** | 04-Apr-2019 | **Instrument ID:** | LC MS/MS |
| **Analysis Date:** | 08-Apr-2019 **Time:** 17:25:18 | **Column ID:** | C18 |
| **Extract Volume (uL):** | 4000 | **OPR Data Filename:** | **FC9W_144 S: 16** |
| **Injection Volume (uL):** | 2 | **Blank Data Filename:** | FC9W_144 S: 18 |
| **Dilution Factor:** | N/A | **Cal. Ver. Data Filename:** | FC9W_144 S: 14 |

**ALL CONCENTRATIONS REPORTED ON THIS FORM ARE CONCENTRATIONS IN EXTRACT, BASED ON A 1 mL EXTRACT VOLUME.**

| COMPOUND | LAB FLAG [1] | SPIKE CONC. (ng/mL) | CONC. FOUND (ng/mL) | % RECOVERY | RETENTION TIME |
|---|---|---|---|---|---|
| **PFBA** | | 39.7 | 45.9 | 116 | 2:15 |
| **PFPeA** | | 19.9 | 23.2 | 117 | 4:22 |
| **PFHxA** | | 9.94 | 11.6 | 117 | 5:02 |
| **PFHpA** | | 9.95 | 11.7 | 117 | 5:36 |
| **PFOA** | | 9.95 | 11.7 | 118 | 6:31 |
| **PFNA** | | 9.98 | 11.7 | 117 | 7:10 |
| **PFDA** | | 9.94 | 10.4 | 105 | 7:30 |
| **PFUnA** | | 9.97 | 12.3 | 124 | 7:45 |
| **PFDoA** | | 10.0 | 11.1 | 110 | 8:05 |
| **PFTrDA** | | 10.1 | 10.5 | 105 | 8:30 |
| **PFTeDA** | | 9.95 | 10.4 | 104 | 8:58 |
| **PFBS** | | 9.86 | 9.86 | 100 | 5:00 |
| **PFPeS** | | 9.38 | 10.8 | 115 | 5:40 |
| **PFHxS** | | 9.98 | 10.7 | 107 | 6:39 |
| **PFHpS** | | 9.52 | 11.8 | 124 | 7:16 |
| **PFOS** | | 9.92 | 12.5 | 126 | 7:35 |
| **PFNS** | | 9.60 | 7.83 | 81.6 | 7:52 |
| **PFDS** | N | 9.90 | 2.85 | 28.8 | 8:15 |
| **PFDoS** | N | 9.68 | 1.24 | 12.8 | 9:10 |
| **4:2 FTS** | | 40.1 | 42.9 | 107 | 4:53 |
| **6:2 FTS** | | 36.1 | 43.1 | 119 | 6:09 |
| **8:2 FTS** | | 40.0 | 50.0 | 125 | 7:22 |
| **PFOSA** | | 9.93 | 10.8 | 108 | 8:28 |
| **N-MeFOSA** | | 11.5 | 14.7 | 128 | 9:49 |
| **N-EtFOSA** | | 25.0 | 25.5 | 102 | 10:08 |
| **MeFOSAA** | | 10.0 | 12.4 | 124 | 7:31 |
| **EtFOSAA** | | 10.0 | 10.8 | 108 | 7:37 |
| **N-MeFOSE** | N | 99.0 | 58.3 | 58.9 | 9:42 |
| **N-EtFOSE** | N | 74.2 | 35.8 | 48.2 | 10:01 |

(1) Where applicable, custom lab flags have been used on this report; N = authentic recovery in the OPR is not within method/contract control limits.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Andrew Porat_____

These pages are part of a larger report that may contain information necessary for full data evaluation. Results reported relate only to the sample tested.

For Axys Internal Use Only [ XSL Template: FC-Form8A.xsl; Created: 22-Apr-2019 09:44:06; Application: XMLTransformer-1.17.7;
Report Filename: PFC_FC_LC_PFAS_WG67663-102_Form8A_SJ2546987.html; Workgroup: WG67663; Design ID: 3161 ]

**SGS AXYS METHOD MLA-110 Rev 01**

**Form 8B**

**PERFLUORINATED ORGANICS ONGOING PRECISION AND RECOVERY (OPR)**

**SGS AXYS ANALYTICAL SERVICES**
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

| | | | |
|---|---|---|---|
| **Contract No.:** | 4951 | **Lab Sample I.D.:** | WG67663-102 i |
| **Matrix:** | SOLVENT | **Initial Calibration Date:** | 08-Mar-2019 |
| **Extraction Date:** | 04-Apr-2019 | **Instrument ID:** | LC MS/MS |
| **Analysis Date:** | 08-Apr-2019 **Time:** 17:25:18 | **Column ID:** | C18 |
| **Extract Volume (uL):** | 4000 | **OPR Data Filename:** | **FC9W_144 S: 16** |
| **Injection Volume (uL):** | 2 | **Blank Data Filename:** | FC9W_144 S: 18 |
| **Dilution Factor:** | N/A | **Cal. Ver. Data Filename:** | FC9W_144 S: 14 |

**ALL CONCENTRATIONS REPORTED ON THIS FORM ARE CONCENTRATIONS IN EXTRACT, BASED ON A 1 mL EXTRACT VOLUME.**

| LABELED COMPOUND | LAB FLAG [1] | SPIKE CONC. (ng/mL) | CONC. FOUND (ng/mL) | % RECOVERY | RETENTION TIME |
|---|---|---|---|---|---|
| **13C4-PFBA** | | 40.0 | 38.4 | 96.0 | 2:14 |
| **13C5-PFPeA** | | 20.0 | 18.8 | 94.1 | 4:22 |
| **13C5-PFHxA** | | 10.0 | 9.82 | 98.2 | 5:02 |
| **13C4-PFHpA** | | 10.0 | 8.72 | 87.2 | 5:35 |
| **13C8-PFOA** | | 10.0 | 8.94 | 89.4 | 6:31 |
| **13C9-PFNA** | | 5.00 | 4.78 | 95.7 | 7:10 |
| **13C6-PFDA** | | 5.00 | 5.26 | 105 | 7:30 |
| **13C7-PFUnA** | | 5.00 | 2.86 | 57.3 | 7:45 |
| **13C2-PFDoA** | V | 5.00 | 1.35 | 27.1 | 8:05 |
| **13C2-PFTeDA** | V | 5.00 | 0.857 | 17.1 | 8:58 |
| **13C3-PFBS** | | 10.0 | 10.7 | 107 | 5:00 |
| **13C3-PFHxS** | | 10.0 | 9.43 | 94.3 | 6:39 |
| **13C8-PFOS** | | 10.0 | 9.78 | 97.8 | 7:34 |
| **13C2-4:2 FTS** | V | 20.0 | 31.7 | 159 | 4:53 |
| **13C2-6:2 FTS** | | 20.0 | 18.9 | 94.5 | 6:09 |
| **13C2-8:2 FTS** | | 20.0 | 17.4 | 87.2 | 7:22 |
| **13C8-PFOSA** | | 10.0 | 8.85 | 88.5 | 8:28 |
| **D3-N-MeFOSA** | V | 10.0 | 1.04 | 10.4 | 9:49 |
| **D5-N-EtFOSA** | V | 10.0 | 0.367 | 3.67 | 10:07 |
| **D3-MeFOSAA** | | 20.0 | 11.5 | 57.7 | 7:31 |
| **D5-EtFOSAA** | V | 20.0 | 7.89 | 39.4 | 7:37 |
| **d7-NMe-FOSE** | V | 100 | 1.89 | 1.89 | 9:40 |
| **d9-NEt-FOSE** | V | 100 | 1.39 | 1.39 | 9:59 |

(1) Where applicable, custom lab flags have been used on this report; V = surrogate recovery is not within method/contract control limits.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Andrew Porat_____

These pages are part of a larger report that may contain information necessary for full data evaluation. Results reported relate only to the sample tested.

For Axys Internal Use Only [ XSL Template: FC-Form8B.xsl; Created: 22-Apr-2019 09:44:06; Application: XMLTransformer-1.17.7; Report Filename: PFC_FC_LC_PFAS_WG67663-102_Form8B_SJ2546987.html; Workgroup: WG67663; Design ID: 3161 ]

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SZ 08-May-2019

| | File Name | Sample ID | File Text | Bottle | SignIn | SignOut | Inj VoL | EXP |
|---|---|---|---|---|---|---|---|---|
| 1 | FC9W_097S01 | MeOH,, MLA110 UPLC option | 1,,2uL | 1:8,A | ~~SZ~~ GW | SZ | 2.0 | ~~GW~~ |
| 2 | FC9W_097S02 | MeOH,, more Targets for EPA | 1,,2uL | 1:8,A | --- | --- | 2.0 | --- |
| 3 | FC9W_097S03 | MeOH,, A new format | 1,,2uL | 1:8,A | --- | --- | 2.0 | --- |
| 4 | FC9W_097S04 | MeOH,, MLA110-PFAS UPLC_02 | 1,,2uL | 1:8,A | --- | --- | 2.0 | --- |
| 5 | FC9W_097S05 | MeOH,, new MS Exp name | 1,,2uL | 1:8,A | --- | --- | 2.0 | --- |
| 6 | FC9W_097S06 | MeOH,, MLA 110 new version | 1,,2uL | 1:8,A | --- | --- | 2.0 | --- |
| 7 | FC9W_097S07 | MeOH,, quan method _05 | 1,,2uL | 1:8,A | --- | --- | 2.0 | --- |
| 8 | FC9W_097S08 | MeOH,, MLA110 column | 1,,2uL | 1:8,A | --- | --- | 2.0 | --- |
| 9 | FC9W_097S09 | MeOH,, 2ul Lin from B | 1,,2uL | 1:8,A | --- | --- | 2.0 | --- |
| 10 | FC9W_097S10 | MeOH,, 2ul DoD also | 1,,2uL | 1:8,A | --- | --- | 2.0 | --- |
| 11 | FC9W_097S11 | FC027A-CAL,, /01 | 1,,2uL | 2:1,A | --- | --- | 2.0 | --- |
| 12 | FC9W_097S12 | FC027B-CAL,, /01 | 1,,2uL | 2:1,B | --- | --- | 2.0 | --- |
| 13 | FC9W_097S13 | FC027C-CAL,, /01 | 1,,2uL | 2:1,C | --- | --- | 2.0 | --- |
| 14 | FC9W_097S14 | FC027D-CAL,, /01 | 1,,2uL | 2:1,D | --- | --- | 2.0 | --- |
| 15 | FC9W_097S15 | FC027E-CAL,, /01 | 1,,2uL | 2:1,E | --- | --- | 2.0 | --- |
| 16 | FC9W_097S16 | FC027F-CAL,, /01 | 1,,2uL | 2:1,F | --- | --- | 2.0 | --- |
| 17 | FC9W_097S17 | FC027G-CAL,, /01 | 1,,2uL | 2:2,A | --- | --- | 2.0 | --- |
| 18 | FC9W_097S18 | FC027H-CAL,, /01 | 1,,2uL | 2:2,B | --- | --- | 2.0 | --- |
| 19 | FC9W_097S19 | FC027(0)-CAL,, /01 | 1,,2uL | 2:8,B | --- | --- | 2.0 | --- |
| 20 | FC9W_097S20 | FC027C-CAL,, /01 | 1,,2uL | 2:1,C | --- | --- | 2.0 | --- |
| 21 | FC9W_097S21 | FC005A-SSV,,/01 | 1,,2uL | 2:2,C | --- | --- | 2.0 | --- |
| 22 | FC9W_097S22 | FC005A-SSV,,/01 | 1,,2uL | 2:2,C | --- | --- | 2.0 | --- |
| 23 | FC9W_097S23 | FC027E-CAL,, /01 | 1,,2uL | 2:1,E | --- | --- | 2.0 | --- |
| 24 | FC9W_097S24 | FC027E-CAL,, /01 | 1,,2uL | 2:1,E | --- | --- | 2.0 | --- |
| 25 | FC9W_097S25 | WG67366-105,,SAR | 1,WG67366,2/4000uL | 1:7,A | --- | --- | 2.0 | --- |
| 26 | FC9W_097S26 | WG67366-102,,SPM | 1,WG67366,2/4000uL | 1:7,B | --- | --- | 2.0 | --- |
| 27 | FC9W_097S27 | FC027(0)-CAL,, /01 | 1,,2uL | 2:8,B | --- | --- | 2.0 | --- |
| 28 | FC9W_097S28 | WG67366-101,,BLK | 1,WG67366,2/4000uL | 1:7,C | --- | --- | 2.0 | --- |
| 29 | FC9W_097S29 | L30719-1,, | 1,WG67366,2/4000uL | 1:7,D | --- | --- | 2.0 | --- |
| 30 | FC9W_097S30 | WG67366-103,,MS | 1,WG67366,2/4000uL | 1:7,E | --- | --- | 2.0 | --- |
| 31 | FC9W_097S31 | WG67366-104,,MSD | 1,WG67366,2/4000uL | 1:7,F | --- | --- | 2.0 | --- |
| 32 | FC9W_097S32 | FC027E-CAL,, /01 | 1,,2uL | 2:1,E | --- | --- | 2.0 | --- |
| 33 | FC9W_097S33 | FC027E-CAL,, /01 | 1,,2uL | 2:1,E | --- | --- | 2.0 | --- |
| 34 | FC9W_097S34 | WG67217-105,i2,SAR | 1,WG67217,2/4000uL | 1:1,C | --- | --- | 2.0 | --- |
| 35 | FC9W_097S35 | WG67217-102,i2,SPM | 1,WG67217,2/4000uL | 1:1,D | --- | --- | 2.0 | --- |
| 36 | FC9W_097S36 | MeOH,, | 1,,2uL | 1:8,A | --- | --- | 2.0 | --- |
| 37 | FC9W_097S37 | WG67217-101,i2,BLK | 1,WG67217,2/4000uL | 1:1,E | --- | --- | 2.0 | --- |
| 38 | FC9W_097S38 | L30703-6,i2, | 1,WG67217,2/4000uL | 1:1,F | --- | --- | 2.0 | --- |
| 39 | FC9W_097S39 | L30703-30,i2, | 1,WG67217,2/4000uL | 1:2,A | --- | --- | 2.0 | --- |
| 40 | FC9W_097S40 | WG67217-103,i2,dup | 1,WG67217,2/4000uL | 1:2,B | --- | --- | 2.0 | --- |
| 41 | FC9W_097S41 | L30703-32,i2, | 1,WG67217,2/4000uL | 1:2,C | --- | --- | 2.0 | --- |
| 42 | FC9W_097S42 | WG67217-104,i2,MS | 1,WG67217,2/4000uL | 1:2,D | --- | --- | 2.0 | --- |
| 43 | FC9W_097S43 | FC027E-CAL,, /01 | 1,,2uL | 2:1,E | --- | --- | 2.0 | --- |
| 44 | FC9W_097S44 | FC027E-CAL,, /01 | 1,,2uL | 2:1,E | --- | --- | 2.0 | --- |
| 45 | FC9W_097S45 | WG67090-103,i,SAR | 1,WG67090,2/4000uL | 2:3,A | --- | --- | 2.0 | --- |
| 46 | FC9W_097S46 | WG67090-102,i,SPM | 1,WG67090,2/4000uL | 2:3,B | --- | --- | 2.0 | --- |
| 47 | FC9W_097S47 | MeOH,, | 1,,2uL | 2:8,A | --- | --- | 2.0 | --- |
| 48 | FC9W_097S48 | WG67090-101,i,BLK | 1,WG67090,2/4000uL | 2:3,C | --- | --- | 2.0 | --- |
| 49 | FC9W_097S49 | L30712-1,i, | 1,WG67090,2/4000uL | 2:3,D | --- | --- | 2.0 | --- |
| 50 | FC9W_097S50 | L30712-2,i, | 1,WG67090,2/4000uL | 2:3,E | --- | --- | 2.0 | --- |
| 51 | FC9W_097S51 | L30712-3,i, | 1,WG67090,2/4000uL | 2:3,F | --- | --- | 2.0 | --- |
| 52 | FC9W_097S52 | L30712-4,i, | 1,WG67090,2/4000uL | 2:4,A | --- | --- | 2.0 | --- |
| 53 | FC9W_097S53 | L30712-5,i, | 1,WG67090,2/4000uL | 2:4,B | --- | --- | 2.0 | --- |
| 54 | FC9W_097S54 | L30789-1,i, | 1,WG67090,2/4000uL | 2:4,C | --- | --- | 2.0 | --- |
| 55 | FC9W_097S55 | L30789-2,i, | 1,WG67090,2/4000uL | 2:4,D | --- | --- | 2.0 | --- |
| 56 | FC9W_097S56 | L30789-3,i, | 1,WG67090,2/4000uL | 2:4,E | --- | --- | 2.0 | --- |
| 57 | FC9W_097S57 | L30794-1,i, | 1,WG67090,2/4000uL | 2:4,F | --- | --- | 2.0 | --- |
| 58 | FC9W_097S58 | L30794-2,i, | 1,WG67090,2/4000uL | 2:5,A | --- | --- | 2.0 | --- |

4x Rec STD For Batch

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| | File Name | Sample ID | File Text | Bottle | SignIn | SignOut | Inj VoL | EXP |
|---|---|---|---|---|---|---|---|---|
| 59 | FC9W_097S59 | L30794-3,i, | 1,WG67090,2/4000uL | 2:5,B | GW | SZ | 2.0 | GW |
| 60 | FC9W_097S60 | L30794-4,i, | 1,WG67090,2/4000uL | 2:5,C | --- | --- | 2.0 | --- |
| 61 | FC9W_097S61 | L30794-6,i, | 1,WG67090,2/4000uL | 2:5,D | --- | --- | 2.0 | --- |
| 62 | FC9W_097S62 | L30794-8,i, | 1,WG67090,2/4000uL | 2:5,E | --- | --- | 2.0 | --- |
| 63 | FC9W_097S63 | FC027E-CAL,, /01 | 1,,2uL | 2:1,E | --- | --- | 2.0 | --- |
| 64 | FC9W_097S64 | FC027E-CAL,, /01 | 1,,2uL | 2:1,E | --- | --- | 2.0 | --- |

**SGS AXYS METHOD MLA-110 Rev 01**

**Form 3A**
**LC MS/MS INITIAL CALIBRATION PERCENT RECOVERIES**

**SGS AXYS ANALYTICAL SERVICES**
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

**Initial Calibration Date:** 08-Mar-2019

**Instrument ID:** LC MS/MS

**LC Column ID:** C18

**CS0 Data Filename:** N/A
**CS1 Data Filename:** FC9W_097 S: 12
**CS2 Data Filename:** FC9W_097 S: 13
**CS3 Data Filename:** FC9W_097 S: 14
**CS4 Data Filename:** FC9W_097 S: 15
**CS5 Data Filename:** FC9W_097 S: 16
**CS6 Data Filename:** FC9W_097 S: 17
**CS7 Data Filename:** FC9W_097 S: 18
**CS8 Data Filename:** N/A

| | | PERCENT RECOVERY (%) | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **COMPOUND** | **LAB FLAG [1]** | **CS0** | **CS1** | **CS2** | **CS3** | **CS4** | **CS5** | **CS6** | **CS7** | **CS8** |
| **PFBA** | | | 94.9 | 99.3 | 104 | 100 | 105 | 95.5 | 101 | |
| **PFPeA** | | | 93.2 | 97.6 | 107 | 100 | 106 | 95.8 | 101 | |
| **PFHxA** | | | 90.1 | 98.9 | 114 | 98.0 | 104 | 94.1 | 101 | |
| **PFHpA** | | | 95.5 | 94.5 | 103 | 105 | 106 | 94.9 | 101 | |
| **PFOA** | | | 92.0 | 101 | 110 | 101 | 99.4 | 96.5 | 101 | |
| **PFNA** | | | 98.0 | 95.9 | 107 | 102 | 103 | 93.7 | 101 | |
| **PFDA** | | | 106 | 90.7 | 100 | 98.1 | 109 | 95.0 | 101 | |
| **PFUnA** | | | 89.8 | 95.0 | 107 | 107 | 109 | 90.4 | 102 | |
| **PFDoA** | | | 81.4 | 99.7 | 102 | 109 | 110 | 97.6 | 87.7 | |
| **PFTrDA** | | | 82.0 | 92.2 | 110 | 106 | 113 | 97.2 | 78.8 | |
| **PFTeDA** | | | 90.7 | 92.8 | 108 | 103 | 107 | 98.4 | 83.3 | |
| **PFBS** | | | 99.8 | 99.2 | 102 | 100 | 101 | 97.1 | 101 | |
| **PFPeS** | | | 92.3 | 91.3 | 105 | 102 | 107 | 104 | 98.6 | |
| **PFHxS** | | | 116 | 92.1 | 99.4 | 97.6 | 98.9 | 94.3 | 101 | |
| **PFHpS** | | | 80.7 | 98.9 | 100 | 117 | 103 | 101 | 99.4 | |
| **PFOS** | | | 94.3 | 91.4 | 102 | 113 | 100 | 98.7 | 100 | |
| **PFNS** | | | 75.1 | 110 | 92.2 | 109 | 112 | 102 | 98.7 | |
| **PFDS** | | | 104 | 75.3 | 110 | 108 | 105 | 96.8 | 100 | |
| **PFDoS** | | | 98.0 | 94.6 | 96.2 | 109 | 100 | 103 | 99.2 | |
| **4:2 FTS** | | | 105 | 99.9 | 92.7 | 103 | 99.7 | 83.1 | 67.6 | |
| **6:2 FTS** | | | 101 | 88.9 | 109 | 102 | 99.5 | 79.3 | 57.6 | |
| **8:2 FTS** | | | 92.5 | 82.7 | 118 | 109 | 97.8 | 88.6 | 57.5 | |
| **PFOSA** | | | 103 | 98.5 | 103 | 98.6 | 102 | 94.6 | 101 | |
| **N-MeFOSA** | | | 95.4 | 95.0 | 103 | 100 | 109 | 98.3 | 85.7 | |
| **N-EtFOSA** | | | 98.5 | 102 | 98.3 | 99.3 | 103 | 98.1 | 100 | |
| **MeFOSAA** | | | 71.0 | 125 | 94.1 | 105 | 105 | 100 | 99.7 | |
| **EtFOSAA** | | | 80.5 | 88.7 | 125 | 100 | 102 | 105 | 98.6 | |
| **N-MeFOSE** | | | 95.3 | 97.1 | 103 | 100 | 105 | 98.6 | 100 | |
| **N-EtFOSE** | | | 89.3 | 99.9 | 107 | 103 | 104 | 95.7 | 101 | |
| **HFPO-DA** | | | 83.1 | 97.8 | 107 | 111 | 101 | 99.3 | | |

(1) Where applicable, custom lab flags have been used on this report.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Bryan Alonzo_____

For Axys Internal Use Only [ XSL Template: FC-Form3A.xsl; Created: 22-Apr-2019 09:44:06; Application: XMLTransformer-1.17.7; Report Filename: PFOA_FC_LC_08-Mar-2019_FC9W__Form3A_GS81308.html; Workgroup: WG67663; Design ID: 3161 ]

**SGS AXYS METHOD MLA-110 Rev 01**

**Form 3B**
**LC MS/MS INITIAL CALIBRATION PERCENT RECOVERIES**

**SGS AXYS ANALYTICAL SERVICES**
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

**Initial Calibration Date:** 08-Mar-2019

**Instrument ID:** LC MS/MS

**LC Column ID:** C18

**CS0 Data Filename:** N/A
**CS1 Data Filename:** FC9W_097 S: 12
**CS2 Data Filename:** FC9W_097 S: 13
**CS3 Data Filename:** FC9W_097 S: 14
**CS4 Data Filename:** FC9W_097 S: 15
**CS5 Data Filename:** FC9W_097 S: 16
**CS6 Data Filename:** FC9W_097 S: 17
**CS7 Data Filename:** FC9W_097 S: 18
**CS8 Data Filename:** N/A

| | | PERCENT RECOVERIES (%) | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **LABELED COMPOUND** | **LAB FLAG [1]** | **CS0** | **CS1** | **CS2** | **CS3** | **CS4** | **CS5** | **CS6** | **CS7** | **CS8** |
| **13C4-PFBA** | | | 99.7 | 98.8 | 96.9 | 101 | 99.0 | 103 | 101 | |
| **13C5-PFPeA** | | | 104 | 109 | 106 | 111 | 107 | 89.6 | 73.2 | |
| **13C5-PFHxA** | | | 106 | 107 | 98.5 | 104 | 107 | 96.2 | 81.2 | |
| **13C4-PFHpA** | | | 114 | 96.5 | 111 | 95.9 | 103 | 102 | 77.8 | |
| **13C8-PFOA** | | | 115 | 97.5 | 107 | 98.2 | 102 | 97.7 | 82.2 | |
| **13C9-PFNA** | | | 96.9 | 101 | 98.6 | 102 | 98.7 | 103 | 98.8 | |
| **13C6-PFDA** | | | 111 | 114 | 115 | 115 | 100 | 90.5 | 55.1 | |
| **13C7-PFUnA** | | | 111 | 118 | 114 | 106 | 87.8 | 63.4 | | |
| **13C2-PFDoA** | | | 106 | 113 | 106 | 112 | 100 | 93.5 | 68.9 | |
| **13C2-PFTeDA** | | | 99.7 | 111 | 104 | 112 | 104 | 94.2 | 75.3 | |
| **13C3-PFBS** | | | 100 | 124 | 105 | 105 | 106 | 94.8 | 65.6 | |
| **13C3-PFHxS** | | | 95.7 | 115 | 103 | 99.7 | 101 | 103 | 83.0 | |
| **13C8-PFOS** | | | 99.1 | 101 | 102 | 98.3 | 103 | 97.4 | 98.8 | |
| **13C2-4:2 FTS** | | | 114 | 121 | 114 | 103 | 95.1 | 81.1 | 71.8 | |
| **13C2-6:2 FTS** | | | 97.2 | 124 | 103 | 98.0 | 91.8 | 91.4 | 94.9 | |
| **13C2-8:2 FTS** | | | 107 | 126 | 105 | 96.2 | 92.1 | 83.0 | 90.7 | |
| **13C8-PFOSA** | | | 90.8 | 92.3 | 88.1 | 98.5 | 99.5 | 105 | 126 | |
| **D3-N-MeFOSA** | | | 90.9 | 95.5 | 94.1 | 101 | 98.7 | 120 | | |
| **D5-N-EtFOSA** | | | 87.8 | 93.0 | 90.8 | 96.2 | 93.0 | 106 | 133 | |
| **D3-MeFOSAA** | | | 91.4 | 94.5 | 88.6 | 102 | 101 | 105 | 116 | |
| **D5-EtFOSAA** | | | 87.5 | 96.2 | 92.6 | 101 | 98.7 | 103 | 121 | |
| **d7-NMe-FOSE** | | | 90.5 | 91.4 | 88.5 | 96.2 | 92.7 | 105 | 135 | |
| **d9-NEt-FOSE** | | | 90.1 | 90.9 | 88.9 | 94.0 | 93.3 | 108 | 135 | |
| **13C3-HFPO-DA** | | | 102 | 109 | 108 | 109 | 108 | 85.9 | 77.1 | |

(1) Where applicable, custom lab flags have been used on this report.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Bryan Alonzo_____

For Axys Internal Use Only [ XSL Template: FC-Form3B.xsl; Created: 22-Apr-2019 09:44:06; Application: XMLTransformer-1.17.7; Report Filename: PFOA_FC_LC_08-Mar-2019_FC9W__Form3B_GS81308.html; Workgroup: WG67663; Design ID: 3161 ]

**SGS AXYS METHOD MLA-110 Rev 01**

**Form 3C**
**LC MS/MS INITIAL CALIBRATION RETENTION TIMES**

**SGS AXYS ANALYTICAL SERVICES**
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

**Initial Calibration Date:** 08-Mar-2019

**Instrument ID:** LC MS/MS

**LC Column ID:** C18

**CS0 Data Filename:** N/A

**CS1 Data Filename:** FC9W_097 S: 12

**CS2 Data Filename:** FC9W_097 S: 13

**CS3 Data Filename:** FC9W_097 S: 14

**CS4 Data Filename:** FC9W_097 S: 15

**CS5 Data Filename:** FC9W_097 S: 16

**CS6 Data Filename:** FC9W_097 S: 17

**CS7 Data Filename:** FC9W_097 S: 18

**CS8 Data Filename:** N/A

| | | RETENTION TIMES | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **COMPOUND** | **LAB FLAG [1]** | **CS0** | **CS1** | **CS2** | **CS3** | **CS4** | **CS5** | **CS6** | **CS7** | **CS8** | **MEAN RT** |
| **PFBA** | | | 2:06 | 2:07 | 2:06 | 2:07 | 2:07 | 2:06 | 2:06 | | 2:06 |
| **PFPeA** | | | 4:20 | 4:21 | 4:20 | 4:20 | 4:21 | 4:20 | 4:20 | | 4:20 |
| **PFHxA** | | | 4:55 | 4:55 | 4:55 | 4:54 | 4:55 | 4:54 | 4:54 | | 4:55 |
| **PFHpA** | | | 5:31 | 5:31 | 5:31 | 5:31 | 5:31 | 5:31 | 5:30 | | 5:31 |
| **PFOA** | | | 6:24 | 6:24 | 6:23 | 6:23 | 6:24 | 6:23 | 6:23 | | 6:23 |
| **PFNA** | | | 7:08 | 7:08 | 7:07 | 7:07 | 7:08 | 7:07 | 7:07 | | 7:07 |
| **PFDA** | | | 7:33 | 7:32 | 7:32 | 7:32 | 7:32 | 7:32 | 7:32 | | 7:32 |
| **PFUnA** | | | 7:51 | 7:50 | 7:50 | 7:50 | 7:50 | 7:50 | 7:50 | | 7:50 |
| **PFDoA** | | | 8:11 | 8:11 | 8:10 | 8:10 | 8:11 | 8:10 | 8:10 | | 8:10 |
| **PFTrDA** | | | 8:36 | 8:35 | 8:35 | 8:35 | 8:36 | 8:35 | 8:35 | | 8:35 |
| **PFTeDA** | | | 9:01 | 9:01 | 9:01 | 9:00 | 9:02 | 9:01 | 9:01 | | 9:01 |
| **PFBS** | | | 4:54 | 4:53 | 4:53 | 4:53 | 4:53 | 4:53 | 4:53 | | 4:53 |
| **PFPeS** | | | 5:34 | 5:34 | 5:34 | 5:34 | 5:34 | 5:34 | 5:33 | | 5:34 |
| **PFHxS** | | | 6:32 | 6:31 | 6:31 | 6:31 | 6:31 | 6:31 | 6:30 | | 6:31 |
| **PFHpS** | | | 7:15 | 7:14 | 7:14 | 7:14 | 7:14 | 7:14 | 7:14 | | 7:14 |
| **PFOS** | | | 7:38 | 7:38 | 7:38 | 7:38 | 7:38 | 7:38 | 7:38 | | 7:38 |
| **PFNS** | | | 7:57 | 7:57 | 7:57 | 7:57 | 7:57 | 7:57 | 7:57 | | 7:57 |
| **PFDS** | | | 8:20 | 8:20 | 8:20 | 8:19 | 8:21 | 8:20 | 8:20 | | 8:20 |
| **PFDoS** | | | 9:11 | 9:12 | 9:11 | 9:11 | 9:12 | 9:11 | 9:11 | | 9:11 |
| **4:2 FTS** | | | 4:47 | 4:47 | 4:47 | 4:46 | 4:47 | 4:46 | 4:46 | | 4:47 |
| **6:2 FTS** | | | 6:03 | 6:03 | 6:02 | 6:02 | 6:03 | 6:02 | 6:02 | | 6:02 |
| **8:2 FTS** | | | 7:24 | 7:24 | 7:23 | 7:23 | 7:24 | 7:23 | 7:23 | | 7:23 |
| **PFOSA** | | | 9:01 | 9:01 | 9:01 | 9:00 | 9:01 | 9:00 | 9:01 | | 9:01 |
| **N-MeFOSA** | | | 9:58 | 9:58 | 9:57 | 9:57 | 9:58 | 9:57 | 9:58 | | 9:58 |
| **N-EtFOSA** | | | 10:15 | 10:14 | 10:14 | 10:14 | 10:15 | 10:14 | 10:15 | | 10:14 |
| **MeFOSAA** | | | 7:36 | 7:36 | 7:35 | 7:35 | 7:35 | 7:35 | 7:35 | | 7:35 |
| **EtFOSAA** | | | 7:44 | 7:43 | 7:44 | 7:43 | 7:44 | 7:43 | 7:43 | | 7:43 |
| **N-MeFOSE** | | | 9:51 | 9:50 | 9:50 | 9:50 | 9:50 | 9:50 | 9:50 | | 9:50 |
| **N-EtFOSE** | | | 10:08 | 10:07 | 10:07 | 10:06 | 10:08 | 10:07 | 10:08 | | 10:07 |
| **HFPO-DA** | | | 5:06 | 5:06 | 5:06 | 5:06 | 5:06 | 5:06 | | | 5:06 |

(1) Where applicable, custom lab flags have been used on this report.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Bryan Alonzo_____

For Axys Internal Use Only [ XSL Template: FC-Form3C.xsl; Created: 22-Apr-2019 09:44:06; Application: XMLTransformer-1.17.7;
Report Filename: PFOA_FC_LC_08-Mar-2019_FC9W__Form3C_GS81308.html; Workgroup: WG67663; Design ID: 3161 ]

**SGS AXYS METHOD MLA-110 Rev 01**

**Form 3D**
**LC MS/MS INITIAL CALIBRATION RETENTION TIMES**

**SGS AXYS ANALYTICAL SERVICES**
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

**Initial Calibration Date:** 08-Mar-2019

**Instrument ID:** LC MS/MS

**LC Column ID:** C18

**CS0 Data Filename:** N/A

**CS1 Data Filename:** FC9W_097 S: 12

**CS2 Data Filename:** FC9W_097 S: 13

**CS3 Data Filename:** FC9W_097 S: 14

**CS4 Data Filename:** FC9W_097 S: 15

**CS5 Data Filename:** FC9W_097 S: 16

**CS6 Data Filename:** FC9W_097 S: 17

**CS7 Data Filename:** FC9W_097 S: 18

**CS8 Data Filename:** N/A

| | | RETENTION TIMES | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **LABELED COMPOUND** | **LAB FLAG[1]** | **CS0** | **CS1** | **CS2** | **CS3** | **CS4** | **CS5** | **CS6** | **CS7** | **CS8** | **MEAN RT** |
| **13C4-PFBA** | | | 2:06 | 2:07 | 2:05 | 2:06 | 2:06 | 2:05 | 2:05 | | 2:06 |
| **13C5-PFPeA** | | | 4:20 | 4:20 | 4:20 | 4:20 | 4:20 | 4:20 | 4:20 | | 4:20 |
| **13C5-PFHxA** | | | 4:55 | 4:55 | 4:55 | 4:54 | 4:55 | 4:54 | 4:54 | | 4:55 |
| **13C4-PFHpA** | | | 5:31 | 5:31 | 5:31 | 5:30 | 5:31 | 5:31 | 5:30 | | 5:31 |
| **13C8-PFOA** | | | 6:23 | 6:23 | 6:23 | 6:23 | 6:23 | 6:23 | 6:23 | | 6:23 |
| **13C9-PFNA** | | | 7:08 | 7:08 | 7:07 | 7:07 | 7:08 | 7:07 | 7:07 | | 7:07 |
| **13C6-PFDA** | | | 7:32 | 7:32 | 7:32 | 7:32 | 7:32 | 7:32 | 7:32 | | 7:32 |
| **13C7-PFUnA** | | | 7:50 | 7:50 | 7:50 | 7:50 | 7:50 | 7:50 | | | 7:50 |
| **13C2-PFDoA** | | | 8:11 | 8:11 | 8:10 | 8:10 | 8:11 | 8:10 | 8:10 | | 8:10 |
| **13C2-PFTeDA** | | | 9:01 | 9:01 | 9:01 | 9:00 | 9:02 | 9:01 | 9:01 | | 9:01 |
| **13C3-PFBS** | | | 4:54 | 4:53 | 4:53 | 4:53 | 4:53 | 4:53 | 4:53 | | 4:53 |
| **13C3-PFHxS** | | | 6:31 | 6:31 | 6:31 | 6:30 | 6:31 | 6:31 | 6:30 | | 6:31 |
| **13C8-PFOS** | | | 7:38 | 7:38 | 7:38 | 7:38 | 7:38 | 7:38 | 7:37 | | 7:38 |
| **13C2-4:2 FTS** | | | 4:47 | 4:47 | 4:47 | 4:46 | 4:47 | 4:46 | 4:46 | | 4:47 |
| **13C2-6:2 FTS** | | | 6:03 | 6:03 | 6:02 | 6:02 | 6:03 | 6:02 | 6:02 | | 6:02 |
| **13C2-8:2 FTS** | | | 7:24 | 7:24 | 7:23 | 7:23 | 7:23 | 7:23 | 7:23 | | 7:23 |
| **13C8-PFOSA** | | | 9:01 | 9:01 | 9:00 | 9:00 | 9:01 | 9:00 | 9:01 | | 9:01 |
| **D3-N-MeFOSA** | | | 9:58 | 9:57 | 9:57 | 9:57 | 9:57 | 9:57 | | | 9:57 |
| **D5-N-EtFOSA** | | | 10:15 | 10:14 | 10:13 | 10:13 | 10:14 | 10:13 | 10:14 | | 10:14 |
| **D3-MeFOSAA** | | | 7:36 | 7:35 | 7:35 | 7:35 | 7:35 | 7:35 | 7:35 | | 7:35 |
| **D5-EtFOSAA** | | | 7:43 | 7:43 | 7:43 | 7:43 | 7:43 | 7:43 | 7:43 | | 7:43 |
| **d7-NMe-FOSE** | | | 9:50 | 9:49 | 9:49 | 9:49 | 9:49 | 9:49 | 9:49 | | 9:49 |
| **d9-NEt-FOSE** | | | 10:07 | 10:06 | 10:05 | 10:05 | 10:06 | 10:06 | 10:06 | | 10:06 |
| **13C3-HFPO-DA** | | | 5:06 | 5:06 | 5:06 | 5:06 | 5:06 | 5:06 | 5:05 | | 5:06 |

(1) Where applicable, custom lab flags have been used on this report.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Bryan Alonzo_____

For Axys Internal Use Only [ XSL Template: FC-Form3D.xsl; Created: 22-Apr-2019 09:44:06; Application: XMLTransformer-1.17.7; Report Filename: PFOA_FC_LC_08-Mar-2019_FC9W__Form3D_GS81308.html; Workgroup: WG67663; Design ID: 3161 ]

**Sample List Report** **MassLynx MassLynx V4.1 SCN945 SCN960**

Sample List: G:\Masslynx\Inst_W_Master.PRO\Sample DB\FC9W_130.SPL Page 1 of 1
Last Modified: Sunday, March 31, 2019 00:37:55 Pacific Daylight Time
Printed: Sunday, March 31, 2019 00:38:01 Pacific Daylight Time Page Position (1, 1)

| | File Name | Sample ID | File Text | Bottle | SignIn | SignOut | Inj VoL | EXP |
|---|---|---|---|---|---|---|---|---|
| 1 | FC9W_130S01 | MeOH,, MLA110 UPLC option | 1,,2uL | 1:8,A | GW | SG | 2.0 | GW |
| 2 | FC9W_130S02 | MeOH,, more Targets for EPA | 1,,2uL | 1:8,A | --- | --- | 2.0 | --- |
| 3 | FC9W_130S03 | MeOH,, A new format | 1,,2uL | 1:8,A | --- | --- | 2.0 | --- |
| 4 | FC9W_130S04 | MeOH,, MLA110-PFAS UPLC_02 | 1,,2uL | 1:8,A | --- | --- | 2.0 | --- |
| 5 | FC9W_130S05 | MeOH,, new MS Exp name | 1,,2uL | 1:8,A | --- | --- | 2.0 | --- |
| 6 | FC9W_130S06 | MeOH,, MLA 110 new version | 1,,2uL | 1:8,A | --- | --- | 2.0 | --- |
| 7 | FC9W_130S07 | MeOH,, quan method _06 | 1,,2uL | 1:8,A | --- | --- | 2.0 | --- |
| 8 | FC9W_130S08 | MeOH,, MLA110 column | 1,,2uL | 1:8,A | --- | --- | 2.0 | --- |
| 9 | FC9W_130S09 | MeOH,, 2ul | 1,,2uL | 1:8,A | --- | --- | 2.0 | --- |
| 10 | FC9W_130S10 | MeOH,, 097-a1 | 1,,2uL | 1:8,A | --- | --- | 2.0 | --- |
| 11 | FC9W_130S11 | FC027B-CAL,, /01 | 1,,2uL | 2:1,B | --- | --- | 2.0 | --- |
| 12 | FC9W_130S12 | FC027B-CAL,, /01 | 1,,2uL | 2:1,B | --- | --- | 2.0 | --- |
| 13 | FC9W_130S13 | MeOH,,stopped,batch not come | 1,,2uL | 1:8,A | --- | --- | 2.0 | --- |
| 14 | FC9W_130S14 | MeOH,, | 1,,2uL | 1:8,A | --- | --- | 2.0 | --- |
| 15 | FC9W_130S15 | MeOH,, | 1,,2uL | 1:8,A | --- | --- | 2.0 | --- |
| 16 | FC9W_130S16 | FC027B-CAL,, /01 | 1,,2uL | 2:1,B | --- | --- | 2.0 | --- |
| 17 | FC9W_130S17 | FC027B-CAL,, /01 | 1,,2uL | 2:1,B | --- | --- | 3.0 | --- |
| 18 | FC9W_130S18 | FC027E-CAL,, /01 | 1,,2uL | 2:1,E | --- | --- | 2.0 | --- |
| 19 | FC9W_130S19 | FC027E-CAL,, /01 | 1,,2uL | 2:1,E | --- | --- | 2.0 | --- |
| 20 | FC9W_130S20 | WG67438-106,,SAR | 1,WG67438,2/4000uL | 2:3,A | --- | --- | 2.0 | --- |
| 21 | FC9W_130S21 | WG67438-103,,SPM | 1,WG67438,2/4000uL | 2:3,B | --- | --- | 2.0 | --- |
| 22 | FC9W_130S22 | WG67438-104,,SPM | 1,WG67438,2/4000uL | 2:3,C | --- | --- | 2.0 | --- |
| 23 | FC9W_130S23 | MeOH,, | 1,,2uL | 2:8,A | --- | --- | 2.0 | --- |
| 24 | FC9W_130S24 | WG67438-101,,BLK | 1,WG67438,2/4000uL | 2:3,D | --- | --- | 2.0 | --- |
| 25 | FC9W_130S25 | WG67438-102,,BLK | 1,WG67438,2/4000uL | 2:3,E | --- | --- | 2.0 | --- |
| 26 | FC9W_130S26 | L30820-1,, | 1,WG67438,2/4000uL | 2:3,F | --- | --- | 2.0 | --- |
| 27 | FC9W_130S27 | L30820-2,, | 1,WG67438,2/4000uL | 2:4,A | --- | --- | 2.0 | --- |
| 28 | FC9W_130S28 | L30821-1,, | 1,WG67438,2/4000uL | 2:4,B | --- | --- | 2.0 | --- |
| 29 | FC9W_130S29 | WG67438-105,,dup | 1,WG67438,2/4000uL | 2:4,C | --- | --- | 2.0 | --- |
| 30 | FC9W_130S30 | L30821-2,, | 1,WG67438,2/4000uL | 2:4,D | --- | --- | 2.0 | --- |
| 31 | FC9W_130S31 | L30821-4,, | 1,WG67438,2/4000uL | 2:4,E | --- | --- | 2.0 | --- |
| 32 | FC9W_130S32 | L30821-5,, | 1,WG67438,2/4000uL | 2:4,F | --- | --- | 2.0 | --- |
| 33 | FC9W_130S33 | L30821-6,, | 1,WG67438,2/4000uL | 2:5,A | --- | --- | 2.0 | --- |
| 34 | FC9W_130S34 | FC027E-CAL,, /01 | 1,,2uL | 2:1,E | --- | --- | 2.0 | --- |
| 35 | FC9W_130S35 | FC027E-CAL,, /01 | 1,,2uL | 2:1,E | --- | --- | 2.0 | --- |

**SGS AXYS METHOD MLA-110 Rev 01**

**Form 4A**
**LC MS/MS CALIBRATION VERIFICATION**

**SGS AXYS ANALYTICAL SERVICES**
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

| | | | |
|---|---|---|---|
| **Initial Calibration Date:** | 08-Mar-2019 | **VER Data Filename:** | FC9W_130 S: 18 |
| **Instrument ID:** | LC MS/MS | **Analysis Date:** | 31-Mar-2019 |
| **LC Column ID:** | C18 | **Analysis Time:** | 00:17:57 |

| COMPOUND | LAB FLAG [1] | RETENTION TIME | EXPECTED CONC. (ng) | CONC. FOUND (ng) | RECOVERY (%) |
|---|---|---|---|---|---|
| **PFBA** | | 1:58 | 41.0 | 42.9 | 105 |
| **PFPeA** | | 4:21 | 20.4 | 17.9 | 87.7 |
| **PFHxA** | | 5:02 | 10.3 | 10.7 | 105 |
| **PFHpA** | | 5:33 | 10.3 | 10.7 | 104 |
| **PFOA** | | 6:22 | 10.3 | 9.93 | 96.9 |
| **PFNA** | | 7:06 | 10.0 | 10.4 | 104 |
| **PFDA** | | 7:33 | 10.0 | 9.39 | 93.9 |
| **PFUnA** | | 7:50 | 10.0 | 11.3 | 113 |
| **PFDoA** | | 8:08 | 10.0 | 9.42 | 94.2 |
| **PFTrDA** | | 8:27 | 10.0 | 10.6 | 106 |
| **PFTeDA** | | 8:52 | 10.0 | 10.7 | 107 |
| **PFBS** | | 5:00 | 10.3 | 8.90 | 86.9 |
| **PFPeS** | | 5:36 | 9.50 | 9.98 | 105 |
| **PFHxS** | | 6:29 | 10.3 | 8.85 | 86.3 |
| **PFHpS** | | 7:13 | 9.50 | 8.98 | 94.5 |
| **PFOS** | | 7:39 | 10.3 | 9.70 | 94.6 |
| **PFNS** | | 7:57 | 9.50 | 9.23 | 97.2 |
| **PFDS** | | 8:15 | 10.3 | 11.5 | 112 |
| **PFDoS** | | 9:03 | 9.50 | 10.4 | 109 |
| **4:2 FTS** | | 4:55 | 40.0 | 34.7 | 86.8 |
| **6:2 FTS** | | 6:02 | 36.0 | 32.1 | 89.3 |
| **8:2 FTS** | | 7:24 | 40.0 | 36.9 | 92.3 |
| **PFOSA** | | 8:33 | 10.3 | 10.1 | 98.2 |
| **N-MeFOSA** | | 9:51 | 11.5 | 13.0 | 113 |
| **N-EtFOSA** | | 10:07 | 25.0 | 23.9 | 95.7 |
| **MeFOSAA** | | 7:35 | 10.0 | 10.7 | 107 |
| **EtFOSAA** | | 7:42 | 10.0 | 10.8 | 108 |
| **N-MeFOSE** | | 9:45 | 102 | 105 | 103 |
| **N-EtFOSE** | | 10:01 | 76.5 | 78.9 | 103 |

(1) Where applicable, custom lab flags have been used on this report.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Andrew Porat_____

For Axys Internal Use Only [ XSL Template: FC-Form4A.xsl; Created: 16-Apr-2019 17:38:09; Application: XMLTransformer-1.17.7; Report Filename: PFOA_FC_LC_FC9W_130S18__Form4A_SJ2545304.html; Workgroup: WG67438; Design ID: 3161 ]

**SGS AXYS METHOD MLA-110 Rev 01**

**Form 4B**
**LC MS/MS CALIBRATION VERIFICATION**

**SGS AXYS ANALYTICAL SERVICES**
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

| | | | |
|---|---|---|---|
| **Initial Calibration Date:** | 08-Mar-2019 | **VER Data Filename:** | FC9W_130 S: 18 |
| **Instrument ID:** | LC MS/MS | **Analysis Date:** | 31-Mar-2019 |
| **LC Column ID:** | C18 | **Analysis Time:** | 00:17:57 |

| LABELED COMPOUND | LAB FLAG [1] | RETENTION TIME | EXPECTED CONC. (ng) | CONC. FOUND (ng) | RECOVERY (%) |
|---|---|---|---|---|---|
| **13C4-PFBA** | | 1:58 | 40.0 | 39.5 | 98.7 |
| **13C5-PFPeA** | | 4:21 | 20.0 | 22.1 | 111 |
| **13C5-PFHxA** | | 5:02 | 10.0 | 10.6 | 106 |
| **13C4-PFHpA** | | 5:32 | 10.0 | 10.2 | 102 |
| **13C8-PFOA** | | 6:21 | 10.0 | 9.22 | 92.2 |
| **13C9-PFNA** | | 7:06 | 5.00 | 4.91 | 98.2 |
| **13C6-PFDA** | | 7:33 | 5.00 | 5.06 | 101 |
| **13C7-PFUnA** | | 7:50 | 5.00 | 4.99 | 99.7 |
| **13C2-PFDoA** | | 8:08 | 5.00 | 6.23 | 125 |
| **13C2-PFTeDA** | | 8:52 | 5.00 | 5.90 | 118 |
| **13C3-PFBS** | | 5:00 | 10.0 | 12.0 | 120 |
| **13C3-PFHxS** | | 6:29 | 10.0 | 11.0 | 110 |
| **13C8-PFOS** | | 7:39 | 10.0 | 10.8 | 108 |
| **13C2-4:2 FTS** | | 4:55 | 20.0 | 16.8 | 83.8 |
| **13C2-6:2 FTS** | | 6:02 | 20.0 | 14.0 | 70.0 |
| **13C2-8:2 FTS** | | 7:24 | 20.0 | 14.2 | 70.9 |
| **13C8-PFOSA** | | 8:34 | 10.0 | 18.8 | 188 |
| **D3-N-MeFOSA** | | 9:51 | 10.0 | 10.3 | 103 |
| **D5-N-EtFOSA** | | 10:07 | 10.0 | 11.3 | 113 |
| **D3-MeFOSAA** | | 7:35 | 20.0 | 10.3 | 51.3 |
| **D5-EtFOSAA** | | 7:42 | 20.0 | 11.1 | 55.7 |
| **d7-NMe-FOSE** | | 9:44 | 100 | 257 | 257 |
| **d9-NEt-FOSE** | | 10:00 | 100 | 264 | 264 |

(1) Where applicable, custom lab flags have been used on this report.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Andrew Porat_____

For Axys Internal Use Only [ XSL Template: FC-Form4B.xsl; Created: 16-Apr-2019 17:38:09; Application: XMLTransformer-1.17.7; Report Filename: PFOA_FC_LC_FC9W_130S18__Form4B_SJ2545304.html; Workgroup: WG67438; Design ID: 3161 ]

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| | File Name | Sample ID | File Text | Bottle | SignIn | SignOut | Inj VoL | EXP |
|---|---|---|---|---|---|---|---|---|
| 1 | FC9W_144S01 | MeOH,, MLA110 UPLC option | 1,,2uL | 1:8,A | GW | (NH)* GW | 2.0 | GW |
| 2 | FC9W_144S02 | MeOH,, more Targets for EPA | 1,,2uL | 1:8,A | --- | --- | 2.0 | --- |
| 3 | FC9W_144S03 | MeOH,, A new format | 1,,2uL | 1:8,A | --- | --- | 2.0 | --- |
| 4 | FC9W_144S04 | MeOH,, MLA110-PFAS UPLC_02 | 1,,2uL | 1:8,A | --- | --- | 2.0 | --- |
| 5 | FC9W_144S05 | MeOH,, new MS Exp name | 1,,2uL | 1:8,A | --- | --- | 2.0 | --- |
| 6 | FC9W_144S06 | MeOH,, MLA 110 new version | 1,,2uL | 1:8,A | --- | --- | 2.0 | --- |
| 7 | FC9W_144S07 | MeOH,, quan method _06 | 1,,2uL | 1:8,A | --- | --- | 2.0 | --- |
| 8 | FC9W_144S08 | MeOH,, | 1,,2uL | 1:8,A | --- | --- | 2.0 | --- |
| 9 | FC9W_144S09 | MeOH,, MLA110 column | 1,,2uL | 1:8,A | --- | --- | 2.0 | --- |
| 10 | FC9W_144S10 | MeOH,, 2ul | 1,,2uL | 1:8,A | --- | --- | 2.0 | --- |
| 11 | FC9W_144S11 | MeOH,, 097-a1 | 1,,2uL | 1:8,A | --- | --- | 2.0 | --- |
| 12 | FC9W_144S12 | MeOH,, | 1,,2uL | 1:8,A | --- | --- | 2.0 | --- |
| 13 | FC9W_144S13 | FC027B-CAL,, /01 | 1,,2uL | 2:1,B | --- | --- | 2.0 | --- |
| 14 | FC9W_144S14 | FC027E-CAL,, /01 | 1,,2uL | 2:1,E | --- | --- | 2.0 | --- |
| 15 | FC9W_144S15 | WG67663-103,i,SAR | 1,WG67663,2/4000uL | 2:2,E | --- | --- | 2.0 | --- |
| 16 | FC9W_144S16 | WG67663-102,i,SPM | 1,WG67663,2/4000uL | 2:2,F | --- | --- | 2.0 | --- |
| 17 | FC9W_144S17 | MeOH,, | 1,,2uL | 2:8,A | --- | --- | 2.0 | --- |
| 18 | FC9W_144S18 | WG67663-101,i,BLK | 1,WG67663,2/4000uL | 2:5,B | --- | --- | 2.0 | --- |
| 19 | FC9W_144S19 | L30821-3,i, | 1,WG67663,2/4000uL | 2:5,C | --- | --- | 2.0 | --- |
| 20 | FC9W_144S20 | L30821-7,i, | 1,WG67663,2/4000uL | 2:5,D | --- | --- | 2.0 | --- |
| 21 | FC9W_144S21 | FC027E-CAL,, /01 | 1,,2uL | 2:1,E | --- | --- | 2.0 | --- |
| 22 | FC9W_144S22 | FC027E-CAL,, /01 | 1,,2uL | 2:1,E | --- | --- | 2.0 | --- |
| 23 | FC9W_144S23 | MeOH,, | 1,,2uL | 1:8,A | --- | --- | 2.0 | --- |

* previously checked. _140

1-2 1-8
6.50 6.65

**SGS AXYS METHOD MLA-110 Rev 01**

**Form 4A**
**LC MS/MS CALIBRATION VERIFICATION**

**SGS AXYS ANALYTICAL SERVICES**
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

| | | | |
|---|---|---|---|
| **Initial Calibration Date:** | 08-Mar-2019 | **VER Data Filename:** | FC9W_144 S: 14 |
| **Instrument ID:** | LC MS/MS | **Analysis Date:** | 08-Apr-2019 |
| **LC Column ID:** | C18 | **Analysis Time:** | 16:56:51 |

| COMPOUND | LAB FLAG [1] | RETENTION TIME | EXPECTED CONC. (ng) | CONC. FOUND (ng) | RECOVERY (%) |
|---|---|---|---|---|---|
| **PFBA** | | 2:16 | 41.0 | 42.0 | 103 |
| **PFPeA** | | 4:24 | 20.4 | 20.2 | 98.7 |
| **PFHxA** | | 5:04 | 10.3 | 10.1 | 98.5 |
| **PFHpA** | | 5:39 | 10.3 | 10.8 | 105 |
| **PFOA** | | 6:33 | 10.3 | 10.7 | 104 |
| **PFNA** | | 7:11 | 10.0 | 10.4 | 104 |
| **PFDA** | | 7:33 | 10.0 | 9.87 | 98.7 |
| **PFUnA** | | 7:49 | 10.0 | 9.81 | 98.1 |
| **PFDoA** | | 8:08 | 10.0 | 10.5 | 105 |
| **PFTrDA** | | 8:33 | 10.0 | 10.6 | 106 |
| **PFTeDA** | | 9:01 | 10.0 | 11.1 | 111 |
| **PFBS** | | 5:02 | 10.3 | 10.1 | 98.6 |
| **PFPeS** | | 5:44 | 9.50 | 9.70 | 102 |
| **PFHxS** | | 6:41 | 10.3 | 9.20 | 89.7 |
| **PFHpS** | | 7:18 | 9.50 | 8.95 | 94.2 |
| **PFOS** | | 7:38 | 10.3 | 10.1 | 98.6 |
| **PFNS** | | 7:56 | 9.50 | 9.51 | 100 |
| **PFDS** | | 8:18 | 10.3 | 10.4 | 101 |
| **PFDoS** | | 9:13 | 9.50 | 9.30 | 97.9 |
| **4:2 FTS** | | 4:55 | 40.0 | 35.8 | 89.5 |
| **6:2 FTS** | | 6:12 | 36.0 | 36.4 | 101 |
| **8:2 FTS** | | 7:25 | 40.0 | 38.3 | 95.8 |
| **PFOSA** | | 8:34 | 10.3 | 10.9 | 106 |
| **N-MeFOSA** | | 9:53 | 11.5 | 12.7 | 110 |
| **N-EtFOSA** | | 10:07 | 25.0 | 24.7 | 98.8 |
| **MeFOSAA** | | 7:34 | 10.0 | 10.5 | 105 |
| **EtFOSAA** | | 7:40 | 10.0 | 10.5 | 105 |
| **N-MeFOSE** | | 9:45 | 102 | 105 | 103 |
| **N-EtFOSE** | | 10:02 | 76.5 | 83.6 | 109 |

(1) Where applicable, custom lab flags have been used on this report.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Andrew Porat_____

For Axys Internal Use Only [ XSL Template: FC-Form4A.xsl; Created: 22-Apr-2019 09:44:06; Application: XMLTransformer-1.17.7; Report Filename: PFOA_FC_LC_FC9W_144S14__Form4A_SJ2546985.html; Workgroup: WG67663; Design ID: 3161 ]

**SGS AXYS METHOD MLA-110 Rev 01**

**Form 4B**
**LC MS/MS CALIBRATION VERIFICATION**

**SGS AXYS ANALYTICAL SERVICES**
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

| | | | |
|---|---|---|---|
| **Initial Calibration Date:** | 08-Mar-2019 | **VER Data Filename:** | FC9W_144 S: 14 |
| **Instrument ID:** | LC MS/MS | **Analysis Date:** | 08-Apr-2019 |
| **LC Column ID:** | C18 | **Analysis Time:** | 16:56:51 |

| LABELED COMPOUND | LAB FLAG [1] | RETENTION TIME | EXPECTED CONC. (ng) | CONC. FOUND (ng) | RECOVERY (%) |
|---|---|---|---|---|---|
| **13C4-PFBA** | | 2:16 | 40.0 | 39.2 | 98.1 |
| **13C5-PFPeA** | | 4:24 | 20.0 | 21.4 | 107 |
| **13C5-PFHxA** | | 5:04 | 10.0 | 10.6 | 106 |
| **13C4-PFHpA** | | 5:39 | 10.0 | 10.8 | 108 |
| **13C8-PFOA** | | 6:33 | 10.0 | 10.7 | 107 |
| **13C9-PFNA** | | 7:11 | 5.00 | 5.13 | 103 |
| **13C6-PFDA** | | 7:33 | 5.00 | 5.44 | 109 |
| **13C7-PFUnA** | | 7:49 | 5.00 | 5.63 | 113 |
| **13C2-PFDoA** | | 8:08 | 5.00 | 5.57 | 111 |
| **13C2-PFTeDA** | | 9:01 | 5.00 | 5.95 | 119 |
| **13C3-PFBS** | | 5:02 | 10.0 | 10.2 | 102 |
| **13C3-PFHxS** | | 6:41 | 10.0 | 10.3 | 103 |
| **13C8-PFOS** | | 7:38 | 10.0 | 11.2 | 112 |
| **13C2-4:2 FTS** | | 4:55 | 20.0 | 29.9 | 150 |
| **13C2-6:2 FTS** | | 6:12 | 20.0 | 21.1 | 105 |
| **13C2-8:2 FTS** | | 7:25 | 20.0 | 20.3 | 101 |
| **13C8-PFOSA** | | 8:34 | 10.0 | 8.61 | 86.1 |
| **D3-N-MeFOSA** | | 9:53 | 10.0 | 8.62 | 86.2 |
| **D5-N-EtFOSA** | | 10:07 | 10.0 | 10.2 | 102 |
| **D3-MeFOSAA** | | 7:34 | 20.0 | 18.9 | 94.7 |
| **D5-EtFOSAA** | | 7:40 | 20.0 | 22.1 | 110 |
| **d7-NMe-FOSE** | | 9:43 | 100 | 78.4 | 78.4 |
| **d9-NEt-FOSE** | | 10:01 | 100 | 66.6 | 66.6 |

(1) Where applicable, custom lab flags have been used on this report.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Andrew Porat_____

For Axys Internal Use Only [ XSL Template: FC-Form4B.xsl; Created: 22-Apr-2019 09:44:06; Application: XMLTransformer-1.17.7; Report Filename: PFOA_FC_LC_FC9W_144S14__Form4B_SJ2546985.html; Workgroup: WG67663; Design ID: 3161 ]

**SGS AXYS METHOD MLA-110 Rev 01**

**AUDIT 1A CHANGE REPORT**

**CLIENT SAMPLE NO.**
**EB-01-020419**
**Sample Collection:**
**04-Feb-2019 11:05**

**SGS AXYS ANALYTICAL SERVICES**
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

**Project No.** RACER LANSING PLANT -2

| | | | |
|---|---|---|---|
| **Contract No.:** | 4951 | **Lab Sample I.D.:** | L30820-1 |
| **Sample Data Filename:** | **FC9W_130 S: 26** | **Instrument ID:** | LC MS/MS |
| **Analysis Date:** | 31-Mar-2019 **Time:** 02:09:32 | **GC Column ID:** | C18 |
| **Extract Volume (uL):** | 4000 | **Injection Volume (uL):** | 2 |

| COMPOUND | ORIG. CONC. | FINAL CONC. | CHANGE CONC. (Final/Orig.) | ORIG. AREA | FINAL AREA | CHANGE AREA (Final/Orig.) | ORIG. RATIO | FINAL RATIO |
|---|---|---|---|---|---|---|---|---|
| **PFBA** | | | | | | | | |
| **PFHXA-1** | | | | | | | | |
| **PFNA-1** | | | | | | | | |
| **PFUNA-1** | | | | | | | | |
| **PFHXS-1** | | | | | | | | |
| **6:2 FTS-1** | | | | | | | | |
| **PFOSA-1** | | | | | | | | |

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Andrew Porat_____

For Axys Internal Use Only [ XSL Template: Audit1A.xsl; Created: 16-Apr-2019 17:38:09; Application: XMLTransformer-1.17.7;
Report Filename: AUDIT_FC_LC_PFAS_L30820-1_Audit1A_FC9W_130S26_SJ2545314.html; Workgroup: WG67438; Design ID: 3161 ]

**SGS AXYS METHOD MLA-110 Rev 01**

**AUDIT 1B CHANGE REPORT**

**CLIENT SAMPLE NO.**
**EB-01-020419**
**Sample Collection:**
**04-Feb-2019 11:05**

**SGS AXYS ANALYTICAL SERVICES**
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

**Project No.** RACER LANSING PLANT -2

| | | | |
|---|---|---|---|
| **Contract No.:** | 4951 | **Lab Sample I.D.:** | L30820-1 |
| **Sample Data Filename:** | **FC9W_130 S: 26** | **Instrument ID:** | LC MS/MS |
| **Analysis Date:** | 31-Mar-2019 **Time:** 02:09:32 | **GC Column ID:** | C18 |
| **Extract Volume (uL):** | 4000 | **Injection Volume (uL):** | 2 |

| COMPOUND | ORIG. SDL | FINAL SDL | CHANGE SDL (Final/Orig.) | ORIG. QUAL | FINAL QUAL | ORIG. RT | FINAL RT | REVIEWED BY | REVIEWED DATE |
|---|---|---|---|---|---|---|---|---|---|
| **PFBA** | | | | | ND | | | WANGG | 15-APR-2019 |
| **PFHXA-1** | | | | | ND | | | WANGG | 15-APR-2019 |
| **PFNA-1** | | | | | ND | | | WANGG | 15-APR-2019 |
| **PFUNA-1** | | | | | ND | | | WANGG | 15-APR-2019 |
| **PFHXS-1** | | | | | ND | | | WANGG | 15-APR-2019 |
| **6:2 FTS-1** | | | | | ND | | | WANGG | 15-APR-2019 |
| **PFOSA-1** | | | | | ND | | | WANGG | 15-APR-2019 |

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Andrew Porat_____

For Axys Internal Use Only [ XSL Template: Audit1B.xsl; Created: 16-Apr-2019 17:38:09; Application: XMLTransformer-1.17.7;
Report Filename: AUDIT_FC_LC_PFAS_L30820-1_Audit1B_FC9W_130S26_SJ2545314.html; Workgroup: WG67438; Design ID: 3161 ]

**SGS AXYS METHOD MLA-110 Rev 01**

**AUDIT 2A CHANGE REPORT**

**CLIENT SAMPLE NO.**
**EB-01-020419**
**Sample Collection:**
**04-Feb-2019 11:05**

**SGS AXYS ANALYTICAL SERVICES**
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

| | | | |
|---|---|---|---|
| **Project No.** | RACER LANSING PLANT -2 | | |
| **Contract No.:** | 4951 | **Lab Sample I.D.:** | L30820-1 |
| **Sample Data Filename:** | **FC9W_130 S: 26** | **Instrument ID:** | LC MS/MS |
| **Analysis Date:** | 31-Mar-2019 **Time:** 02:09:32 | **GC Column ID:** | C18 |
| **Extract Volume (uL):** | 4000 | **Injection Volume (uL):** | 2 |

There were no differences found between the parsed and reported data.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Andrew Porat_____

For Axys Internal Use Only [ XSL Template: Audit2A.xsl; Created: 16-Apr-2019 17:38:09; Application: XMLTransformer-1.17.7;
Report Filename: AUDIT_FC_LC_PFAS_L30820-1_Audit2A_FC9W_130S26_SJ2545314.html; Workgroup: WG67438; Design ID: 3161 ]

**SGS AXYS METHOD MLA-110 Rev 01**

**AUDIT 2B CHANGE REPORT**

**CLIENT SAMPLE NO.**
**EB-01-020419**
**Sample Collection:**
**04-Feb-2019 11:05**

**SGS AXYS ANALYTICAL SERVICES**
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

| | | | |
|---|---|---|---|
| **Project No.** | RACER LANSING PLANT -2 | | |
| **Contract No.:** | 4951 | **Lab Sample I.D.:** | L30820-1 |
| **Sample Data Filename:** | **FC9W_130 S: 26** | **Instrument ID:** | LC MS/MS |
| **Analysis Date:** | 31-Mar-2019 **Time:** 02:09:32 | **GC Column ID:** | C18 |
| **Extract Volume (uL):** | 4000 | **Injection Volume (uL):** | 2 |

There were no differences found between the parsed and reported data.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Andrew Porat_____

For Axys Internal Use Only [ XSL Template: Audit2B.xsl; Created: 16-Apr-2019 17:38:09; Application: XMLTransformer-1.17.7;
Report Filename: AUDIT_FC_LC_PFAS_L30820-1_Audit2B_FC9W_130S26_SJ2545314.html; Workgroup: WG67438; Design ID: 3161 ]

**SGS AXYS METHOD MLA-110 Rev 01**

**AUDIT 1A CHANGE REPORT**

**CLIENT SAMPLE NO.**
**EB-02-020419**
**Sample Collection:**
**05-Feb-2019 15:35**

**SGS AXYS ANALYTICAL SERVICES**
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

| | | | |
|---|---|---|---|
| **Project No.** | RACER LANSING PLANT -2 | | |
| **Contract No.:** | 4951 | **Lab Sample I.D.:** | L30820-2 |
| **Sample Data Filename:** | **FC9W_130 S: 27** | **Instrument ID:** | LC MS/MS |
| **Analysis Date:** | 31-Mar-2019 **Time:** 02:23:01 | **GC Column ID:** | C18 |
| **Extract Volume (uL):** | 4000 | **Injection Volume (uL):** | 2 |

| COMPOUND | ORIG. CONC. | FINAL CONC. | CHANGE CONC. (Final/Orig.) | ORIG. AREA | FINAL AREA | CHANGE AREA (Final/Orig.) | ORIG. RATIO | FINAL RATIO |
|---|---|---|---|---|---|---|---|---|
| **PFBA** | | | | | | | | |
| **PFNA-1** | | | | | | | | |
| **PFBS-1** | | | | | | | | |
| **PFHXS-1** | | | | | | | | |
| **PFOSA-1** | | | | | | | | |
| **MEFOSAA-1** | | | | | | | | |

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Andrew Porat_____

For Axys Internal Use Only [ XSL Template: Audit1A.xsl; Created: 16-Apr-2019 17:38:09; Application: XMLTransformer-1.17.7;
Report Filename: AUDIT_FC_LC_PFAS_L30820-2_Audit1A_FC9W_130S27_SJ2545315.html; Workgroup: WG67438; Design ID: 3161 ]

**SGS AXYS METHOD MLA-110 Rev 01**

**AUDIT 1B CHANGE REPORT**

**CLIENT SAMPLE NO.**
**EB-02-020419**
**Sample Collection:**
**05-Feb-2019 15:35**

**SGS AXYS ANALYTICAL SERVICES**
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

**Project No.** RACER LANSING PLANT -2

| | | | |
|---|---|---|---|
| **Contract No.:** | 4951 | **Lab Sample I.D.:** | L30820-2 |
| **Sample Data Filename:** | **FC9W_130 S: 27** | **Instrument ID:** | LC MS/MS |
| **Analysis Date:** | 31-Mar-2019 **Time:** 02:23:01 | **GC Column ID:** | C18 |
| **Extract Volume (uL):** | 4000 | **Injection Volume (uL):** | 2 |

| COMPOUND | ORIG. SDL | FINAL SDL | CHANGE SDL (Final/Orig.) | ORIG. QUAL | FINAL QUAL | ORIG. RT | FINAL RT | REVIEWED BY | REVIEWED DATE |
|---|---|---|---|---|---|---|---|---|---|
| **PFBA** | | | | | ND | | | WANGG | 15-APR-2019 |
| **PFNA-1** | | | | | ND | | | WANGG | 15-APR-2019 |
| **PFBS-1** | | | | | ND | | | WANGG | 15-APR-2019 |
| **PFHXS-1** | | | | | ND | | | WANGG | 15-APR-2019 |
| **PFOSA-1** | | | | | ND | | | WANGG | 15-APR-2019 |
| **MEFOSAA-1** | | | | | ND | | | WANGG | 15-APR-2019 |

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Andrew Porat_____

For Axys Internal Use Only [ XSL Template: Audit1B.xsl; Created: 16-Apr-2019 17:38:09; Application: XMLTransformer-1.17.7;
Report Filename: AUDIT_FC_LC_PFAS_L30820-2_Audit1B_FC9W_130S27_SJ2545315.html; Workgroup: WG67438; Design ID: 3161 ]

**SGS AXYS METHOD MLA-110 Rev 01**

**AUDIT 2A CHANGE REPORT**

**CLIENT SAMPLE NO.**
**EB-02-020419**
**Sample Collection:**
**05-Feb-2019 15:35**

**SGS AXYS ANALYTICAL SERVICES**
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

| | | | |
|---|---|---|---|
| **Project No.** | RACER LANSING PLANT -2 | | |
| **Contract No.:** | 4951 | **Lab Sample I.D.:** | L30820-2 |
| **Sample Data Filename:** | **FC9W_130 S: 27** | **Instrument ID:** | LC MS/MS |
| **Analysis Date:** | 31-Mar-2019 **Time:** 02:23:01 | **GC Column ID:** | C18 |
| **Extract Volume (uL):** | 4000 | **Injection Volume (uL):** | 2 |

There were no differences found between the parsed and reported data.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Andrew Porat_____

For Axys Internal Use Only [ XSL Template: Audit2A.xsl; Created: 16-Apr-2019 17:38:09; Application: XMLTransformer-1.17.7;
Report Filename: AUDIT_FC_LC_PFAS_L30820-2_Audit2A_FC9W_130S27_SJ2545315.html; Workgroup: WG67438; Design ID: 3161 ]

**SGS AXYS METHOD MLA-110 Rev 01**

**AUDIT 2B CHANGE REPORT**

**CLIENT SAMPLE NO.**
**EB-02-020419**
**Sample Collection:**
**05-Feb-2019 15:35**

**SGS AXYS ANALYTICAL SERVICES**
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

| | | | |
|---|---|---|---|
| | | **Project No.** | RACER LANSING PLANT -2 |
| **Contract No.:** | 4951 | **Lab Sample I.D.:** | L30820-2 |
| **Sample Data Filename:** | **FC9W_130 S: 27** | **Instrument ID:** | LC MS/MS |
| **Analysis Date:** | 31-Mar-2019 **Time:** 02:23:01 | **GC Column ID:** | C18 |
| **Extract Volume (uL):** | 4000 | **Injection Volume (uL):** | 2 |

There were no differences found between the parsed and reported data.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Andrew Porat_____

For Axys Internal Use Only [ XSL Template: Audit2B.xsl; Created: 16-Apr-2019 17:38:09; Application: XMLTransformer-1.17.7;
Report Filename: AUDIT_FC_LC_PFAS_L30820-2_Audit2B_FC9W_130S27_SJ2545315.html; Workgroup: WG67438; Design ID: 3161 ]

**SGS AXYS METHOD MLA-110 Rev 01**

**AUDIT 1A CHANGE REPORT**

**CLIENT SAMPLE NO.**
**PMW-01-020419**
**Sample Collection:**
**04-Feb-2019 11:35**

**SGS AXYS ANALYTICAL SERVICES**
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

| | | | |
|---|---|---|---|
| **Project No.** | RACER LANSING PLANT -2 | | |
| **Contract No.:** | 4951 | **Lab Sample I.D.:** | L30821-1 (A) |
| **Sample Data Filename:** | **FC9W_130 S: 28** | **Instrument ID:** | LC MS/MS |
| **Analysis Date:** | 31-Mar-2019 **Time:** 02:36:21 | **GC Column ID:** | C18 |
| **Extract Volume (uL):** | 4000 | **Injection Volume (uL):** | 2 |

| COMPOUND | ORIG. CONC. | FINAL CONC. | CHANGE CONC. (Final/Orig.) | ORIG. AREA | FINAL AREA | CHANGE AREA (Final/Orig.) | ORIG. RATIO | FINAL RATIO |
|---|---|---|---|---|---|---|---|---|
| **PFBA** | | | | | | | | |
| **PFPEA-1** | | | | | | | | |
| **PFNA-1** | | | | | | | | |
| **6:2 FTS-1** | | | | | | | | |
| **PFOSA-1** | | | | | | | | |

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Andrew Porat_____

For Axys Internal Use Only [ XSL Template: Audit1A.xsl; Created: 16-Apr-2019 17:38:09; Application: XMLTransformer-1.17.7;
Report Filename: AUDIT_FC_LC_PFAS_L30821-1_Audit1A_FC9W_130S28_SJ2545316.html; Workgroup: WG67438; Design ID: 3161 ]

**SGS AXYS METHOD MLA-110 Rev 01**

**AUDIT 1B CHANGE REPORT**

**CLIENT SAMPLE NO.**
**PMW-01-020419**
**Sample Collection:**
**04-Feb-2019 11:35**

**SGS AXYS ANALYTICAL SERVICES**
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

**Project No.** RACER LANSING PLANT -2

| | | | |
|---|---|---|---|
| **Contract No.:** | 4951 | **Lab Sample I.D.:** | L30821-1 (A) |
| **Sample Data Filename:** | **FC9W_130 S: 28** | **Instrument ID:** | LC MS/MS |
| **Analysis Date:** | 31-Mar-2019 **Time:** 02:36:21 | **GC Column ID:** | C18 |
| **Extract Volume (uL):** | 4000 | **Injection Volume (uL):** | 2 |

| COMPOUND | ORIG. SDL | FINAL SDL | CHANGE SDL (Final/Orig.) | ORIG. QUAL | FINAL QUAL | ORIG. RT | FINAL RT | REVIEWED BY | REVIEWED DATE |
|---|---|---|---|---|---|---|---|---|---|
| **PFBA** | | | | | ND | | | WANGG | 15-APR-2019 |
| **PFPEA-1** | | | | | ND | | | WANGG | 15-APR-2019 |
| **PFNA-1** | | | | | ND | | | WANGG | 15-APR-2019 |
| **6:2 FTS-1** | | | | | ND | | | WANGG | 15-APR-2019 |
| **PFOSA-1** | | | | | ND | | | WANGG | 15-APR-2019 |

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Andrew Porat_____

For Axys Internal Use Only [ XSL Template: Audit1B.xsl; Created: 16-Apr-2019 17:38:09; Application: XMLTransformer-1.17.7;
Report Filename: AUDIT_FC_LC_PFAS_L30821-1_Audit1B_FC9W_130S28_SJ2545316.html; Workgroup: WG67438; Design ID: 3161 ]

**SGS AXYS METHOD MLA-110 Rev 01**

**AUDIT 2A CHANGE REPORT**

**CLIENT SAMPLE NO.**
**PMW-01-020419**
**Sample Collection:**
**04-Feb-2019 11:35**

**SGS AXYS ANALYTICAL SERVICES**
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

| | | | |
|---|---|---|---|
| **Project No.** | RACER LANSING PLANT -2 | | |
| **Contract No.:** | 4951 | **Lab Sample I.D.:** | L30821-1 (A) |
| **Sample Data Filename:** | **FC9W_130 S: 28** | **Instrument ID:** | LC MS/MS |
| **Analysis Date:** | 31-Mar-2019 **Time:** 02:36:21 | **GC Column ID:** | C18 |
| **Extract Volume (uL):** | 4000 | **Injection Volume (uL):** | 2 |

There were no differences found between the parsed and reported data.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Andrew Porat_____

For Axys Internal Use Only [ XSL Template: Audit2A.xsl; Created: 16-Apr-2019 17:38:09; Application: XMLTransformer-1.17.7;
Report Filename: AUDIT_FC_LC_PFAS_L30821-1_Audit2A_FC9W_130S28_SJ2545316.html; Workgroup: WG67438; Design ID: 3161 ]

**SGS AXYS METHOD MLA-110 Rev 01**

**AUDIT 2B CHANGE REPORT**

**CLIENT SAMPLE NO.**
**PMW-01-020419**
**Sample Collection:**
**04-Feb-2019 11:35**

**SGS AXYS ANALYTICAL SERVICES**
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

| | | | |
|---|---|---|---|
| **Project No.** | RACER LANSING PLANT -2 | | |
| **Contract No.:** | 4951 | **Lab Sample I.D.:** | L30821-1 (A) |
| **Sample Data Filename:** | **FC9W_130 S: 28** | **Instrument ID:** | LC MS/MS |
| **Analysis Date:** | 31-Mar-2019 **Time:** 02:36:21 | **GC Column ID:** | C18 |
| **Extract Volume (uL):** | 4000 | **Injection Volume (uL):** | 2 |

There were no differences found between the parsed and reported data.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Andrew Porat_____

For Axys Internal Use Only [ XSL Template: Audit2B.xsl; Created: 16-Apr-2019 17:38:09; Application: XMLTransformer-1.17.7;
Report Filename: AUDIT_FC_LC_PFAS_L30821-1_Audit2B_FC9W_130S28_SJ2545316.html; Workgroup: WG67438; Design ID: 3161 ]

**SGS AXYS METHOD MLA-110 Rev 01**

**AUDIT 1A CHANGE REPORT**

**CLIENT SAMPLE NO.**
**PMW-01-020419 (Duplicate)**
**Sample Collection:**
**04-Feb-2019 11:35**

**SGS AXYS ANALYTICAL SERVICES**
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

| | | | |
|---|---|---|---|
| **Project No.** | RACER LANSING PLANT -2 | | |
| **Contract No.:** | 4951 | **Lab Sample I.D.:** | WG67438-105 (FDUP L30821-1) |
| **Sample Data Filename:** | **FC9W_130 S: 29** | **Instrument ID:** | LC MS/MS |
| **Analysis Date:** | 31-Mar-2019 **Time:** 02:49:49 | **GC Column ID:** | C18 |
| **Extract Volume (uL):** | 4000 | **Injection Volume (uL):** | 2 |

| COMPOUND | ORIG. CONC. | FINAL CONC. | CHANGE CONC. (Final/Orig.) | ORIG. AREA | FINAL AREA | CHANGE AREA (Final/Orig.) | ORIG. RATIO | FINAL RATIO |
|---|---|---|---|---|---|---|---|---|
| **PFBA** | | | | | | | | |
| **PFOA-1** | | | | | | | | |
| **PFNA-1** | | | | | | | | |
| **PFDA-1** | | | | | | | | |
| **PFBS-1** | | | | | | | | |
| **6:2 FTS-1** | | | | | | | | |
| **PFOSA-1** | | | | | | | | |

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Andrew Porat_____

For Axys Internal Use Only [ XSL Template: Audit1A.xsl; Created: 16-Apr-2019 17:38:09; Application: XMLTransformer-1.17.7;
Report Filename: AUDIT_FC_LC_PFAS_WG67438-105_Audit1A_FC9W_130S29_SJ2545317.html; Workgroup: WG67438; Design ID: 3161 ]

**SGS AXYS METHOD MLA-110 Rev 01**

**AUDIT 1B CHANGE REPORT**

**CLIENT SAMPLE NO.**
**PMW-01-020419 (Duplicate)**
**Sample Collection:**
**04-Feb-2019 11:35**

**SGS AXYS ANALYTICAL SERVICES**
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

**Project No.** RACER LANSING PLANT -2

| | | | |
|---|---|---|---|
| **Contract No.:** | 4951 | **Lab Sample I.D.:** | WG67438-105 (FDUP L30821-1) |
| **Sample Data Filename:** | **FC9W_130 S: 29** | **Instrument ID:** | LC MS/MS |
| **Analysis Date:** | 31-Mar-2019 **Time:** 02:49:49 | **GC Column ID:** | C18 |
| **Extract Volume (uL):** | 4000 | **Injection Volume (uL):** | 2 |

| COMPOUND | ORIG. SDL | FINAL SDL | CHANGE SDL (Final/Orig.) | ORIG. QUAL | FINAL QUAL | ORIG. RT | FINAL RT | REVIEWED BY | REVIEWED DATE |
|---|---|---|---|---|---|---|---|---|---|
| **PFBA** | | | | | ND | | | WANGG | 15-APR-2019 |
| **PFOA-1** | | | | | ND | | | WANGG | 15-APR-2019 |
| **PFNA-1** | | | | | ND | | | WANGG | 15-APR-2019 |
| **PFDA-1** | | | | | ND | | | WANGG | 15-APR-2019 |
| **PFBS-1** | | | | | ND | | | WANGG | 15-APR-2019 |
| **6:2 FTS-1** | | | | | ND | | | WANGG | 15-APR-2019 |
| **PFOSA-1** | | | | | ND | | | WANGG | 15-APR-2019 |

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Andrew Porat_____

For Axys Internal Use Only [ XSL Template: Audit1B.xsl; Created: 16-Apr-2019 17:38:09; Application: XMLTransformer-1.17.7;
Report Filename: AUDIT_FC_LC_PFAS_WG67438-105_Audit1B_FC9W_130S29_SJ2545317.html; Workgroup: WG67438; Design ID: 3161 ]

**SGS AXYS METHOD MLA-110 Rev 01**

**AUDIT 2A CHANGE REPORT**

**CLIENT SAMPLE NO.**
**PMW-01-020419 (Duplicate)**
**Sample Collection:**
**04-Feb-2019 11:35**

**SGS AXYS ANALYTICAL SERVICES**
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

| | | | |
|---|---|---|---|
| | | **Project No.** | RACER LANSING PLANT -2 |
| **Contract No.:** | 4951 | **Lab Sample I.D.:** | WG67438-105 (FDUP L30821-1) |
| **Sample Data Filename:** | **FC9W_130 S: 29** | **Instrument ID:** | LC MS/MS |
| **Analysis Date:** | 31-Mar-2019 **Time:** 02:49:49 | **GC Column ID:** | C18 |
| **Extract Volume (uL):** | 4000 | **Injection Volume (uL):** | 2 |

There were no differences found between the parsed and reported data.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Andrew Porat_____

For Axys Internal Use Only [ XSL Template: Audit2A.xsl; Created: 16-Apr-2019 17:38:09; Application: XMLTransformer-1.17.7;
Report Filename: AUDIT_FC_LC_PFAS_WG67438-105_Audit2A_FC9W_130S29_SJ2545317.html; Workgroup: WG67438; Design ID: 3161 ]

**SGS AXYS METHOD MLA-110 Rev 01**

**AUDIT 2B CHANGE REPORT**

**CLIENT SAMPLE NO.**
**PMW-01-020419 (Duplicate)**
**Sample Collection:**
**04-Feb-2019 11:35**

**SGS AXYS ANALYTICAL SERVICES**
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

| | | | |
|---|---|---|---|
| | | **Project No.** | RACER LANSING PLANT -2 |
| **Contract No.:** | 4951 | **Lab Sample I.D.:** | WG67438-105 (FDUP L30821-1) |
| **Sample Data Filename:** | **FC9W_130 S: 29** | **Instrument ID:** | LC MS/MS |
| **Analysis Date:** | 31-Mar-2019 **Time:** 02:49:49 | **GC Column ID:** | C18 |
| **Extract Volume (uL):** | 4000 | **Injection Volume (uL):** | 2 |

There were no differences found between the parsed and reported data.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Andrew Porat_____

For Axys Internal Use Only [ XSL Template: Audit2B.xsl; Created: 16-Apr-2019 17:38:09; Application: XMLTransformer-1.17.7;
Report Filename: AUDIT_FC_LC_PFAS_WG67438-105_Audit2B_FC9W_130S29_SJ2545317.html; Workgroup: WG67438; Design ID: 3161 ]

**SGS AXYS METHOD MLA-110 Rev 01**

**AUDIT 1A CHANGE REPORT**

**CLIENT SAMPLE NO.**
**LMW-15-160-020419**
**Sample Collection:**
**04-Feb-2019 15:05**

**SGS AXYS ANALYTICAL SERVICES**
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

**Project No.** RACER LANSING PLANT -2

| | | | |
|---|---|---|---|
| **Contract No.:** | 4951 | **Lab Sample I.D.:** | L30821-2 |
| **Sample Data Filename:** | **FC9W_130 S: 30** | **Instrument ID:** | LC MS/MS |
| **Analysis Date:** | 31-Mar-2019 **Time:** 03:03:09 | **GC Column ID:** | C18 |
| **Extract Volume (uL):** | 4000 | **Injection Volume (uL):** | 2 |

| COMPOUND | ORIG. CONC. | FINAL CONC. | CHANGE CONC. (Final/Orig.) | ORIG. AREA | FINAL AREA | CHANGE AREA (Final/Orig.) | ORIG. RATIO | FINAL RATIO |
|---|---|---|---|---|---|---|---|---|
| **PFHPA-1** | 32.5 | 14.9 | 0.459 | 678 | 319 | 0.471 | | |
| **PFNA-1** | | | | | | | | |
| **PFUNA-1** | | | | | | | | |
| **PFHPS-1** | | | | | | | | |

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Andrew Porat_____

For Axys Internal Use Only [ XSL Template: Audit1A.xsl; Created: 16-Apr-2019 17:38:09; Application: XMLTransformer-1.17.7;
Report Filename: AUDIT_FC_LC_PFAS_L30821-2_Audit1A_FC9W_130S30_SJ2545318.html; Workgroup: WG67438; Design ID: 3161 ]

**SGS AXYS METHOD MLA-110 Rev 01**

**AUDIT 1B CHANGE REPORT**

**CLIENT SAMPLE NO.**
**LMW-15-160-020419**
**Sample Collection:**
**04-Feb-2019 15:05**

**SGS AXYS ANALYTICAL SERVICES**
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

**Project No.** RACER LANSING PLANT -2

| | | | |
|---|---|---|---|
| **Contract No.:** | 4951 | **Lab Sample I.D.:** | L30821-2 |
| **Sample Data Filename:** | **FC9W_130 S: 30** | **Instrument ID:** | LC MS/MS |
| **Analysis Date:** | 31-Mar-2019 **Time:** 03:03:09 | **GC Column ID:** | C18 |
| **Extract Volume (uL):** | 4000 | **Injection Volume (uL):** | 2 |

| COMPOUND | ORIG. SDL | FINAL SDL | CHANGE SDL (Final/Orig.) | ORIG. QUAL | FINAL QUAL | ORIG. RT | FINAL RT | REVIEWED BY | REVIEWED DATE |
|---|---|---|---|---|---|---|---|---|---|
| **PFHPA-1** | | | | | ND | | | WANGG | 15-APR-2019 |
| **PFNA-1** | | | | | ND | | | WANGG | 15-APR-2019 |
| **PFUNA-1** | | | | | ND | | | WANGG | 15-APR-2019 |
| **PFHPS-1** | | | | | ND | | | WANGG | 15-APR-2019 |

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Andrew Porat_____

For Axys Internal Use Only [ XSL Template: Audit1B.xsl; Created: 16-Apr-2019 17:38:09; Application: XMLTransformer-1.17.7;
Report Filename: AUDIT_FC_LC_PFAS_L30821-2_Audit1B_FC9W_130S30_SJ2545318.html; Workgroup: WG67438; Design ID: 3161 ]

**SGS AXYS METHOD MLA-110 Rev 01**

**AUDIT 2A CHANGE REPORT**

**CLIENT SAMPLE NO.**
**LMW-15-160-020419**
**Sample Collection:**
**04-Feb-2019 15:05**

**SGS AXYS ANALYTICAL SERVICES**
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

| | | | |
|---|---|---|---|
| | | **Project No.** | RACER LANSING PLANT -2 |
| **Contract No.:** | 4951 | **Lab Sample I.D.:** | L30821-2 |
| **Sample Data Filename:** | **FC9W_130 S: 30** | **Instrument ID:** | LC MS/MS |
| **Analysis Date:** | 31-Mar-2019 **Time:** 03:03:09 | **GC Column ID:** | C18 |
| **Extract Volume (uL):** | 4000 | **Injection Volume (uL):** | 2 |

There were no differences found between the parsed and reported data.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Andrew Porat_____

For Axys Internal Use Only [ XSL Template: Audit2A.xsl; Created: 16-Apr-2019 17:38:09; Application: XMLTransformer-1.17.7;
Report Filename: AUDIT_FC_LC_PFAS_L30821-2_Audit2A_FC9W_130S30_SJ2545318.html; Workgroup: WG67438; Design ID: 3161 ]

**SGS AXYS METHOD MLA-110 Rev 01**

**AUDIT 2B CHANGE REPORT**

**CLIENT SAMPLE NO.**
**LMW-15-160-020419**
**Sample Collection:**
**04-Feb-2019 15:05**

**SGS AXYS ANALYTICAL SERVICES**
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

| | | | |
|---|---|---|---|
| | | **Project No.** | RACER LANSING PLANT -2 |
| **Contract No.:** | 4951 | **Lab Sample I.D.:** | L30821-2 |
| **Sample Data Filename:** | **FC9W_130 S: 30** | **Instrument ID:** | LC MS/MS |
| **Analysis Date:** | 31-Mar-2019 **Time:** 03:03:09 | **GC Column ID:** | C18 |
| **Extract Volume (uL):** | 4000 | **Injection Volume (uL):** | 2 |

There were no differences found between the parsed and reported data.

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Signed: _____Andrew Porat_____

For Axys Internal Use Only [ XSL Template: Audit2B.xsl; Created: 16-Apr-2019 17:38:09; Application: XMLTransformer-1.17.7;
Report Filename: AUDIT_FC_LC_PFAS_L30821-2_Audit2B_FC9W_130S30_SJ2545318.html; Workgroup: WG67438; Design ID: 3161 ]

**SGS AXYS METHOD MLA-110 Rev 01**

**AUDIT 1A CHANGE REPORT**

**CLIENT SAMPLE NO.**
**PZ-SB-37-020419**
**Sample Collection:**
**04-Feb-2019 15:30**

**SGS AXYS ANALYTICAL SERVICES**
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

| | | | |
|---|---|---|---|
| **Project No.** | RACER LANSING PLANT -2 | | |
| **Contract No.:** | 4951 | **Lab Sample I.D.:** | L30821-3 i |
| **Sample Data Filename:** | **FC9W_144 S: 19** | **Instrument ID:** | LC MS/MS |
| **Analysis Date:** | 08-Apr-2019 **Time:** 18:05:51 | **GC Column ID:** | C18 |
| **Extract Volume (uL):** | 4000 | **Injection Volume (uL):** | 2 |

| COMPOUND | ORIG. CONC. | FINAL CONC. | CHANGE CONC. (Final/Orig.) | ORIG. AREA | FINAL AREA | CHANGE AREA (Final/Orig.) | ORIG. RATIO | FINAL RATIO |
|---|---|---|---|---|---|---|---|---|
| **PFBA** | | | | | | | | |
| **PFUNA-1** | | | | | | | | |
| **PFHXS-1** | | | | | | | | |
| **6:2 FTS-1** | | | | | | | | |
| **PFOSA-1** | | | | | | | | |
| **ETFOSAA-1** | | | | | | | | |

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Andrew Porat_____

For Axys Internal Use Only [ XSL Template: Audit1A.xsl; Created: 22-Apr-2019 09:44:06; Application: XMLTransformer-1.17.7;
Report Filename: AUDIT_FC_LC_PFAS_L30821-3_Audit1A_FC9W_144S19_SJ2546990.html; Workgroup: WG67663; Design ID: 3161 ]

**SGS AXYS METHOD MLA-110 Rev 01**

**AUDIT 1B CHANGE REPORT**

**CLIENT SAMPLE NO.**
**PZ-SB-37-020419**
**Sample Collection:**
**04-Feb-2019 15:30**

**SGS AXYS ANALYTICAL SERVICES**
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

**Project No.** RACER LANSING PLANT -2

| | | | |
|---|---|---|---|
| **Contract No.:** | 4951 | **Lab Sample I.D.:** | L30821-3 i |
| **Sample Data Filename:** | **FC9W_144 S: 19** | **Instrument ID:** | LC MS/MS |
| **Analysis Date:** | 08-Apr-2019 **Time:** 18:05:51 | **GC Column ID:** | C18 |
| **Extract Volume (uL):** | 4000 | **Injection Volume (uL):** | 2 |

| COMPOUND | ORIG. SDL | FINAL SDL | CHANGE SDL (Final/Orig.) | ORIG. QUAL | FINAL QUAL | ORIG. RT | FINAL RT | REVIEWED BY | REVIEWED DATE |
|---|---|---|---|---|---|---|---|---|---|
| **PFBA** | | | | | ND | | | WANGG | 16-APR-2019 |
| **PFUNA-1** | | | | | ND | | | WANGG | 16-APR-2019 |
| **PFHXS-1** | | | | | ND | | | WANGG | 16-APR-2019 |
| **6:2 FTS-1** | | | | | ND | | | WANGG | 16-APR-2019 |
| **PFOSA-1** | | | | | ND | | | WANGG | 16-APR-2019 |
| **ETFOSAA-1** | | | | | ND | | | WANGG | 16-APR-2019 |

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Andrew Porat_____

For Axys Internal Use Only [ XSL Template: Audit1B.xsl; Created: 22-Apr-2019 09:44:06; Application: XMLTransformer-1.17.7;
Report Filename: AUDIT_FC_LC_PFAS_L30821-3_Audit1B_FC9W_144S19_SJ2546990.html; Workgroup: WG67663; Design ID: 3161 ]

**SGS AXYS METHOD MLA-110 Rev 01**

**AUDIT 2A CHANGE REPORT**

**CLIENT SAMPLE NO.**
**PZ-SB-37-020419**
**Sample Collection:**
**04-Feb-2019 15:30**

**SGS AXYS ANALYTICAL SERVICES**
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

| | | | |
|---|---|---|---|
| | | **Project No.** | RACER LANSING PLANT -2 |
| **Contract No.:** | 4951 | **Lab Sample I.D.:** | L30821-3 i |
| **Sample Data Filename:** | **FC9W_144 S: 19** | **Instrument ID:** | LC MS/MS |
| **Analysis Date:** | 08-Apr-2019 **Time:** 18:05:51 | **GC Column ID:** | C18 |
| **Extract Volume (uL):** | 4000 | **Injection Volume (uL):** | 2 |

There were no differences found between the parsed and reported data.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Andrew Porat_____

For Axys Internal Use Only [ XSL Template: Audit2A.xsl; Created: 22-Apr-2019 09:44:06; Application: XMLTransformer-1.17.7;
Report Filename: AUDIT_FC_LC_PFAS_L30821-3_Audit2A_FC9W_144S19_SJ2546990.html; Workgroup: WG67663; Design ID: 3161 ]

**SGS AXYS METHOD MLA-110 Rev 01**

**AUDIT 2B CHANGE REPORT**

**CLIENT SAMPLE NO.**
**PZ-SB-37-020419**
**Sample Collection:**
**04-Feb-2019 15:30**

**SGS AXYS ANALYTICAL SERVICES**
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

| | | | |
|---|---|---|---|
| | | **Project No.** | RACER LANSING PLANT -2 |
| **Contract No.:** | 4951 | **Lab Sample I.D.:** | L30821-3 i |
| **Sample Data Filename:** | **FC9W_144 S: 19** | **Instrument ID:** | LC MS/MS |
| **Analysis Date:** | 08-Apr-2019 **Time:** 18:05:51 | **GC Column ID:** | C18 |
| **Extract Volume (uL):** | 4000 | **Injection Volume (uL):** | 2 |

There were no differences found between the parsed and reported data.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Andrew Porat_____

For Axys Internal Use Only [ XSL Template: Audit2B.xsl; Created: 22-Apr-2019 09:44:06; Application: XMLTransformer-1.17.7;
Report Filename: AUDIT_FC_LC_PFAS_L30821-3_Audit2B_FC9W_144S19_SJ2546990.html; Workgroup: WG67663; Design ID: 3161 ]

**SGS AXYS METHOD MLA-110 Rev 01**

**AUDIT 1A CHANGE REPORT**

**CLIENT SAMPLE NO.**
**LMW-14-120-020519**
**Sample Collection:**
**05-Feb-2019 09:30**

**SGS AXYS ANALYTICAL SERVICES**
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

| | | | |
|---|---|---|---|
| **Project No.** | RACER LANSING PLANT -2 | | |
| **Contract No.:** | 4951 | **Lab Sample I.D.:** | L30821-4 |
| **Sample Data Filename:** | **FC9W_130 S: 31** | **Instrument ID:** | LC MS/MS |
| **Analysis Date:** | 31-Mar-2019 **Time:** 03:16:29 | **GC Column ID:** | C18 |
| **Extract Volume (uL):** | 4000 | **Injection Volume (uL):** | 2 |

| COMPOUND | ORIG. CONC. | FINAL CONC. | CHANGE CONC. (Final/Orig.) | ORIG. AREA | FINAL AREA | CHANGE AREA (Final/Orig.) | ORIG. RATIO | FINAL RATIO |
|---|---|---|---|---|---|---|---|---|
| **PFPEA-1** | | | | | | | | |
| **PFOA-1** | | | | | | | | |
| **PFNA-1** | | | | | | | | |
| **PFDOA-1** | | | | | | | | |
| **PFHXS-1** | | | | | | | | |
| **PFOSA-1** | | | | | | | | |
| **ETFOSAA-1** | | | | | | | | |

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Andrew Porat_____

For Axys Internal Use Only [ XSL Template: Audit1A.xsl; Created: 16-Apr-2019 17:38:09; Application: XMLTransformer-1.17.7;
Report Filename: AUDIT_FC_LC_PFAS_L30821-4_Audit1A_FC9W_130S31_SJ2545319.html; Workgroup: WG67438; Design ID: 3161 ]

**SGS AXYS METHOD MLA-110 Rev 01**

**AUDIT 1B CHANGE REPORT**

**CLIENT SAMPLE NO.**
**LMW-14-120-020519**
**Sample Collection:**
**05-Feb-2019 09:30**

**SGS AXYS ANALYTICAL SERVICES**
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

**Project No.** RACER LANSING PLANT -2

| | | | |
|---|---|---|---|
| **Contract No.:** | 4951 | **Lab Sample I.D.:** | L30821-4 |
| **Sample Data Filename:** | **FC9W_130 S: 31** | **Instrument ID:** | LC MS/MS |
| **Analysis Date:** | 31-Mar-2019 **Time:** 03:16:29 | **GC Column ID:** | C18 |
| **Extract Volume (uL):** | 4000 | **Injection Volume (uL):** | 2 |

| COMPOUND | ORIG. SDL | FINAL SDL | CHANGE SDL (Final/Orig.) | ORIG. QUAL | FINAL QUAL | ORIG. RT | FINAL RT | REVIEWED BY | REVIEWED DATE |
|---|---|---|---|---|---|---|---|---|---|
| **PFPEA-1** | | | | | ND | | | WANGG | 15-APR-2019 |
| **PFOA-1** | | | | | ND | | | WANGG | 15-APR-2019 |
| **PFNA-1** | | | | | ND | | | WANGG | 15-APR-2019 |
| **PFDOA-1** | | | | | ND | | | WANGG | 15-APR-2019 |
| **PFHXS-1** | | | | | ND | | | WANGG | 15-APR-2019 |
| **PFOSA-1** | | | | | ND | | | WANGG | 15-APR-2019 |
| **ETFOSAA-1** | | | | | ND | | | WANGG | 15-APR-2019 |

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Andrew Porat_____

For Axys Internal Use Only [ XSL Template: Audit1B.xsl; Created: 16-Apr-2019 17:38:09; Application: XMLTransformer-1.17.7;
Report Filename: AUDIT_FC_LC_PFAS_L30821-4_Audit1B_FC9W_130S31_SJ2545319.html; Workgroup: WG67438; Design ID: 3161 ]

**SGS AXYS METHOD MLA-110 Rev 01**

**AUDIT 2A CHANGE REPORT**

**CLIENT SAMPLE NO.**
**LMW-14-120-020519**
**Sample Collection:**
**05-Feb-2019 09:30**

**SGS AXYS ANALYTICAL SERVICES**
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

| | | | |
|---|---|---|---|
| | | **Project No.** | RACER LANSING PLANT -2 |
| **Contract No.:** | 4951 | **Lab Sample I.D.:** | L30821-4 |
| **Sample Data Filename:** | **FC9W_130 S: 31** | **Instrument ID:** | LC MS/MS |
| **Analysis Date:** | 31-Mar-2019 **Time:** 03:16:29 | **GC Column ID:** | C18 |
| **Extract Volume (uL):** | 4000 | **Injection Volume (uL):** | 2 |

There were no differences found between the parsed and reported data.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Andrew Porat_____

For Axys Internal Use Only [ XSL Template: Audit2A.xsl; Created: 16-Apr-2019 17:38:09; Application: XMLTransformer-1.17.7;
Report Filename: AUDIT_FC_LC_PFAS_L30821-4_Audit2A_FC9W_130S31_SJ2545319.html; Workgroup: WG67438; Design ID: 3161 ]

**SGS AXYS METHOD MLA-110 Rev 01**

**AUDIT 2B CHANGE REPORT**

**CLIENT SAMPLE NO.**
**LMW-14-120-020519**
**Sample Collection:**
**05-Feb-2019 09:30**

**SGS AXYS ANALYTICAL SERVICES**
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

| | | | |
|---|---|---|---|
| | | **Project No.** | RACER LANSING PLANT -2 |
| **Contract No.:** | 4951 | **Lab Sample I.D.:** | L30821-4 |
| **Sample Data Filename:** | **FC9W_130 S: 31** | **Instrument ID:** | LC MS/MS |
| **Analysis Date:** | 31-Mar-2019 **Time:** 03:16:29 | **GC Column ID:** | C18 |
| **Extract Volume (uL):** | 4000 | **Injection Volume (uL):** | 2 |

There were no differences found between the parsed and reported data.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Andrew Porat_____

For Axys Internal Use Only [ XSL Template: Audit2B.xsl; Created: 16-Apr-2019 17:38:09; Application: XMLTransformer-1.17.7;
Report Filename: AUDIT_FC_LC_PFAS_L30821-4_Audit2B_FC9W_130S31_SJ2545319.html; Workgroup: WG67438; Design ID: 3161 ]

**SGS AXYS METHOD MLA-110 Rev 01**

**AUDIT 1A CHANGE REPORT**

**CLIENT SAMPLE NO.**
**LMW-14-150-020519**
**Sample Collection:**
**05-Feb-2019 11:05**

**SGS AXYS ANALYTICAL SERVICES**
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

**Project No.** RACER LANSING PLANT -2

| | | | |
|---|---|---|---|
| **Contract No.:** | 4951 | **Lab Sample I.D.:** | L30821-5 |
| **Sample Data Filename:** | **FC9W_130 S: 32** | **Instrument ID:** | LC MS/MS |
| **Analysis Date:** | 31-Mar-2019 **Time:** 03:29:49 | **GC Column ID:** | C18 |
| **Extract Volume (uL):** | 4000 | **Injection Volume (uL):** | 2 |

| COMPOUND | ORIG. CONC. | FINAL CONC. | CHANGE CONC. (Final/Orig.) | ORIG. AREA | FINAL AREA | CHANGE AREA (Final/Orig.) | ORIG. RATIO | FINAL RATIO |
|---|---|---|---|---|---|---|---|---|
| **PFHPA-1** | | | | | | | | |
| **PFNA-1** | | | | | | | | |
| **PFDS-1** | | | | | | | | |
| **6:2 FTS-1** | | | | | | | | |
| **MEFOSAA-1** | | | | | | | | |

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Andrew Porat_____

For Axys Internal Use Only [ XSL Template: Audit1A.xsl; Created: 16-Apr-2019 17:38:09; Application: XMLTransformer-1.17.7;
Report Filename: AUDIT_FC_LC_PFAS_L30821-5_Audit1A_FC9W_130S32_SJ2545320.html; Workgroup: WG67438; Design ID: 3161 ]

**SGS AXYS METHOD MLA-110 Rev 01**

**AUDIT 1B CHANGE REPORT**

**CLIENT SAMPLE NO.**
**LMW-14-150-020519**
**Sample Collection:**
**05-Feb-2019 11:05**

**SGS AXYS ANALYTICAL SERVICES**
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

**Project No.** RACER LANSING PLANT -2

| | | | |
|---|---|---|---|
| **Contract No.:** | 4951 | **Lab Sample I.D.:** | L30821-5 |
| **Sample Data Filename:** | **FC9W_130 S: 32** | **Instrument ID:** | LC MS/MS |
| **Analysis Date:** | 31-Mar-2019 **Time:** 03:29:49 | **GC Column ID:** | C18 |
| **Extract Volume (uL):** | 4000 | **Injection Volume (uL):** | 2 |

| COMPOUND | ORIG. SDL | FINAL SDL | CHANGE SDL (Final/Orig.) | ORIG. QUAL | FINAL QUAL | ORIG. RT | FINAL RT | REVIEWED BY | REVIEWED DATE |
|---|---|---|---|---|---|---|---|---|---|
| **PFHPA-1** | | | | | ND | | | WANGG | 15-APR-2019 |
| **PFNA-1** | | | | | ND | | | WANGG | 15-APR-2019 |
| **PFDS-1** | | | | | ND | | | WANGG | 15-APR-2019 |
| **6:2 FTS-1** | | | | | ND | | | WANGG | 15-APR-2019 |
| **MEFOSAA-1** | | | | | ND | | | WANGG | 15-APR-2019 |

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Andrew Porat_____

For Axys Internal Use Only [ XSL Template: Audit1B.xsl; Created: 16-Apr-2019 17:38:09; Application: XMLTransformer-1.17.7;
Report Filename: AUDIT_FC_LC_PFAS_L30821-5_Audit1B_FC9W_130S32_SJ2545320.html; Workgroup: WG67438; Design ID: 3161 ]

**SGS AXYS METHOD MLA-110 Rev 01**

**AUDIT 2A CHANGE REPORT**

**CLIENT SAMPLE NO.**
**LMW-14-150-020519**
**Sample Collection:**
**05-Feb-2019 11:05**

**SGS AXYS ANALYTICAL SERVICES**
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

| | | | |
|---|---|---|---|
| | | **Project No.** | RACER LANSING PLANT -2 |
| **Contract No.:** | 4951 | **Lab Sample I.D.:** | L30821-5 |
| **Sample Data Filename:** | **FC9W_130 S: 32** | **Instrument ID:** | LC MS/MS |
| **Analysis Date:** | 31-Mar-2019 **Time:** 03:29:49 | **GC Column ID:** | C18 |
| **Extract Volume (uL):** | 4000 | **Injection Volume (uL):** | 2 |

There were no differences found between the parsed and reported data.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Andrew Porat_____

For Axys Internal Use Only [ XSL Template: Audit2A.xsl; Created: 16-Apr-2019 17:38:09; Application: XMLTransformer-1.17.7;
Report Filename: AUDIT_FC_LC_PFAS_L30821-5_Audit2A_FC9W_130S32_SJ2545320.html; Workgroup: WG67438; Design ID: 3161 ]

**SGS AXYS METHOD MLA-110 Rev 01**

**AUDIT 2B CHANGE REPORT**

**CLIENT SAMPLE NO.**
**LMW-14-150-020519**
**Sample Collection:**
**05-Feb-2019 11:05**

**SGS AXYS ANALYTICAL SERVICES**
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

| | | | |
|---|---|---|---|
| | | **Project No.** | RACER LANSING PLANT -2 |
| **Contract No.:** | 4951 | **Lab Sample I.D.:** | L30821-5 |
| **Sample Data Filename:** | **FC9W_130 S: 32** | **Instrument ID:** | LC MS/MS |
| **Analysis Date:** | 31-Mar-2019 **Time:** 03:29:49 | **GC Column ID:** | C18 |
| **Extract Volume (uL):** | 4000 | **Injection Volume (uL):** | 2 |

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Signed: _____Andrew Porat_____

For Axys Internal Use Only [ XSL Template: Audit2B.xsl; Created: 16-Apr-2019 17:38:09; Application: XMLTransformer-1.17.7;
Report Filename: AUDIT_FC_LC_PFAS_L30821-5_Audit2B_FC9W_130S32_SJ2545320.html; Workgroup: WG67438; Design ID: 3161 ]

**SGS AXYS METHOD MLA-110 Rev 01**

**AUDIT 1A CHANGE REPORT**

**CLIENT SAMPLE NO.**
**LMW-12-08-020519**
**Sample Collection:**
**05-Feb-2019 12:30**

**SGS AXYS ANALYTICAL SERVICES**
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

**Project No.** RACER LANSING PLANT -2

| | | | |
|---|---|---|---|
| **Contract No.:** | 4951 | **Lab Sample I.D.:** | L30821-6 |
| **Sample Data Filename:** | **FC9W_130 S: 33** | **Instrument ID:** | LC MS/MS |
| **Analysis Date:** | 31-Mar-2019 **Time:** 03:43:09 | **GC Column ID:** | C18 |
| **Extract Volume (uL):** | 4000 | **Injection Volume (uL):** | 2 |

| COMPOUND | ORIG. CONC. | FINAL CONC. | CHANGE CONC. (Final/Orig.) | ORIG. AREA | FINAL AREA | CHANGE AREA (Final/Orig.) | ORIG. RATIO | FINAL RATIO |
|---|---|---|---|---|---|---|---|---|
| **PFBA** | | | | | | | | |
| **PFOA-1** | | | | | | | | |
| **6:2 FTS-1** | | | | | | | | |
| **MEFOSAA-1** | | | | | | | | |

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Andrew Porat_____

For Axys Internal Use Only [ XSL Template: Audit1A.xsl; Created: 16-Apr-2019 17:38:09; Application: XMLTransformer-1.17.7;
Report Filename: AUDIT_FC_LC_PFAS_L30821-6_Audit1A_FC9W_130S33_SJ2545321.html; Workgroup: WG67438; Design ID: 3161 ]

**SGS AXYS METHOD MLA-110 Rev 01**

**AUDIT 1B CHANGE REPORT**

**CLIENT SAMPLE NO.**
**LMW-12-08-020519**
**Sample Collection:**
**05-Feb-2019 12:30**

**SGS AXYS ANALYTICAL SERVICES**
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

**Project No.** RACER LANSING PLANT -2

| | | | |
|---|---|---|---|
| **Contract No.:** | 4951 | **Lab Sample I.D.:** | L30821-6 |
| **Sample Data Filename:** | **FC9W_130 S: 33** | **Instrument ID:** | LC MS/MS |
| **Analysis Date:** | 31-Mar-2019 **Time:** 03:43:09 | **GC Column ID:** | C18 |
| **Extract Volume (uL):** | 4000 | **Injection Volume (uL):** | 2 |

| COMPOUND | ORIG. SDL | FINAL SDL | CHANGE SDL (Final/Orig.) | ORIG. QUAL | FINAL QUAL | ORIG. RT | FINAL RT | REVIEWED BY | REVIEWED DATE |
|---|---|---|---|---|---|---|---|---|---|
| **PFBA** | | | | | ND | | | WANGG | 15-APR-2019 |
| **PFOA-1** | | | | | ND | | | WANGG | 15-APR-2019 |
| **6:2 FTS-1** | | | | | ND | | | WANGG | 15-APR-2019 |
| **MEFOSAA-1** | | | | | ND | | | WANGG | 15-APR-2019 |

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Andrew Porat_____

For Axys Internal Use Only [ XSL Template: Audit1B.xsl; Created: 16-Apr-2019 17:38:09; Application: XMLTransformer-1.17.7;
Report Filename: AUDIT_FC_LC_PFAS_L30821-6_Audit1B_FC9W_130S33_SJ2545321.html; Workgroup: WG67438; Design ID: 3161 ]

**SGS AXYS METHOD MLA-110 Rev 01**

**AUDIT 2A CHANGE REPORT**

**CLIENT SAMPLE NO.**
**LMW-12-08-020519**
**Sample Collection:**
**05-Feb-2019 12:30**

**SGS AXYS ANALYTICAL SERVICES**
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

| | | | |
|---|---|---|---|
| | | **Project No.** | RACER LANSING PLANT -2 |
| **Contract No.:** | 4951 | **Lab Sample I.D.:** | L30821-6 |
| **Sample Data Filename:** | **FC9W_130 S: 33** | **Instrument ID:** | LC MS/MS |
| **Analysis Date:** | 31-Mar-2019 **Time:** 03:43:09 | **GC Column ID:** | C18 |
| **Extract Volume (uL):** | 4000 | **Injection Volume (uL):** | 2 |

There were no differences found between the parsed and reported data.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Andrew Porat_____

For Axys Internal Use Only [ XSL Template: Audit2A.xsl; Created: 16-Apr-2019 17:38:09; Application: XMLTransformer-1.17.7;
Report Filename: AUDIT_FC_LC_PFAS_L30821-6_Audit2A_FC9W_130S33_SJ2545321.html; Workgroup: WG67438; Design ID: 3161 ]

**SGS AXYS METHOD MLA-110 Rev 01**

**AUDIT 2B CHANGE REPORT**

**CLIENT SAMPLE NO.**
**LMW-12-08-020519**
**Sample Collection:**
**05-Feb-2019 12:30**

**SGS AXYS ANALYTICAL SERVICES**
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

| | | | |
|---|---|---|---|
| | | **Project No.** | RACER LANSING PLANT -2 |
| **Contract No.:** | 4951 | **Lab Sample I.D.:** | L30821-6 |
| **Sample Data Filename:** | **FC9W_130 S: 33** | **Instrument ID:** | LC MS/MS |
| **Analysis Date:** | 31-Mar-2019 **Time:** 03:43:09 | **GC Column ID:** | C18 |
| **Extract Volume (uL):** | 4000 | **Injection Volume (uL):** | 2 |

There were no differences found between the parsed and reported data.

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Signed: _____Andrew Porat_____

For Axys Internal Use Only [ XSL Template: Audit2B.xsl; Created: 16-Apr-2019 17:38:09; Application: XMLTransformer-1.17.7;
Report Filename: AUDIT_FC_LC_PFAS_L30821-6_Audit2B_FC9W_130S33_SJ2545321.html; Workgroup: WG67438; Design ID: 3161 ]

**SGS AXYS METHOD MLA-110 Rev 01**

**AUDIT 1A CHANGE REPORT**

**CLIENT SAMPLE NO.**
**LMW-12-03-020519**
**Sample Collection:**
**05-Feb-2019 14:50**

**SGS AXYS ANALYTICAL SERVICES**
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

| | | | |
|---|---|---|---|
| **Project No.** | RACER LANSING PLANT -2 | | |
| **Contract No.:** | 4951 | **Lab Sample I.D.:** | L30821-7 i |
| **Sample Data Filename:** | **FC9W_144 S: 20** | **Instrument ID:** | LC MS/MS |
| **Analysis Date:** | 08-Apr-2019 **Time:** 18:19:19 | **GC Column ID:** | C18 |
| **Extract Volume (uL):** | 4000 | **Injection Volume (uL):** | 2 |

| COMPOUND | ORIG. CONC. | FINAL CONC. | CHANGE CONC. (Final/Orig.) | ORIG. AREA | FINAL AREA | CHANGE AREA (Final/Orig.) | ORIG. RATIO | FINAL RATIO |
|---|---|---|---|---|---|---|---|---|
| **PFDOA-1** | | | | | | | | |
| **MEFOSAA-1** | | | | | | | | |

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Andrew Porat_____

For Axys Internal Use Only [ XSL Template: Audit1A.xsl; Created: 22-Apr-2019 09:44:06; Application: XMLTransformer-1.17.7;
Report Filename: AUDIT_FC_LC_PFAS_L30821-7_Audit1A_FC9W_144S20_SJ2546991.html; Workgroup: WG67663; Design ID: 3161 ]

**SGS AXYS METHOD MLA-110 Rev 01**

**AUDIT 1B CHANGE REPORT**

**CLIENT SAMPLE NO.**
**LMW-12-03-020519**
**Sample Collection:**
**05-Feb-2019 14:50**

**SGS AXYS ANALYTICAL SERVICES**
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

**Project No.** RACER LANSING PLANT -2

| | | | |
|---|---|---|---|
| **Contract No.:** | 4951 | **Lab Sample I.D.:** | L30821-7 i |
| **Sample Data Filename:** | **FC9W_144 S: 20** | **Instrument ID:** | LC MS/MS |
| **Analysis Date:** | 08-Apr-2019 **Time:** 18:19:19 | **GC Column ID:** | C18 |
| **Extract Volume (uL):** | 4000 | **Injection Volume (uL):** | 2 |

| COMPOUND | ORIG. SDL | FINAL SDL | CHANGE SDL (Final/Orig.) | ORIG. QUAL | FINAL QUAL | ORIG. RT | FINAL RT | REVIEWED BY | REVIEWED DATE |
|---|---|---|---|---|---|---|---|---|---|
| **PFDOA-1** | | | | | ND | | | WANGG | 16-APR-2019 |
| **MEFOSAA-1** | | | | | ND | | | WANGG | 16-APR-2019 |

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Andrew Porat_____

For Axys Internal Use Only [ XSL Template: Audit1B.xsl; Created: 22-Apr-2019 09:44:06; Application: XMLTransformer-1.17.7;
Report Filename: AUDIT_FC_LC_PFAS_L30821-7_Audit1B_FC9W_144S20_SJ2546991.html; Workgroup: WG67663; Design ID: 3161 ]

**SGS AXYS METHOD MLA-110 Rev 01**

**AUDIT 2A CHANGE REPORT**

**CLIENT SAMPLE NO.**
**LMW-12-03-020519**
**Sample Collection:**
**05-Feb-2019 14:50**

**SGS AXYS ANALYTICAL SERVICES**
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

| | | | |
|---|---|---|---|
| | | **Project No.** | RACER LANSING PLANT -2 |
| **Contract No.:** | 4951 | **Lab Sample I.D.:** | L30821-7 i |
| **Sample Data Filename:** | **FC9W_144 S: 20** | **Instrument ID:** | LC MS/MS |
| **Analysis Date:** | 08-Apr-2019 **Time:** 18:19:19 | **GC Column ID:** | C18 |
| **Extract Volume (uL):** | 4000 | **Injection Volume (uL):** | 2 |

There were no differences found between the parsed and reported data.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Andrew Porat_____

For Axys Internal Use Only [ XSL Template: Audit2A.xsl; Created: 22-Apr-2019 09:44:06; Application: XMLTransformer-1.17.7;
Report Filename: AUDIT_FC_LC_PFAS_L30821-7_Audit2A_FC9W_144S20_SJ2546991.html; Workgroup: WG67663; Design ID: 3161 ]

**SGS AXYS METHOD MLA-110 Rev 01**

**AUDIT 2B CHANGE REPORT**

**CLIENT SAMPLE NO.**
**LMW-12-03-020519**
**Sample Collection:**
**05-Feb-2019 14:50**

**SGS AXYS ANALYTICAL SERVICES**
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

| | | | |
|---|---|---|---|
| | | **Project No.** | RACER LANSING PLANT -2 |
| **Contract No.:** | 4951 | **Lab Sample I.D.:** | L30821-7 i |
| **Sample Data Filename:** | **FC9W_144 S: 20** | **Instrument ID:** | LC MS/MS |
| **Analysis Date:** | 08-Apr-2019 **Time:** 18:19:19 | **GC Column ID:** | C18 |
| **Extract Volume (uL):** | 4000 | **Injection Volume (uL):** | 2 |

There were no differences found between the parsed and reported data.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Andrew Porat_____

For Axys Internal Use Only [ XSL Template: Audit2B.xsl; Created: 22-Apr-2019 09:44:06; Application: XMLTransformer-1.17.7;
Report Filename: AUDIT_FC_LC_PFAS_L30821-7_Audit2B_FC9W_144S20_SJ2546991.html; Workgroup: WG67663; Design ID: 3161 ]

**SGS AXYS METHOD MLA-110 Rev 01**

**AUDIT 1A CHANGE REPORT**

**CLIENT SAMPLE NO.**
**Lab Blank**
**Sample Collection:**
**N/A**

**SGS AXYS ANALYTICAL SERVICES**
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

**Project No.** N/A

| | | | |
|---|---|---|---|
| **Contract No.:** | 4951 | **Lab Sample I.D.:** | WG67438-101 |
| **Sample Data Filename:** | **FC9W_130 S: 24** | **Instrument ID:** | LC MS/MS |
| **Analysis Date:** | 31-Mar-2019 **Time:** 01:42:45 | **GC Column ID:** | C18 |
| **Extract Volume (uL):** | 4000 | **Injection Volume (uL):** | 2 |

| COMPOUND | ORIG. CONC. | FINAL CONC. | CHANGE CONC. (Final/Orig.) | ORIG. AREA | FINAL AREA | CHANGE AREA (Final/Orig.) | ORIG. RATIO | FINAL RATIO |
|---|---|---|---|---|---|---|---|---|
| **PFBA** | | | | | | | | |
| **PFHXA-1** | | | | | | | | |
| **PFNA-1** | | | | | | | | |
| **PFUNA-1** | | | | | | | | |
| **PFBS-1** | | | | | | | | |
| **PFHXS-1** | | | | | | | | |
| **6:2 FTS-1** | | | | | | | | |
| **PFOSA-1** | | | | | | | | |

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Andrew Porat_____

For Axys Internal Use Only [ XSL Template: Audit1A.xsl; Created: 16-Apr-2019 17:38:09; Application: XMLTransformer-1.17.7;
Report Filename: AUDIT_FC_LC_PFAS_WG67438-101_Audit1A_FC9W_130S24_SJ2545311.html; Workgroup: WG67438; Design ID: 3161 ]

**SGS AXYS METHOD MLA-110 Rev 01**

**AUDIT 1B CHANGE REPORT**

**CLIENT SAMPLE NO.**
**Lab Blank**
**Sample Collection:**
**N/A**

**SGS AXYS ANALYTICAL SERVICES**
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

**Project No.** N/A

| | | | |
|---|---|---|---|
| **Contract No.:** | 4951 | **Lab Sample I.D.:** | WG67438-101 |
| **Sample Data Filename:** | **FC9W_130 S: 24** | **Instrument ID:** | LC MS/MS |
| **Analysis Date:** | 31-Mar-2019 **Time:** 01:42:45 | **GC Column ID:** | C18 |
| **Extract Volume (uL):** | 4000 | **Injection Volume (uL):** | 2 |

| COMPOUND | ORIG. SDL | FINAL SDL | CHANGE SDL (Final/Orig.) | ORIG. QUAL | FINAL QUAL | ORIG. RT | FINAL RT | REVIEWED BY | REVIEWED DATE |
|---|---|---|---|---|---|---|---|---|---|
| **PFBA** | | | | | ND | | | WANGG | 15-APR-2019 |
| **PFHXA-1** | | | | | ND | | | WANGG | 15-APR-2019 |
| **PFNA-1** | | | | | ND | | | WANGG | 15-APR-2019 |
| **PFUNA-1** | | | | | ND | | | WANGG | 15-APR-2019 |
| **PFBS-1** | | | | | ND | | | WANGG | 15-APR-2019 |
| **PFHXS-1** | | | | | ND | | | WANGG | 15-APR-2019 |
| **6:2 FTS-1** | | | | | ND | | | WANGG | 15-APR-2019 |
| **PFOSA-1** | | | | | ND | | | WANGG | 15-APR-2019 |

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Andrew Porat_____

For Axys Internal Use Only [ XSL Template: Audit1B.xsl; Created: 16-Apr-2019 17:38:09; Application: XMLTransformer-1.17.7;
Report Filename: AUDIT_FC_LC_PFAS_WG67438-101_Audit1B_FC9W_130S24_SJ2545311.html; Workgroup: WG67438; Design ID: 3161 ]

**SGS AXYS METHOD MLA-110 Rev 01**

**AUDIT 2A CHANGE REPORT**

**CLIENT SAMPLE NO.**
**Lab Blank**
**Sample Collection:**
**N/A**

**SGS AXYS ANALYTICAL SERVICES**
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

| | | | |
|---|---|---|---|
| **Project No.** | N/A | | |
| **Contract No.:** | 4951 | **Lab Sample I.D.:** | WG67438-101 |
| **Sample Data Filename:** | **FC9W_130 S: 24** | **Instrument ID:** | LC MS/MS |
| **Analysis Date:** | 31-Mar-2019 **Time:** 01:42:45 | **GC Column ID:** | C18 |
| **Extract Volume (uL):** | 4000 | **Injection Volume (uL):** | 2 |

There were no differences found between the parsed and reported data.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Andrew Porat_____

For Axys Internal Use Only [ XSL Template: Audit2A.xsl; Created: 16-Apr-2019 17:38:09; Application: XMLTransformer-1.17.7;
Report Filename: AUDIT_FC_LC_PFAS_WG67438-101_Audit2A_FC9W_130S24_SJ2545311.html; Workgroup: WG67438; Design ID: 3161 ]

**SGS AXYS METHOD MLA-110 Rev 01**

**AUDIT 2B CHANGE REPORT**

**CLIENT SAMPLE NO.**
**Lab Blank**
**Sample Collection:**
**N/A**

**SGS AXYS ANALYTICAL SERVICES**
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

| | | | |
|---|---|---|---|
| | | **Project No.** | N/A |
| **Contract No.:** | 4951 | **Lab Sample I.D.:** | WG67438-101 |
| **Sample Data Filename:** | **FC9W_130 S: 24** | **Instrument ID:** | LC MS/MS |
| **Analysis Date:** | 31-Mar-2019 **Time:** 01:42:45 | **GC Column ID:** | C18 |
| **Extract Volume (uL):** | 4000 | **Injection Volume (uL):** | 2 |

There were no differences found between the parsed and reported data.

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Signed: _____Andrew Porat_____

For Axys Internal Use Only [ XSL Template: Audit2B.xsl; Created: 16-Apr-2019 17:38:09; Application: XMLTransformer-1.17.7;
Report Filename: AUDIT_FC_LC_PFAS_WG67438-101_Audit2B_FC9W_130S24_SJ2545311.html; Workgroup: WG67438; Design ID: 3161 ]

**SGS AXYS METHOD MLA-110 Rev 01**

**AUDIT 1A CHANGE REPORT**

**CLIENT SAMPLE NO.**
**Lab Blank**
**Sample Collection:**
**N/A**

**SGS AXYS ANALYTICAL SERVICES**
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

**Project No.** N/A

| | | | |
|---|---|---|---|
| **Contract No.:** | 4951 | **Lab Sample I.D.:** | WG67438-102 |
| **Sample Data Filename:** | **FC9W_130 S: 25** | **Instrument ID:** | LC MS/MS |
| **Analysis Date:** | 31-Mar-2019 **Time:** 01:56:13 | **GC Column ID:** | C18 |
| **Extract Volume (uL):** | 4000 | **Injection Volume (uL):** | 2 |

| COMPOUND | ORIG. CONC. | FINAL CONC. | CHANGE CONC. (Final/Orig.) | ORIG. AREA | FINAL AREA | CHANGE AREA (Final/Orig.) | ORIG. RATIO | FINAL RATIO |
|---|---|---|---|---|---|---|---|---|
| **PFBA** | | | | | | | | |
| **PFNA-1** | | | | | | | | |
| **PFBS-1** | | | | | | | | |
| **PFHXS-1** | | | | | | | | |
| **PFOSA-1** | | | | | | | | |
| **N-MEFOSA-1** | | | | | | | | |

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Andrew Porat_____

For Axys Internal Use Only [ XSL Template: Audit1A.xsl; Created: 16-Apr-2019 17:38:09; Application: XMLTransformer-1.17.7;
Report Filename: AUDIT_FC_LC_PFAS_WG67438-102_Audit1A_FC9W_130S25_SJ2545313.html; Workgroup: WG67438; Design ID: 3161 ]

**SGS AXYS METHOD MLA-110 Rev 01**

**AUDIT 1B CHANGE REPORT**

**CLIENT SAMPLE NO.**
**Lab Blank**
**Sample Collection:**
**N/A**

**SGS AXYS ANALYTICAL SERVICES**
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

**Project No.** N/A

| | | | |
|---|---|---|---|
| **Contract No.:** | 4951 | **Lab Sample I.D.:** | WG67438-102 |
| **Sample Data Filename:** | **FC9W_130 S: 25** | **Instrument ID:** | LC MS/MS |
| **Analysis Date:** | 31-Mar-2019 **Time:** 01:56:13 | **GC Column ID:** | C18 |
| **Extract Volume (uL):** | 4000 | **Injection Volume (uL):** | 2 |

| COMPOUND | ORIG. SDL | FINAL SDL | CHANGE SDL (Final/Orig.) | ORIG. QUAL | FINAL QUAL | ORIG. RT | FINAL RT | REVIEWED BY | REVIEWED DATE |
|---|---|---|---|---|---|---|---|---|---|
| **PFBA** | | | | | ND | | | WANGG | 15-APR-2019 |
| **PFNA-1** | | | | | ND | | | WANGG | 15-APR-2019 |
| **PFBS-1** | | | | | ND | | | WANGG | 15-APR-2019 |
| **PFHXS-1** | | | | | ND | | | WANGG | 15-APR-2019 |
| **PFOSA-1** | | | | | ND | | | WANGG | 15-APR-2019 |
| **N-MEFOSA-1** | | | | | ND | | | WANGG | 15-APR-2019 |

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Andrew Porat_____

For Axys Internal Use Only [ XSL Template: Audit1B.xsl; Created: 16-Apr-2019 17:38:09; Application: XMLTransformer-1.17.7;
Report Filename: AUDIT_FC_LC_PFAS_WG67438-102_Audit1B_FC9W_130S25_SJ2545313.html; Workgroup: WG67438; Design ID: 3161 ]

**SGS AXYS METHOD MLA-110 Rev 01**

**AUDIT 2A CHANGE REPORT**

**CLIENT SAMPLE NO.**
**Lab Blank**
**Sample Collection:**
**N/A**

**SGS AXYS ANALYTICAL SERVICES**
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

| | | | |
|---|---|---|---|
| **Project No.** | N/A | | |
| **Contract No.:** | 4951 | **Lab Sample I.D.:** | WG67438-102 |
| **Sample Data Filename:** | **FC9W_130 S: 25** | **Instrument ID:** | LC MS/MS |
| **Analysis Date:** | 31-Mar-2019 **Time:** 01:56:13 | **GC Column ID:** | C18 |
| **Extract Volume (uL):** | 4000 | **Injection Volume (uL):** | 2 |

There were no differences found between the parsed and reported data.

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Signed: _____Andrew Porat_____

For Axys Internal Use Only [ XSL Template: Audit2A.xsl; Created: 16-Apr-2019 17:38:09; Application: XMLTransformer-1.17.7;
Report Filename: AUDIT_FC_LC_PFAS_WG67438-102_Audit2A_FC9W_130S25_SJ2545313.html; Workgroup: WG67438; Design ID: 3161 ]

**SGS AXYS METHOD MLA-110 Rev 01**

**AUDIT 2B CHANGE REPORT**

**CLIENT SAMPLE NO.**
**Lab Blank**
**Sample Collection:**
**N/A**

**SGS AXYS ANALYTICAL SERVICES**
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

| | | | |
|---|---|---|---|
| | | **Project No.** | N/A |
| **Contract No.:** | 4951 | **Lab Sample I.D.:** | WG67438-102 |
| **Sample Data Filename:** | **FC9W_130 S: 25** | **Instrument ID:** | LC MS/MS |
| **Analysis Date:** | 31-Mar-2019 **Time:** 01:56:13 | **GC Column ID:** | C18 |
| **Extract Volume (uL):** | 4000 | **Injection Volume (uL):** | 2 |

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For Axys Internal Use Only [ XSL Template: Audit2B.xsl; Created: 16-Apr-2019 17:38:09; Application: XMLTransformer-1.17.7;
Report Filename: AUDIT_FC_LC_PFAS_WG67438-102_Audit2B_FC9W_130S25_SJ2545313.html; Workgroup: WG67438; Design ID: 3161 ]

**SGS AXYS METHOD MLA-110 Rev 01**

**AUDIT 1A CHANGE REPORT**

**CLIENT SAMPLE NO.**
**Lab Blank**
**Sample Collection:**
**N/A**

**SGS AXYS ANALYTICAL SERVICES**
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

| | | | |
|---|---|---|---|
| **Project No.** | N/A | | |
| **Contract No.:** | 4951 | **Lab Sample I.D.:** | WG67663-101 i |
| **Sample Data Filename:** | **FC9W_144 S: 18** | **Instrument ID:** | LC MS/MS |
| **Analysis Date:** | 08-Apr-2019 **Time:** 17:52:22 | **GC Column ID:** | C18 |
| **Extract Volume (uL):** | 4000 | **Injection Volume (uL):** | 2 |

| COMPOUND | ORIG. CONC. | FINAL CONC. | CHANGE CONC. (Final/Orig.) | ORIG. AREA | FINAL AREA | CHANGE AREA (Final/Orig.) | ORIG. RATIO | FINAL RATIO |
|---|---|---|---|---|---|---|---|---|
| **PFBA** | | | | | | | | |
| **PFHXA-1** | | | | | | | | |
| **PFOA-1** | | | | | | | | |
| **PFNA-1** | | | | | | | | |
| **PFUNA-1** | | | | | | | | |
| **PFBS-1** | | | | | | | | |
| **PFHXS-1** | | | | | | | | |
| **PFOSA-1** | | | | | | | | |
| **ETFOSAA-1** | | | | | | | | |
| **N-ETFOSE** | | | | | | | | |

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Andrew Porat_____

For Axys Internal Use Only [ XSL Template: Audit1A.xsl; Created: 22-Apr-2019 09:44:06; Application: XMLTransformer-1.17.7;
Report Filename: AUDIT_FC_LC_PFAS_WG67663-101_Audit1A_FC9W_144S18_SJ2546989.html; Workgroup: WG67663; Design ID: 3161 ]

**SGS AXYS METHOD MLA-110 Rev 01**

**AUDIT 1B CHANGE REPORT**

**CLIENT SAMPLE NO.**
**Lab Blank**
**Sample Collection:**
**N/A**

**SGS AXYS ANALYTICAL SERVICES**
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

**Project No.** N/A

| | | | |
|---|---|---|---|
| **Contract No.:** | 4951 | **Lab Sample I.D.:** | WG67663-101 i |
| **Sample Data Filename:** | **FC9W_144 S: 18** | **Instrument ID:** | LC MS/MS |
| **Analysis Date:** | 08-Apr-2019 **Time:** 17:52:22 | **GC Column ID:** | C18 |
| **Extract Volume (uL):** | 4000 | **Injection Volume (uL):** | 2 |

| COMPOUND | ORIG. SDL | FINAL SDL | CHANGE SDL (Final/Orig.) | ORIG. QUAL | FINAL QUAL | ORIG. RT | FINAL RT | REVIEWED BY | REVIEWED DATE |
|---|---|---|---|---|---|---|---|---|---|
| **PFBA** | | | | | ND | | | WANGG | 16-APR-2019 |
| **PFHXA-1** | | | | | ND | | | WANGG | 16-APR-2019 |
| **PFOA-1** | | | | | ND | | | WANGG | 16-APR-2019 |
| **PFNA-1** | | | | | ND | | | WANGG | 16-APR-2019 |
| **PFUNA-1** | | | | | ND | | | WANGG | 16-APR-2019 |
| **PFBS-1** | | | | | ND | | | WANGG | 16-APR-2019 |
| **PFHXS-1** | | | | | ND | | | WANGG | 16-APR-2019 |
| **PFOSA-1** | | | | | ND | | | WANGG | 16-APR-2019 |
| **ETFOSAA-1** | | | | | ND | | | WANGG | 16-APR-2019 |
| **N-ETFOSE** | | | | | ND | | | WANGG | 16-APR-2019 |

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Signed: _____Andrew Porat_____

For Axys Internal Use Only [ XSL Template: Audit1B.xsl; Created: 22-Apr-2019 09:44:06; Application: XMLTransformer-1.17.7;
Report Filename: AUDIT_FC_LC_PFAS_WG67663-101_Audit1B_FC9W_144S18_SJ2546989.html; Workgroup: WG67663; Design ID: 3161 ]

**SGS AXYS METHOD MLA-110 Rev 01**

**AUDIT 2A CHANGE REPORT**

**CLIENT SAMPLE NO.**
**Lab Blank**
**Sample Collection:**
**N/A**

**SGS AXYS ANALYTICAL SERVICES**
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

| | | | |
|---|---|---|---|
| | | **Project No.** | N/A |
| **Contract No.:** | 4951 | **Lab Sample I.D.:** | WG67663-101 i |
| **Sample Data Filename:** | **FC9W_144 S: 18** | **Instrument ID:** | LC MS/MS |
| **Analysis Date:** | 08-Apr-2019 **Time:** 17:52:22 | **GC Column ID:** | C18 |
| **Extract Volume (uL):** | 4000 | **Injection Volume (uL):** | 2 |

There were no differences found between the parsed and reported data.

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Signed: _____Andrew Porat_____

For Axys Internal Use Only [ XSL Template: Audit2A.xsl; Created: 22-Apr-2019 09:44:06; Application: XMLTransformer-1.17.7;
Report Filename: AUDIT_FC_LC_PFAS_WG67663-101_Audit2A_FC9W_144S18_SJ2546989.html; Workgroup: WG67663; Design ID: 3161 ]

**SGS AXYS METHOD MLA-110 Rev 01**

**AUDIT 2B CHANGE REPORT**

**CLIENT SAMPLE NO.**
**Lab Blank**
**Sample Collection:**
**N/A**

**SGS AXYS ANALYTICAL SERVICES**
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

| | | | |
|---|---|---|---|
| | | **Project No.** | N/A |
| **Contract No.:** | 4951 | **Lab Sample I.D.:** | WG67663-101 i |
| **Sample Data Filename:** | **FC9W_144 S: 18** | **Instrument ID:** | LC MS/MS |
| **Analysis Date:** | 08-Apr-2019 **Time:** 17:52:22 | **GC Column ID:** | C18 |
| **Extract Volume (uL):** | 4000 | **Injection Volume (uL):** | 2 |

There were no differences found between the parsed and reported data.

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Signed: _____Andrew Porat_____

For Axys Internal Use Only [ XSL Template: Audit2B.xsl; Created: 22-Apr-2019 09:44:06; Application: XMLTransformer-1.17.7;
Report Filename: AUDIT_FC_LC_PFAS_WG67663-101_Audit2B_FC9W_144S18_SJ2546989.html; Workgroup: WG67663; Design ID: 3161 ]

**SGS AXYS METHOD MLA-110 Rev 01**

**AUDIT 1A CHANGE REPORT**

**CLIENT SAMPLE NO.**
**Spiked Matrix**
**Sample Collection:**
**N/A**

**SGS AXYS ANALYTICAL SERVICES**
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

| | | | |
|---|---|---|---|
| **Contract No.:** | 4951 | **Lab Sample I.D.:** | WG67438-103 |
| **Sample Data Filename:** | **FC9W_130 S: 21** | **Instrument ID:** | LC MS/MS |
| **Analysis Date:** | 31-Mar-2019 **Time:** 01:02:28 | **GC Column ID:** | C18 |
| **Extract Volume (uL):** | 4000 | **Injection Volume (uL):** | 2 |

| COMPOUND | ORIG. CONC. | FINAL CONC. | CHANGE CONC. (Final/Orig.) | ORIG. AREA | FINAL AREA | CHANGE AREA (Final/Orig.) | ORIG. RATIO | FINAL RATIO |
|---|---|---|---|---|---|---|---|---|
| **PFBA** | | | | | | | | |
| **PFPEA-1** | | | | | | | | |
| **PFHXA-1** | | | | | | | | |
| **PFHPA-1** | | | | | | | | |
| **PFOA-1** | | | | | | | | |
| **PFNA-1** | | | | | | | | |
| **PFDA-1** | | | | | | | | |
| **PFUNA-1** | | | | | | | | |
| **PFDOA-1** | | | | | | | | |
| **PFTRDA-1** | | | | | | | | |
| **PFTEDA-1** | | | | | | | | |
| **PFBS-1** | | | | | | | | |
| **PFPES-1** | | | | | | | | |
| **PFHXS-1** | | | | | | | | |
| **PFHPS-1** | | | | | | | | |
| **PFOS-1** | | | | | | | | |
| **PFNS-1** | | | | | | | | |
| **PFDS-1** | | | | | | | | |
| **PFDOS-1** | | | | | | | | |
| **4:2 FTS-1** | | | | | | | | |
| **6:2 FTS-1** | | | | | | | | |
| **8:2 FTS-1** | | | | | | | | |
| **PFOSA-1** | | | | | | | | |
| **N-MEFOSE** | | | | | | | | |
| **N-ETFOSE** | | | | | | | | |

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Andrew Porat_____

For Axys Internal Use Only [ XSL Template: Audit1A.xsl; Created: 16-Apr-2019 17:38:09; Application: XMLTransformer-1.17.7;
Report Filename: AUDIT_FC_LC_PFAS_WG67438-103_Audit1A_FC9W_130S21_SJ2545307.html; Workgroup: WG67438; Design ID: 3161 ]

**SGS AXYS METHOD MLA-110 Rev 01**

**AUDIT 1B CHANGE REPORT**

**CLIENT SAMPLE NO.**
**Spiked Matrix**
**Sample Collection:**
**N/A**

**SGS AXYS ANALYTICAL SERVICES**
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

| | | | |
|---|---|---|---|
| **Contract No.:** | 4951 | **Lab Sample I.D.:** | WG67438-103 |
| **Sample Data Filename:** | **FC9W_130 S: 21** | **Instrument ID:** | LC MS/MS |
| **Analysis Date:** | 31-Mar-2019 **Time:** 01:02:28 | **GC Column ID:** | C18 |
| **Extract Volume (uL):** | 4000 | **Injection Volume (uL):** | 2 |

| COMPOUND | ORIG. SDL | FINAL SDL | CHANGE SDL (Final/Orig.) | ORIG. QUAL | FINAL QUAL | ORIG. RT | FINAL RT | REVIEWED BY | REVIEWED DATE |
|---|---|---|---|---|---|---|---|---|---|
| **PFBA** | | | | | | | | WANGG | 15-APR-2019 |
| **PFPEA-1** | | | | | | | | WANGG | 15-APR-2019 |
| **PFHXA-1** | | | | | | | | WANGG | 15-APR-2019 |
| **PFHPA-1** | | | | | | | | WANGG | 15-APR-2019 |
| **PFOA-1** | | | | | | | | WANGG | 15-APR-2019 |
| **PFNA-1** | | | | | | | | WANGG | 15-APR-2019 |
| **PFDA-1** | | | | | | | | WANGG | 15-APR-2019 |
| **PFUNA-1** | | | | | | | | WANGG | 15-APR-2019 |
| **PFDOA-1** | | | | | | | | WANGG | 15-APR-2019 |
| **PFTRDA-1** | | | | | | | | WANGG | 15-APR-2019 |
| **PFTEDA-1** | | | | | | | | WANGG | 15-APR-2019 |
| **PFBS-1** | | | | | | | | WANGG | 15-APR-2019 |
| **PFPES-1** | | | | | | | | WANGG | 15-APR-2019 |
| **PFHXS-1** | | | | | | | | WANGG | 15-APR-2019 |
| **PFHPS-1** | | | | | | | | WANGG | 15-APR-2019 |
| **PFOS-1** | | | | | | | | WANGG | 15-APR-2019 |
| **PFNS-1** | | | | | | | | WANGG | 15-APR-2019 |
| **PFDS-1** | | | | | | | | WANGG | 15-APR-2019 |
| **PFDOS-1** | | | | | | | | WANGG | 15-APR-2019 |
| **4:2 FTS-1** | | | | | | | | WANGG | 15-APR-2019 |
| **6:2 FTS-1** | | | | | | | | WANGG | 15-APR-2019 |
| **8:2 FTS-1** | | | | | | | | WANGG | 15-APR-2019 |
| **PFOSA-1** | | | | | | | | WANGG | 15-APR-2019 |
| **N-MEFOSE** | | | | | | | | WANGG | 15-APR-2019 |
| **N-ETFOSE** | | | | | | | | WANGG | 15-APR-2019 |

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Andrew Porat_____

For Axys Internal Use Only [ XSL Template: Audit1B.xsl; Created: 16-Apr-2019 17:38:09; Application: XMLTransformer-1.17.7;
Report Filename: AUDIT_FC_LC_PFAS_WG67438-103_Audit1B_FC9W_130S21_SJ2545307.html; Workgroup: WG67438; Design ID: 3161 ]

**SGS AXYS METHOD MLA-110 Rev 01**

**AUDIT 2A CHANGE REPORT**

**CLIENT SAMPLE NO.**
**Spiked Matrix**
**Sample Collection:**
**N/A**

**SGS AXYS ANALYTICAL SERVICES**
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

| | | | |
|---|---|---|---|
| **Contract No.:** | 4951 | **Lab Sample I.D.:** | WG67438-103 |
| **Sample Data Filename:** | **FC9W_130 S: 21** | **Instrument ID:** | LC MS/MS |
| **Analysis Date:** | 31-Mar-2019 **Time:** 01:02:28 | **GC Column ID:** | C18 |
| **Extract Volume (uL):** | 4000 | **Injection Volume (uL):** | 2 |

There were no differences found between the parsed and reported data.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Andrew Porat_____

For Axys Internal Use Only [ XSL Template: Audit2A.xsl; Created: 16-Apr-2019 17:38:09; Application: XMLTransformer-1.17.7;
Report Filename: AUDIT_FC_LC_PFAS_WG67438-103_Audit2A_FC9W_130S21_SJ2545307.html; Workgroup: WG67438; Design ID: 3161 ]

**SGS AXYS METHOD MLA-110 Rev 01**

**AUDIT 2B CHANGE REPORT**

**CLIENT SAMPLE NO.**
**Spiked Matrix**
**Sample Collection:**
**N/A**

**SGS AXYS ANALYTICAL SERVICES**
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

| | | | |
|---|---|---|---|
| **Contract No.:** | 4951 | **Lab Sample I.D.:** | WG67438-103 |
| **Sample Data Filename:** | **FC9W_130 S: 21** | **Instrument ID:** | LC MS/MS |
| **Analysis Date:** | 31-Mar-2019 **Time:** 01:02:28 | **GC Column ID:** | C18 |
| **Extract Volume (uL):** | 4000 | **Injection Volume (uL):** | 2 |

There were no differences found between the parsed and reported data.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Andrew Porat_____

For Axys Internal Use Only [ XSL Template: Audit2B.xsl; Created: 16-Apr-2019 17:38:09; Application: XMLTransformer-1.17.7;
Report Filename: AUDIT_FC_LC_PFAS_WG67438-103_Audit2B_FC9W_130S21_SJ2545307.html; Workgroup: WG67438; Design ID: 3161 ]

**SGS AXYS METHOD MLA-110 Rev 01**

**AUDIT 1A CHANGE REPORT**

**CLIENT SAMPLE NO.**
**Spiked Matrix**
**Sample Collection:**
**N/A**

**SGS AXYS ANALYTICAL SERVICES**
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

| | | | |
|---|---|---|---|
| **Contract No.:** | 4951 | **Lab Sample I.D.:** | WG67438-104 |
| **Sample Data Filename:** | **FC9W_130 S: 22** | **Instrument ID:** | LC MS/MS |
| **Analysis Date:** | 31-Mar-2019 **Time:** 01:15:56 | **GC Column ID:** | C18 |
| **Extract Volume (uL):** | 4000 | **Injection Volume (uL):** | 2 |

There were no differences found between the parsed and reported data.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Andrew Porat_____

For Axys Internal Use Only [ XSL Template: Audit1A.xsl; Created: 16-Apr-2019 17:38:09; Application: XMLTransformer-1.17.7;
Report Filename: AUDIT_FC_LC_PFAS_WG67438-104_Audit1A_FC9W_130S22_SJ2545309.html; Workgroup: WG67438; Design ID: 3161 ]

**SGS AXYS METHOD MLA-110 Rev 01**

**AUDIT 1B CHANGE REPORT**

**CLIENT SAMPLE NO.**
**Spiked Matrix**
**Sample Collection:**
**N/A**

**SGS AXYS ANALYTICAL SERVICES**
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

| | | | |
|---|---|---|---|
| **Contract No.:** | 4951 | **Lab Sample I.D.:** | WG67438-104 |
| **Sample Data Filename:** | **FC9W_130 S: 22** | **Instrument ID:** | LC MS/MS |
| **Analysis Date:** | 31-Mar-2019 **Time:** 01:15:56 | **GC Column ID:** | C18 |
| **Extract Volume (uL):** | 4000 | **Injection Volume (uL):** | 2 |

There were no differences found between the parsed and reported data.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Andrew Porat_____

For Axys Internal Use Only [ XSL Template: Audit1B.xsl; Created: 16-Apr-2019 17:38:09; Application: XMLTransformer-1.17.7;
Report Filename: AUDIT_FC_LC_PFAS_WG67438-104_Audit1B_FC9W_130S22_SJ2545309.html; Workgroup: WG67438; Design ID: 3161 ]

**SGS AXYS METHOD MLA-110 Rev 01**

**AUDIT 2A CHANGE REPORT**

**CLIENT SAMPLE NO.**
**Spiked Matrix**
**Sample Collection:**
**N/A**

**SGS AXYS ANALYTICAL SERVICES**
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

| | | | |
|---|---|---|---|
| **Contract No.:** | 4951 | **Lab Sample I.D.:** | WG67438-104 |
| **Sample Data Filename:** | **FC9W_130 S: 22** | **Instrument ID:** | LC MS/MS |
| **Analysis Date:** | 31-Mar-2019 **Time:** 01:15:56 | **GC Column ID:** | C18 |
| **Extract Volume (uL):** | 4000 | **Injection Volume (uL):** | 2 |

There were no differences found between the parsed and reported data.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Andrew Porat_____

For Axys Internal Use Only [ XSL Template: Audit2A.xsl; Created: 16-Apr-2019 17:38:09; Application: XMLTransformer-1.17.7;
Report Filename: AUDIT_FC_LC_PFAS_WG67438-104_Audit2A_FC9W_130S22_SJ2545309.html; Workgroup: WG67438; Design ID: 3161 ]

**SGS AXYS METHOD MLA-110 Rev 01**

**AUDIT 2B CHANGE REPORT**

**CLIENT SAMPLE NO.**
**Spiked Matrix**
**Sample Collection:**
**N/A**

**SGS AXYS ANALYTICAL SERVICES**
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

| | | | |
|---|---|---|---|
| **Contract No.:** | 4951 | **Lab Sample I.D.:** | WG67438-104 |
| **Sample Data Filename:** | **FC9W_130 S: 22** | **Instrument ID:** | LC MS/MS |
| **Analysis Date:** | 31-Mar-2019 **Time:** 01:15:56 | **GC Column ID:** | C18 |
| **Extract Volume (uL):** | 4000 | **Injection Volume (uL):** | 2 |

There were no differences found between the parsed and reported data.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Andrew Porat_____

For Axys Internal Use Only [ XSL Template: Audit2B.xsl; Created: 16-Apr-2019 17:38:09; Application: XMLTransformer-1.17.7;
Report Filename: AUDIT_FC_LC_PFAS_WG67438-104_Audit2B_FC9W_130S22_SJ2545309.html; Workgroup: WG67438; Design ID: 3161 ]

**SGS AXYS METHOD MLA-110 Rev 01**

**AUDIT 1A CHANGE REPORT**

**CLIENT SAMPLE NO.**
**Spiked Matrix**
**Sample Collection:**
**N/A**

**SGS AXYS ANALYTICAL SERVICES**
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

| | | | |
|---|---|---|---|
| **Contract No.:** | 4951 | **Lab Sample I.D.:** | WG67663-102 i |
| **Sample Data Filename:** | **FC9W_144 S: 16** | **Instrument ID:** | LC MS/MS |
| **Analysis Date:** | 08-Apr-2019 **Time:** 17:25:18 | **GC Column ID:** | C18 |
| **Extract Volume (uL):** | 4000 | **Injection Volume (uL):** | 2 |

| COMPOUND | ORIG. CONC. | FINAL CONC. | CHANGE CONC. (Final/Orig.) | ORIG. AREA | FINAL AREA | CHANGE AREA (Final/Orig.) | ORIG. RATIO | FINAL RATIO |
|---|---|---|---|---|---|---|---|---|
| **PFBA** | | | | | | | | |
| **PFPEA-1** | | | | | | | | |
| **PFHXA-1** | | | | | | | | |
| **PFHPA-1** | | | | | | | | |
| **PFOA-1** | | | | | | | | |
| **PFNA-1** | | | | | | | | |
| **PFDA-1** | | | | | | | | |
| **PFUNA-1** | | | | | | | | |
| **PFDOA-1** | | | | | | | | |
| **PFTRDA-1** | | | | | | | | |
| **PFTEDA-1** | | | | | | | | |
| **PFBS-1** | | | | | | | | |
| **PFPES-1** | | | | | | | | |
| **PFHXS-1** | | | | | | | | |
| **PFHPS-1** | | | | | | | | |
| **PFOS-1** | | | | | | | | |
| **PFNS-1** | | | | | | | | |
| **PFDS-1** | | | | | | | | |
| **PFDOS-1** | | | | | | | | |
| **4:2 FTS-1** | | | | | | | | |
| **6:2 FTS-1** | | | | | | | | |
| **8:2 FTS-1** | | | | | | | | |
| **PFOSA-1** | | | | | | | | |
| **N-MEFOSE** | | | | | | | | |
| **N-ETFOSE** | | | | | | | | |

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Andrew Porat_____

For Axys Internal Use Only [ XSL Template: Audit1A.xsl; Created: 22-Apr-2019 09:44:06; Application: XMLTransformer-1.17.7;
Report Filename: AUDIT_FC_LC_PFAS_WG67663-102_Audit1A_FC9W_144S16_SJ2546987.html; Workgroup: WG67663; Design ID: 3161 ]

**SGS AXYS METHOD MLA-110 Rev 01**

**AUDIT 1B CHANGE REPORT**

**CLIENT SAMPLE NO.**
**Spiked Matrix**
**Sample Collection:**
**N/A**

**SGS AXYS ANALYTICAL SERVICES**
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

| | | | |
|---|---|---|---|
| **Contract No.:** | 4951 | **Lab Sample I.D.:** | WG67663-102 i |
| **Sample Data Filename:** | **FC9W_144 S: 16** | **Instrument ID:** | LC MS/MS |
| **Analysis Date:** | 08-Apr-2019 **Time:** 17:25:18 | **GC Column ID:** | C18 |
| **Extract Volume (uL):** | 4000 | **Injection Volume (uL):** | 2 |

| COMPOUND | ORIG. SDL | FINAL SDL | CHANGE SDL (Final/Orig.) | ORIG. QUAL | FINAL QUAL | ORIG. RT | FINAL RT | REVIEWED BY | REVIEWED DATE |
|---|---|---|---|---|---|---|---|---|---|
| **PFBA** | | | | | | | | WANGG | 16-APR-2019 |
| **PFPEA-1** | | | | | | | | WANGG | 16-APR-2019 |
| **PFHXA-1** | | | | | | | | WANGG | 16-APR-2019 |
| **PFHPA-1** | | | | | | | | WANGG | 16-APR-2019 |
| **PFOA-1** | | | | | | | | WANGG | 16-APR-2019 |
| **PFNA-1** | | | | | | | | WANGG | 16-APR-2019 |
| **PFDA-1** | | | | | | | | WANGG | 16-APR-2019 |
| **PFUNA-1** | | | | | | | | WANGG | 16-APR-2019 |
| **PFDOA-1** | | | | | | | | WANGG | 16-APR-2019 |
| **PFTRDA-1** | | | | | | | | WANGG | 16-APR-2019 |
| **PFTEDA-1** | | | | | | | | WANGG | 16-APR-2019 |
| **PFBS-1** | | | | | | | | WANGG | 16-APR-2019 |
| **PFPES-1** | | | | | | | | WANGG | 16-APR-2019 |
| **PFHXS-1** | | | | | | | | WANGG | 16-APR-2019 |
| **PFHPS-1** | | | | | | | | WANGG | 16-APR-2019 |
| **PFOS-1** | | | | | | | | WANGG | 16-APR-2019 |
| **PFNS-1** | | | | | | | | WANGG | 16-APR-2019 |
| **PFDS-1** | | | | | | | | WANGG | 16-APR-2019 |
| **PFDOS-1** | | | | | | | | WANGG | 16-APR-2019 |
| **4:2 FTS-1** | | | | | | | | WANGG | 16-APR-2019 |
| **6:2 FTS-1** | | | | | | | | WANGG | 16-APR-2019 |
| **8:2 FTS-1** | | | | | | | | WANGG | 16-APR-2019 |
| **PFOSA-1** | | | | | | | | WANGG | 16-APR-2019 |
| **N-MEFOSE** | | | | | | | | WANGG | 16-APR-2019 |
| **N-ETFOSE** | | | | | | | | WANGG | 16-APR-2019 |

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Andrew Porat_____

For Axys Internal Use Only [ XSL Template: Audit1B.xsl; Created: 22-Apr-2019 09:44:06; Application: XMLTransformer-1.17.7;
Report Filename: AUDIT_FC_LC_PFAS_WG67663-102_Audit1B_FC9W_144S16_SJ2546987.html; Workgroup: WG67663; Design ID: 3161 ]

**SGS AXYS METHOD MLA-110 Rev 01**

**AUDIT 2A CHANGE REPORT**

**CLIENT SAMPLE NO.**
**Spiked Matrix**
**Sample Collection:**
**N/A**

**SGS AXYS ANALYTICAL SERVICES**
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

| | | | |
|---|---|---|---|
| **Contract No.:** | 4951 | **Lab Sample I.D.:** | WG67663-102 i |
| **Sample Data Filename:** | **FC9W_144 S: 16** | **Instrument ID:** | LC MS/MS |
| **Analysis Date:** | 08-Apr-2019 **Time:** 17:25:18 | **GC Column ID:** | C18 |
| **Extract Volume (uL):** | 4000 | **Injection Volume (uL):** | 2 |

There were no differences found between the parsed and reported data.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Andrew Porat_____

For Axys Internal Use Only [ XSL Template: Audit2A.xsl; Created: 22-Apr-2019 09:44:06; Application: XMLTransformer-1.17.7;
Report Filename: AUDIT_FC_LC_PFAS_WG67663-102_Audit2A_FC9W_144S16_SJ2546987.html; Workgroup: WG67663; Design ID: 3161 ]

**SGS AXYS METHOD MLA-110 Rev 01**

**AUDIT 2B CHANGE REPORT**

**CLIENT SAMPLE NO.**
**Spiked Matrix**
**Sample Collection:**
**N/A**

**SGS AXYS ANALYTICAL SERVICES**
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

| | | | |
|---|---|---|---|
| **Contract No.:** | 4951 | **Lab Sample I.D.:** | WG67663-102 i |
| **Sample Data Filename:** | **FC9W_144 S: 16** | **Instrument ID:** | LC MS/MS |
| **Analysis Date:** | 08-Apr-2019 **Time:** 17:25:18 | **GC Column ID:** | C18 |
| **Extract Volume (uL):** | 4000 | **Injection Volume (uL):** | 2 |

There were no differences found between the parsed and reported data.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Andrew Porat_____

For Axys Internal Use Only [ XSL Template: Audit2B.xsl; Created: 22-Apr-2019 09:44:06; Application: XMLTransformer-1.17.7;
Report Filename: AUDIT_FC_LC_PFAS_WG67663-102_Audit2B_FC9W_144S16_SJ2546987.html; Workgroup: WG67663; Design ID: 3161 ]

**Quantify Sample Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

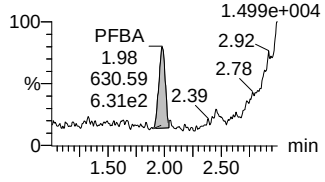
Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_130-b.qld

Last Altered: Tuesday, April 16, 2019 12:33:52 Pacific Daylight Time
Printed: Tuesday, April 16, 2019 12:42:35 Pacific Daylight Time

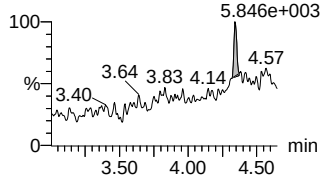
**Method: G:\Masslynx\Master Methods\MassLynx SCN 909\UPLC\FC_110_UPLC_06.mdb 10 Mar 2019 18:18:03**
**Calibration: G:\Masslynx\Inst_W\PFC.PRO\Curve\FC9W_097-a1.cdb 12 Mar 2019 11:26:10**

**ID: L30820-1,,, Name: FC9W_130S26, Description: 1,WG67438,2/4000uL, Date: 31-Mar-2019, Time: 02:09:32**

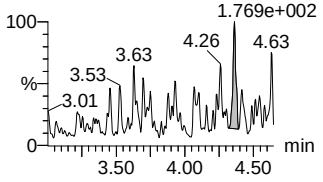
**PFBA**



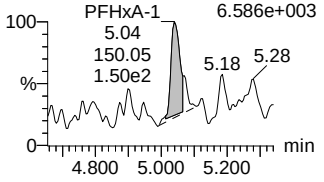

**PFPeA-1**



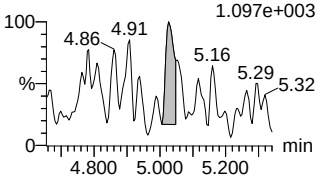

**PFPeA-2**



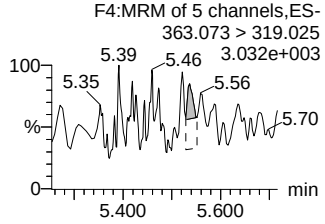

**PFHxA-1**



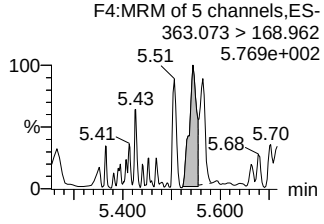

**PFHxA-2**



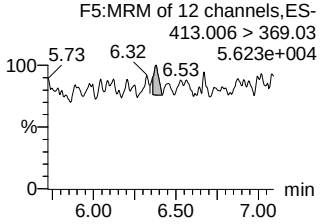

**PFHpA-1**



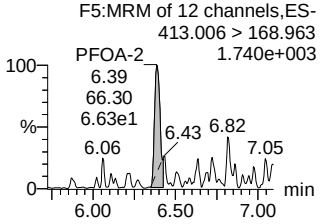

**PFHpA-2**



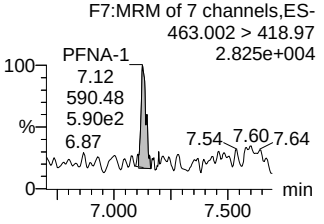

**PFOA-1**



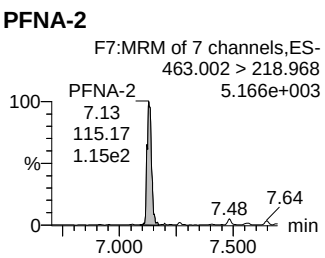

**PFOA-2**



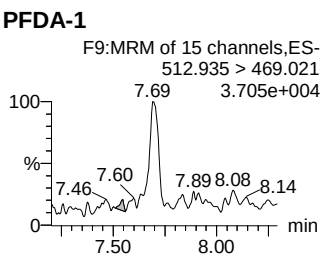

**PFNA-1**



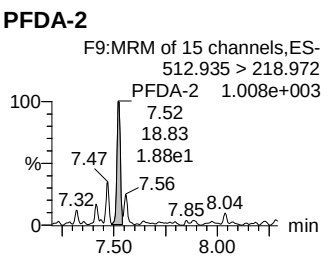

**PFNA-2**



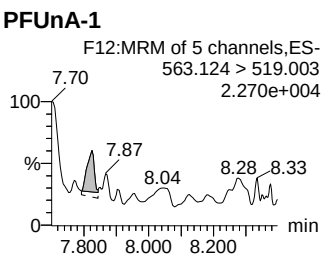

**PFDA-1**



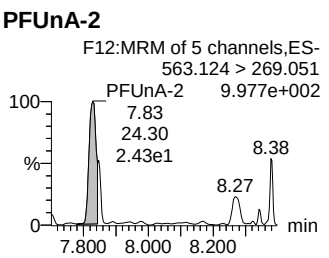

**PFDA-2**




**PFUnA-1**




**PFUnA-2**




PVed by WANGG 13-Apr-19, SVed by AP 16-Apr-19. NOTE: Units = ng/L for BLK and FIeld Samples.

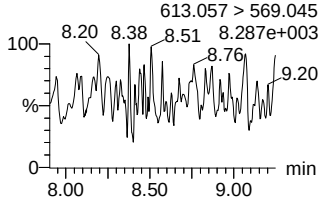
**Quantify Sample Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_130-b.qld

Last Altered: Tuesday, April 16, 2019 12:33:52 Pacific Daylight Time
Printed: Tuesday, April 16, 2019 12:42:35 Pacific Daylight Time

**ID: L30820-1,,, Name: FC9W_130S26, Description: 1,WG67438,2/4000uL, Date: 31-Mar-2019, Time: 02:09:32**

**PFDoA-1**

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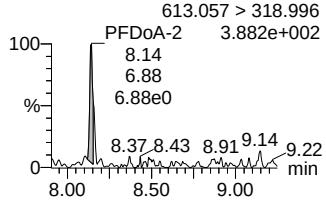


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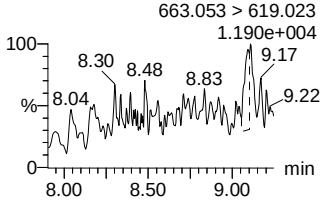


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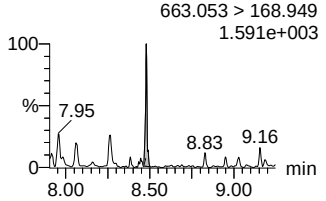


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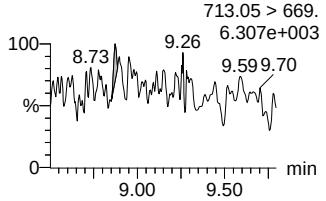


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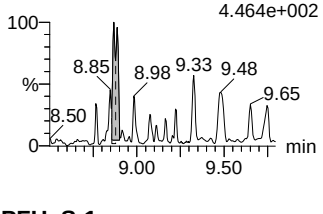


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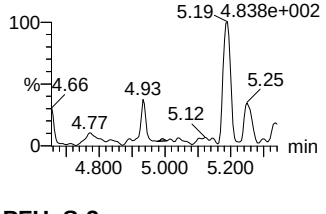


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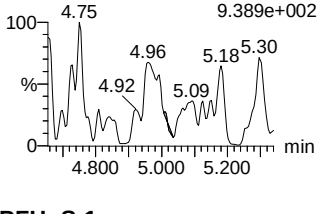


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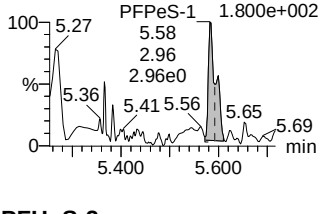


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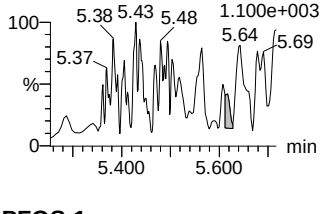


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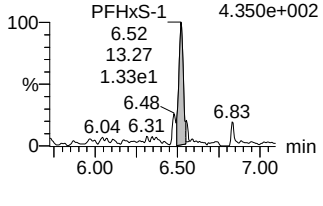


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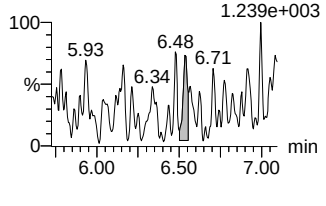


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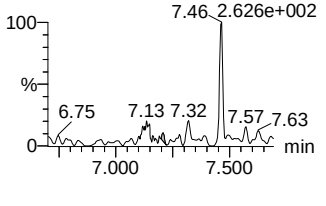


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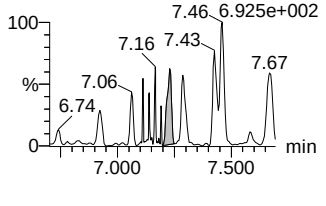


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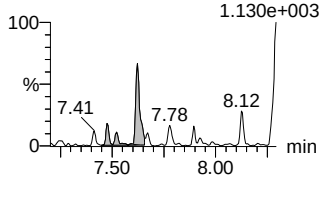


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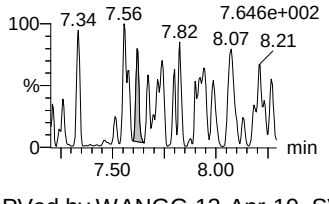


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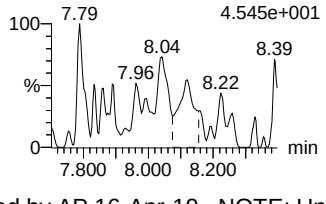


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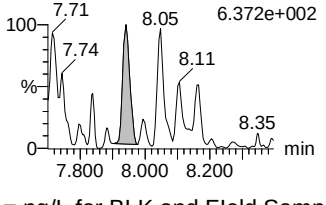


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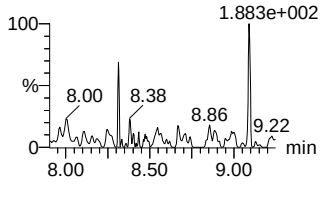


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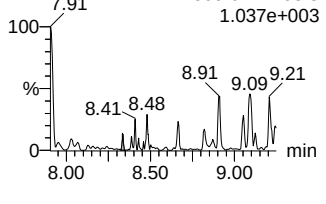



PVed by WANGG 13-Apr-19, SVed by AP 16-Apr-19. NOTE: Units = ng/L for BLK and FIeld Samples.

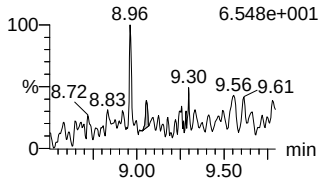
**Quantify Sample Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_130-b.qld

Last Altered: Tuesday, April 16, 2019 12:33:52 Pacific Daylight Time
Printed: Tuesday, April 16, 2019 12:42:35 Pacific Daylight Time

**ID: L30820-1,,, Name: FC9W_130S26, Description: 1,WG67438,2/4000uL, Date: 31-Mar-2019, Time: 02:09:32**

**PFDoS-1**

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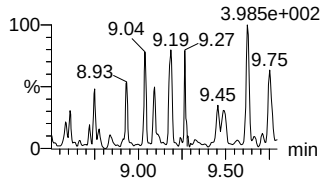


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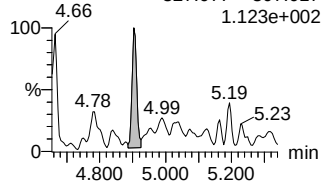


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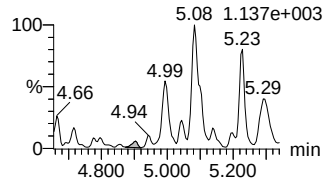


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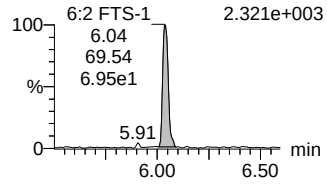


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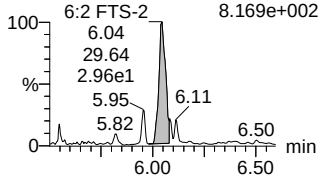


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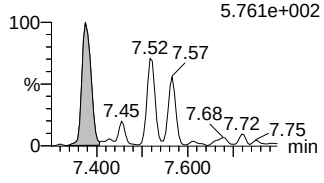


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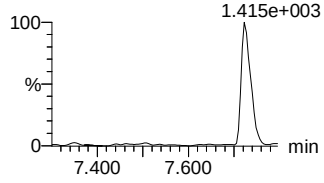


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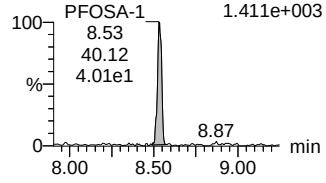


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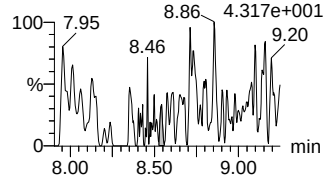


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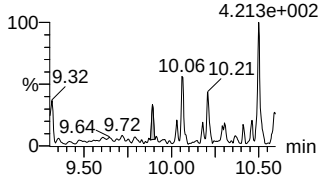


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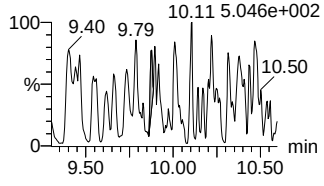


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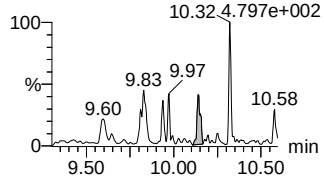


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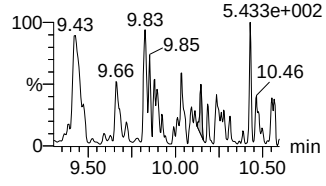


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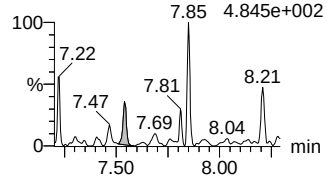


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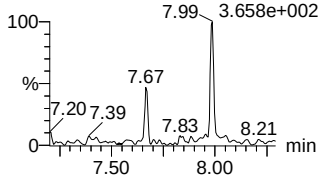


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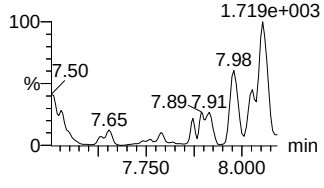


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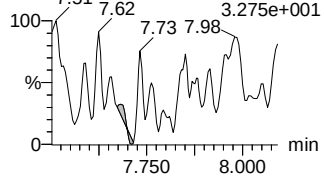


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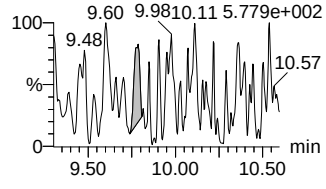


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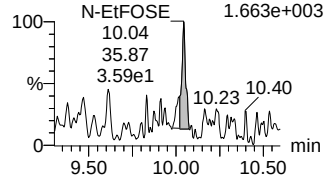



PVed by WANGG 13-Apr-19, SVed by AP 16-Apr-19. NOTE: Units = ng/L for BLK and FIeld Samples.

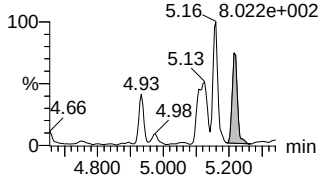
**Quantify Sample Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_130-b.qld

Last Altered: Tuesday, April 16, 2019 12:33:52 Pacific Daylight Time
Printed: Tuesday, April 16, 2019 12:42:35 Pacific Daylight Time

**ID: L30820-1,,, Name: FC9W_130S26, Description: 1,WG67438,2/4000uL, Date: 31-Mar-2019, Time: 02:09:32**

**HFPO-DA-1**

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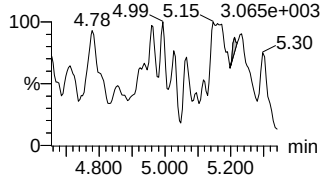


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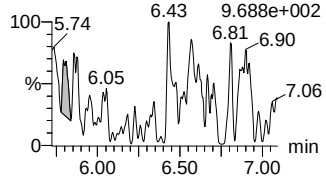


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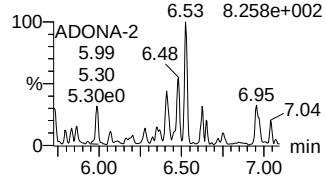


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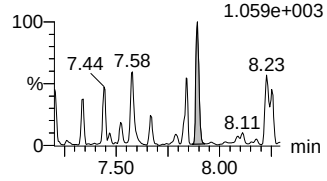


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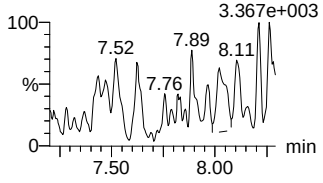


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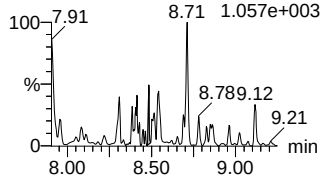


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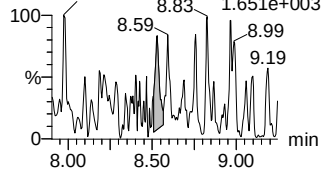


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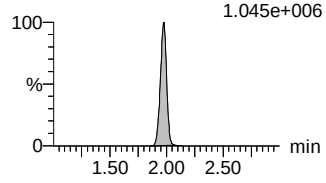
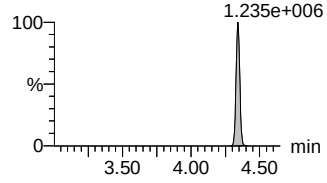
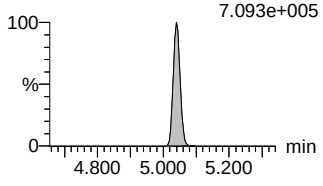



**13C5-PFPeA**




**13C5-PFHxA-1**

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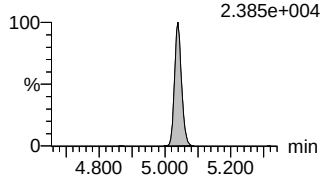
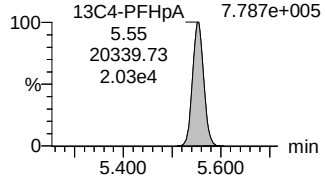
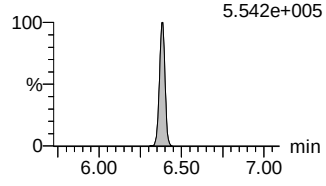


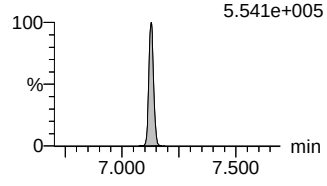

**13C4-PFHpA**



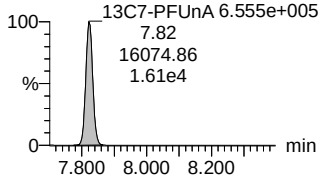

**13C8-PFOA**



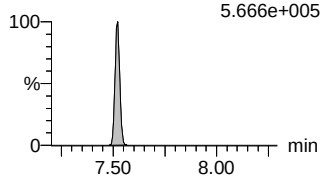

**13C9-PFNA**



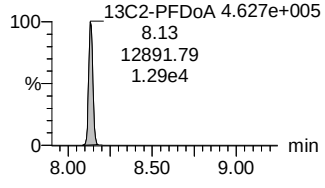

**13C7-PFUnA**



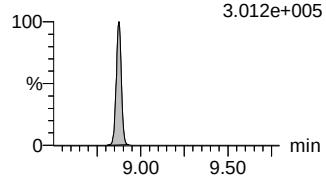

**13C6-PFDA**



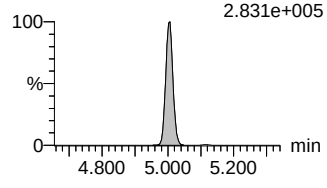

**13C2-PFDoA**




**13C2-PFTeDA**




**13C3-PFBS-1**



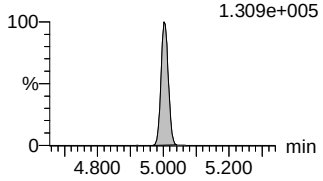

PVed by WANGG 13-Apr-19, SVed by AP 16-Apr-19. NOTE: Units = ng/L for BLK and FIeld Samples.

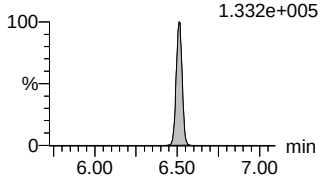
**Quantify Sample Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

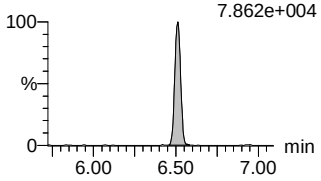
Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_130-b.qld

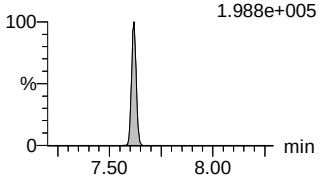
Last Altered: Tuesday, April 16, 2019 12:33:52 Pacific Daylight Time
Printed: Tuesday, April 16, 2019 12:42:35 Pacific Daylight Time

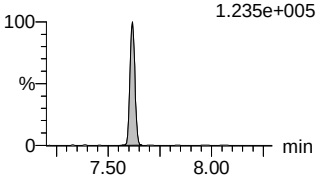
**ID: L30820-1,,, Name: FC9W_130S26, Description: 1,WG67438,2/4000uL, Date: 31-Mar-2019, Time: 02:09:32**

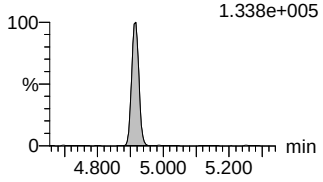
**13C3-PFBS-2**
F3:MRM of 18 channels,ES-
302.056 > 98.875
1.309e+005


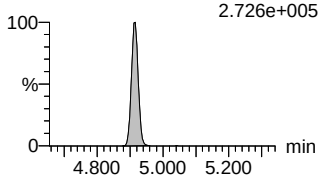

**13C3-PFHxS-1**
F5:MRM of 12 channels,ES-
402.114 > 79.858
1.332e+005


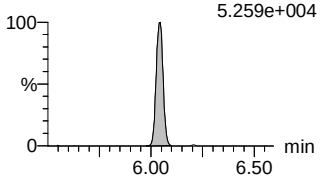

**13C3-PFHxS-2**
F5:MRM of 12 channels,ES-
402.114 > 98.801
7.862e+004


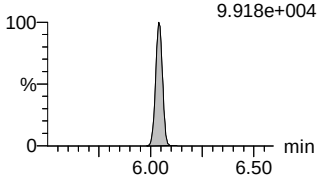

**13C8-PFOS-1**
F9:MRM of 15 channels,ES-
507.124 > 79.858
1.988e+005


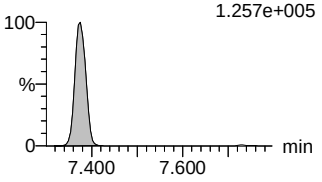

**13C8-PFOS-2**
F9:MRM of 15 channels,ES-
507.124 > 98.867
1.235e+005


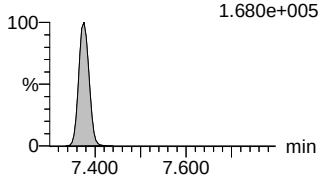

**13C2-4:2 FTS-1**
F3:MRM of 18 channels,ES-
329.084 > 80.9
1.338e+005


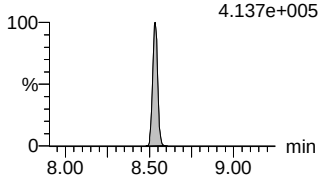

**13C2-4:2 FTS-2**
F3:MRM of 18 channels,ES-
329.084 > 309.024
2.726e+005


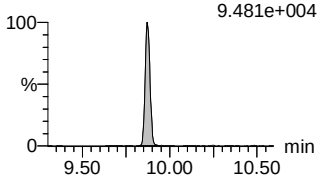

**13C2-6:2 FTS-1**
F6:MRM of 4 channels,ES-
429.078 > 80.900
5.259e+004


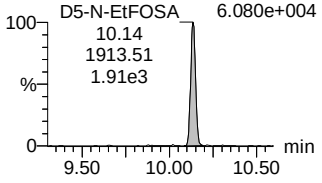

**13C2-6:2 FTS-2**
F6:MRM of 4 channels,ES-
429.078 > 409.031
9.918e+004


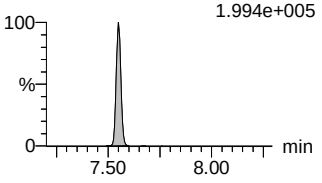

**13C2-8:2 FTS-1**
F11:MRM of 4 channels,ES-
529.1351 > 80.900
1.257e+005


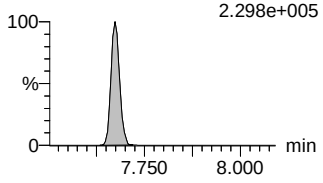

**13C2-8:2 FTS-2**
F11:MRM of 4 channels,ES-
529.135 > 509.003
1.680e+005


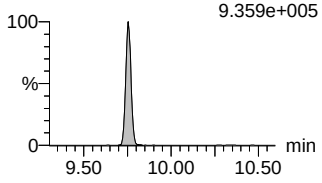

**13C8-PFOSA**
F8:MRM of 12 channels,ES-
506.14 > 77.841
4.137e+005


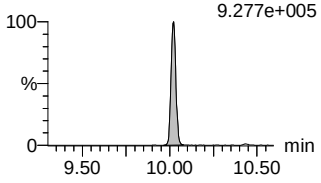

**D3-N-MeFOSA**
F10:MRM of 10 channels,ES-
514.956 > 218.974
9.481e+004


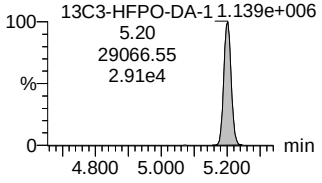

**D5-N-EtFOSA**
F10:MRM of 10 channels,ES-
531.112 > 218.984
6.080e+004


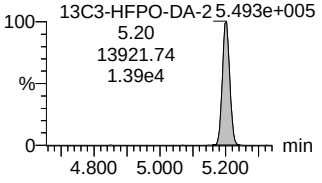

**D3-MeFOSAA**
F9:MRM of 15 channels,ES-
573.153 > 418.99
1.994e+005



**D5-EtFOSAA**
F13:MRM of 3 channels,ES-
589.245 > 418.971
2.298e+005



**D7-N-MeFOSE**
F10:MRM of 10 channels,ES-
623.156 > 58.896
9.359e+005



**D9-N-EtFOSE**
F10:MRM of 10 channels,ES-
639.184 > 58.897
9.277e+005



**13C3-HFPO-DA-1**
F3:MRM of 18 channels,ES-
286.8631 > 168.8861
1.139e+006



**13C3-HFPO-DA-2**
F3:MRM of 18 channels,ES-
286.8631 > 184.8888
5.493e+005



PVed by WANGG 13-Apr-19, SVed by AP 16-Apr-19. NOTE: Units = ng/L for BLK and FIeld Samples.

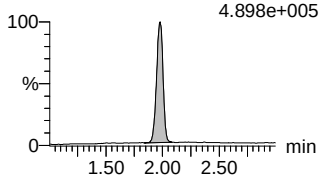
**Quantify Sample Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_130-b.qld

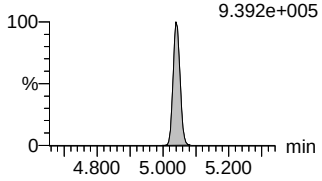
Last Altered: Tuesday, April 16, 2019 12:33:52 Pacific Daylight Time
Printed: Tuesday, April 16, 2019 12:42:35 Pacific Daylight Time

**ID: L30820-1,,, Name: FC9W_130S26, Description: 1,WG67438,2/4000uL, Date: 31-Mar-2019, Time: 02:09:32**

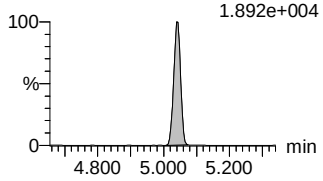
**13C3-PFBA**



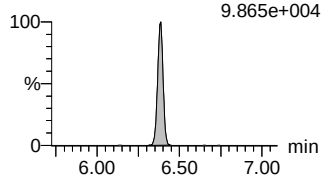

**13C2-PFHxA-1**



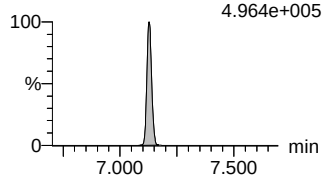

**13C2-PFHxA-2**



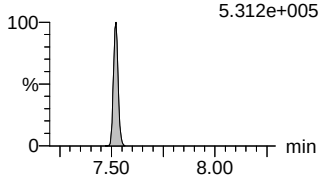

**13C4-PFOA**



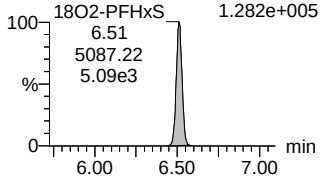

**13C5-PFNA**



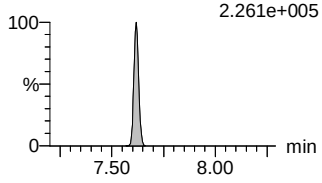

**13C2-PFDA**



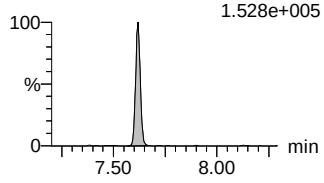

**18O2-PFHxS**




**13C4-PFOS-1**




**13C4-PFOS-2**




PVed by WANGG 13-Apr-19, SVed by AP 16-Apr-19. NOTE: Units = ng/L for BLK and FIeld Samples.

**Quantify Sample Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_130-b.qld

Last Altered: Tuesday, April 16, 2019 12:33:52 Pacific Daylight Time
Printed: Tuesday, April 16, 2019 12:42:35 Pacific Daylight Time

**ID: L30820-1,,, Name: FC9W_130S26, Description: 1,WG67438,2/4000uL, Date: 31-Mar-2019, Time: 02:09:32**

| # | Name | IS# | Trace | RT | Area | IS Area | Std. Conc | Conc. | LOD | %Rec | S/N | Noise | Peak Height | IS Height | Sample size | F2 | Flags |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | PFBA | 64 | 212.763 > 168.903 | 1.98 | 631 | 65249 | | 0.597 | | | 20 | 489 | 9848 | 1042573 | 0.494 | 0.0 | MM |
| 2 | PFPeA-1 | 65 | 262.951 > 218.996 | 4.34 | 61 | 37100 | | | | | 8 | 318 | 2599 | 1233211 | 0.494 | 0.0 | MMI |
| 3 | PFPeA-2 | 65 | 262.951 > 68.925 | 4.36 | 4 | 37100 | | 1.234 | 0.7229 | | 6 | 25 | 153 | 1233211 | 0.494 | 0.0 | MM |
| 4 | PFHxA-1 | 66 | 313.012 > 269.017 | 5.04 | 150 | 16990 | | 0.009 | | | 6 | 804 | 4987 | 709740 | 0.494 | 0.0 | MM |
| 5 | PFHxA-2 | 66 | 313.012 > 118.918 | 5.03 | 26 | 16990 | | 0.284 | 0.2824 | | 3 | 355 | 909 | 709740 | 0.494 | 0.0 | MM |
| 6 | PFHpA-1 | 68 | 363.073 > 319.025 | 5.54 | 10 | 20340 | | | | | 1 | 757 | 854 | 777584 | 0.494 | 0.0 | MMI |
| 7 | PFHpA-2 | 68 | 363.073 > 168.962 | 5.54 | 9 | 20340 | | | | | 4 | 140 | 566 | 777584 | 0.494 | 0.0 | MMI |
| 8 | PFOA-1 | 69 | 413.006 > 369.03 | 6.38 | 448 | 21365 | | 0.092 | 0.1616 | | 3 | 4759 | 13452 | 553915 | 0.494 | 0.0 | MM |
| 9 | PFOA-2 | 69 | 413.006 > 168.963 | 6.39 | 66 | 21365 | | | | | 14 | 127 | 1719 | 553915 | 0.494 | 0.0 | MMI |
| 10 | PFNA-1 | 70 | 463.002 > 418.97 | 7.12 | 590 | 13186 | | 0.292 | | | 13 | 1753 | 23504 | 553584 | 0.494 | 0.0 | MM |
| 11 | PFNA-2 | 70 | 463.002 > 218.968 | 7.13 | 115 | 13186 | | 0.323 | | | 57 | 91 | 5159 | 553584 | 0.494 | 0.0 | bb |
| 12 | PFDA-1 | 72 | 512.935 > 469.021 | 7.55 | 71 | 14813 | | | | | 1 | 2726 | 3311 | 566114 | 0.494 | 0.0 | MMI |
| 13 | PFDA-2 | 72 | 512.935 > 218.972 | 7.52 | 19 | 14813 | | | | | 40 | 25 | 1004 | 566114 | 0.494 | 0.0 | ddI |
| 14 | PFUnA-1 | 71 | 563.124 > 519.003 | 7.83 | 192 | 16075 | | 0.084 | 0.0782 | | 3 | 2528 | 7621 | 654764 | 0.494 | 0.0 | MM |
| 15 | PFUnA-2 | 71 | 563.124 > 269.051 | 7.83 | 24 | 16075 | | | | | 19 | 52 | 989 | 654764 | 0.494 | 0.0 | bdI |
| 16 | PFDoA-1 | 73 | 613.057 > 569.045 | 8.12 | 1 | 12892 | | | | | 0 | 1763 | 160 | 461687 | 0.494 | 0.0 | MMI |
| 17 | PFDoA-2 | 73 | 613.057 > 318.996 | 8.14 | 7 | 12892 | | | | | 4 | 88 | 374 | 461687 | 0.494 | 0.0 | MMI |
| 18 | PFTrDA-1 | 74 | 663.053 > 619.023 | | | 10007 | | | | | | 1809 | | 300366 | 0.494 | 0.0 | MM-I |
| 19 | PFTrDA-2 | 74 | 663.053 > 168.949 | 8.48 | 17 | 10007 | | | | | 37 | 42 | 1576 | 300366 | 0.494 | 0.0 | MMI |
| 20 | PFTeDA-1 | 74 | 713.05 > 669. | 8.87 | 33 | 10007 | | | | | 2 | 1063 | 1906 | 300366 | 0.494 | 0.0 | MMI |
| 21 | PFTeDA-2 | 74 | 713.05 > 168.94 | 8.87 | 13 | 10007 | | | | | 6 | 69 | 426 | 300366 | 0.494 | 0.0 | MMI |
| 22 | PFBS-1 | 75 | 298.663 > 79.865 | 4.99 | 0 | 7287 | | 0.002 | 0.0044 | | 1 | 14 | 8 | 283042 | 0.494 | 0.0 | MM |
| 23 | PFBS-2 | 76 | 298.663 > 98.811 | 5.01 | 0 | 3362 | | | | | 0 | 369 | 39 | 130656 | 0.494 | 0.0 | MMI |
| 24 | PFPeS-1 | 77 | 349.107 > 79.857 | 5.58 | 3 | 5460 | | | | | 10 | 17 | 172 | 133053 | 0.494 | 0.0 | MMI |
| 25 | PFPeS-2 | 78 | 349.107 > 98.871 | 5.62 | 3 | 3168 | | | | | 1 | 267 | 304 | 78425 | 0.494 | 0.0 | ddI |
| 26 | PFHxS-1 | 77 | 398.721 > 79.92 | 6.52 | 13 | 5460 | | 0.269 | 0.2327 | | 45 | 10 | 431 | 133053 | 0.494 | 0.0 | MM |
| 27 | PFHxS-2 | 78 | 398.721 > 98.863 | 6.53 | 25 | 3168 | | | | | 2 | 346 | 851 | 78425 | 0.494 | 0.0 | ddI |
| 28 | PFHpS-1 | 79 | 449.036 > 79.857 | 7.21 | 0 | 5152 | | | | | 1 | 15 | 18 | 198706 | 0.494 | 0.0 | MMI |
| 29 | PFHpS-2 | 80 | 449.036 > 98.8 | 7.23 | 10 | 3398 | | 0.076 | 0.1104 | | 2 | 182 | 426 | 123405 | 0.494 | 0.0 | MM |
| 30 | PFOS-1 | 79 | 498.906 > 79.856 | 7.62 | 23 | 5152 | | | | | 14 | 55 | 743 | 198706 | 0.494 | 0.0 | MMI |
| 31 | PFOS-2 | 80 | 498.906 > 98.801 | 7.62 | 10 | 3398 | | | | | 3 | 221 | 576 | 123405 | 0.494 | 0.0 | MMI |
| 32 | PFNS-1 | 79 | 548.775 > 79.858 | | | 5152 | | | | | | 13 | | 198706 | 0.494 | 0.0 | MM-I |
| 33 | PFNS-2 | 80 | 548.775 > 98.801 | 7.94 | 16 | 3398 | | 0.019 | 0.0051 | | 4 | 158 | 615 | 123405 | 0.494 | 0.0 | MM |
| 34 | PFDS-1 | 79 | 599.027 > 79.92 | | | 5152 | | | | | | 14 | | 198706 | 0.494 | 0.0 | MM-I |
| 35 | PFDS-2 | 80 | 599.027 > 98.8 | 8.33 | 1 | 3398 | | 0.203 | 0.2335 | | 2 | 68 | 141 | 123405 | 0.494 | 0.0 | MM |

PVed by WANGG 13-Apr-19, SVed by AP 16-Apr-19. NOTE: Units = ng/L for BLK and FIeld Samples.

**Quantify Sample Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_130-b.qld

Last Altered: Tuesday, April 16, 2019 12:33:52 Pacific Daylight Time
Printed: Tuesday, April 16, 2019 12:42:35 Pacific Daylight Time

**ID: L30820-1,,, Name: FC9W_130S26, Description: 1,WG67438,2/4000uL, Date: 31-Mar-2019, Time: 02:09:32**

| # | Name | IS# | Trace | RT | Area | IS Area | Std. Conc | Conc. | LOD | %Rec | S/N | Noise | Peak Height | IS Height | Sample size | F2 | Flags |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 36 | PFDoS-1 | 79 | 699.084 > 79.856 | 9.06 | 0 | 5152 | | | | | 2 | 7 | 14 | 198706 | 0.494 | 0.0 | MMI |
| 37 | PFDoS-2 | 80 | 699.084 > 98.8 | | | 3398 | | | | | | 45 | | 123405 | 0.494 | 0.0 | MM-I |
| 38 | 4:2 FTS-1 | 81 | 327.077 > 307.017 | 4.90 | 2 | 3350 | | | | | 10 | 10 | 109 | 133518 | 0.494 | 0.0 | ddI |
| 39 | 4:2 FTS-2 | 81 | 327.077 > 80.85 | 4.90 | 1 | 3350 | | 0.136 | 0.3121 | | 0 | 192 | 59 | 133518 | 0.494 | 0.0 | MM |
| 40 | 6:2 FTS-1 | 83 | 427.071 > 407.024 | 6.04 | 70 | 1987 | | 0.212 | | | 228 | 10 | 2294 | 52510 | 0.494 | 0.0 | bb |
| 41 | 6:2 FTS-2 | 83 | 427.071 > 80.9 | 6.04 | 30 | 1987 | | 0.590 | 0.1339 | | 23 | 35 | 803 | 52510 | 0.494 | 0.0 | bd |
| 42 | 8:2 FTS-1 | 85 | 527.065 > 506.997 | 7.38 | 13 | 3428 | | | | | 38 | 15 | 574 | 125468 | 0.494 | 0.0 | bdI |
| 43 | 8:2 FTS-2 | 85 | 527.065 > 80.75 | 7.38 | 0 | 3428 | | | | | 0 | 8 | 2 | 125468 | 0.494 | 0.0 | MMI |
| 44 | PFOSA-1 | 87 | 498.113 > 77.902 | 8.53 | 40 | 14136 | | 0.223 | 0.1641 | | 105 | 13 | 1400 | 413167 | 0.494 | 0.0 | bb |
| 45 | PFOSA-2 | 87 | 498.113 > 477.993 | 8.54 | 0 | 14136 | | 3.824 | 3.9367 | | 1 | 17 | 14 | 413167 | 0.494 | 0.0 | dd |
| 46 | N-MeFOSA-1 | 88 | 511.937 > 218.985 | 9.89 | 2 | 2962 | | | | | 6 | 18 | 119 | 94534 | 0.494 | 0.0 | MMI |
| 47 | N-MeFOSA-2 | 88 | 511.937 > 168.955 | 9.88 | 3 | 2962 | | | | | 1 | 177 | 231 | 94534 | 0.494 | 0.0 | MMI |
| 48 | N-EtFOSA-1 | 89 | 526.017 > 218.977 | 10.14 | 4 | 1914 | | | | | 15 | 13 | 193 | 60645 | 0.494 | 0.0 | MMI |
| 49 | N-EtFOSA-2 | 89 | 526.017 > 168.95 | 10.15 | 3 | 1914 | | | | | 2 | 90 | 221 | 60645 | 0.494 | 0.0 | bbI |
| 50 | MeFOSAA-1 | 90 | 570.134 > 419.035 | 7.54 | 3 | 5155 | | | | | 5 | 33 | 169 | 199248 | 0.494 | 0.0 | MMI |
| 51 | MeFOSAA-2 | 90 | 570.134 > 482.99 | 7.54 | 0 | 5155 | | | | | 0 | 47 | 3 | 199248 | 0.494 | 0.0 | MMI |
| 52 | EtFOSAA-1 | 91 | 584.15 > 419.062 | 7.68 | 0 | 5881 | | 0.125 | 0.2511 | | 0 | 184 | 13 | 229598 | 0.494 | 0.0 | MM |
| 53 | EtFOSAA-2 | 91 | 584.15 > 526.045 | 7.68 | 0 | 5881 | | 0.236 | 0.2445 | | 0 | 12 | 3 | 229598 | 0.494 | 0.0 | MM |
| 54 | N-MeFOSE | 92 | 616.112 > 58.894 | 9.79 | 14 | 32464 | | | | | 2 | 241 | 362 | 935364 | 0.494 | 0.0 | MMI |
| 55 | N-EtFOSE | 93 | 630. > 58.893 | 10.04 | 36 | 28907 | | | | | 7 | 196 | 1441 | 926291 | 0.494 | 0.0 | MMI |
| 56 | HFPO-DA-1 | 94 | 284.8894 > 168.... | 5.21 | 10 | 29067 | | | | | 10 | 56 | 587 | 1137808 | 0.494 | 0.0 | MMI |
| 57 | HFPO-DA-2 | 95 | 284.8894 > 184.... | 5.21 | 4 | 13922 | | | | | 1 | 729 | 392 | 548350 | 0.494 | 0.0 | MMI |
| 58 | ADONA-1 | 94 | 376.88 > 250.937 | 5.79 | 17 | 29067 | | | | | 2 | 256 | 427 | 1137808 | 0.494 | 0.0 | bdI |
| 59 | ADONA-2 | 95 | 376.88 > 84.832 | | | 13922 | | | 1.0737 | | | 112 | | 548350 | 0.494 | 0.0 | MM- |
| 60 | 9Cl-PF3ONS-1 | 94 | 530.807 > 350.967 | 7.89 | 18 | 29067 | | | | | 10 | 110 | 1048 | 1137808 | 0.494 | 0.0 | bbI |
| 61 | 9Cl-PF3ONS-2 | 95 | 532.804 > 352.947 | | | 13922 | | | | | | 834 | | 548350 | 0.494 | 0.0 | MM-I |
| 62 | 11Cl-PF3OUdS-1 | 94 | 630.865 > 450.902 | 8.48 | 4 | 29067 | | | | | 4 | 117 | 506 | 1137808 | 0.494 | 0.0 | MMI |
| 63 | 11Cl-PF3OUdS-2 | 95 | 632.868 > 452.91 | 8.53 | 39 | 13922 | | 0.138 | 0.1412 | | 2 | 514 | 1254 | 548350 | 0.494 | 0.0 | dd |
| 64 | 13C4-PFBA | 96 | 216.776 > 171.928 | 1.98 | 65249 | 31290 | 40.000 | 82.436 | 0.0263 | 101.8 | 9837 | 106 | 1042573 | 478311 | 0.494 | 0.0 | bb |
| 65 | 13C5-PFPeA | 97 | 268.16 > 223.035 | 4.34 | 37100 | 22611 | 20.000 | 40.927 | 0.0067 | 101.1 | 147... | 84 | 1233211 | 938302 | 0.494 | 0.0 | bb |
| 66 | 13C5-PFHxA-1 | 97 | 318.029 > 272.993 | 5.04 | 16990 | 22611 | 10.000 | 21.594 | 0.0012 | 106.7 | 559... | 13 | 709740 | 938302 | 0.494 | 0.0 | MM |
| 67 | 13C5-PFHxA-2 | 97 | 318.029 > 120.341 | 5.04 | 575 | 22611 | 10.000 | 21.520 | 0.0574 | 106.4 | 1123 | 21 | 23806 | 938302 | 0.494 | 0.0 | bb |
| 68 | 13C4-PFHpA | 99 | 367.086 > 322.004 | 5.55 | 20340 | 3703 | 10.000 | 20.441 | 0.0073 | 101.0 | 119... | 65 | 777584 | 98508 | 0.494 | 0.0 | bb |
| 69 | 13C8-PFOA | 99 | 421.096 > 376.022 | 6.39 | 21365 | 3703 | 10.000 | 18.687 | 0.0044 | 92.4 | 123... | 45 | 553915 | 98508 | 0.494 | 0.0 | bb |
| 70 | 13C9-PFNA | 100 | 472.096 > 427.014 | 7.13 | 13186 | 11808 | 5.000 | 10.405 | 0.0045 | 102.8 | 6991 | 79 | 553584 | 495538 | 0.494 | 0.0 | bb |

PVed by WANGG 13-Apr-19, SVed by AP 16-Apr-19. NOTE: Units = ng/L for BLK and FIeld Samples.

**Quantify Sample Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_130-b.qld

Last Altered: Tuesday, April 16, 2019 12:33:52 Pacific Daylight Time
Printed: Tuesday, April 16, 2019 12:42:35 Pacific Daylight Time

**ID: L30820-1,,, Name: FC9W_130S26, Description: 1,WG67438,2/4000uL, Date: 31-Mar-2019, Time: 02:09:32**

| # | Name | IS# | Trace | RT | Area | IS Area | Std. Conc | Conc. | LOD | %Rec | S/N | Noise | Peak Height | IS Height | Sample size | F2 | Flags |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 71 | 13C7-PFUnA | 101 | 570.019 > 525.05 | 7.82 | 16075 | 13761 | 5.000 | 10.570 | 0.0084 | 104.5 | 4005 | 163 | 654764 | 530921 | 0.494 | 0.0 | bb |
| 72 | 13C6-PFDA | 101 | 519.147 > 474.058 | 7.52 | 14813 | 13761 | 5.000 | 11.575 | 0.0009 | 114.4 | 369... | 15 | 566114 | 530921 | 0.494 | 0.0 | bb |
| 73 | 13C2-PFDoA | 101 | 615.127 > 570.013 | 8.13 | 12892 | 13761 | 5.000 | 11.877 | 0.0057 | 117.4 | 5853 | 79 | 461687 | 530921 | 0.494 | 0.0 | bb |
| 74 | 13C2-PFTeDA | 101 | 715.057 > 670.026 | 8.88 | 10007 | 13761 | 5.000 | 9.396 | 0.0107 | 92.9 | 2051 | 146 | 300366 | 530921 | 0.494 | 0.0 | bb |
| 75 | 13C3-PFBS-1 | 102 | 302.056 > 79.865 | 5.01 | 7287 | 5087 | 10.000 | 24.084 | 0.0058 | 119.0 | 191... | 15 | 283042 | 127890 | 0.494 | 0.0 | bb |
| 76 | 13C3-PFBS-2 | 102 | 302.056 > 98.875 | 5.00 | 3362 | 5087 | 10.000 | 22.983 | 0.0216 | 113.6 | 4932 | 26 | 130656 | 127890 | 0.494 | 0.0 | bb |
| 77 | 13C3-PFHxS-1 | 102 | 402.114 > 79.858 | 6.51 | 5460 | 5087 | 10.000 | 20.939 | 0.0037 | 103.5 | 165... | 8 | 133053 | 127890 | 0.494 | 0.0 | bb |
| 78 | 13C3-PFHxS-2 | 102 | 402.114 > 98.801 | 6.51 | 3168 | 5087 | 10.000 | 21.806 | 0.0324 | 107.8 | 1987 | 39 | 78425 | 127890 | 0.494 | 0.0 | bb |
| 79 | 13C8-PFOS-1 | 103 | 507.124 > 79.858 | 7.62 | 5152 | 6016 | 10.000 | 21.888 | 0.0043 | 108.2 | 158... | 13 | 198706 | 226022 | 0.494 | 0.0 | bb |
| 80 | 13C8-PFOS-2 | 104 | 507.124 > 98.867 | 7.62 | 3398 | 3922 | 10.000 | 22.348 | 0.1373 | 110.4 | 456 | 271 | 123405 | 152612 | 0.494 | 0.0 | bb |
| 81 | 13C2-4:2 FTS-1 | 102 | 329.084 > 80.9 | 4.92 | 3350 | 5087 | 20.000 | 37.515 | 0.3396 | 92.7 | 525 | 254 | 133518 | 127890 | 0.494 | 0.0 | bb |
| 82 | 13C2-4:2 FTS-2 | 102 | 329.084 > 309.024 | 4.92 | 6394 | 5087 | 20.000 | 30.682 | 0.0042 | 75.8 | 370... | 7 | 272250 | 127890 | 0.494 | 0.0 | bb |
| 83 | 13C2-6:2 FTS-1 | 102 | 429.078 > 80.900 | 6.04 | 1987 | 5087 | 20.000 | 27.552 | 0.0169 | 68.1 | 5143 | 10 | 52510 | 127890 | 0.494 | 0.0 | bb |
| 84 | 13C2-6:2 FTS-2 | 102 | 429.078 > 409.031 | 6.04 | 3680 | 5087 | 20.000 | 22.278 | 0.0073 | 55.0 | 9820 | 10 | 99005 | 127890 | 0.494 | 0.0 | bb |
| 85 | 13C2-8:2 FTS-1 | 102 | 529.1351 > 80.900 | 7.38 | 3428 | 5087 | 20.000 | 31.805 | 0.0948 | 78.6 | 1465 | 86 | 125468 | 127890 | 0.494 | 0.0 | bb |
| 86 | 13C2-8:2 FTS-2 | 102 | 529.135 > 509.003 | 7.38 | 4334 | 5087 | 20.000 | 29.901 | 0.2930 | 73.9 | 472 | 356 | 167852 | 127890 | 0.494 | 0.0 | bb |
| 87 | 13C8-PFOSA | 103 | 506.14 > 77.841 | 8.53 | 14136 | 6016 | 10.000 | 37.986 | 0.0075 | 187.7 | 117... | 35 | 413167 | 226022 | 0.494 | 0.0 | bb |
| 88 | D3-N-MeFOSA | 103 | 514.956 > 218.974 | 9.87 | 2962 | 6016 | 10.000 | 15.421 | 0.0571 | 76.2 | 688 | 137 | 94534 | 226022 | 0.494 | 0.0 | bb |
| 89 | D5-N-EtFOSA | 103 | 531.112 > 218.984 | 10.14 | 1914 | 6016 | 10.000 | 11.797 | 0.0692 | 58.3 | 431 | 141 | 60645 | 226022 | 0.494 | 0.0 | bb |
| 90 | D3-MeFOSAA | 103 | 573.153 > 418.99 | 7.55 | 5155 | 6016 | 20.000 | 24.946 | 0.0293 | 61.6 | 2625 | 76 | 199248 | 226022 | 0.494 | 0.0 | bb |
| 91 | D5-EtFOSAA | 103 | 589.245 > 418.971 | 7.67 | 5881 | 6016 | 20.000 | 34.057 | 0.0787 | 84.2 | 1348 | 170 | 229598 | 226022 | 0.494 | 0.0 | bb |
| 92 | D7-N-MeFOSE | 103 | 623.156 > 58.896 | 9.76 | 32464 | 6016 | 100.000 | 365.958 | 0.3414 | 180.9 | 2466 | 379 | 935364 | 226022 | 0.494 | 0.0 | bb |
| 93 | D9-N-EtFOSE | 103 | 639.184 > 58.897 | 10.02 | 28907 | 6016 | 100.000 | 314.606 | 0.2599 | 155.5 | 3098 | 299 | 926291 | 226022 | 0.494 | 0.0 | bb |
| 94 | 13C3-HFPO-DA-1 | 97 | 286.8631 > 168.... | 5.20 | 29067 | 22611 | 40.000 | 80.450 | 0.0203 | 99.4 | 112... | 101 | 1137808 | 938302 | 0.494 | 0.0 | bb |
| 95 | 13C3-HFPO-DA-2 | 97 | 286.8631 > 184.... | 5.20 | 13922 | 22611 | 40.000 | 78.667 | 0.2056 | 97.2 | 1090 | 503 | 548350 | 938302 | 0.494 | 0.0 | bb |
| 96 | 13C3-PFBA | | 216.029 > 171.97 | 1.98 | 31290 | | 20.000 | 45.233 | 0.2113 | 111.8 | 642 | 745 | 478311 | | 0.494 | 0.0 | bb |
| 97 | 13C2-PFHxA-1 | | 315.083 > 269.984 | 5.04 | 22611 | | 10.000 | 25.628 | 0.0012 | 126.7 | 658... | 14 | 938302 | | 0.494 | 0.0 | bb |
| 98 | 13C2-PFHxA-2 | | 315.083 > 119.359 | 5.04 | 450 | | 10.000 | 16.880 | 0.0203 | 83.4 | 2489 | 8 | 18884 | | 0.494 | 0.0 | bb |
| 99 | 13C4-PFOA | | 417.083 > 171.95 | 6.39 | 3703 | | 10.000 | 24.939 | 0.0100 | 123.2 | 7483 | 13 | 98508 | | 0.494 | 0.0 | bb |
| 1... | 13C5-PFNA | | 468.019 > 423.008 | 7.13 | 11808 | | 5.000 | 11.713 | 0.0038 | 115.8 | 9258 | 54 | 495538 | | 0.494 | 0.0 | bb |
| 1... | 13C2-PFDA | | 515.134 > 470.05 | 7.52 | 13761 | | 5.000 | 12.241 | 0.0008 | 121.0 | 464... | 11 | 530921 | | 0.494 | 0.0 | bb |
| 1... | 18O2-PFHxS | | 402.984 > 83.895 | 6.51 | 5087 | | 10.000 | 26.206 | 0.0140 | 129.5 | 5616 | 23 | 127890 | | 0.494 | 0.0 | bb |
| 1... | 13C4-PFOS-1 | | 502.791 > 79.856 | 7.62 | 6016 | | 10.000 | 25.021 | 0.0045 | 123.7 | 166... | 14 | 226022 | | 0.494 | 0.0 | bb |
| 1... | 13C4-PFOS-2 | | 502.791 > 98.864 | 7.62 | 3922 | | 10.000 | 25.418 | 0.0516 | 125.6 | 1477 | 103 | 152612 | | 0.494 | 0.0 | bb |

PVed by WANGG 13-Apr-19, SVed by AP 16-Apr-19. NOTE: Units = ng/L for BLK and FIeld Samples.

**Quantify Sample Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

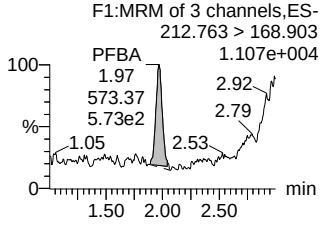
Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_130-b.qld

Last Altered: Tuesday, April 16, 2019 12:33:52 Pacific Daylight Time
Printed: Tuesday, April 16, 2019 12:43:07 Pacific Daylight Time

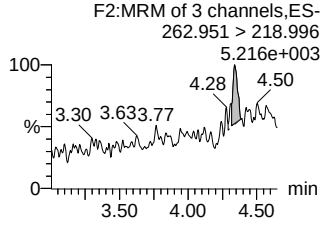
**Method: G:\Masslynx\Master Methods\MassLynx SCN 909\UPLC\FC_110_UPLC_06.mdb 10 Mar 2019 18:18:03**
**Calibration: G:\Masslynx\Inst_W\PFC.PRO\Curve\FC9W_097-a1.cdb 12 Mar 2019 11:26:10**

**ID: L30820-2,,, Name: FC9W_130S27, Description: 1,WG67438,2/4000uL, Date: 31-Mar-2019, Time: 02:23:01**

**PFBA**




**PFPeA-1**

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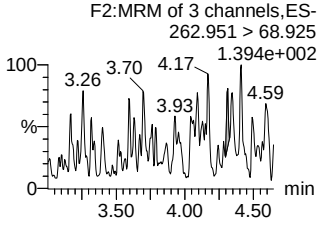


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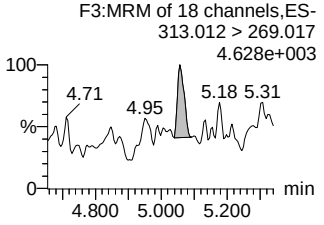


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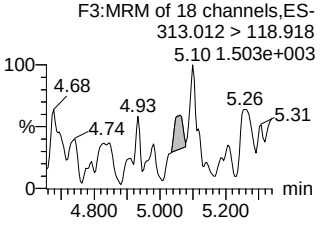
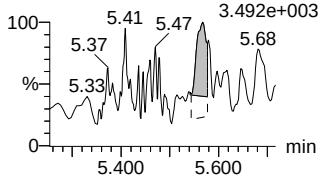



**PFHpA-1**

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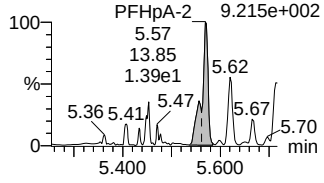
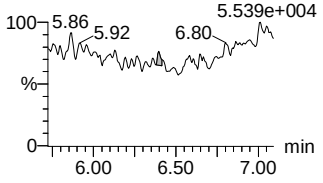



**PFOA-1**

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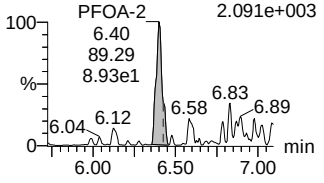


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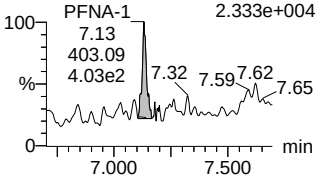


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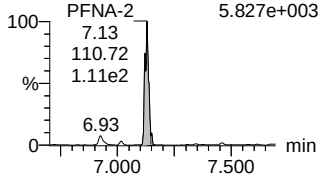


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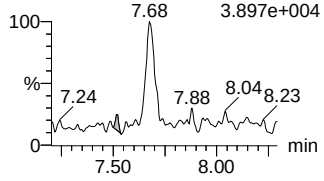


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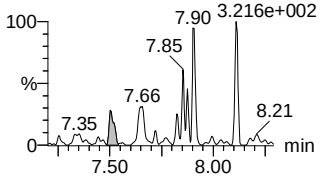


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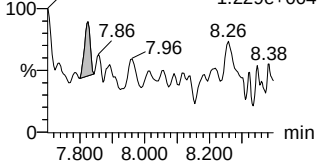


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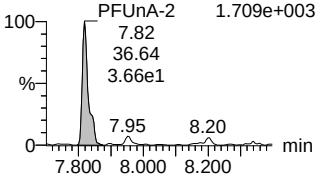


PVed by WANGG 13-Apr-19, SVed by AP 16-Apr-19. NOTE: Units = ng/L for BLK and FIeld Samples.

**Quantify Sample Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_130-b.qld

Last Altered: Tuesday, April 16, 2019 12:33:52 Pacific Daylight Time
Printed: Tuesday, April 16, 2019 12:43:07 Pacific Daylight Time

**ID: L30820-2,,, Name: FC9W_130S27, Description: 1,WG67438,2/4000uL, Date: 31-Mar-2019, Time: 02:23:01**

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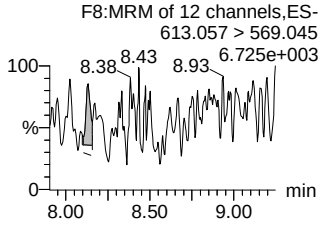


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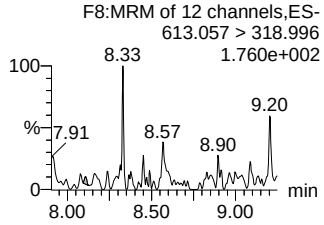


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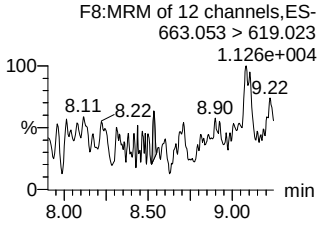


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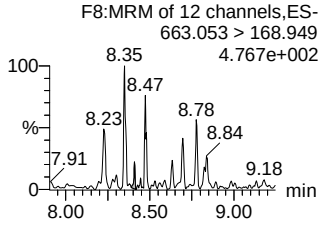


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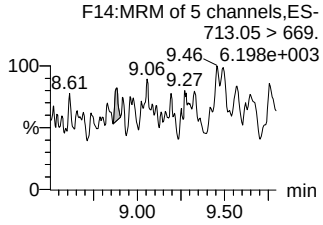


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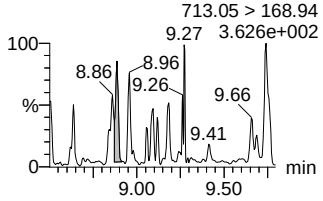


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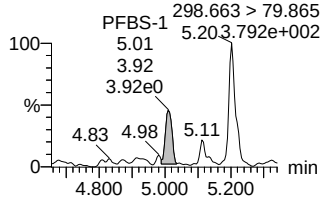


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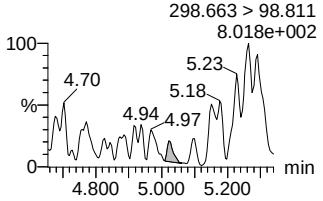


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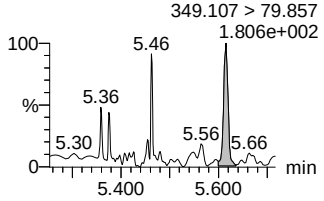


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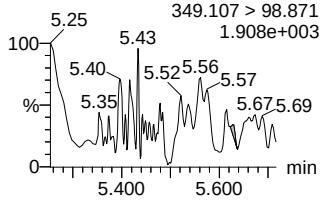


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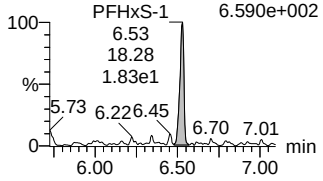


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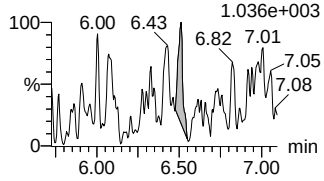


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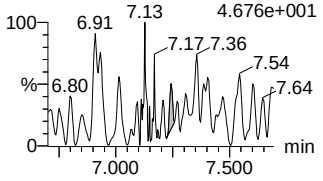


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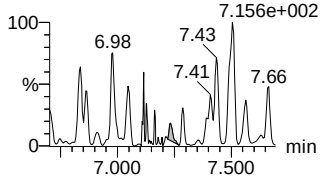


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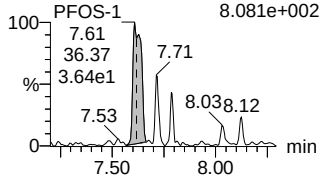


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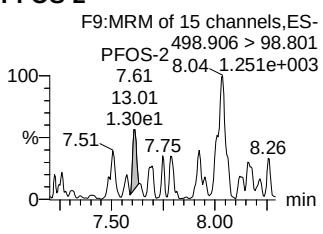


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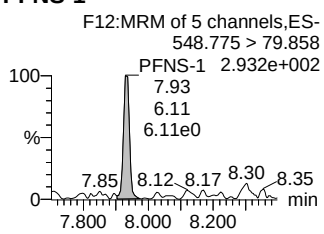


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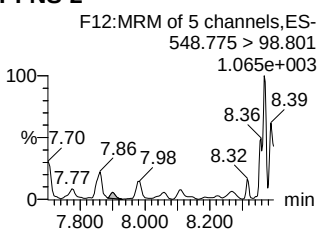


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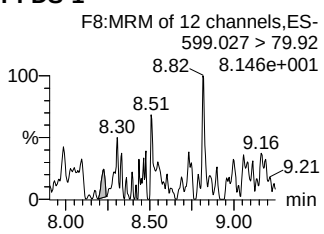


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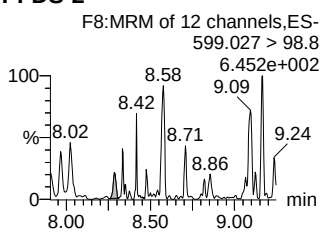


PVed by WANGG 13-Apr-19, SVed by AP 16-Apr-19. NOTE: Units = ng/L for BLK and FIeld Samples.

**Quantify Sample Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_130-b.qld

Last Altered: Tuesday, April 16, 2019 12:33:52 Pacific Daylight Time
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**ID: L30820-2,,, Name: FC9W_130S27, Description: 1,WG67438,2/4000uL, Date: 31-Mar-2019, Time: 02:23:01**

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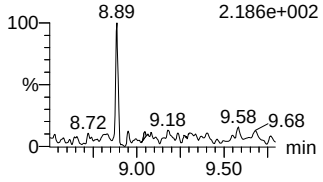


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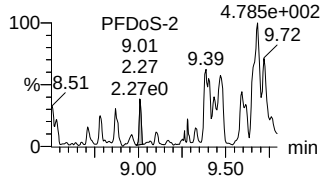


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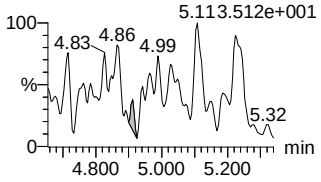


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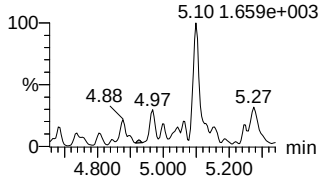


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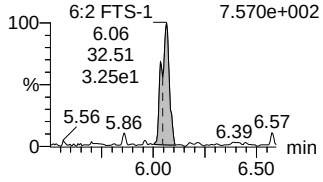


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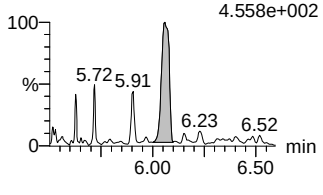


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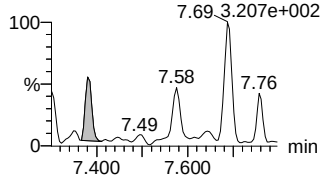


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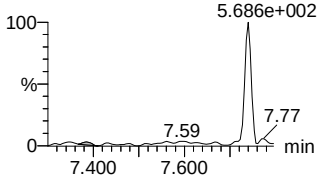


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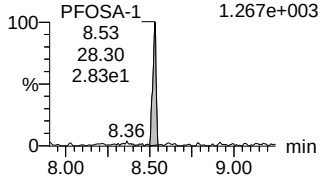


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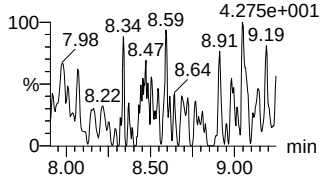


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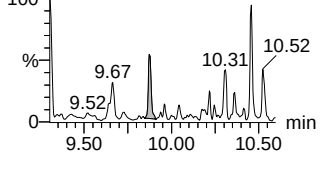


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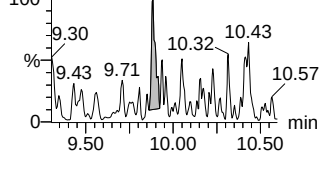


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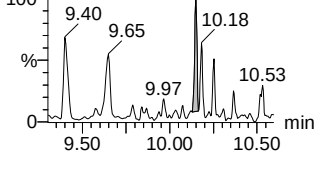


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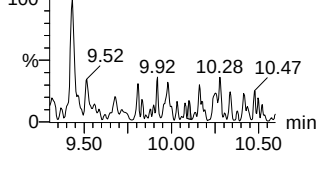


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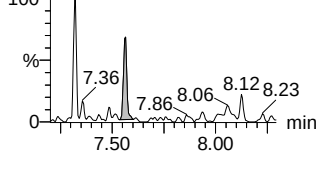


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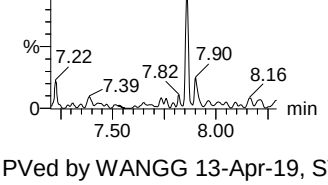


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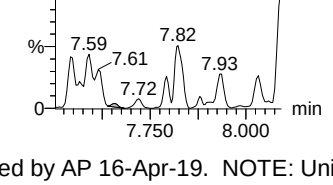


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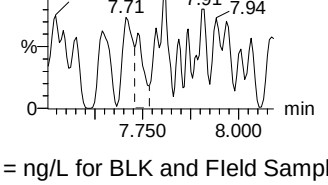


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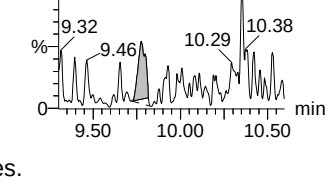


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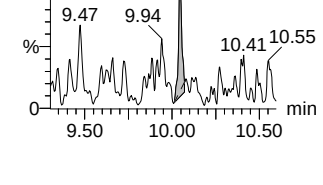


PVed by WANGG 13-Apr-19, SVed by AP 16-Apr-19. NOTE: Units = ng/L for BLK and FIeld Samples.

**Quantify Sample Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_130-b.qld

Last Altered: Tuesday, April 16, 2019 12:33:52 Pacific Daylight Time
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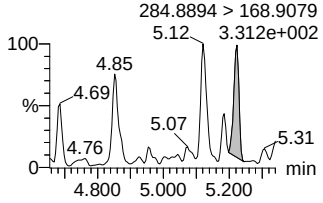
**ID: L30820-2,,, Name: FC9W_130S27, Description: 1,WG67438,2/4000uL, Date: 31-Mar-2019, Time: 02:23:01**

**HFPO-DA-1**

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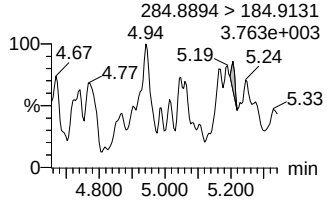


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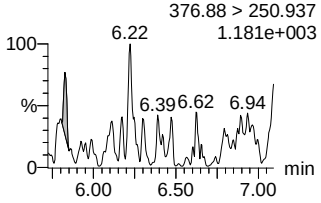


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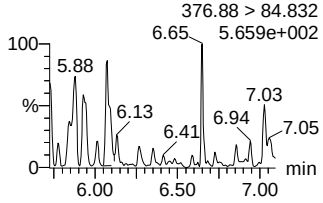


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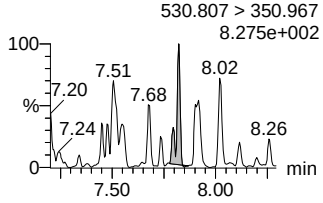


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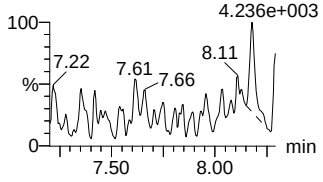


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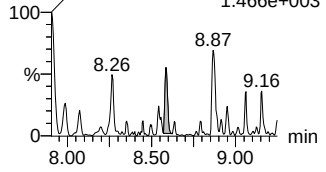
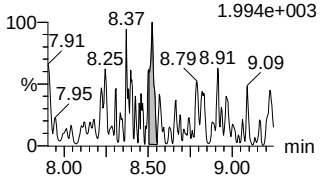
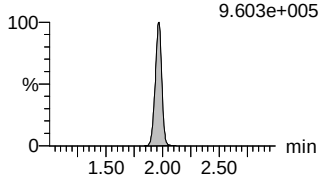


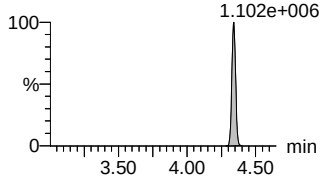

**11Cl-PF3OUdS-2**



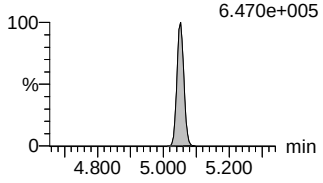

**13C4-PFBA**



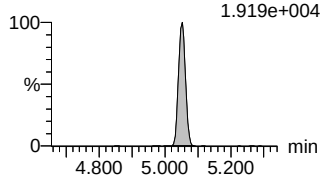

**13C5-PFPeA**



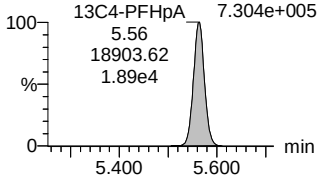

**13C5-PFHxA-1**



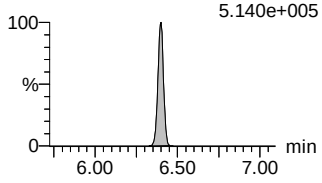

**13C5-PFHxA-2**



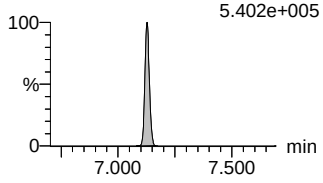

**13C4-PFHpA**



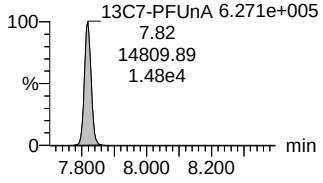

**13C8-PFOA**



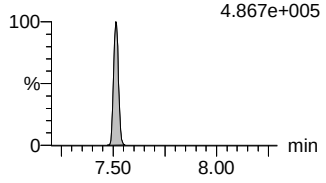

**13C9-PFNA**



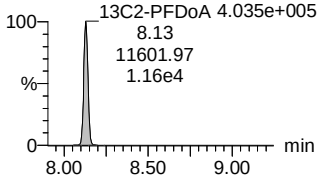

**13C7-PFUnA**



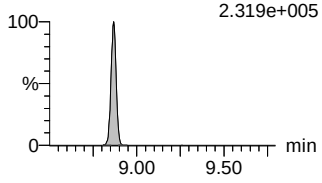

**13C6-PFDA**



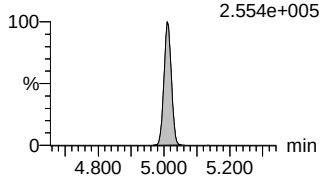

**13C2-PFDoA**




**13C2-PFTeDA**




**13C3-PFBS-1**



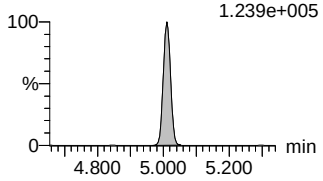

PVed by WANGG 13-Apr-19, SVed by AP 16-Apr-19. NOTE: Units = ng/L for BLK and FIeld Samples.

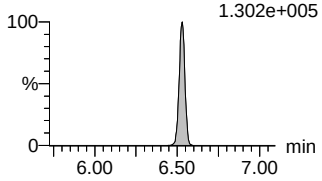
**Quantify Sample Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

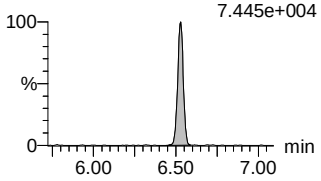
Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_130-b.qld

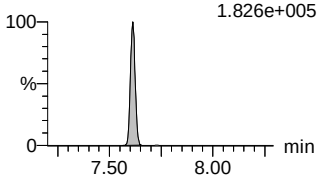
Last Altered: Tuesday, April 16, 2019 12:33:52 Pacific Daylight Time
Printed: Tuesday, April 16, 2019 12:43:07 Pacific Daylight Time

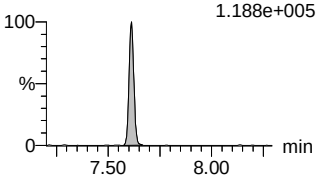
**ID: L30820-2,,, Name: FC9W_130S27, Description: 1,WG67438,2/4000uL, Date: 31-Mar-2019, Time: 02:23:01**

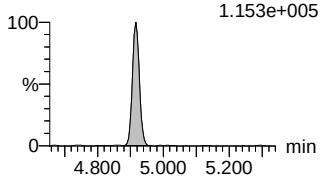
**13C3-PFBS-2**
F3:MRM of 18 channels,ES-
302.056 > 98.875
1.239e+005


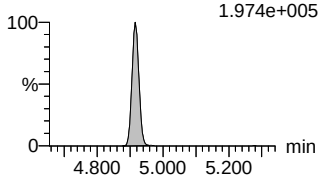

**13C3-PFHxS-1**
F5:MRM of 12 channels,ES-
402.114 > 79.858
1.302e+005


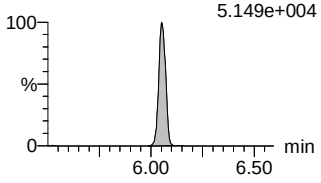

**13C3-PFHxS-2**
F5:MRM of 12 channels,ES-
402.114 > 98.801
7.445e+004


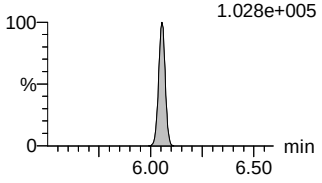

**13C8-PFOS-1**
F9:MRM of 15 channels,ES-
507.124 > 79.858
1.826e+005


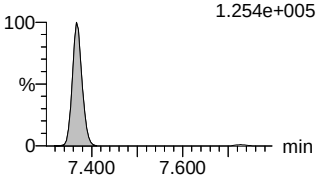

**13C8-PFOS-2**
F9:MRM of 15 channels,ES-
507.124 > 98.867
1.188e+005


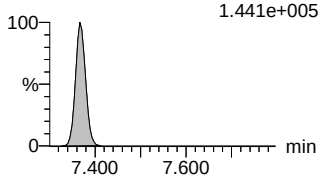

**13C2-4:2 FTS-1**
F3:MRM of 18 channels,ES-
329.084 > 80.9
1.153e+005


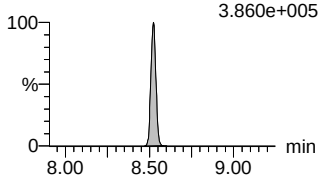

**13C2-4:2 FTS-2**
F3:MRM of 18 channels,ES-
329.084 > 309.024
1.974e+005


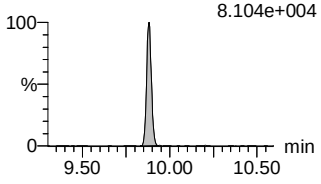

**13C2-6:2 FTS-1**
F6:MRM of 4 channels,ES-
429.078 > 80.900
5.149e+004


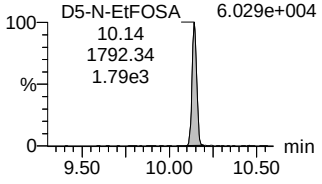

**13C2-6:2 FTS-2**
F6:MRM of 4 channels,ES-
429.078 > 409.031
1.028e+005


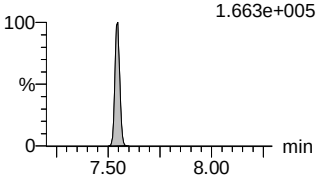

**13C2-8:2 FTS-1**
F11:MRM of 4 channels,ES-
529.1351 > 80.900
1.254e+005


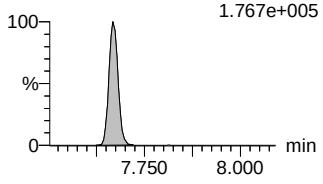

**13C2-8:2 FTS-2**
F11:MRM of 4 channels,ES-
529.135 > 509.003
1.441e+005


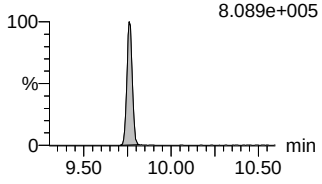

**13C8-PFOSA**
F8:MRM of 12 channels,ES-
506.14 > 77.841
3.860e+005


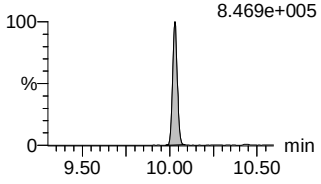

**D3-N-MeFOSA**
F10:MRM of 10 channels,ES-
514.956 > 218.974
8.104e+004


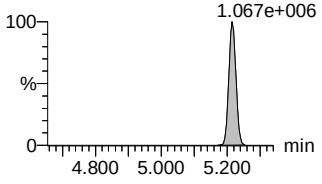

**D5-N-EtFOSA**
F10:MRM of 10 channels,ES-
531.112 > 218.984
6.029e+004


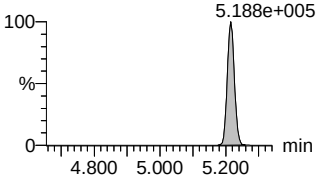

**D3-MeFOSAA**
F9:MRM of 15 channels,ES-
573.153 > 418.99
1.663e+005



**D5-EtFOSAA**
F13:MRM of 3 channels,ES-
589.245 > 418.971
1.767e+005



**D7-N-MeFOSE**
F10:MRM of 10 channels,ES-
623.156 > 58.896
8.089e+005



**D9-N-EtFOSE**
F10:MRM of 10 channels,ES-
639.184 > 58.897
8.469e+005



**13C3-HFPO-DA-1**
F3:MRM of 18 channels,ES-
286.8631 > 168.8861
1.067e+006



**13C3-HFPO-DA-2**
F3:MRM of 18 channels,ES-
286.8631 > 184.8888
5.188e+005



PVed by WANGG 13-Apr-19, SVed by AP 16-Apr-19. NOTE: Units = ng/L for BLK and FIeld Samples.

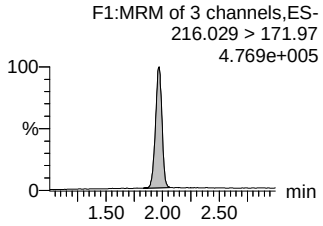
**Quantify Sample Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_130-b.qld

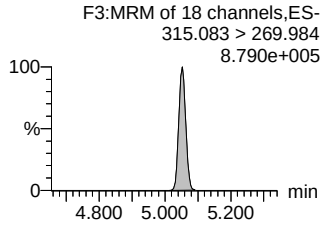
Last Altered: Tuesday, April 16, 2019 12:33:52 Pacific Daylight Time
Printed: Tuesday, April 16, 2019 12:43:07 Pacific Daylight Time

**ID: L30820-2,,, Name: FC9W_130S27, Description: 1,WG67438,2/4000uL, Date: 31-Mar-2019, Time: 02:23:01**

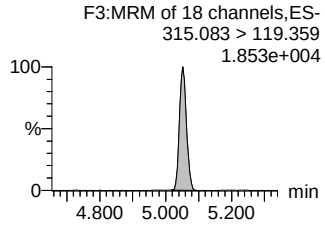
**13C3-PFBA**



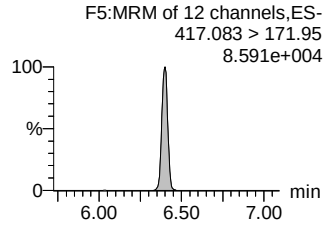

**13C2-PFHxA-1**



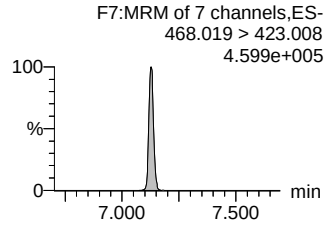

**13C2-PFHxA-2**



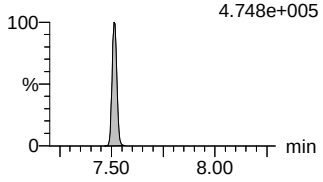

**13C4-PFOA**



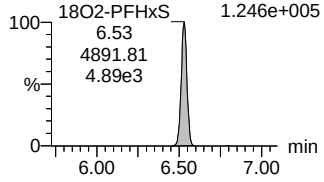

**13C5-PFNA**



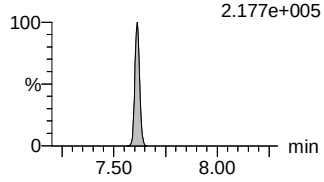

**13C2-PFDA**



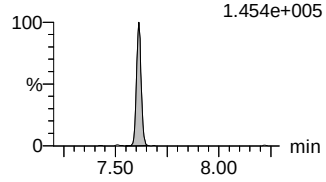

**18O2-PFHxS**




**13C4-PFOS-1**




**13C4-PFOS-2**




PVed by WANGG 13-Apr-19, SVed by AP 16-Apr-19. NOTE: Units = ng/L for BLK and FIeld Samples.

**Quantify Sample Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_130-b.qld

Last Altered: Tuesday, April 16, 2019 12:33:52 Pacific Daylight Time
Printed: Tuesday, April 16, 2019 12:43:07 Pacific Daylight Time

**ID: L30820-2,,, Name: FC9W_130S27, Description: 1,WG67438,2/4000uL, Date: 31-Mar-2019, Time: 02:23:01**

| # | Name | IS# | Trace | RT | Area | IS Area | Std. Conc | Conc. | LOD | %Rec | S/N | Noise | Peak Height | IS Height | Sample size | F2 | Flags |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | PFBA | 64 | 212.763 > 168.903 | 1.97 | 573 | 62754 | | 0.538 | | | 24 | 370 | 8996 | 958678 | 0.502 | 0.0 | MM |
| 2 | PFPeA-1 | 65 | 262.951 > 218.996 | 4.34 | 95 | 33752 | | | | | 8 | 317 | 2475 | 1100905 | 0.502 | 0.0 | MMI |
| 3 | PFPeA-2 | 65 | 262.951 > 68.925 | 4.31 | 1 | 33752 | | 0.318 | 0.9258 | | 2 | 29 | 65 | 1100905 | 0.502 | 0.0 | MM |
| 4 | PFHxA-1 | 66 | 313.012 > 269.017 | 5.06 | 63 | 15647 | | | | | 3 | 810 | 2718 | 647720 | 0.502 | 0.0 | bbI |
| 5 | PFHxA-2 | 66 | 313.012 > 118.918 | 5.06 | 12 | 15647 | | 0.141 | 0.2930 | | 1 | 341 | 411 | 647720 | 0.502 | 0.0 | MM |
| 6 | PFHpA-1 | 68 | 363.073 > 319.025 | 5.57 | 46 | 18904 | | | | | 3 | 810 | 2089 | 729622 | 0.502 | 0.0 | MMI |
| 7 | PFHpA-2 | 68 | 363.073 > 168.962 | 5.57 | 14 | 18904 | | 0.011 | | | 8 | 116 | 916 | 729622 | 0.502 | 0.0 | MM |
| 8 | PFOA-1 | 69 | 413.006 > 369.03 | 6.39 | 129 | 19847 | | | | | 2 | 3342 | 6226 | 512270 | 0.502 | 0.0 | MMI |
| 9 | PFOA-2 | 69 | 413.006 > 168.963 | 6.40 | 89 | 19847 | | 0.015 | | | 21 | 101 | 2071 | 512270 | 0.502 | 0.0 | MM |
| 10 | PFNA-1 | 70 | 463.002 > 418.97 | 7.13 | 403 | 12128 | | 0.165 | | | 11 | 1588 | 18152 | 539475 | 0.502 | 0.0 | MM |
| 11 | PFNA-2 | 70 | 463.002 > 218.968 | 7.13 | 111 | 12128 | | 0.334 | 0.0022 | | 36 | 165 | 5880 | 539475 | 0.502 | 0.0 | MM |
| 12 | PFDA-1 | 72 | 512.935 > 469.021 | 7.52 | 90 | 13187 | | | | | 3 | 1896 | 4921 | 486123 | 0.502 | 0.0 | MMI |
| 13 | PFDA-2 | 72 | 512.935 > 218.972 | 7.50 | 2 | 13187 | | | | | 4 | 21 | 91 | 486123 | 0.502 | 0.0 | MMI |
| 14 | PFUnA-1 | 71 | 563.124 > 519.003 | 7.83 | 112 | 14810 | | 0.013 | 0.0554 | | 3 | 2133 | 5399 | 626152 | 0.502 | 0.0 | MM |
| 15 | PFUnA-2 | 71 | 563.124 > 269.051 | 7.82 | 37 | 14810 | | 0.043 | | | 49 | 35 | 1709 | 626152 | 0.502 | 0.0 | bb |
| 16 | PFDoA-1 | 73 | 613.057 > 569.045 | 8.13 | 104 | 11602 | | | | | 2 | 1899 | 3315 | 403942 | 0.502 | 0.0 | MMI |
| 17 | PFDoA-2 | 73 | 613.057 > 318.996 | 8.11 | 0 | 11602 | | | | | 1 | 16 | 10 | 403942 | 0.502 | 0.0 | MMI |
| 18 | PFTrDA-1 | 74 | 663.053 > 619.023 | 8.53 | 63 | 7864 | | | | | 3 | 1551 | 4358 | 232182 | 0.502 | 0.0 | bbI |
| 19 | PFTrDA-2 | 74 | 663.053 > 168.949 | 8.41 | 1 | 7864 | | | | | 3 | 34 | 104 | 232182 | 0.502 | 0.0 | MMI |
| 20 | PFTeDA-1 | 74 | 713.05 > 669. | 8.88 | 36 | 7864 | | | | | 2 | 755 | 1641 | 232182 | 0.502 | 0.0 | MMI |
| 21 | PFTeDA-2 | 74 | 713.05 > 168.94 | 8.89 | 6 | 7864 | | | | | 8 | 37 | 295 | 232182 | 0.502 | 0.0 | dbI |
| 22 | PFBS-1 | 75 | 298.663 > 79.865 | 5.01 | 4 | 6705 | | 0.012 | 0.0073 | | 6 | 27 | 166 | 255036 | 0.502 | 0.0 | MM |
| 23 | PFBS-2 | 76 | 298.663 > 98.811 | 5.02 | 3 | 3215 | | | | | 1 | 90 | 134 | 123798 | 0.502 | 0.0 | MMI |
| 24 | PFPeS-1 | 77 | 349.107 > 79.857 | 5.61 | 2 | 5189 | | | | | 19 | 9 | 179 | 130143 | 0.502 | 0.0 | ddI |
| 25 | PFPeS-2 | 78 | 349.107 > 98.871 | 5.63 | 1 | 2888 | | | | | 0 | 414 | 147 | 74296 | 0.502 | 0.0 | MMI |
| 26 | PFHxS-1 | 77 | 398.721 > 79.92 | 6.53 | 18 | 5189 | | 0.282 | 0.2284 | | 92 | 7 | 654 | 130143 | 0.502 | 0.0 | db |
| 27 | PFHxS-2 | 78 | 398.721 > 98.863 | 6.51 | 26 | 2888 | | 0.003 | 0.0078 | | 4 | 233 | 843 | 74296 | 0.502 | 0.0 | bb |
| 28 | PFHpS-1 | 79 | 449.036 > 79.857 | 7.24 | 0 | 4802 | | | | | 2 | 10 | 17 | 182466 | 0.502 | 0.0 | MMI |
| 29 | PFHpS-2 | 80 | 449.036 > 98.8 | 7.23 | 2 | 3180 | | 0.028 | 0.0954 | | 1 | 150 | 102 | 118696 | 0.502 | 0.0 | MM |
| 30 | PFOS-1 | 79 | 498.906 > 79.856 | 7.61 | 36 | 4802 | | | | | 23 | 34 | 793 | 182466 | 0.502 | 0.0 | MMI |
| 31 | PFOS-2 | 80 | 498.906 > 98.801 | 7.61 | 13 | 3180 | | | | | 2 | 392 | 602 | 118696 | 0.502 | 0.0 | MMI |
| 32 | PFNS-1 | 79 | 548.775 > 79.858 | 7.93 | 6 | 4802 | | | | | 19 | 15 | 292 | 182466 | 0.502 | 0.0 | dbI |
| 33 | PFNS-2 | 80 | 548.775 > 98.801 | 7.90 | 1 | 3180 | | | | | 1 | 70 | 52 | 118696 | 0.502 | 0.0 | MMI |
| 34 | PFDS-1 | 79 | 599.027 > 79.92 | 8.23 | 0 | 4802 | | | | | 1 | 21 | 19 | 182466 | 0.502 | 0.0 | MMI |
| 35 | PFDS-2 | 80 | 599.027 > 98.8 | 8.28 | 3 | 3180 | | 0.210 | 0.2162 | | 3 | 42 | 134 | 118696 | 0.502 | 0.0 | MM |

PVed by WANGG 13-Apr-19, SVed by AP 16-Apr-19. NOTE: Units = ng/L for BLK and FIeld Samples.

**Quantify Sample Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_130-b.qld

Last Altered: Tuesday, April 16, 2019 12:33:52 Pacific Daylight Time
Printed: Tuesday, April 16, 2019 12:43:07 Pacific Daylight Time

**ID: L30820-2,,, Name: FC9W_130S27, Description: 1,WG67438,2/4000uL, Date: 31-Mar-2019, Time: 02:23:01**

| # | Name | IS# | Trace | RT | Area | IS Area | Std. Conc | Conc. | LOD | %Rec | S/N | Noise | Peak Height | IS Height | Sample size | F2 | Flags |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 36 | PFDoS-1 | 79 | 699.084 > 79.856 | 9.05 | 0 | 4802 | | | | | 2 | 8 | 12 | 182466 | 0.502 | 0.0 | MMI |
| 37 | PFDoS-2 | 80 | 699.084 > 98.8 | 9.01 | 2 | 3180 | | | | | 4 | 46 | 177 | 118696 | 0.502 | 0.0 | MMI |
| 38 | 4:2 FTS-1 | 81 | 327.077 > 307.017 | 4.91 | 0 | 2760 | | | | | 1 | 8 | 9 | 114926 | 0.502 | 0.0 | MMI |
| 39 | 4:2 FTS-2 | 81 | 327.077 > 80.85 | 4.92 | 0 | 2760 | | 0.125 | 0.3402 | | 0 | 194 | 37 | 114926 | 0.502 | 0.0 | MM |
| 40 | 6:2 FTS-1 | 83 | 427.071 > 407.024 | 6.06 | 33 | 1955 | | | | | 103 | 7 | 748 | 51445 | 0.502 | 0.0 | MMI |
| 41 | 6:2 FTS-2 | 83 | 427.071 > 80.9 | 6.06 | 19 | 1955 | | 0.397 | 0.0978 | | 25 | 18 | 443 | 51445 | 0.502 | 0.0 | bb |
| 42 | 8:2 FTS-1 | 85 | 527.065 > 506.997 | 7.38 | 3 | 3055 | | | | | 4 | 41 | 166 | 125306 | 0.502 | 0.0 | MMI |
| 43 | 8:2 FTS-2 | 85 | 527.065 > 80.75 | 7.38 | 0 | 3055 | | | | | 0 | 117 | 13 | 125306 | 0.502 | 0.0 | MMI |
| 44 | PFOSA-1 | 87 | 498.113 > 77.902 | 8.53 | 28 | 13162 | | 0.205 | 0.1624 | | 73 | 17 | 1260 | 385654 | 0.502 | 0.0 | bb |
| 45 | PFOSA-2 | 87 | 498.113 > 477.993 | 8.53 | 0 | 13162 | | 3.752 | 3.8494 | | 0 | 13 | 3 | 385654 | 0.502 | 0.0 | MM |
| 46 | N-MeFOSA-1 | 88 | 511.937 > 218.985 | 9.87 | 4 | 2501 | | | | | 7 | 29 | 216 | 80925 | 0.502 | 0.0 | bbI |
| 47 | N-MeFOSA-2 | 88 | 511.937 > 168.955 | 9.88 | 14 | 2501 | | | | | 4 | 154 | 558 | 80925 | 0.502 | 0.0 | MMI |
| 48 | N-EtFOSA-1 | 89 | 526.017 > 218.977 | 10.15 | 5 | 1792 | | | | | 15 | 24 | 350 | 60069 | 0.502 | 0.0 | MMI |
| 49 | N-EtFOSA-2 | 89 | 526.017 > 168.95 | 10.10 | 2 | 1792 | | | | | 1 | 231 | 157 | 60069 | 0.502 | 0.0 | dbI |
| 50 | MeFOSAA-1 | 90 | 570.134 > 419.035 | 7.56 | 6 | 4416 | | 0.002 | | | 17 | 17 | 297 | 166041 | 0.502 | 0.0 | MM |
| 51 | MeFOSAA-2 | 90 | 570.134 > 482.99 | 7.54 | 0 | 4416 | | | | | 0 | 23 | 3 | 166041 | 0.502 | 0.0 | MMI |
| 52 | EtFOSAA-1 | 91 | 584.15 > 419.062 | 7.66 | 1 | 4807 | | 0.131 | 0.2962 | | 0 | 197 | 40 | 176538 | 0.502 | 0.0 | MM |
| 53 | EtFOSAA-2 | 91 | 584.15 > 526.045 | | | 4807 | | | 0.2502 | | | 19 | | 176538 | 0.502 | 0.0 | MM- |
| 54 | N-MeFOSE | 92 | 616.112 > 58.894 | 9.78 | 26 | 28336 | | | | | 4 | 124 | 527 | 807149 | 0.502 | 0.0 | MMI |
| 55 | N-EtFOSE | 93 | 630. > 58.893 | 10.05 | 31 | 26037 | | | | | 6 | 213 | 1348 | 845186 | 0.502 | 0.0 | MMI |
| 56 | HFPO-DA-1 | 94 | 284.8894 > 168.... | 5.22 | 5 | 26372 | | | | | 9 | 35 | 301 | 1065795 | 0.502 | 0.0 | MMI |
| 57 | HFPO-DA-2 | 95 | 284.8894 > 184.... | 5.21 | 10 | 12656 | | | | | 1 | 606 | 858 | 517989 | 0.502 | 0.0 | MMI |
| 58 | ADONA-1 | 94 | 376.88 > 250.937 | 5.83 | 12 | 26372 | | | | | 4 | 150 | 601 | 1065795 | 0.502 | 0.0 | MMI |
| 59 | ADONA-2 | 95 | 376.88 > 84.832 | | | 12656 | | | 1.0522 | | | 50 | | 517989 | 0.502 | 0.0 | MM- |
| 60 | 9Cl-PF3ONS-1 | 94 | 530.807 > 350.967 | 7.82 | 15 | 26372 | | | | | 6 | 137 | 807 | 1065795 | 0.502 | 0.0 | MMI |
| 61 | 9Cl-PF3ONS-2 | 95 | 532.804 > 352.947 | | | 12656 | | | | | | 809 | | 517989 | 0.502 | 0.0 | MM-I |
| 62 | 11Cl-PF3OUdS-1 | 94 | 630.865 > 450.902 | 8.58 | 14 | 26372 | | | | | 3 | 262 | 780 | 1065795 | 0.502 | 0.0 | MMI |
| 63 | 11Cl-PF3OUdS-2 | 95 | 632.868 > 452.91 | 8.52 | 51 | 12656 | | 0.222 | 0.1299 | | 4 | 463 | 1974 | 517989 | 0.502 | 0.0 | dd |
| 64 | 13C4-PFBA | 96 | 216.776 > 171.928 | 1.97 | 62754 | 30483 | 40.000 | 80.161 | 0.0219 | 100.5 | 109... | 88 | 958678 | 466902 | 0.502 | 0.0 | bb |
| 65 | 13C5-PFPeA | 97 | 268.16 > 223.035 | 4.34 | 33752 | 21189 | 20.000 | 39.135 | 0.0102 | 98.2 | 9025 | 122 | 1100905 | 877928 | 0.502 | 0.0 | bb |
| 66 | 13C5-PFHxA-1 | 97 | 318.029 > 272.993 | 5.05 | 15647 | 21189 | 10.000 | 20.903 | 0.0069 | 104.9 | 9070 | 71 | 647720 | 877928 | 0.502 | 0.0 | MM |
| 67 | 13C5-PFHxA-2 | 97 | 318.029 > 120.341 | 5.05 | 464 | 21189 | 10.000 | 18.246 | 0.0244 | 91.5 | 2237 | 9 | 19132 | 877928 | 0.502 | 0.0 | bb |
| 68 | 13C4-PFHpA | 99 | 367.086 > 322.004 | 5.56 | 18904 | 3529 | 10.000 | 19.635 | 0.0420 | 98.5 | 2225 | 328 | 729622 | 85871 | 0.502 | 0.0 | bb |
| 69 | 13C8-PFOA | 99 | 421.096 > 376.022 | 6.40 | 19847 | 3529 | 10.000 | 17.942 | 0.0049 | 90.0 | 116... | 44 | 512270 | 85871 | 0.502 | 0.0 | bb |
| 70 | 13C9-PFNA | 100 | 472.096 > 427.014 | 7.13 | 12128 | 10813 | 5.000 | 10.293 | 0.2894 | 103.3 | 112 | 4831 | 539475 | 459635 | 0.502 | 0.0 | bb |

PVed by WANGG 13-Apr-19, SVed by AP 16-Apr-19. NOTE: Units = ng/L for BLK and FIeld Samples.

**Quantify Sample Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_130-b.qld

Last Altered: Tuesday, April 16, 2019 12:33:52 Pacific Daylight Time
Printed: Tuesday, April 16, 2019 12:43:07 Pacific Daylight Time

**ID: L30820-2,,, Name: FC9W_130S27, Description: 1,WG67438,2/4000uL, Date: 31-Mar-2019, Time: 02:23:01**

| # | Name | IS# | Trace | RT | Area | IS Area | Std. Conc | Conc. | LOD | %Rec | S/N | Noise | Peak Height | IS Height | Sample size | F2 | Flags |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 71 | 13C7-PFUnA | 101 | 570.019 > 525.05 | 7.82 | 14810 | 12534 | 5.000 | 10.531 | 0.0013 | 105.7 | 272... | 23 | 626152 | 474136 | 0.502 | 0.0 | bb |
| 72 | 13C6-PFDA | 101 | 519.147 > 474.058 | 7.51 | 13187 | 12534 | 5.000 | 11.144 | 0.0009 | 111.8 | 357... | 14 | 486123 | 474136 | 0.502 | 0.0 | bb |
| 73 | 13C2-PFDoA | 101 | 615.127 > 570.013 | 8.13 | 11602 | 12534 | 5.000 | 11.558 | 0.0010 | 116.0 | 334... | 12 | 403942 | 474136 | 0.502 | 0.0 | MM |
| 74 | 13C2-PFTeDA | 101 | 715.057 > 670.026 | 8.87 | 7864 | 12534 | 5.000 | 7.985 | 0.0039 | 80.1 | 4831 | 48 | 232182 | 474136 | 0.502 | 0.0 | MM |
| 75 | 13C3-PFBS-1 | 102 | 302.056 > 79.865 | 5.01 | 6705 | 4892 | 10.000 | 22.700 | 0.0047 | 113.9 | 218... | 12 | 255036 | 124370 | 0.502 | 0.0 | bb |
| 76 | 13C3-PFBS-2 | 102 | 302.056 > 98.875 | 5.01 | 3215 | 4892 | 10.000 | 22.510 | 0.0116 | 112.9 | 8850 | 14 | 123798 | 124370 | 0.502 | 0.0 | bb |
| 77 | 13C3-PFHxS-1 | 102 | 402.114 > 79.858 | 6.53 | 5189 | 4892 | 10.000 | 20.385 | 0.0220 | 102.3 | 2738 | 48 | 130143 | 124370 | 0.502 | 0.0 | bb |
| 78 | 13C3-PFHxS-2 | 102 | 402.114 > 98.801 | 6.53 | 2888 | 4892 | 10.000 | 20.366 | 0.0949 | 102.2 | 651 | 114 | 74296 | 124370 | 0.502 | 0.0 | bb |
| 79 | 13C8-PFOS-1 | 103 | 507.124 > 79.858 | 7.61 | 4802 | 5757 | 10.000 | 20.997 | 0.0047 | 105.3 | 133... | 14 | 182466 | 217659 | 0.502 | 0.0 | bb |
| 80 | 13C8-PFOS-2 | 104 | 507.124 > 98.867 | 7.61 | 3180 | 3730 | 10.000 | 21.658 | 0.0960 | 108.7 | 649 | 183 | 118696 | 145222 | 0.502 | 0.0 | bb |
| 81 | 13C2-4:2 FTS-1 | 102 | 329.084 > 80.9 | 4.92 | 2760 | 4892 | 20.000 | 31.663 | 0.3218 | 79.4 | 483 | 238 | 114926 | 124370 | 0.502 | 0.0 | bb |
| 82 | 13C2-4:2 FTS-2 | 102 | 329.084 > 309.024 | 4.92 | 4710 | 4892 | 20.000 | 23.152 | 0.1371 | 58.1 | 833 | 236 | 197075 | 124370 | 0.502 | 0.0 | bb |
| 83 | 13C2-6:2 FTS-1 | 102 | 429.078 > 80.900 | 6.05 | 1955 | 4892 | 20.000 | 27.760 | 0.0295 | 69.6 | 2920 | 18 | 51445 | 124370 | 0.502 | 0.0 | bb |
| 84 | 13C2-6:2 FTS-2 | 102 | 429.078 > 409.031 | 6.05 | 3724 | 4892 | 20.000 | 23.095 | 0.0036 | 57.9 | 210... | 5 | 102744 | 124370 | 0.502 | 0.0 | bb |
| 85 | 13C2-8:2 FTS-1 | 102 | 529.1351 > 80.900 | 7.37 | 3055 | 4892 | 20.000 | 29.034 | 0.3474 | 72.8 | 405 | 310 | 125306 | 124370 | 0.502 | 0.0 | bb |
| 86 | 13C2-8:2 FTS-2 | 102 | 529.135 > 509.003 | 7.37 | 3639 | 4892 | 20.000 | 25.715 | 0.0089 | 64.5 | 134... | 11 | 143883 | 124370 | 0.502 | 0.0 | bb |
| 87 | 13C8-PFOSA | 103 | 506.14 > 77.841 | 8.52 | 13162 | 5757 | 10.000 | 36.403 | 0.0085 | 182.6 | 9951 | 39 | 385654 | 217659 | 0.502 | 0.0 | bb |
| 88 | D3-N-MeFOSA | 103 | 514.956 > 218.974 | 9.88 | 2501 | 5757 | 10.000 | 13.402 | 0.0729 | 67.2 | 472 | 172 | 80925 | 217659 | 0.502 | 0.0 | bb |
| 89 | D5-N-EtFOSA | 103 | 531.112 > 218.984 | 10.14 | 1792 | 5757 | 10.000 | 11.373 | 0.0786 | 57.1 | 385 | 156 | 60069 | 217659 | 0.502 | 0.0 | bb |
| 90 | D3-MeFOSAA | 103 | 573.153 > 418.99 | 7.55 | 4416 | 5757 | 20.000 | 21.993 | 0.0076 | 55.2 | 8607 | 19 | 166041 | 217659 | 0.502 | 0.0 | bb |
| 91 | D5-EtFOSAA | 103 | 589.245 > 418.971 | 7.67 | 4807 | 5757 | 20.000 | 28.651 | 0.0388 | 71.9 | 2150 | 82 | 176538 | 217659 | 0.502 | 0.0 | bb |
| 92 | D7-N-MeFOSE | 103 | 623.156 > 58.896 | 9.76 | 28336 | 5757 | 100.000 | 328.774 | 0.2574 | 165.0 | 2888 | 280 | 807149 | 217659 | 0.502 | 0.0 | bb |
| 93 | D9-N-EtFOSE | 103 | 639.184 > 58.897 | 10.03 | 26037 | 5757 | 100.000 | 291.668 | 0.2711 | 146.3 | 2772 | 305 | 845186 | 217659 | 0.502 | 0.0 | bb |
| 94 | 13C3-HFPO-DA-1 | 97 | 286.8631 > 168.... | 5.21 | 26372 | 21189 | 40.000 | 76.719 | 0.0137 | 96.2 | 163... | 65 | 1065795 | 877928 | 0.502 | 0.0 | bb |
| 95 | 13C3-HFPO-DA-2 | 97 | 286.8631 > 184.... | 5.21 | 12656 | 21189 | 40.000 | 75.165 | 0.0875 | 94.3 | 2545 | 204 | 517989 | 877928 | 0.502 | 0.0 | bb |
| 96 | 13C3-PFBA | | 216.029 > 171.97 | 1.97 | 30483 | | 20.000 | 43.403 | 0.1805 | 108.9 | 721 | 647 | 466902 | | 0.502 | 0.0 | bb |
| 97 | 13C2-PFHxA-1 | | 315.083 > 269.984 | 5.05 | 21189 | | 10.000 | 23.655 | 0.0021 | 118.7 | 341... | 26 | 877928 | | 0.502 | 0.0 | bb |
| 98 | 13C2-PFHxA-2 | | 315.083 > 119.359 | 5.05 | 450 | | 10.000 | 16.654 | 0.0296 | 83.6 | 1689 | 11 | 18509 | | 0.502 | 0.0 | bb |
| 99 | 13C4-PFOA | | 417.083 > 171.95 | 6.40 | 3529 | | 10.000 | 23.411 | 0.0131 | 117.5 | 5355 | 16 | 85871 | | 0.502 | 0.0 | bb |
| 1... | 13C5-PFNA | | 468.019 > 423.008 | 7.13 | 10813 | | 5.000 | 10.565 | 0.3197 | 106.0 | 99 | 4635 | 459635 | | 0.502 | 0.0 | bb |
| 1... | 13C2-PFDA | | 515.134 > 470.05 | 7.51 | 12534 | | 5.000 | 10.982 | 0.0011 | 110.2 | 300... | 16 | 474136 | | 0.502 | 0.0 | bb |
| 1... | 18O2-PFHxS | | 402.984 > 83.895 | 6.53 | 4892 | | 10.000 | 24.821 | 0.0096 | 124.5 | 7770 | 16 | 124370 | | 0.502 | 0.0 | bb |
| 1... | 13C4-PFOS-1 | | 502.791 > 79.856 | 7.61 | 5757 | | 10.000 | 23.585 | 0.0070 | 118.3 | 100... | 22 | 217659 | | 0.502 | 0.0 | bb |
| 1... | 13C4-PFOS-2 | | 502.791 > 98.864 | 7.61 | 3730 | | 10.000 | 23.808 | 0.0519 | 119.5 | 1375 | 106 | 145222 | | 0.502 | 0.0 | bb |

PVed by WANGG 13-Apr-19, SVed by AP 16-Apr-19. NOTE: Units = ng/L for BLK and FIeld Samples.

**Quantify Sample Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

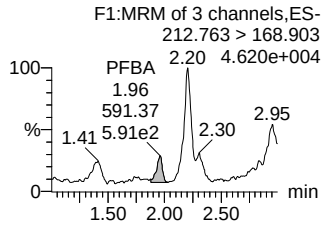
Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_130-b.qld

Last Altered: Tuesday, April 16, 2019 12:33:52 Pacific Daylight Time
Printed: Tuesday, April 16, 2019 12:53:29 Pacific Daylight Time

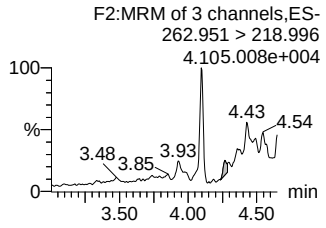
**Method: G:\Masslynx\Master Methods\MassLynx SCN 909\UPLC\FC_110_UPLC_06.mdb 10 Mar 2019 18:18:03**
**Calibration: G:\Masslynx\Inst_W\PFC.PRO\Curve\FC9W_097-a1.cdb 12 Mar 2019 11:26:10**

**ID: L30821-1,,, Name: FC9W_130S28, Description: 1,WG67438,2/4000uL, Date: 31-Mar-2019, Time: 02:36:21**

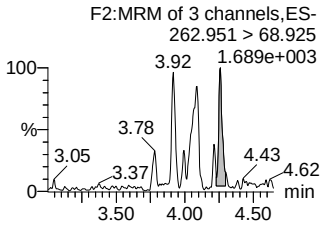
**PFBA**



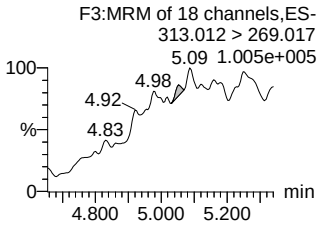

**PFPeA-1**




**PFPeA-2**




**PFHxA-1**

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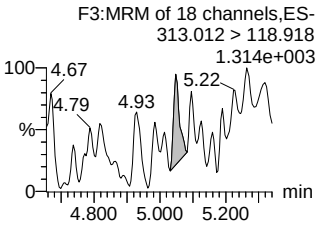
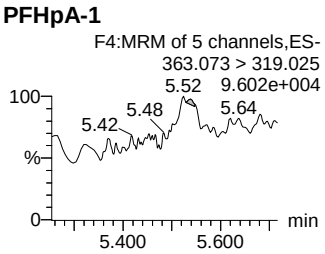
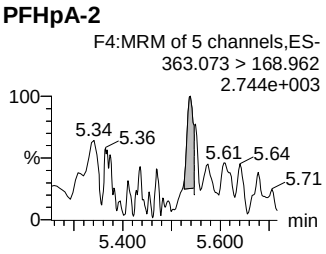


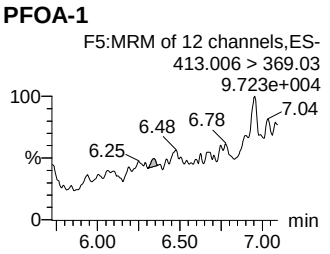

**PFHpA-1**




**PFHpA-2**




**PFOA-1**

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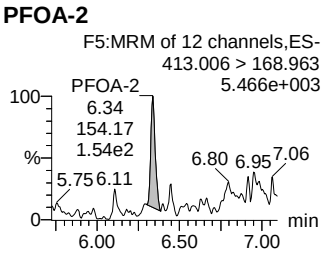


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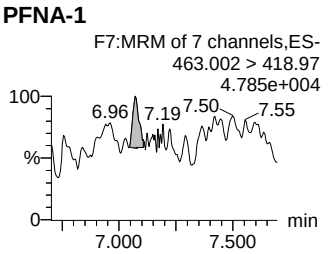


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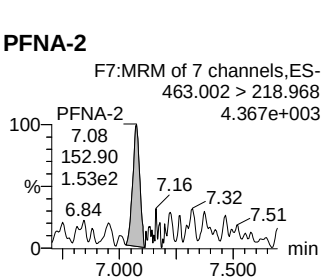


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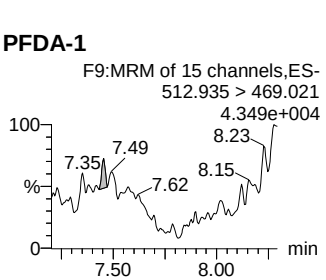


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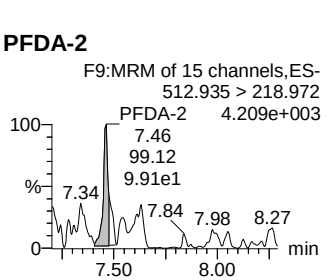


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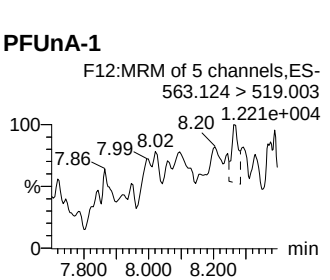


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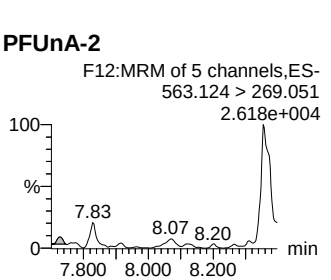


PVed by WANGG 13-Apr-19, SVed by AP 16-Apr-19. NOTE: Units = ng/L for BLK and FIeld Samples.

**Quantify Sample Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_130-b.qld

Last Altered: Tuesday, April 16, 2019 12:33:52 Pacific Daylight Time
Printed: Tuesday, April 16, 2019 12:53:29 Pacific Daylight Time

**ID: L30821-1,,, Name: FC9W_130S28, Description: 1,WG67438,2/4000uL, Date: 31-Mar-2019, Time: 02:36:21**

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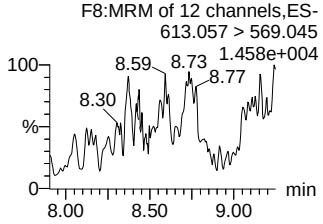


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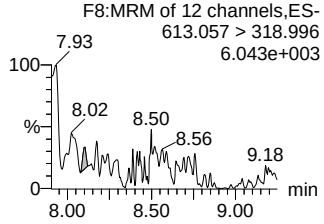


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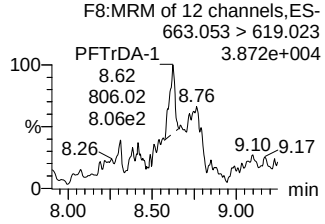


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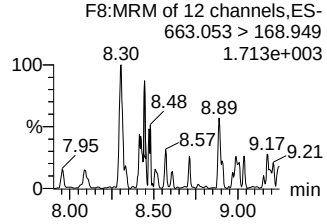


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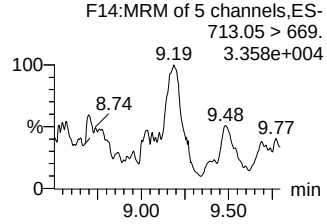


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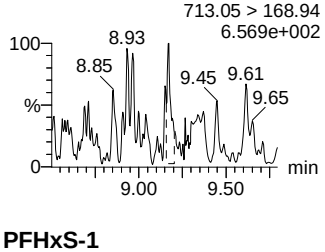


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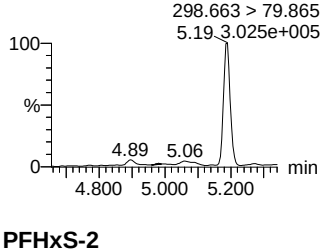


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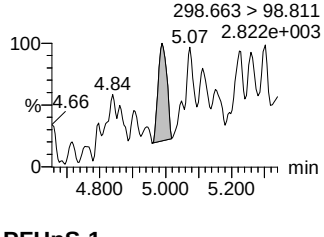


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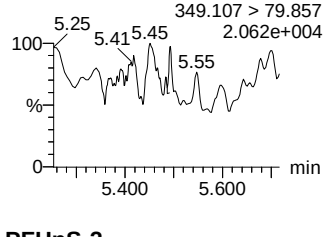


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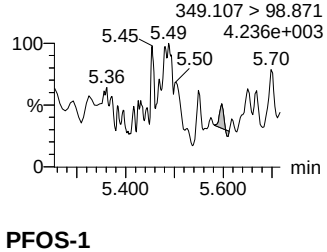


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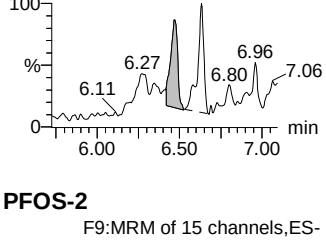


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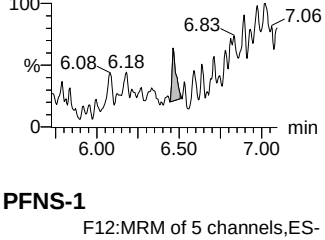


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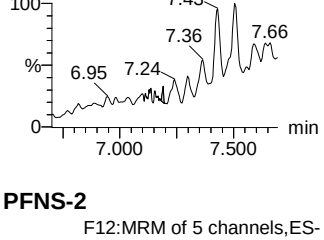


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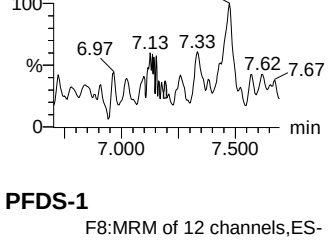


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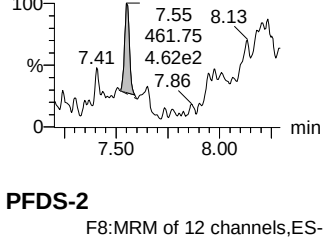


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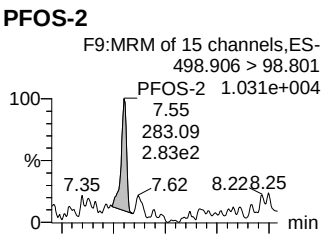


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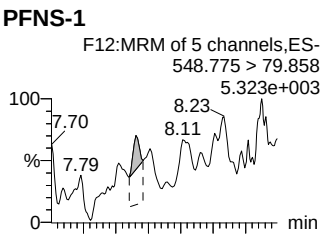


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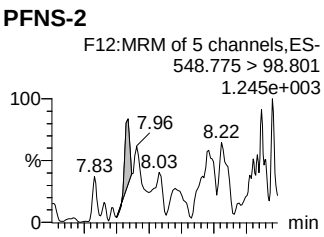


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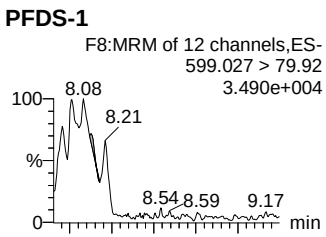


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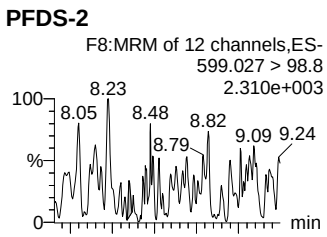


PVed by WANGG 13-Apr-19, SVed by AP 16-Apr-19. NOTE: Units = ng/L for BLK and FIeld Samples.

**Quantify Sample Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_130-b.qld

Last Altered: Tuesday, April 16, 2019 12:33:52 Pacific Daylight Time
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**ID: L30821-1,,, Name: FC9W_130S28, Description: 1,WG67438,2/4000uL, Date: 31-Mar-2019, Time: 02:36:21**

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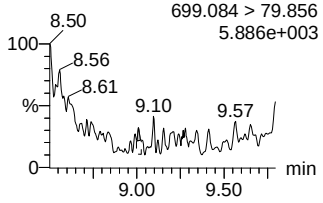


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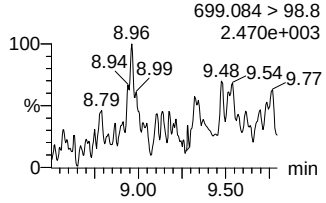


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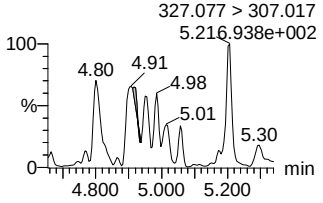


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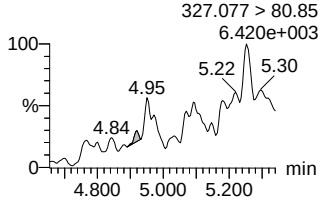


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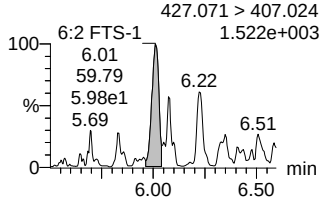


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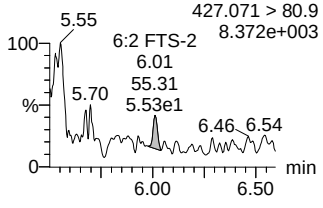


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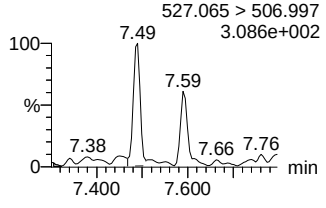


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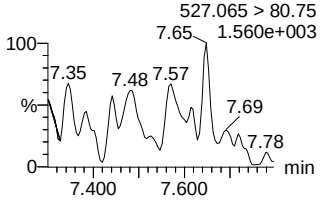


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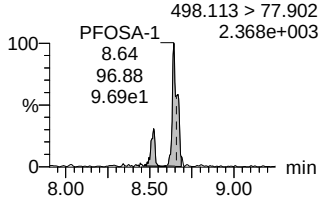


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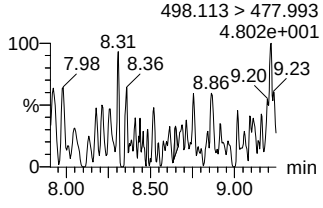


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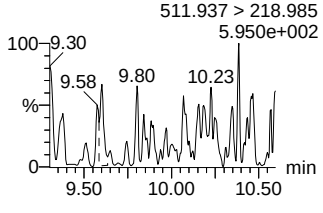


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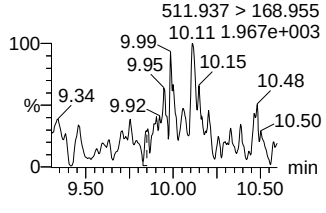


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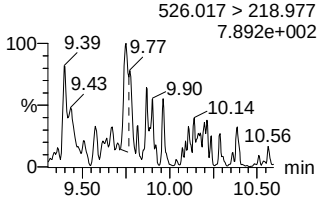


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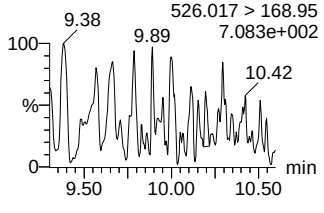


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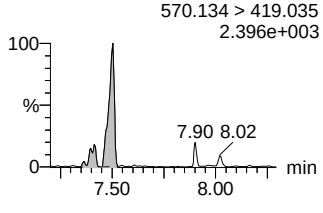


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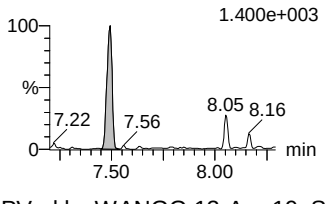


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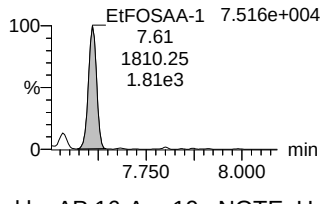


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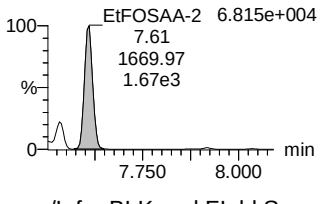


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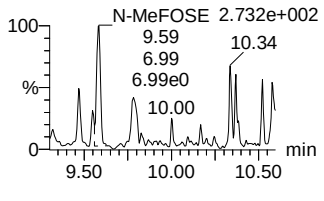


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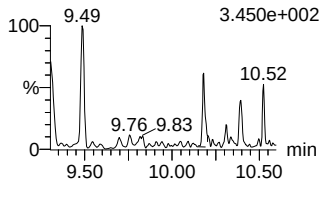


PVed by WANGG 13-Apr-19, SVed by AP 16-Apr-19. NOTE: Units = ng/L for BLK and FIeld Samples.

**Quantify Sample Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_130-b.qld

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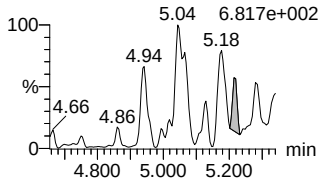
**ID: L30821-1,,, Name: FC9W_130S28, Description: 1,WG67438,2/4000uL, Date: 31-Mar-2019, Time: 02:36:21**

**HFPO-DA-1**

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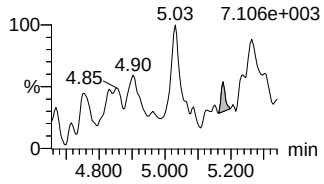
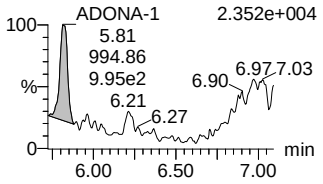
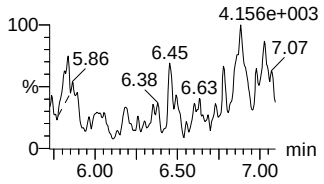


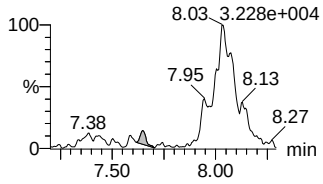

**ADONA-1**



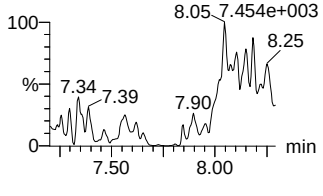

**ADONA-2**



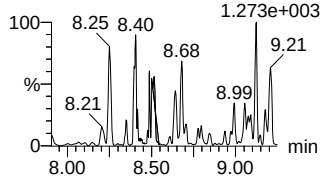

**9Cl-PF3ONS-1**



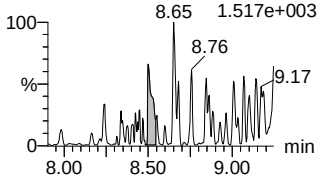

**9Cl-PF3ONS-2**



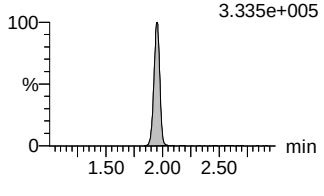

**11Cl-PF3OUdS-1**



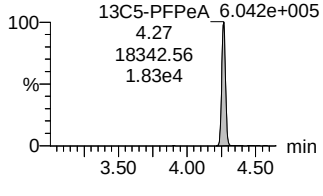

**11Cl-PF3OUdS-2**



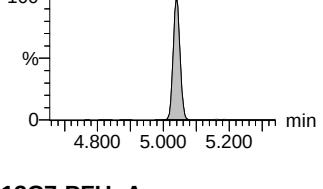

**13C4-PFBA**



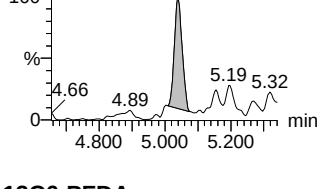

**13C5-PFPeA**



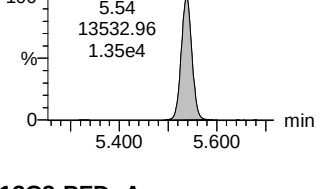

**13C5-PFHxA-1**



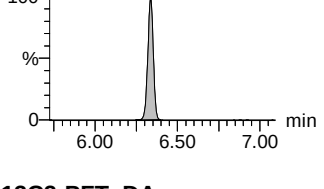

**13C5-PFHxA-2**



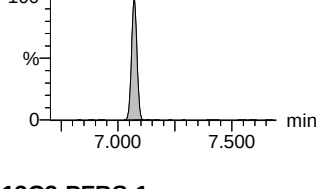

**13C4-PFHpA**



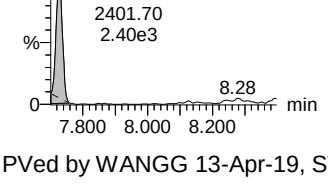

**13C8-PFOA**



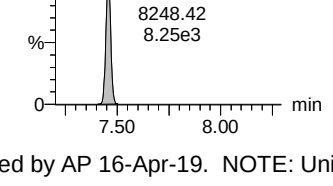

**13C9-PFNA**



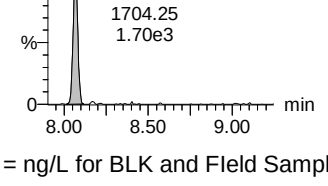

**13C7-PFUnA**



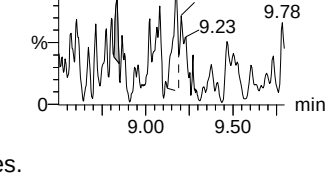

**13C6-PFDA**



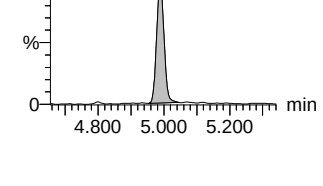

**13C2-PFDoA**




**13C2-PFTeDA**




**13C3-PFBS-1**



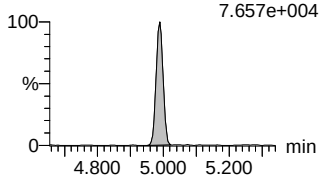

PVed by WANGG 13-Apr-19, SVed by AP 16-Apr-19. NOTE: Units = ng/L for BLK and FIeld Samples.

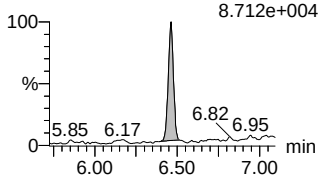
**Quantify Sample Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

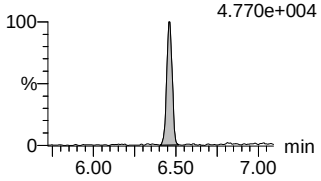
Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_130-b.qld

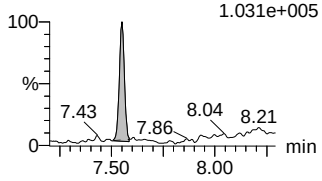
Last Altered: Tuesday, April 16, 2019 12:33:52 Pacific Daylight Time
Printed: Tuesday, April 16, 2019 12:53:29 Pacific Daylight Time

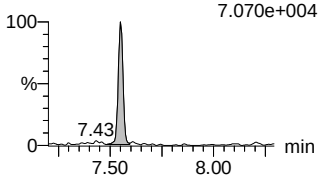
**ID: L30821-1,,, Name: FC9W_130S28, Description: 1,WG67438,2/4000uL, Date: 31-Mar-2019, Time: 02:36:21**

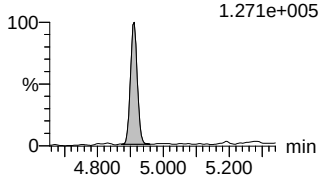
**13C3-PFBS-2**
F3:MRM of 18 channels,ES-
302.056 > 98.875
7.657e+004


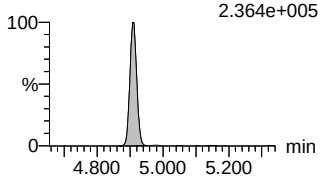

**13C3-PFHxS-1**
F5:MRM of 12 channels,ES-
402.114 > 79.858
8.712e+004


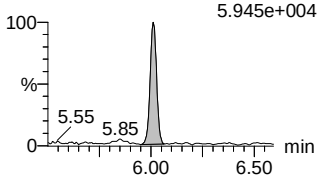

**13C3-PFHxS-2**
F5:MRM of 12 channels,ES-
402.114 > 98.801
4.770e+004


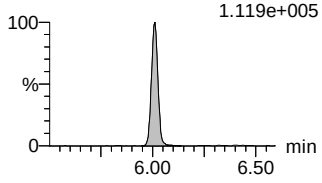

**13C8-PFOS-1**
F9:MRM of 15 channels,ES-
507.124 > 79.858
1.031e+005


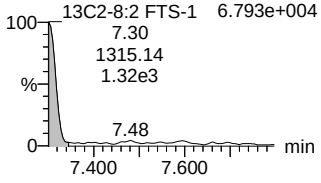

**13C8-PFOS-2**
F9:MRM of 15 channels,ES-
507.124 > 98.867
7.070e+004


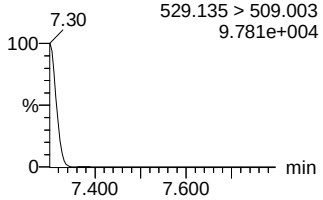

**13C2-4:2 FTS-1**
F3:MRM of 18 channels,ES-
329.084 > 80.9
1.271e+005


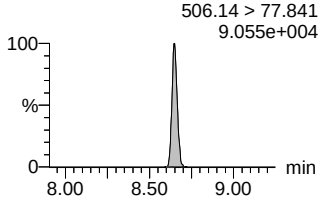

**13C2-4:2 FTS-2**
F3:MRM of 18 channels,ES-
329.084 > 309.024
2.364e+005


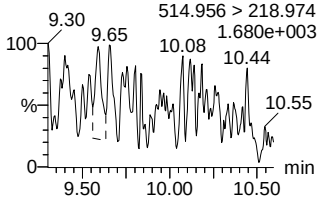

**13C2-6:2 FTS-1**
F6:MRM of 4 channels,ES-
429.078 > 80.900
5.945e+004


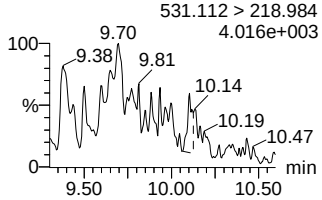

**13C2-6:2 FTS-2**
F6:MRM of 4 channels,ES-
429.078 > 409.031
1.119e+005


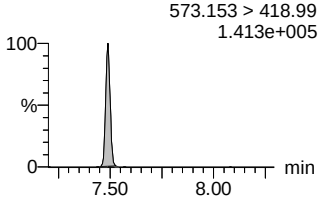

**13C2-8:2 FTS-1**
F11:MRM of 4 channels,ES-
529.1351 > 80.900
13C2-8:2 FTS-1 6.793e+004


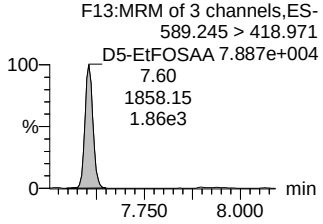

**13C2-8:2 FTS-2**
F11:MRM of 4 channels,ES-
529.135 > 509.003
9.781e+004


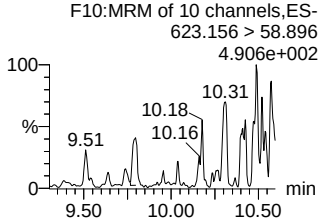

**13C8-PFOSA**
F8:MRM of 12 channels,ES-
506.14 > 77.841
9.055e+004


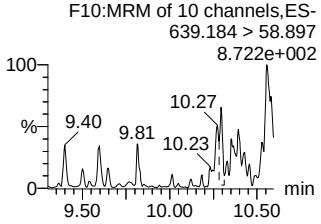

**D3-N-MeFOSA**
F10:MRM of 10 channels,ES-
514.956 > 218.974
1.680e+003


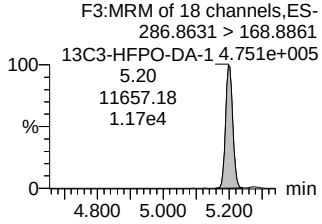

**D5-N-EtFOSA**
F10:MRM of 10 channels,ES-
531.112 > 218.984
4.016e+003


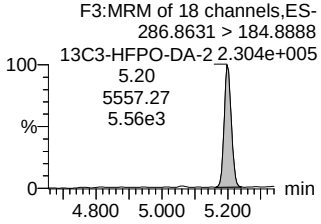

**D3-MeFOSAA**
F9:MRM of 15 channels,ES-
573.153 > 418.99
1.413e+005



**D5-EtFOSAA**
F13:MRM of 3 channels,ES-
589.245 > 418.971
D5-EtFOSAA 7.887e+004



**D7-N-MeFOSE**
F10:MRM of 10 channels,ES-
623.156 > 58.896
4.906e+002



**D9-N-EtFOSE**
F10:MRM of 10 channels,ES-
639.184 > 58.897
8.722e+002



**13C3-HFPO-DA-1**
F3:MRM of 18 channels,ES-
286.8631 > 168.8861
13C3-HFPO-DA-1 4.751e+005



**13C3-HFPO-DA-2**
F3:MRM of 18 channels,ES-
286.8631 > 184.8888
13C3-HFPO-DA-2 2.304e+005



PVed by WANGG 13-Apr-19, SVed by AP 16-Apr-19. NOTE: Units = ng/L for BLK and FIeld Samples.

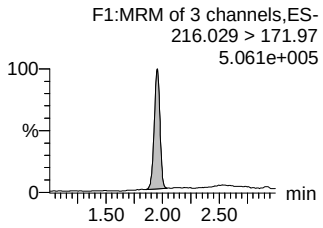
**Quantify Sample Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_130-b.qld

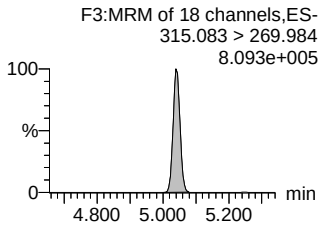
Last Altered: Tuesday, April 16, 2019 12:33:52 Pacific Daylight Time
Printed: Tuesday, April 16, 2019 12:53:29 Pacific Daylight Time

**ID: L30821-1,,, Name: FC9W_130S28, Description: 1,WG67438,2/4000uL, Date: 31-Mar-2019, Time: 02:36:21**

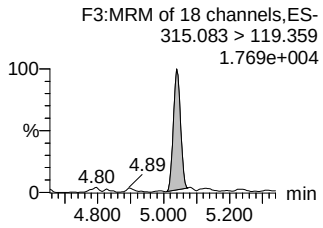
**13C3-PFBA**



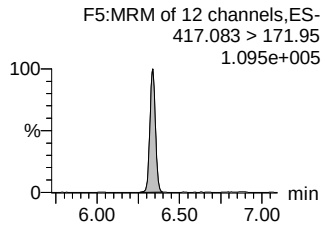

**13C2-PFHxA-1**



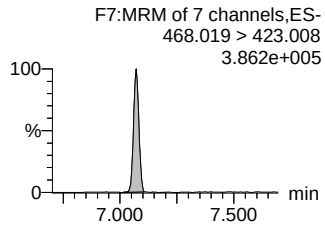

**13C2-PFHxA-2**



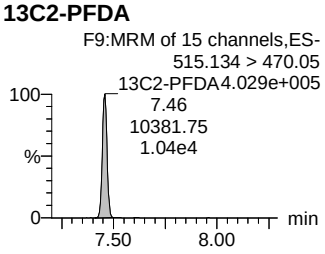

**13C4-PFOA**



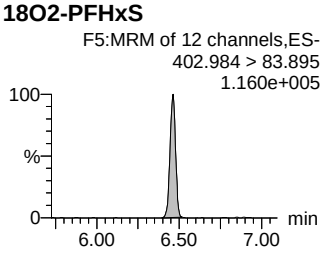

**13C5-PFNA**



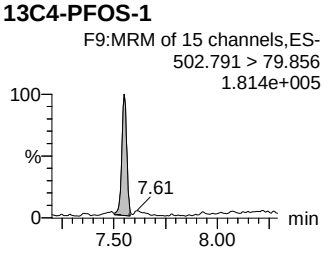

**13C2-PFDA**



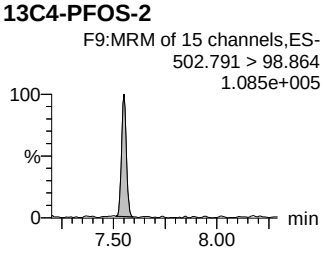

**18O2-PFHxS**




**13C4-PFOS-1**




**13C4-PFOS-2**




PVed by WANGG 13-Apr-19, SVed by AP 16-Apr-19. NOTE: Units = ng/L for BLK and FIeld Samples.

**Quantify Sample Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_130-b.qld

Last Altered: Tuesday, April 16, 2019 12:33:52 Pacific Daylight Time
Printed: Tuesday, April 16, 2019 12:53:29 Pacific Daylight Time

**ID: L30821-1,,, Name: FC9W_130S28, Description: 1,WG67438,2/4000uL, Date: 31-Mar-2019, Time: 02:36:21**

| # | Name | IS# | Trace | RT | Area | IS Area | Std. Conc | Conc. | LOD | %Rec | S/N | Noise | Peak Height | IS Height | Sample size | F2 | Flags |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | PFBA | 64 | 212.763 > 168.903 | 1.96 | 591 | 19514 | | 12.801 | | | 27 | 369 | 9987 | 332779 | 0.100 | 0.0 | MM |
| 2 | PFPeA-1 | 65 | 262.951 > 218.996 | 4.27 | 172 | 18343 | | 0.189 | | | 10 | 629 | 6003 | 603075 | 0.100 | 0.0 | MM |
| 3 | PFPeA-2 | 65 | 262.951 > 68.925 | 4.26 | 47 | 18343 | | 157.249 | 11.1305 | | 44 | 37 | 1614 | 603075 | 0.100 | 0.0 | MM |
| 4 | PFHxA-1 | 66 | 313.012 > 269.017 | 5.05 | 173 | 9103 | | 1.164 | 3.5743 | | 2 | 5296 | 8948 | 387972 | 0.100 | 0.0 | MM |
| 5 | PFHxA-2 | 66 | 313.012 > 118.918 | 5.05 | 20 | 9103 | | 2.009 | 2.3134 | | 3 | 320 | 962 | 387972 | 0.100 | 0.0 | MM |
| 6 | PFHpA-1 | 68 | 363.073 > 319.025 | 5.54 | 45 | 13533 | | | | | 1 | 5383 | 4115 | 545991 | 0.100 | 0.0 | MMI |
| 7 | PFHpA-2 | 68 | 363.073 > 168.962 | 5.54 | 29 | 13533 | | 0.548 | 0.8116 | | 4 | 530 | 2049 | 545991 | 0.100 | 0.0 | MM |
| 8 | PFOA-1 | 69 | 413.006 > 369.03 | 6.34 | 199 | 15789 | | | | | 2 | 3354 | 6092 | 412526 | 0.100 | 0.0 | MMI |
| 9 | PFOA-2 | 69 | 413.006 > 168.963 | 6.34 | 154 | 15789 | | 1.336 | | | 11 | 438 | 4917 | 412526 | 0.100 | 0.0 | MM |
| 10 | PFNA-1 | 70 | 463.002 > 418.97 | 7.07 | 621 | 8643 | | 2.881 | 1.8607 | | 3 | 5680 | 19747 | 323811 | 0.100 | 0.0 | MM |
| 11 | PFNA-2 | 70 | 463.002 > 218.968 | 7.08 | 153 | 8643 | | 3.412 | 1.0444 | | 7 | 649 | 4306 | 323811 | 0.100 | 0.0 | MM |
| 12 | PFDA-1 | 72 | 512.935 > 469.021 | 7.45 | 200 | 8248 | | | | | 3 | 3220 | 10386 | 307246 | 0.100 | 0.0 | MMI |
| 13 | PFDA-2 | 72 | 512.935 > 218.972 | 7.46 | 99 | 8248 | | 2.850 | 0.8083 | | 9 | 450 | 4129 | 307246 | 0.100 | 0.0 | MM |
| 14 | PFUnA-1 | 71 | 563.124 > 519.003 | | | 2402 | | | | | | 1845 | | 103082 | 0.100 | 0.0 | MM-I |
| 15 | PFUnA-2 | 71 | 563.124 > 269.051 | 7.73 | 29 | 2402 | | 4.556 | 17.8866 | | 1 | 1446 | 1561 | 103082 | 0.100 | 0.0 | MM |
| 16 | PFDoA-1 | 73 | 613.057 > 569.045 | | | 1704 | | | | | | 2062 | | 51574 | 0.100 | 0.0 | MM-I |
| 17 | PFDoA-2 | 73 | 613.057 > 318.996 | 8.10 | 24 | 1704 | | 5.163 | 15.3575 | | 2 | 667 | 1051 | 51574 | 0.100 | 0.0 | MM |
| 18 | PFTrDA-1 | 74 | 663.053 > 619.023 | | | 13 | | | | | | 1857 | | 751 | 0.100 | 0.0 | MM-I |
| 19 | PFTrDA-2 | 74 | 663.053 > 168.949 | 8.44 | 8 | 13 | | 202.832 | 205.26... | | 7 | 146 | 1040 | 751 | 0.100 | 0.0 | MM |
| 20 | PFTeDA-1 | 74 | 713.05 > 669. | | | 13 | | | | | | 1907 | | 751 | 0.100 | 0.0 | MM-I |
| 21 | PFTeDA-2 | 74 | 713.05 > 168.94 | | | 13 | | | | | | 147 | | 751 | 0.100 | 0.0 | MM-I |
| 22 | PFBS-1 | 75 | 298.663 > 79.865 | 4.98 | 49 | 3994 | | 1.071 | 1.2894 | | 3 | 765 | 2648 | 156178 | 0.100 | 0.0 | MM |
| 23 | PFBS-2 | 76 | 298.663 > 98.811 | 4.99 | 68 | 1847 | | 2.655 | 1.6974 | | 3 | 646 | 2229 | 76387 | 0.100 | 0.0 | MM |
| 24 | PFPeS-1 | 77 | 349.107 > 79.857 | | | 2947 | | | | | | 1455 | | 83464 | 0.100 | 0.0 | MM-I |
| 25 | PFPeS-2 | 78 | 349.107 > 98.871 | 5.60 | 7 | 1815 | | | | | 1 | 605 | 845 | 47513 | 0.100 | 0.0 | MMI |
| 26 | PFHxS-1 | 77 | 398.721 > 79.92 | 6.47 | 1330 | 2947 | | 37.417 | 6.5737 | | 14 | 1883 | 26307 | 83464 | 0.100 | 0.0 | MM |
| 27 | PFHxS-2 | 78 | 398.721 > 98.863 | 6.46 | 49 | 1815 | | 1.468 | 2.0864 | | 3 | 552 | 1741 | 47513 | 0.100 | 0.0 | MM |
| 28 | PFHpS-1 | 79 | 449.036 > 79.857 | 7.19 | 37 | 2839 | | 0.401 | 4.4392 | | 3 | 1684 | 5412 | 99480 | 0.100 | 0.0 | MM |
| 29 | PFHpS-2 | 80 | 449.036 > 98.8 | 7.19 | 8 | 1887 | | 0.516 | 3.6459 | | 1 | 787 | 748 | 70285 | 0.100 | 0.0 | db |
| 30 | PFOS-1 | 79 | 498.906 > 79.856 | 7.55 | 462 | 2839 | | 13.384 | 4.1684 | | 9 | 1947 | 17220 | 99480 | 0.100 | 0.0 | MM |
| 31 | PFOS-2 | 80 | 498.906 > 98.801 | 7.55 | 283 | 1887 | | 14.988 | 2.3359 | | 13 | 728 | 9326 | 70285 | 0.100 | 0.0 | MM |
| 32 | PFNS-1 | 79 | 548.775 > 79.858 | 7.96 | 30 | 2839 | | | | | 2 | 588 | 1455 | 99480 | 0.100 | 0.0 | MMI |
| 33 | PFNS-2 | 80 | 548.775 > 98.801 | 7.94 | 11 | 1887 | | 0.207 | 1.2134 | | 2 | 383 | 661 | 70285 | 0.100 | 0.0 | MM |
| 34 | PFDS-1 | 79 | 599.027 > 79.92 | 8.13 | 66 | 2839 | | 2.141 | 2.6881 | | 3 | 931 | 2619 | 99480 | 0.100 | 0.0 | MM |
| 35 | PFDS-2 | 80 | 599.027 > 98.8 | 8.35 | 10 | 1887 | | 1.576 | 3.4423 | | 1 | 493 | 678 | 70285 | 0.100 | 0.0 | MM |

PVed by WANGG 13-Apr-19, SVed by AP 16-Apr-19. NOTE: Units = ng/L for BLK and FIeld Samples.

**Quantify Sample Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_130-b.qld

Last Altered: Tuesday, April 16, 2019 12:33:52 Pacific Daylight Time
Printed: Tuesday, April 16, 2019 12:53:29 Pacific Daylight Time

**ID: L30821-1,,, Name: FC9W_130S28, Description: 1,WG67438,2/4000uL, Date: 31-Mar-2019, Time: 02:36:21**

| # | Name | IS# | Trace | RT | Area | IS Area | Std. Conc | Conc. | LOD | %Rec | S/N | Noise | Peak Height | IS Height | Sample size | F2 | Flags |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 36 | PFDoS-1 | 79 | 699.084 > 79.856 | 9.01 | 7 | 2839 | | | | | 1 | 488 | 613 | 99480 | 0.100 | 0.0 | MMI |
| 37 | PFDoS-2 | 80 | 699.084 > 98.8 | | | 1887 | | | | | | 302 | | 70285 | 0.100 | 0.0 | MM-I |
| 38 | 4:2 FTS-1 | 81 | 327.077 > 307.017 | 4.92 | 1 | 2981 | | | | | 0 | 310 | 58 | 125613 | 0.100 | 0.0 | MMI |
| 39 | 4:2 FTS-2 | 81 | 327.077 > 80.85 | 4.92 | 9 | 2981 | | 1.240 | 3.8285 | | 1 | 615 | 548 | 125613 | 0.100 | 0.0 | MM |
| 40 | 6:2 FTS-1 | 83 | 427.071 > 407.024 | 6.01 | 60 | 2121 | | 0.312 | | | 10 | 148 | 1511 | 58758 | 0.100 | 0.0 | dd |
| 41 | 6:2 FTS-2 | 83 | 427.071 > 80.9 | 6.01 | 55 | 2121 | | 4.869 | 4.0474 | | 5 | 419 | 2233 | 58758 | 0.100 | 0.0 | MM |
| 42 | 8:2 FTS-1 | 85 | 527.065 > 506.997 | 7.31 | 0 | 1315 | | | | | 1 | 11 | 8 | 70508 | 0.100 | 0.0 | MMI |
| 43 | 8:2 FTS-2 | 85 | 527.065 > 80.75 | 7.30 | 0 | 1315 | | | | | 0 | 267 | 0 | 70508 | 0.100 | 0.0 | MMI |
| 44 | PFOSA-1 | 87 | 498.113 > 77.902 | 8.64 | 97 | 3251 | | 3.972 | 0.9586 | | 53 | 45 | 2357 | 90591 | 0.100 | 0.0 | MM |
| 45 | PFOSA-2 | 87 | 498.113 > 477.993 | 8.65 | 0 | 3251 | | 19.065 | 21.0431 | | 1 | 13 | 11 | 90591 | 0.100 | 0.0 | MM |
| 46 | N-MeFOSA-1 | 88 | 511.937 > 218.985 | | | | | | | | | 130 | | | 0.100 | 0.0 | MM- |
| 47 | N-MeFOSA-2 | 88 | 511.937 > 168.955 | | | | | | | | | 340 | | | 0.100 | 0.0 | MM- |
| 48 | N-EtFOSA-1 | 89 | 526.017 > 218.977 | | | | | | | | | 117 | | | 0.100 | 0.0 | MM- |
| 49 | N-EtFOSA-2 | 89 | 526.017 > 168.95 | | | | | | | | | 229 | | | 0.100 | 0.0 | MM- |
| 50 | MeFOSAA-1 | 90 | 570.134 > 419.035 | 7.50 | 96 | 3403 | | 5.629 | | | 54 | 45 | 2443 | 140412 | 0.100 | 0.0 | MM |
| 51 | MeFOSAA-2 | 90 | 570.134 > 482.99 | 7.49 | 40 | 3403 | | 3.925 | | | 95 | 15 | 1398 | 140412 | 0.100 | 0.0 | MM |
| 52 | EtFOSAA-1 | 91 | 584.15 > 419.062 | 7.61 | 1810 | 1858 | | 253.702 | 1.7354 | | 662 | 113 | 74917 | 78809 | 0.100 | 0.0 | bb |
| 53 | EtFOSAA-2 | 91 | 584.15 > 526.045 | 7.61 | 1670 | 1858 | | 252.383 | 1.6323 | | 1551 | 44 | 68022 | 78809 | 0.100 | 0.0 | bb |
| 54 | N-MeFOSE | 92 | 616.112 > 58.894 | | | | | | | | | 36 | | | 0.100 | 0.0 | MM- |
| 55 | N-EtFOSE | 93 | 630. > 58.893 | | | | | | | | | 32 | | | 0.100 | 0.0 | MM- |
| 56 | HFPO-DA-1 | 94 | 284.8894 > 168.... | 5.21 | 5 | 11657 | | | | | 3 | 91 | 295 | 474653 | 0.100 | 0.0 | MMI |
| 57 | HFPO-DA-2 | 95 | 284.8894 > 184.... | 5.18 | 24 | 5557 | | 1.390 | 5.3900 | | 2 | 1034 | 1696 | 227897 | 0.100 | 0.0 | bb |
| 58 | ADONA-1 | 94 | 376.88 > 250.937 | 5.81 | 995 | 11657 | | | | | 29 | 636 | 18147 | 474653 | 0.100 | 0.0 | bbI |
| 59 | ADONA-2 | 95 | 376.88 > 84.832 | | | 5557 | | | 5.9746 | | | 652 | | 227897 | 0.100 | 0.0 | MM- |
| 60 | 9Cl-PF3ONS-1 | 94 | 530.807 > 350.967 | 7.65 | 110 | 11657 | | | | | 2 | 1825 | 3479 | 474653 | 0.100 | 0.0 | MMI |
| 61 | 9Cl-PF3ONS-2 | 95 | 532.804 > 352.947 | | | 5557 | | | | | | 1434 | | 227897 | 0.100 | 0.0 | |
| 62 | 11Cl-PF3OUdS-1 | 94 | 630.865 > 450.902 | 8.52 | -1 | 11657 | | | | | 1 | 273 | 239 | 474653 | 0.100 | 0.0 | MMI |
| 63 | 11Cl-PF3OUdS-2 | 95 | 632.868 > 452.91 | 8.50 | 31 | 5557 | | 1.645 | 1.3273 | | 3 | 353 | 989 | 227897 | 0.100 | 0.0 | bd |
| 64 | 13C4-PFBA | 96 | 216.776 > 171.928 | 1.95 | 19514 | 28332 | 40.000 | 134.558 | 0.1549 | 33.6 | 2565 | 130 | 332779 | 490929 | 0.100 | 0.0 | bb |
| 65 | 13C5-PFPeA | 97 | 268.16 > 223.035 | 4.27 | 18343 | 19401 | 20.000 | 116.537 | 0.0547 | 58.3 | 5043 | 120 | 603075 | 808283 | 0.100 | 0.0 | bb |
| 66 | 13C5-PFHxA-1 | 97 | 318.029 > 272.993 | 5.04 | 9103 | 19401 | 10.000 | 66.637 | 0.2553 | 66.6 | 801 | 484 | 387972 | 808283 | 0.100 | 0.0 | bb |
| 67 | 13C5-PFHxA-2 | 97 | 318.029 > 120.341 | 5.04 | 338 | 19401 | 10.000 | 72.898 | 4.1595 | 72.9 | 47 | 268 | 12568 | 808283 | 0.100 | 0.0 | bb |
| 68 | 13C4-PFHpA | 99 | 367.086 > 322.004 | 5.54 | 13533 | 4212 | 10.000 | 59.089 | 0.1237 | 59.1 | 2228 | 245 | 545991 | 109308 | 0.100 | 0.0 | bb |
| 69 | 13C8-PFOA | 99 | 421.096 > 376.022 | 6.34 | 15789 | 4212 | 10.000 | 60.000 | 0.0647 | 60.0 | 2802 | 147 | 412526 | 109308 | 0.100 | 0.0 | bb |
| 70 | 13C9-PFNA | 100 | 472.096 > 427.014 | 7.07 | 8643 | 10230 | 5.000 | 38.902 | 0.1228 | 77.8 | 947 | 342 | 323811 | 384821 | 0.100 | 0.0 | bb |

PVed by WANGG 13-Apr-19, SVed by AP 16-Apr-19. NOTE: Units = ng/L for BLK and FIeld Samples.

**Quantify Sample Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_130-b.qld

Last Altered: Tuesday, April 16, 2019 12:33:52 Pacific Daylight Time
Printed: Tuesday, April 16, 2019 12:53:29 Pacific Daylight Time

**ID: L30821-1,,, Name: FC9W_130S28, Description: 1,WG67438,2/4000uL, Date: 31-Mar-2019, Time: 02:36:21**

| # | Name | IS# | Trace | RT | Area | IS Area | Std. Conc | Conc. | LOD | %Rec | S/N | Noise | Peak Height | IS Height | Sample size | F2 | Flags |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 71 | 13C7-PFUnA | 101 | 570.019 > 525.05 | 7.73 | 2402 | 10382 | 5.000 | 10.345 | 0.1983 | 20.7 | 173 | 595 | 103082 | 402276 | 0.100 | 0.0 | MM |
| 72 | 13C6-PFDA | 101 | 519.147 > 474.058 | 7.46 | 8248 | 10382 | 5.000 | 42.222 | 0.0071 | 84.4 | 171... | 18 | 307246 | 402276 | 0.100 | 0.0 | bb |
| 73 | 13C2-PFDoA | 101 | 615.127 > 570.013 | 8.07 | 1704 | 10382 | 5.000 | 10.284 | 0.0820 | 20.6 | 294 | 176 | 51574 | 402276 | 0.100 | 0.0 | bb |
| 74 | 13C2-PFTeDA | 101 | 715.057 > 670.026 | 8.84 | 13 | 10382 | 5.000 | 0.080 | 0.1700 | 0.2 | 2 | 357 | 751 | 402276 | 0.100 | 0.0 | MM |
| 75 | 13C3-PFBS-1 | 102 | 302.056 > 79.865 | 4.99 | 3994 | 4423 | 10.000 | 75.015 | 1.5772 | 75.0 | 213 | 732 | 156178 | 115689 | 0.100 | 0.0 | bb |
| 76 | 13C3-PFBS-2 | 102 | 302.056 > 98.875 | 4.99 | 1847 | 4423 | 10.000 | 71.761 | 0.4838 | 71.8 | 704 | 109 | 76387 | 115689 | 0.100 | 0.0 | bb |
| 77 | 13C3-PFHxS-1 | 102 | 402.114 > 79.858 | 6.46 | 2947 | 4423 | 10.000 | 64.230 | 2.0396 | 64.2 | 102 | 816 | 83464 | 115689 | 0.100 | 0.0 | MM |
| 78 | 13C3-PFHxS-2 | 102 | 402.114 > 98.801 | 6.46 | 1815 | 4423 | 10.000 | 71.007 | 1.0608 | 71.0 | 201 | 236 | 47513 | 115689 | 0.100 | 0.0 | bb |
| 79 | 13C8-PFOS-1 | 103 | 507.124 > 79.858 | 7.55 | 2839 | 4870 | 10.000 | 73.627 | 5.3474 | 73.6 | 40 | 2515 | 99480 | 178194 | 0.100 | 0.0 | MM |
| 80 | 13C8-PFOS-2 | 104 | 507.124 > 98.867 | 7.55 | 1887 | 2882 | 10.000 | 83.490 | 2.1679 | 83.5 | 115 | 609 | 70285 | 107459 | 0.100 | 0.0 | bd |
| 81 | 13C2-4:2 FTS-1 | 102 | 329.084 > 80.9 | 4.91 | 2981 | 4423 | 20.000 | 189.729 | 6.1293 | 94.9 | 150 | 840 | 125613 | 115689 | 0.100 | 0.0 | bb |
| 82 | 13C2-4:2 FTS-2 | 102 | 329.084 > 309.024 | 4.91 | 5562 | 4423 | 20.000 | 151.712 | 0.4443 | 75.9 | 1662 | 142 | 236066 | 115689 | 0.100 | 0.0 | bb |
| 83 | 13C2-6:2 FTS-1 | 102 | 429.078 > 80.900 | 6.01 | 2121 | 4423 | 20.000 | 167.129 | 5.4558 | 83.6 | 97 | 604 | 58758 | 115689 | 0.100 | 0.0 | bb |
| 84 | 13C2-6:2 FTS-2 | 102 | 429.078 > 409.031 | 6.01 | 4039 | 4423 | 20.000 | 138.991 | 0.3413 | 69.5 | 1293 | 86 | 111848 | 115689 | 0.100 | 0.0 | bb |
| 85 | 13C2-8:2 FTS-1 | 102 | 529.1351 > 80.900 | 7.30 | 1315 | 4423 | 20.000 | 69.354 | 5.3552 | 34.7 | 80 | 885 | 70508 | 115689 | 0.100 | 0.0 | MM |
| 86 | 13C2-8:2 FTS-2 | 102 | 529.135 > 509.003 | 7.37 | 1 | 4423 | 20.000 | 0.035 | 0.0513 | 0.0 | 6 | 11 | 63 | 115689 | 0.100 | 0.0 | bb |
| 87 | 13C8-PFOSA | 103 | 506.14 > 77.841 | 8.65 | 3251 | 4870 | 10.000 | 53.324 | 0.0170 | 53.3 | 7183 | 13 | 90591 | 178194 | 0.100 | 0.0 | MM |
| 88 | D3-N-MeFOSA | 103 | 514.956 > 218.974 | | | 4870 | 10.000 | | 1.4135 | | | 543 | | 178194 | 0.100 | 0.0 | MM- |
| 89 | D5-N-EtFOSA | 103 | 531.112 > 218.984 | | | 4870 | 10.000 | | 1.3577 | | | 440 | | 178194 | 0.100 | 0.0 | MM- |
| 90 | D3-MeFOSAA | 103 | 573.153 > 418.99 | 7.49 | 3403 | 4870 | 20.000 | 100.513 | 0.0484 | 50.3 | 7022 | 20 | 140412 | 178194 | 0.100 | 0.0 | MM |
| 91 | D5-EtFOSAA | 103 | 589.245 > 418.971 | 7.60 | 1858 | 4870 | 20.000 | 65.688 | 0.4675 | 32.8 | 489 | 161 | 78809 | 178194 | 0.100 | 0.0 | bb |
| 92 | D7-N-MeFOSE | 103 | 623.156 > 58.896 | | | 4870 | 100.000 | | 0.1538 | | | 27 | | 178194 | 0.100 | 0.0 | MM- |
| 93 | D9-N-EtFOSE | 103 | 639.184 > 58.897 | | | 4870 | 100.000 | | 0.5558 | | | 102 | | 178194 | 0.100 | 0.0 | MM- |
| 94 | 13C3-HFPO-DA-1 | 97 | 286.8631 > 168.... | 5.20 | 11657 | 19401 | 40.000 | 185.824 | 0.1350 | 46.5 | 4036 | 118 | 474653 | 808283 | 0.100 | 0.0 | bb |
| 95 | 13C3-HFPO-DA-2 | 97 | 286.8631 > 184.... | 5.20 | 5557 | 19401 | 40.000 | 180.857 | 2.4287 | 45.2 | 220 | 1036 | 227897 | 808283 | 0.100 | 0.0 | bb |
| 96 | 13C3-PFBA | | 216.029 > 171.97 | 1.95 | 28332 | | 20.000 | 202.403 | 1.1674 | 101.2 | 520 | 944 | 490929 | | 0.100 | 0.0 | bb |
| 97 | 13C2-PFHxA-1 | | 315.083 > 269.984 | 5.04 | 19401 | | 10.000 | 108.674 | 0.1951 | 108.7 | 1671 | 484 | 808283 | | 0.100 | 0.0 | bb |
| 98 | 13C2-PFHxA-2 | | 315.083 > 119.359 | 5.04 | 430 | | 10.000 | 79.772 | 2.8285 | 79.8 | 85 | 205 | 17336 | | 0.100 | 0.0 | bb |
| 99 | 13C4-PFOA | | 417.083 > 171.95 | 6.34 | 4212 | | 10.000 | 140.192 | 0.4366 | 140.2 | 963 | 113 | 109308 | | 0.100 | 0.0 | bb |
| 1... | 13C5-PFNA | | 468.019 > 423.008 | 7.07 | 10230 | | 5.000 | 50.150 | 0.1352 | 100.3 | 1113 | 346 | 384821 | | 0.100 | 0.0 | bb |
| 1... | 13C2-PFDA | | 515.134 > 470.05 | 7.46 | 10382 | | 5.000 | 45.640 | 0.0335 | 91.3 | 4083 | 99 | 402276 | | 0.100 | 0.0 | bb |
| 1... | 18O2-PFHxS | | 402.984 > 83.895 | 6.46 | 4423 | | 10.000 | 112.611 | 0.3232 | 112.6 | 1045 | 111 | 115689 | | 0.100 | 0.0 | bb |
| 1... | 13C4-PFOS-1 | | 502.791 > 79.856 | 7.55 | 4870 | | 10.000 | 100.103 | 2.2194 | 100.1 | 135 | 1317 | 178194 | | 0.100 | 0.0 | MM |
| 1... | 13C4-PFOS-2 | | 502.791 > 98.864 | 7.55 | 2882 | | 10.000 | 92.287 | 1.4221 | 92.3 | 195 | 552 | 107459 | | 0.100 | 0.0 | bb |

PVed by WANGG 13-Apr-19, SVed by AP 16-Apr-19. NOTE: Units = ng/L for BLK and FIeld Samples.

**Quantify Sample Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

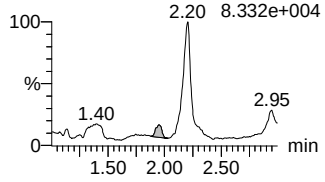
Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_130-b.qld

Last Altered: Tuesday, April 16, 2019 12:33:52 Pacific Daylight Time
Printed: Tuesday, April 16, 2019 12:52:38 Pacific Daylight Time

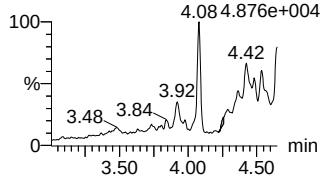
**Method: G:\Masslynx\Master Methods\MassLynx SCN 909\UPLC\FC_110_UPLC_06.mdb 10 Mar 2019 18:18:03**
**Calibration: G:\Masslynx\Inst_W\PFC.PRO\Curve\FC9W_097-a1.cdb 12 Mar 2019 11:26:10**

**ID: WG67438-105,,dup, Name: FC9W_130S29, Description: 1,WG67438,2/4000uL, Date: 31-Mar-2019, Time: 02:49:49**

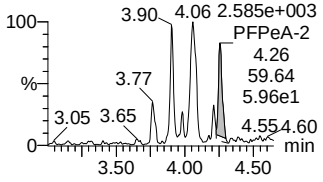
**PFBA**




**PFPeA-1**




**PFPeA-2**

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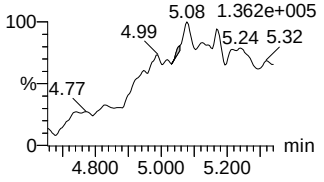


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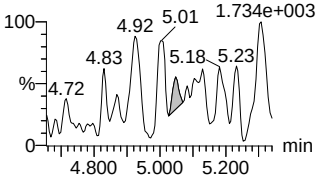


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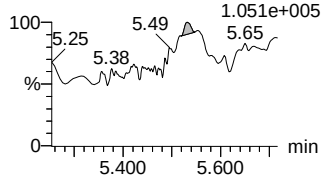


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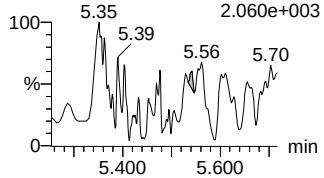


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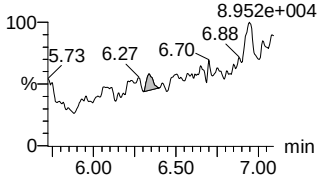


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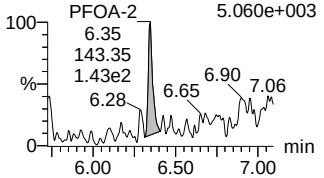


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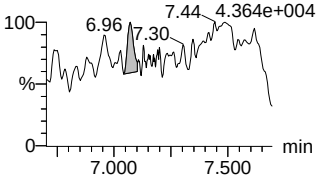


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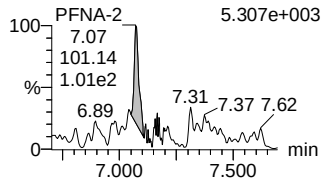


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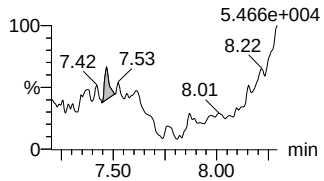


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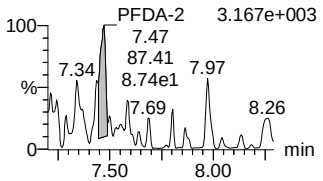


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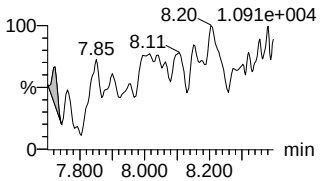


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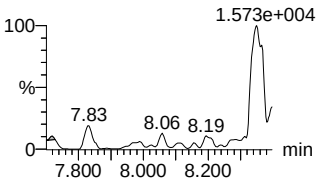


PVed by WANGG 13-Apr-19, SVed by AP 16-Apr-19. NOTE: Units = ng/L for BLK and FIeld Samples.

**Quantify Sample Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_130-b.qld

Last Altered: Tuesday, April 16, 2019 12:33:52 Pacific Daylight Time
Printed: Tuesday, April 16, 2019 12:52:38 Pacific Daylight Time

**ID: WG67438-105,,dup, Name: FC9W_130S29, Description: 1,WG67438,2/4000uL, Date: 31-Mar-2019, Time: 02:49:49**

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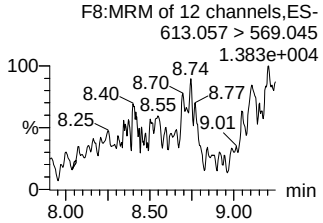


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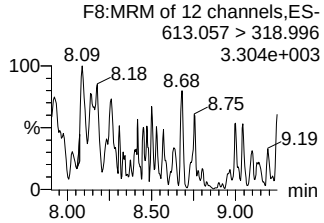


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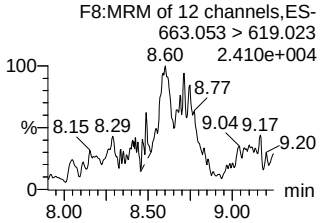


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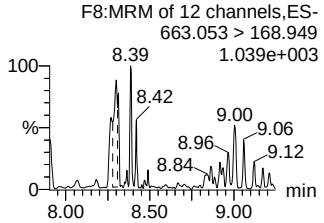


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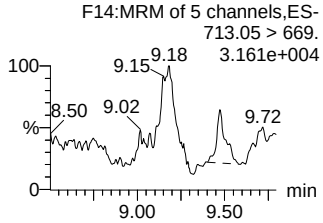


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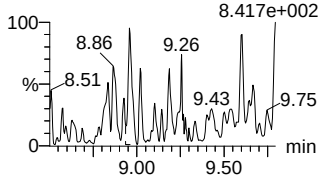


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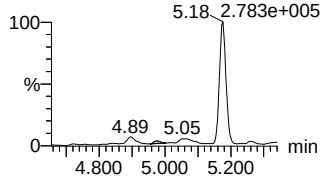


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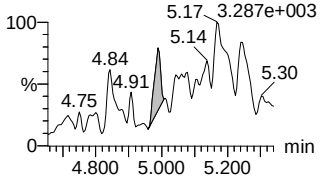


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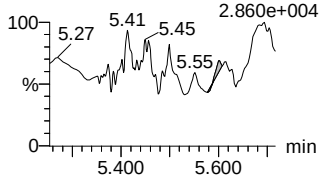


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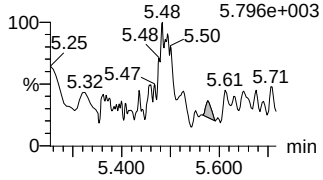


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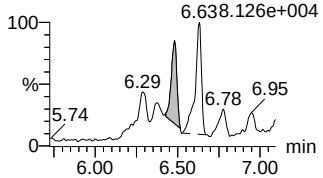


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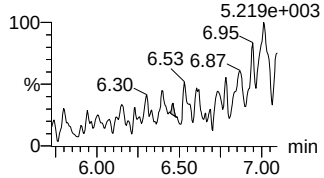


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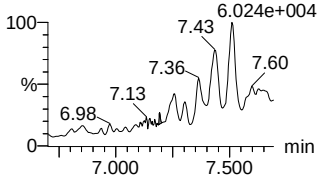


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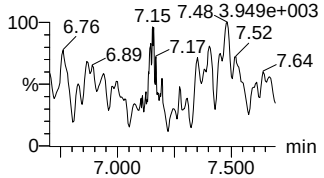


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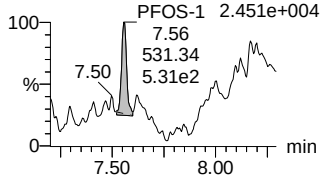


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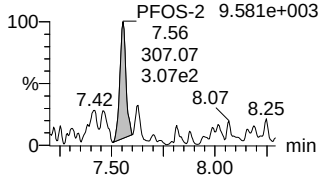


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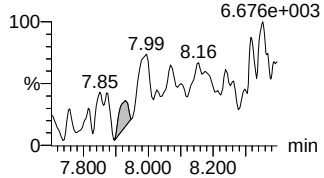


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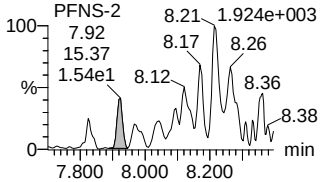


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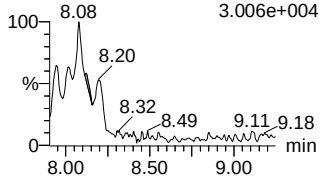


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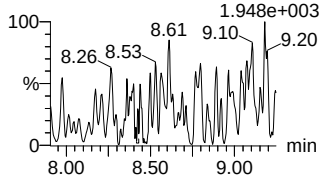


PVed by WANGG 13-Apr-19, SVed by AP 16-Apr-19. NOTE: Units = ng/L for BLK and FIeld Samples.

**Quantify Sample Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_130-b.qld

Last Altered: Tuesday, April 16, 2019 12:33:52 Pacific Daylight Time
Printed: Tuesday, April 16, 2019 12:52:38 Pacific Daylight Time

**ID: WG67438-105,,dup, Name: FC9W_130S29, Description: 1,WG67438,2/4000uL, Date: 31-Mar-2019, Time: 02:49:49**

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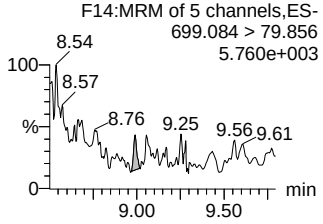


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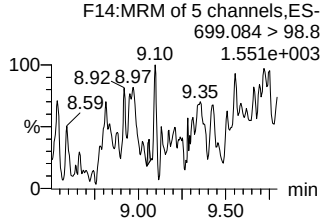


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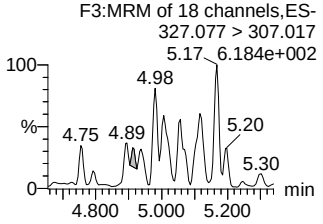


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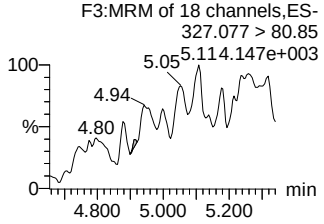
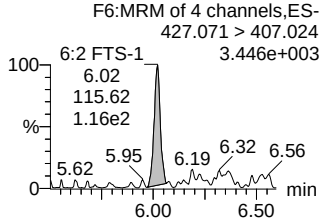



**6:2 FTS-1**

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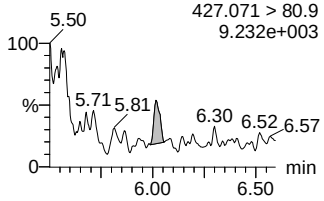


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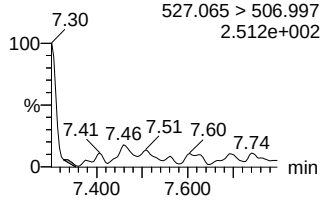


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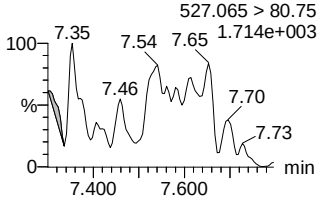


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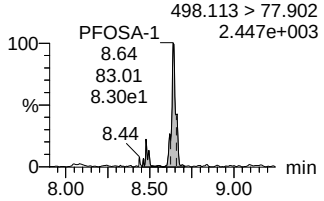


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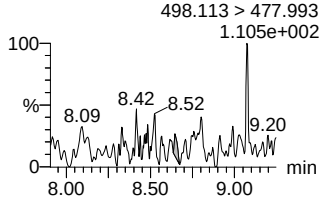
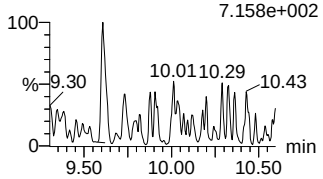



**N-MeFOSA-1**

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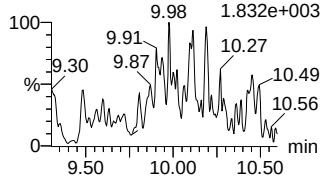


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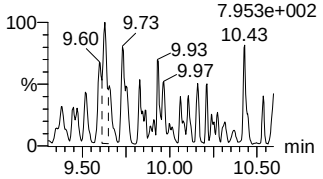


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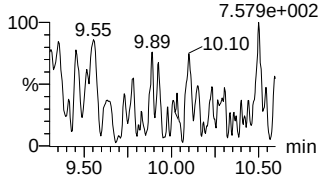


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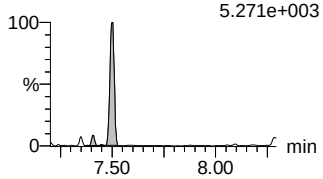


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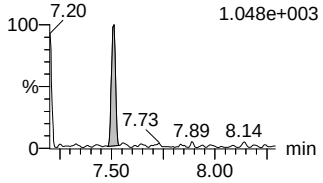


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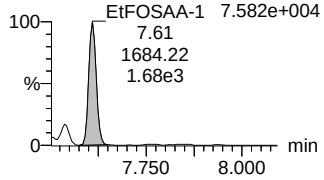


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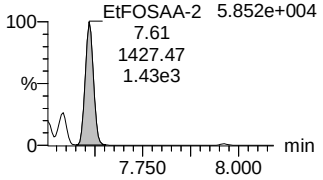


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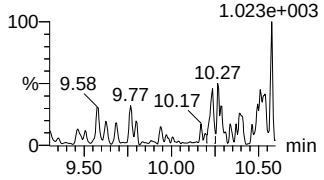
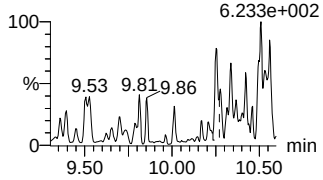



**N-EtFOSE**



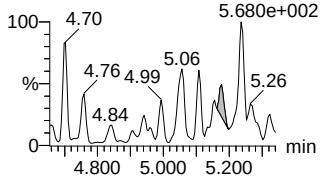

PVed by WANGG 13-Apr-19, SVed by AP 16-Apr-19. NOTE: Units = ng/L for BLK and FIeld Samples.

**Quantify Sample Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_130-b.qld

Last Altered: Tuesday, April 16, 2019 12:33:52 Pacific Daylight Time
Printed: Tuesday, April 16, 2019 12:52:38 Pacific Daylight Time

**ID: WG67438-105,,dup, Name: FC9W_130S29, Description: 1,WG67438,2/4000uL, Date: 31-Mar-2019, Time: 02:49:49**

**HFPO-DA-1**
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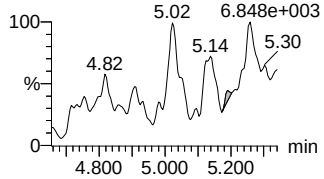
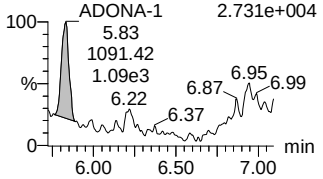



**ADONA-1**
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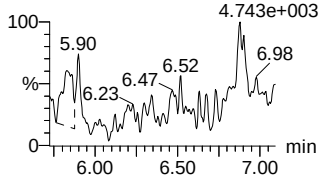
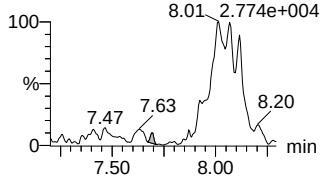
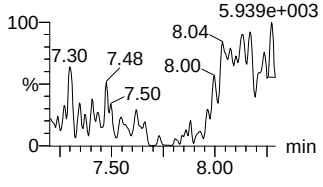
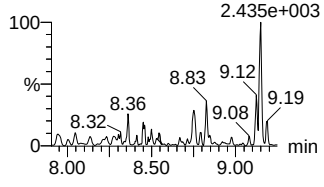



**9Cl-PF3ONS-1**



**9Cl-PF3ONS-2**



**11Cl-PF3OUdS-1**
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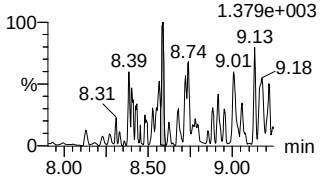
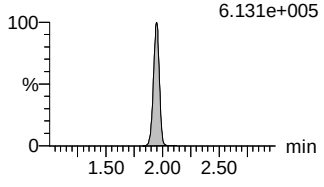
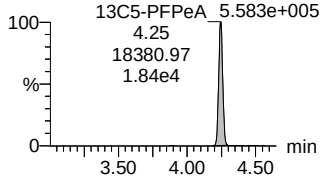
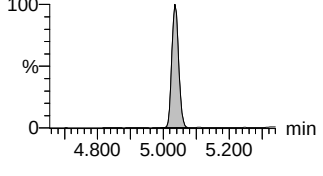



**13C4-PFBA**



**13C5-PFPeA**



**13C5-PFHxA-1**
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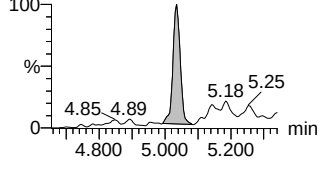
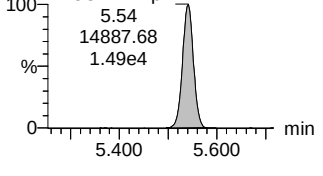
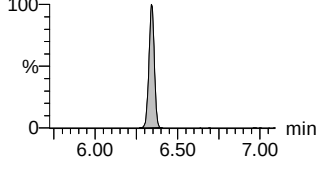
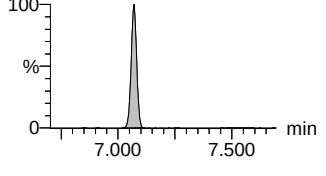
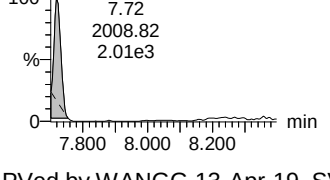
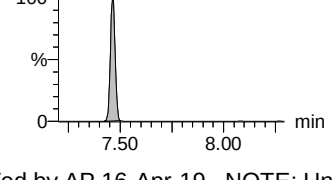


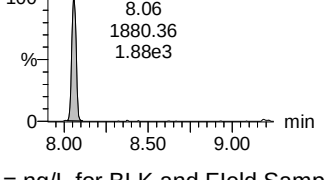

**13C4-PFHpA**


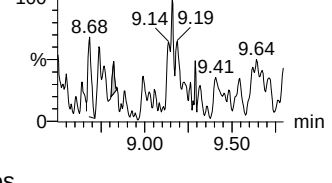

**13C8-PFOA**


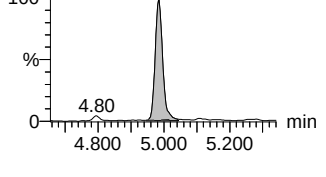

**13C9-PFNA**



**13C7-PFUnA**



**13C6-PFDA**



**13C2-PFDoA**



**13C2-PFTeDA**



**13C3-PFBS-1**



PVed by WANGG 13-Apr-19, SVed by AP 16-Apr-19. NOTE: Units = ng/L for BLK and FIeld Samples.

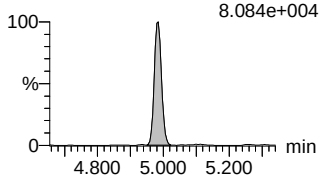
**Quantify Sample Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_130-b.qld

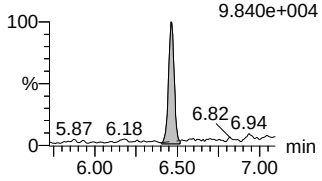
Last Altered: Tuesday, April 16, 2019 12:33:52 Pacific Daylight Time
Printed: Tuesday, April 16, 2019 12:52:38 Pacific Daylight Time

**ID: WG67438-105,,dup, Name: FC9W_130S29, Description: 1,WG67438,2/4000uL, Date: 31-Mar-2019, Time: 02:49:49**

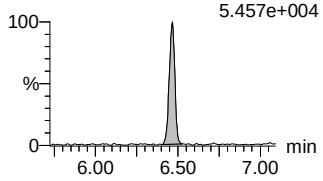
**13C3-PFBS-2**
F3:MRM of 18 channels,ES-
302.056 > 98.875
8.084e+004



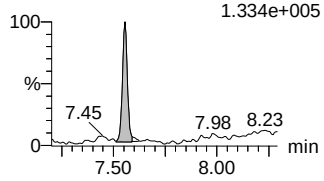

**13C3-PFHxS-1**
F5:MRM of 12 channels,ES-
402.114 > 79.858
9.840e+004



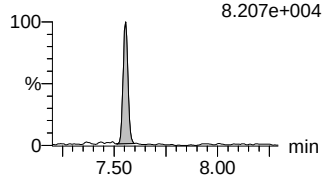

**13C3-PFHxS-2**
F5:MRM of 12 channels,ES-
402.114 > 98.801
5.457e+004



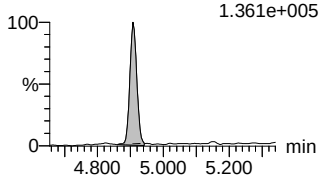

**13C8-PFOS-1**
F9:MRM of 15 channels,ES-
507.124 > 79.858
1.334e+005



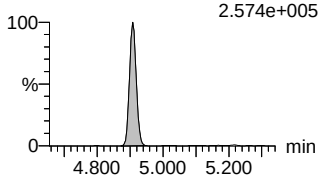

**13C8-PFOS-2**
F9:MRM of 15 channels,ES-
507.124 > 98.867
8.207e+004



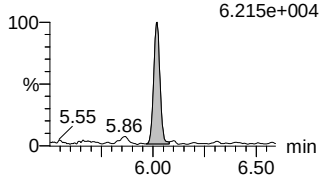

**13C2-4:2 FTS-1**
F3:MRM of 18 channels,ES-
329.084 > 80.9
1.361e+005



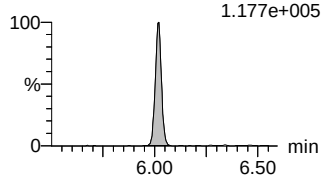

**13C2-4:2 FTS-2**
F3:MRM of 18 channels,ES-
329.084 > 309.024
2.574e+005



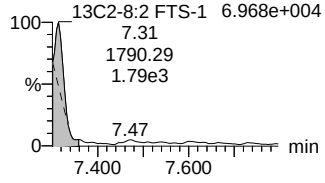

**13C2-6:2 FTS-1**
F6:MRM of 4 channels,ES-
429.078 > 80.900
6.215e+004



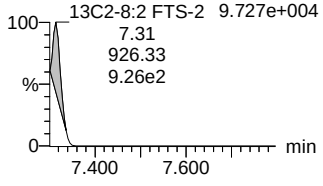

**13C2-6:2 FTS-2**
F6:MRM of 4 channels,ES-
429.078 > 409.031
1.177e+005



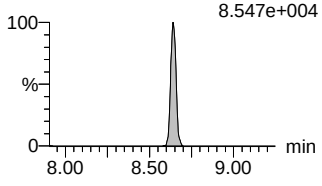

**13C2-8:2 FTS-1**
F11:MRM of 4 channels,ES-
529.1351 > 80.900
13C2-8:2 FTS-1 6.968e+004



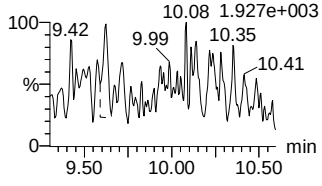

**13C2-8:2 FTS-2**
F11:MRM of 4 channels,ES-
529.135 > 509.003
13C2-8:2 FTS-2 9.727e+004



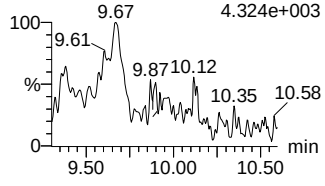

**13C8-PFOSA**
F8:MRM of 12 channels,ES-
506.14 > 77.841
8.547e+004



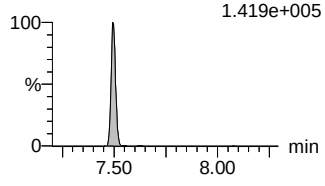

**D3-N-MeFOSA**
F10:MRM of 10 channels,ES-
514.956 > 218.974
10.08 1.927e+003



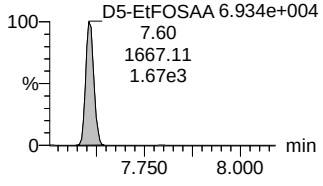

**D5-N-EtFOSA**
F10:MRM of 10 channels,ES-
531.112 > 218.984
4.324e+003



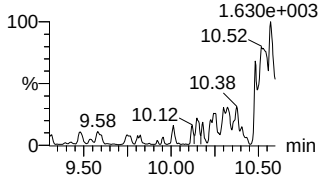

**D3-MeFOSAA**
F9:MRM of 15 channels,ES-
573.153 > 418.99
1.419e+005



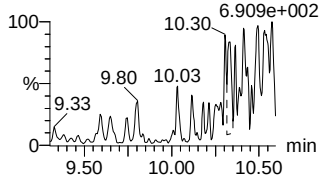

**D5-EtFOSAA**
F13:MRM of 3 channels,ES-
589.245 > 418.971
D5-EtFOSAA 6.934e+004



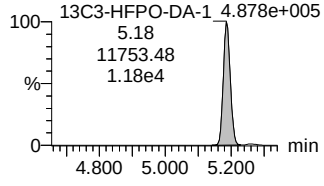

**D7-N-MeFOSE**
F10:MRM of 10 channels,ES-
623.156 > 58.896
1.630e+003



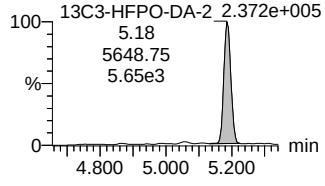

**D9-N-EtFOSE**
F10:MRM of 10 channels,ES-
639.184 > 58.897
6.909e+002




**13C3-HFPO-DA-1**
F3:MRM of 18 channels,ES-
286.8631 > 168.8861
13C3-HFPO-DA-1 4.878e+005




**13C3-HFPO-DA-2**
F3:MRM of 18 channels,ES-
286.8631 > 184.8888
13C3-HFPO-DA-2 2.372e+005




PVed by WANGG 13-Apr-19, SVed by AP 16-Apr-19. NOTE: Units = ng/L for BLK and FIeld Samples.

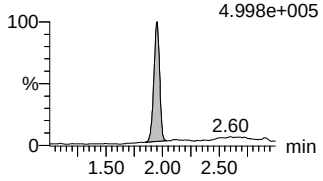
**Quantify Sample Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_130-b.qld

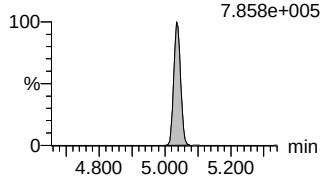
Last Altered: Tuesday, April 16, 2019 12:33:52 Pacific Daylight Time
Printed: Tuesday, April 16, 2019 12:52:38 Pacific Daylight Time

**ID: WG67438-105,,dup, Name: FC9W_130S29, Description: 1,WG67438,2/4000uL, Date: 31-Mar-2019, Time: 02:49:49**

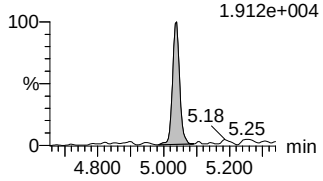
**13C3-PFBA**



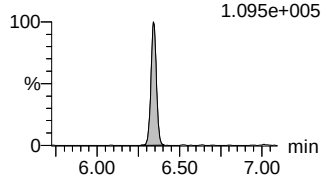

**13C2-PFHxA-1**



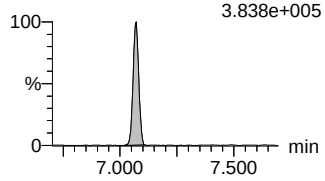

**13C2-PFHxA-2**



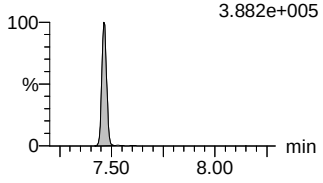

**13C4-PFOA**



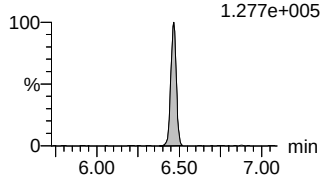

**13C5-PFNA**



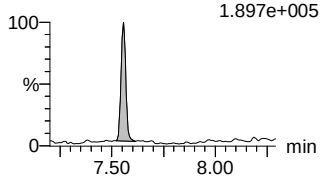

**13C2-PFDA**



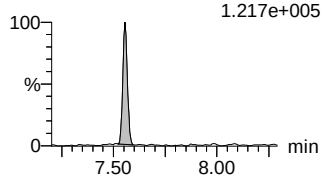

**18O2-PFHxS**




**13C4-PFOS-1**




**13C4-PFOS-2**




PVed by WANGG 13-Apr-19, SVed by AP 16-Apr-19. NOTE: Units = ng/L for BLK and FIeld Samples.

**Quantify Sample Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_130-b.qld

Last Altered: Tuesday, April 16, 2019 12:33:52 Pacific Daylight Time
Printed: Tuesday, April 16, 2019 12:52:38 Pacific Daylight Time

**ID: WG67438-105,,dup, Name: FC9W_130S29, Description: 1,WG67438,2/4000uL, Date: 31-Mar-2019, Time: 02:49:49**

| # | Name | IS# | Trace | RT | Area | IS Area | Std. Conc | Conc. | LOD | %Rec | S/N | Noise | Peak Height | IS Height | Sample size | F2 | Flags |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | PFBA | 64 | 212.763 > 168.903 | 1.95 | 522 | 36202 | | 5.222 | | | 17 | 496 | 8487 | 611841 | 0.100 | 0.0 | MM |
| 2 | PFPeA-1 | 65 | 262.951 > 218.996 | 4.26 | 42 | 18381 | | | | | 4 | 625 | 2523 | 556843 | 0.100 | 0.0 | MMI |
| 3 | PFPeA-2 | 65 | 262.951 > 68.925 | 4.26 | 60 | 18381 | | 199.265 | 16.0213 | | 40 | 49 | 1934 | 556843 | 0.100 | 0.0 | MM |
| 4 | PFHxA-1 | 66 | 313.012 > 269.017 | 5.06 | 86 | 9148 | | 0.113 | 5.4857 | | 1 | 7465 | 5327 | 383847 | 0.100 | 0.0 | MM |
| 5 | PFHxA-2 | 66 | 313.012 > 118.918 | 5.05 | 10 | 9148 | | 1.001 | 3.6561 | | 1 | 500 | 454 | 383847 | 0.100 | 0.0 | MM |
| 6 | PFHpA-1 | 68 | 363.073 > 319.025 | 5.53 | 151 | 14888 | | 0.436 | 2.9551 | | 2 | 6341 | 10281 | 584317 | 0.100 | 0.0 | MM |
| 7 | PFHpA-2 | 68 | 363.073 > 168.962 | 5.54 | 2 | 14888 | | | | | 1 | 367 | 288 | 584317 | 0.100 | 0.0 | MMI |
| 8 | PFOA-1 | 69 | 413.006 > 369.03 | 6.34 | 535 | 18439 | | 1.032 | 0.0623 | | 5 | 2522 | 11948 | 489281 | 0.100 | 0.0 | MM |
| 9 | PFOA-2 | 69 | 413.006 > 168.963 | 6.35 | 143 | 18439 | | 0.860 | | | 12 | 375 | 4620 | 489281 | 0.100 | 0.0 | MM |
| 10 | PFNA-1 | 70 | 463.002 > 418.97 | 7.07 | 548 | 9146 | | 2.248 | 0.8647 | | 5 | 3788 | 17877 | 335307 | 0.100 | 0.0 | MM |
| 11 | PFNA-2 | 70 | 463.002 > 218.968 | 7.07 | 101 | 9146 | | 2.067 | 0.6323 | | 9 | 445 | 4168 | 335307 | 0.100 | 0.0 | MM |
| 12 | PFDA-1 | 72 | 512.935 > 469.021 | 7.47 | 351 | 9244 | | 0.884 | | | 5 | 2735 | 14455 | 355272 | 0.100 | 0.0 | MM |
| 13 | PFDA-2 | 72 | 512.935 > 218.972 | 7.47 | 87 | 9244 | | 2.164 | 0.6126 | | 7 | 434 | 2855 | 355272 | 0.100 | 0.0 | dd |
| 14 | PFUnA-1 | 71 | 563.124 > 519.003 | 7.72 | 58 | 2009 | | 1.773 | 5.0523 | | 2 | 1904 | 3330 | 81578 | 0.100 | 0.0 | MM |
| 15 | PFUnA-2 | 71 | 563.124 > 269.051 | 7.72 | 5 | 2009 | | 0.212 | 17.1670 | | 0 | 1100 | 431 | 81578 | 0.100 | 0.0 | MM |
| 16 | PFDoA-1 | 73 | 613.057 > 569.045 | 8.06 | 5 | 1880 | | | | | 0 | 1444 | 267 | 62603 | 0.100 | 0.0 | MMI |
| 17 | PFDoA-2 | 73 | 613.057 > 318.996 | 8.07 | 4 | 1880 | | 0.314 | 10.3310 | | 1 | 554 | 717 | 62603 | 0.100 | 0.0 | MM |
| 18 | PFTrDA-1 | 74 | 663.053 > 619.023 | | | 6 | | | | | | 2382 | | 413 | 0.100 | 0.0 | MM-I |
| 19 | PFTrDA-2 | 74 | 663.053 > 168.949 | | | 6 | | | | | | 96 | | 413 | 0.100 | 0.0 | MM-I |
| 20 | PFTeDA-1 | 74 | 713.05 > 669. | | | 6 | | | | | | 1555 | | 413 | 0.100 | 0.0 | MM-I |
| 21 | PFTeDA-2 | 74 | 713.05 > 168.94 | | | 6 | | | | | | 154 | | 413 | 0.100 | 0.0 | MM-I |
| 22 | PFBS-1 | 75 | 298.663 > 79.865 | 4.98 | 133 | 4153 | | 2.796 | 1.0221 | | 10 | 618 | 6022 | 159491 | 0.100 | 0.0 | MM |
| 23 | PFBS-2 | 76 | 298.663 > 98.811 | 4.99 | 36 | 2025 | | 1.036 | 0.6827 | | 5 | 360 | 1655 | 80606 | 0.100 | 0.0 | MM |
| 24 | PFPeS-1 | 77 | 349.107 > 79.857 | 5.60 | 26 | 3899 | | | | | 1 | 3144 | 2254 | 97352 | 0.100 | 0.0 | MMI |
| 25 | PFPeS-2 | 78 | 349.107 > 98.871 | 5.58 | 10 | 2104 | | | | | 1 | 605 | 787 | 54078 | 0.100 | 0.0 | MMI |
| 26 | PFHxS-1 | 77 | 398.721 > 79.92 | 6.48 | 2136 | 3899 | | 45.174 | 4.7494 | | 37 | 1460 | 54539 | 97352 | 0.100 | 0.0 | MM |
| 27 | PFHxS-2 | 78 | 398.721 > 98.863 | 6.46 | 8 | 2104 | | | | | 1 | 657 | 487 | 54078 | 0.100 | 0.0 | MMI |
| 28 | PFHpS-1 | 79 | 449.036 > 79.857 | 7.19 | 37 | 3590 | | 0.095 | 4.5303 | | 2 | 2235 | 5472 | 129835 | 0.100 | 0.0 | MM |
| 29 | PFHpS-2 | 80 | 449.036 > 98.8 | | | 2173 | | | 2.9874 | | | 739 | | 80894 | 0.100 | 0.0 | |
| 30 | PFOS-1 | 79 | 498.906 > 79.856 | 7.56 | 531 | 3590 | | 12.083 | 1.7528 | | 14 | 1362 | 18423 | 129835 | 0.100 | 0.0 | MM |
| 31 | PFOS-2 | 80 | 498.906 > 98.801 | 7.56 | 307 | 2173 | | 14.068 | 1.7184 | | 13 | 681 | 9053 | 80894 | 0.100 | 0.0 | MM |
| 32 | PFNS-1 | 79 | 548.775 > 79.858 | 7.93 | 48 | 3590 | | | | | 1 | 1191 | 1376 | 129835 | 0.100 | 0.0 | MMI |
| 33 | PFNS-2 | 80 | 548.775 > 98.801 | 7.92 | 15 | 2173 | | 0.333 | 0.9244 | | 2 | 359 | 776 | 80894 | 0.100 | 0.0 | MM |
| 34 | PFDS-1 | 79 | 599.027 > 79.92 | 8.12 | 55 | 3590 | | 1.281 | 2.8376 | | 2 | 1273 | 2057 | 129835 | 0.100 | 0.0 | MM |
| 35 | PFDS-2 | 80 | 599.027 > 98.8 | | | 2173 | | | 2.9445 | | | 454 | | 80894 | 0.100 | 0.0 | MM- |

PVed by WANGG 13-Apr-19, SVed by AP 16-Apr-19. NOTE: Units = ng/L for BLK and FIeld Samples.

**Quantify Sample Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_130-b.qld

Last Altered: Tuesday, April 16, 2019 12:33:52 Pacific Daylight Time
Printed: Tuesday, April 16, 2019 12:52:38 Pacific Daylight Time

**ID: WG67438-105,,dup, Name: FC9W_130S29, Description: 1,WG67438,2/4000uL, Date: 31-Mar-2019, Time: 02:49:49**

| # | Name | IS# | Trace | RT | Area | IS Area | Std. Conc | Conc. | LOD | %Rec | S/N | Noise | Peak Height | IS Height | Sample size | F2 | Flags |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 36 | PFDoS-1 | 79 | 699.084 > 79.856 | 8.99 | 34 | 3590 | | 0.539 | 0.8943 | | 3 | 525 | 1619 | 129835 | 0.100 | 0.0 | bb |
| 37 | PFDoS-2 | 80 | 699.084 > 98.8 | 9.06 | 3 | 2173 | | | | | 1 | 267 | 299 | 80894 | 0.100 | 0.0 | MMI |
| 38 | 4:2 FTS-1 | 81 | 327.077 > 307.017 | 4.91 | 1 | 3261 | | | | | 0 | 211 | 94 | 135259 | 0.100 | 0.0 | MMI |
| 39 | 4:2 FTS-2 | 81 | 327.077 > 80.85 | 4.91 | 2 | 3261 | | 0.737 | 6.2124 | | 0 | 1150 | 242 | 135259 | 0.100 | 0.0 | MM |
| 40 | 6:2 FTS-1 | 83 | 427.071 > 407.024 | 6.02 | 116 | 2150 | | 3.088 | | | 17 | 199 | 3356 | 61331 | 0.100 | 0.0 | bb |
| 41 | 6:2 FTS-2 | 83 | 427.071 > 80.9 | 6.02 | 108 | 2150 | | 9.128 | 7.1990 | | 4 | 805 | 3241 | 61331 | 0.100 | 0.0 | MM |
| 42 | 8:2 FTS-1 | 85 | 527.065 > 506.997 | 7.33 | 0 | 1790 | | | | | 0 | 11 | 0 | 70900 | 0.100 | 0.0 | MMI |
| 43 | 8:2 FTS-2 | 85 | 527.065 > 80.75 | 7.31 | 5 | 1790 | | | | | 0 | 432 | 96 | 70900 | 0.100 | 0.0 | MMI |
| 44 | PFOSA-1 | 87 | 498.113 > 77.902 | 8.64 | 83 | 3151 | | 3.604 | 0.9669 | | 55 | 45 | 2453 | 85438 | 0.100 | 0.0 | MM |
| 45 | PFOSA-2 | 87 | 498.113 > 477.993 | 8.65 | 0 | 3151 | | 19.497 | 22.2202 | | 1 | 19 | 20 | 85438 | 0.100 | 0.0 | MM |
| 46 | N-MeFOSA-1 | 88 | 511.937 > 218.985 | | | | | | | | | 177 | | | 0.100 | 0.0 | MM- |
| 47 | N-MeFOSA-2 | 88 | 511.937 > 168.955 | | | | | | | | | 339 | | | 0.100 | 0.0 | MM- |
| 48 | N-EtFOSA-1 | 89 | 526.017 > 218.977 | | | | | | | | | 98 | | | 0.100 | 0.0 | MM- |
| 49 | N-EtFOSA-2 | 89 | 526.017 > 168.95 | | | | | | | | | 287 | | | 0.100 | 0.0 | MM- |
| 50 | MeFOSAA-1 | 90 | 570.134 > 419.035 | 7.50 | 130 | 3518 | | 7.480 | | | 110 | 48 | 5234 | 142342 | 0.100 | 0.0 | MM |
| 51 | MeFOSAA-2 | 90 | 570.134 > 482.99 | 7.51 | 23 | 3518 | | 1.518 | | | 8 | 124 | 1028 | 142342 | 0.100 | 0.0 | MM |
| 52 | EtFOSAA-1 | 91 | 584.15 > 419.062 | 7.61 | 1684 | 1667 | | 263.064 | 4.4022 | | 225 | 336 | 75605 | 69275 | 0.100 | 0.0 | bb |
| 53 | EtFOSAA-2 | 91 | 584.15 > 526.045 | 7.61 | 1427 | 1667 | | 240.511 | 1.9608 | | 889 | 66 | 58369 | 69275 | 0.100 | 0.0 | bb |
| 54 | N-MeFOSE | 92 | 616.112 > 58.894 | | | | | | | | | 64 | | | 0.100 | 0.0 | MM- |
| 55 | N-EtFOSE | 93 | 630. > 58.893 | | | | | | | | | 98 | | | 0.100 | 0.0 | MM- |
| 56 | HFPO-DA-1 | 94 | 284.8894 > 168.... | 5.18 | 2 | 11753 | | | | | 1 | 201 | 148 | 487238 | 0.100 | 0.0 | MMI |
| 57 | HFPO-DA-2 | 95 | 284.8894 > 184.... | 5.19 | 8 | 5649 | | 0.104 | 3.9900 | | 1 | 809 | 601 | 233643 | 0.100 | 0.0 | MM |
| 58 | ADONA-1 | 94 | 376.88 > 250.937 | 5.83 | 1091 | 11753 | | 0.467 | | | 20 | 1053 | 21272 | 487238 | 0.100 | 0.0 | bb |
| 59 | ADONA-2 | 95 | 376.88 > 84.832 | | | 5649 | | | 5.9825 | | | 676 | | 233643 | 0.100 | 0.0 | MM- |
| 60 | 9Cl-PF3ONS-1 | 94 | 530.807 > 350.967 | 7.69 | 46 | 11753 | | | | | 1 | 1765 | 2300 | 487238 | 0.100 | 0.0 | MMI |
| 61 | 9Cl-PF3ONS-2 | 95 | 532.804 > 352.947 | | | 5649 | | | | | | 798 | | 233643 | 0.100 | 0.0 | MM-I |
| 62 | 11Cl-PF3OUdS-1 | 94 | 630.865 > 450.902 | 8.54 | 2 | 11753 | | | | | 1 | 182 | 155 | 487238 | 0.100 | 0.0 | MMI |
| 63 | 11Cl-PF3OUdS-2 | 95 | 632.868 > 452.91 | 8.59 | 20 | 5649 | | 0.972 | 0.9369 | | 5 | 274 | 1371 | 233643 | 0.100 | 0.0 | db |
| 64 | 13C4-PFBA | 96 | 216.776 > 171.928 | 1.95 | 36202 | 28163 | 40.000 | 251.129 | 0.1147 | 62.8 | 6466 | 95 | 611841 | 483654 | 0.100 | 0.0 | bb |
| 65 | 13C5-PFPeA | 97 | 268.16 > 223.035 | 4.25 | 18381 | 18544 | 20.000 | 122.181 | 0.0508 | 61.1 | 5160 | 108 | 556843 | 784800 | 0.100 | 0.0 | bb |
| 66 | 13C5-PFHxA-1 | 97 | 318.029 > 272.993 | 5.04 | 9148 | 18544 | 10.000 | 70.060 | 0.3144 | 70.1 | 663 | 579 | 383847 | 784800 | 0.100 | 0.0 | bb |
| 67 | 13C5-PFHxA-2 | 97 | 318.029 > 120.341 | 5.04 | 404 | 18544 | 10.000 | 91.041 | 10.7127 | 91.0 | 23 | 670 | 15724 | 784800 | 0.100 | 0.0 | bb |
| 68 | 13C4-PFHpA | 99 | 367.086 > 322.004 | 5.54 | 14888 | 4167 | 10.000 | 65.709 | 0.1933 | 65.7 | 1525 | 383 | 584317 | 109369 | 0.100 | 0.0 | bb |
| 69 | 13C8-PFOA | 99 | 421.096 > 376.022 | 6.34 | 18439 | 4167 | 10.000 | 70.829 | 0.1147 | 70.8 | 1873 | 261 | 489281 | 109369 | 0.100 | 0.0 | bb |
| 70 | 13C9-PFNA | 100 | 472.096 > 427.014 | 7.07 | 9146 | 10778 | 5.000 | 39.075 | 0.1451 | 78.1 | 834 | 402 | 335307 | 382843 | 0.100 | 0.0 | bb |

PVed by WANGG 13-Apr-19, SVed by AP 16-Apr-19. NOTE: Units = ng/L for BLK and FIeld Samples.

**Quantify Sample Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_130-b.qld

Last Altered: Tuesday, April 16, 2019 12:33:52 Pacific Daylight Time
Printed: Tuesday, April 16, 2019 12:52:38 Pacific Daylight Time

**ID: WG67438-105,,dup, Name: FC9W_130S29, Description: 1,WG67438,2/4000uL, Date: 31-Mar-2019, Time: 02:49:49**

| # | Name | IS# | Trace | RT | Area | IS Area | Std. Conc | Conc. | LOD | %Rec | S/N | Noise | Peak Height | IS Height | Sample size | F2 | Flags |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 71 | 13C7-PFUnA | 101 | 570.019 > 525.05 | 7.72 | 2009 | 10268 | 5.000 | 8.749 | 0.1966 | 17.5 | 144 | 568 | 81578 | 387722 | 0.100 | 0.0 | MM |
| 72 | 13C6-PFDA | 101 | 519.147 > 474.058 | 7.46 | 9244 | 10268 | 5.000 | 47.843 | 0.0043 | 95.7 | 341... | 10 | 355272 | 387722 | 0.100 | 0.0 | bb |
| 73 | 13C2-PFDoA | 101 | 615.127 > 570.013 | 8.06 | 1880 | 10268 | 5.000 | 11.473 | 0.0516 | 22.9 | 588 | 107 | 62603 | 387722 | 0.100 | 0.0 | bb |
| 74 | 13C2-PFTeDA | 101 | 715.057 > 670.026 | 8.82 | 6 | 10268 | 5.000 | 0.038 | 0.1323 | 0.1 | 2 | 268 | 413 | 387722 | 0.100 | 0.0 | MM |
| 75 | 13C3-PFBS-1 | 102 | 302.056 > 79.865 | 4.98 | 4153 | 4857 | 10.000 | 71.049 | 1.8906 | 71.0 | 165 | 968 | 159491 | 127632 | 0.100 | 0.0 | MM |
| 76 | 13C3-PFBS-2 | 102 | 302.056 > 98.875 | 4.98 | 2025 | 4857 | 10.000 | 71.643 | 0.7174 | 71.6 | 454 | 178 | 80606 | 127632 | 0.100 | 0.0 | bb |
| 77 | 13C3-PFHxS-1 | 102 | 402.114 > 79.858 | 6.46 | 3899 | 4857 | 10.000 | 77.384 | 3.0898 | 77.4 | 71 | 1363 | 97352 | 127632 | 0.100 | 0.0 | MM |
| 78 | 13C3-PFHxS-2 | 102 | 402.114 > 98.801 | 6.47 | 2104 | 4857 | 10.000 | 74.976 | 0.9236 | 75.0 | 238 | 227 | 54078 | 127632 | 0.100 | 0.0 | bb |
| 79 | 13C8-PFOS-1 | 103 | 507.124 > 79.858 | 7.56 | 3590 | 4783 | 10.000 | 94.819 | 4.9140 | 94.8 | 55 | 2363 | 129835 | 182217 | 0.100 | 0.0 | MM |
| 80 | 13C8-PFOS-2 | 104 | 507.124 > 98.867 | 7.56 | 2173 | 3062 | 10.000 | 90.454 | 1.4851 | 90.5 | 173 | 468 | 80894 | 120403 | 0.100 | 0.0 | bb |
| 81 | 13C2-4:2 FTS-1 | 102 | 329.084 > 80.9 | 4.91 | 3261 | 4857 | 20.000 | 189.041 | 6.8409 | 94.5 | 131 | 1034 | 135259 | 127632 | 0.100 | 0.0 | MM |
| 82 | 13C2-4:2 FTS-2 | 102 | 329.084 > 309.024 | 4.91 | 5991 | 4857 | 20.000 | 148.803 | 0.7696 | 74.4 | 947 | 271 | 256978 | 127632 | 0.100 | 0.0 | bb |
| 83 | 13C2-6:2 FTS-1 | 102 | 429.078 > 80.900 | 6.02 | 2150 | 4857 | 20.000 | 154.297 | 7.9314 | 77.1 | 63 | 968 | 61331 | 127632 | 0.100 | 0.0 | bd |
| 84 | 13C2-6:2 FTS-2 | 102 | 429.078 > 409.031 | 6.02 | 3986 | 4857 | 20.000 | 124.919 | 0.4525 | 62.5 | 928 | 126 | 117432 | 127632 | 0.100 | 0.0 | bb |
| 85 | 13C2-8:2 FTS-1 | 102 | 529.1351 > 80.900 | 7.31 | 1790 | 4857 | 20.000 | 85.980 | 2.3661 | 43.0 | 164 | 432 | 70900 | 127632 | 0.100 | 0.0 | MM |
| 86 | 13C2-8:2 FTS-2 | 102 | 529.135 > 509.003 | 7.31 | 926 | 4857 | 20.000 | 33.077 | 0.0347 | 16.5 | 6510 | 9 | 55484 | 127632 | 0.100 | 0.0 | bb |
| 87 | 13C8-PFOSA | 103 | 506.14 > 77.841 | 8.64 | 3151 | 4783 | 10.000 | 52.634 | 0.0214 | 52.6 | 5251 | 16 | 85438 | 182217 | 0.100 | 0.0 | bb |
| 88 | D3-N-MeFOSA | 103 | 514.956 > 218.974 | | | 4783 | 10.000 | | 1.2864 | | | 505 | | 182217 | 0.100 | 0.0 | MM- |
| 89 | D5-N-EtFOSA | 103 | 531.112 > 218.984 | | | 4783 | 10.000 | | 1.8332 | | | 608 | | 182217 | 0.100 | 0.0 | MM- |
| 90 | D3-MeFOSAA | 103 | 573.153 > 418.99 | 7.49 | 3518 | 4783 | 20.000 | 105.831 | 0.0816 | 52.9 | 4134 | 34 | 142342 | 182217 | 0.100 | 0.0 | MM |
| 91 | D5-EtFOSAA | 103 | 589.245 > 418.971 | 7.60 | 1667 | 4783 | 20.000 | 60.010 | 0.1021 | 30.0 | 1923 | 36 | 69275 | 182217 | 0.100 | 0.0 | bb |
| 92 | D7-N-MeFOSE | 103 | 623.156 > 58.896 | | | 4783 | 100.000 | | 0.6492 | | | 118 | | 182217 | 0.100 | 0.0 | MM- |
| 93 | D9-N-EtFOSE | 103 | 639.184 > 58.897 | | | 4783 | 100.000 | | 0.8133 | | | 153 | | 182217 | 0.100 | 0.0 | MM- |
| 94 | 13C3-HFPO-DA-1 | 97 | 286.8631 > 168.... | 5.18 | 11753 | 18544 | 40.000 | 196.023 | 0.6921 | 49.0 | 832 | 585 | 487238 | 784800 | 0.100 | 0.0 | bb |
| 95 | 13C3-HFPO-DA-2 | 97 | 286.8631 > 184.... | 5.18 | 5649 | 18544 | 40.000 | 192.335 | 1.7115 | 48.1 | 329 | 709 | 233643 | 784800 | 0.100 | 0.0 | bb |
| 96 | 13C3-PFBA | | 216.029 > 171.97 | 1.95 | 28163 | | 20.000 | 201.198 | 1.3748 | 100.6 | 439 | 1102 | 483654 | | 0.100 | 0.0 | bb |
| 97 | 13C2-PFHxA-1 | | 315.083 > 269.984 | 5.04 | 18544 | | 10.000 | 103.870 | 0.0967 | 103.9 | 3221 | 244 | 784800 | | 0.100 | 0.0 | bb |
| 98 | 13C2-PFHxA-2 | | 315.083 > 119.359 | 5.04 | 470 | | 10.000 | 87.139 | 2.8242 | 87.1 | 93 | 205 | 18977 | | 0.100 | 0.0 | bb |
| 99 | 13C4-PFOA | | 417.083 > 171.95 | 6.34 | 4167 | | 10.000 | 138.688 | 0.1386 | 138.7 | 3002 | 36 | 109369 | | 0.100 | 0.0 | bb |
| 1... | 13C5-PFNA | | 468.019 > 423.008 | 7.07 | 10778 | | 5.000 | 52.835 | 0.1787 | 105.7 | 887 | 432 | 382843 | | 0.100 | 0.0 | bb |
| 1... | 13C2-PFDA | | 515.134 > 470.05 | 7.46 | 10268 | | 5.000 | 45.138 | 0.0970 | 90.3 | 1397 | 278 | 387722 | | 0.100 | 0.0 | bb |
| 1... | 18O2-PFHxS | | 402.984 > 83.895 | 6.47 | 4857 | | 10.000 | 123.654 | 0.2564 | 123.7 | 1447 | 88 | 127632 | | 0.100 | 0.0 | bb |
| 1... | 13C4-PFOS-1 | | 502.791 > 79.856 | 7.56 | 4783 | | 10.000 | 98.309 | 2.6857 | 98.3 | 110 | 1659 | 182217 | | 0.100 | 0.0 | bb |
| 1... | 13C4-PFOS-2 | | 502.791 > 98.864 | 7.56 | 3062 | | 10.000 | 98.055 | 1.4597 | 98.1 | 202 | 597 | 120403 | | 0.100 | 0.0 | bb |

PVed by WANGG 13-Apr-19, SVed by AP 16-Apr-19. NOTE: Units = ng/L for BLK and FIeld Samples.

**Quantify Sample Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

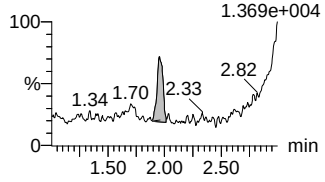
Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_130-b.qld

Last Altered: Tuesday, April 16, 2019 12:33:52 Pacific Daylight Time
Printed: Tuesday, April 16, 2019 12:54:08 Pacific Daylight Time

**Method: G:\Masslynx\Master Methods\MassLynx SCN 909\UPLC\FC_110_UPLC_06.mdb 10 Mar 2019 18:18:03**
**Calibration: G:\Masslynx\Inst_W\PFC.PRO\Curve\FC9W_097-a1.cdb 12 Mar 2019 11:26:10**

**ID: L30821-2,,, Name: FC9W_130S30, Description: 1,WG67438,2/4000uL, Date: 31-Mar-2019, Time: 03:03:09**

**PFBA**

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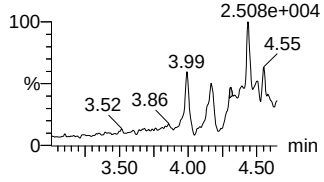


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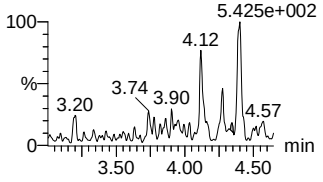


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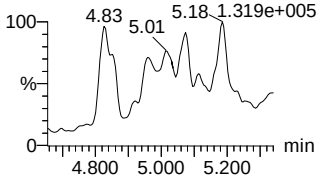


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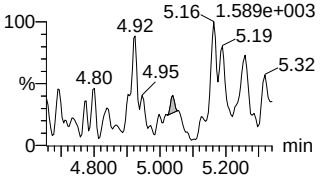


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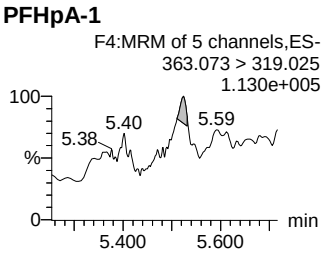


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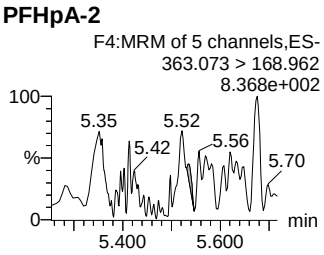


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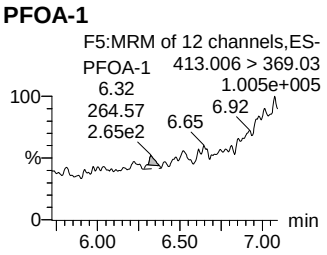


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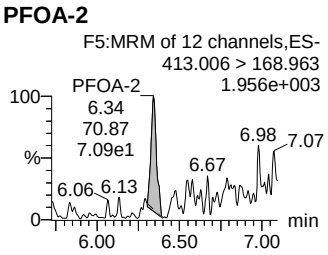


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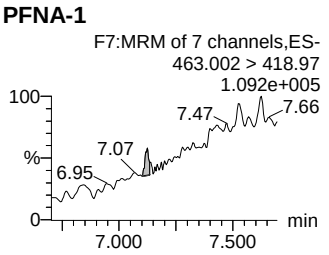


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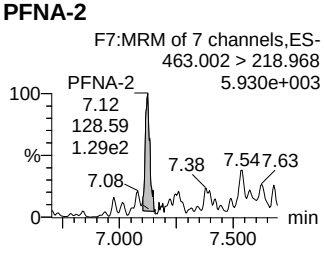


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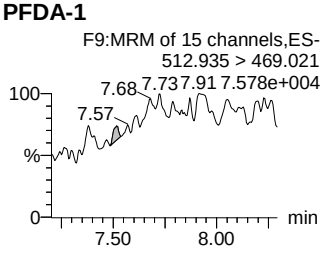


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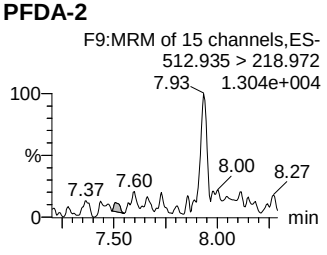


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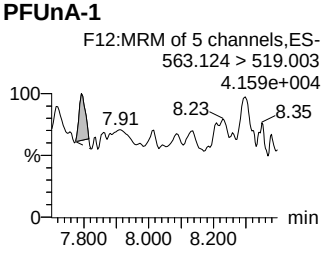


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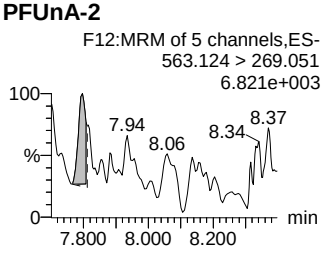


PVed by WANGG 13-Apr-19, SVed by AP 16-Apr-19. NOTE: Units = ng/L for BLK and FIeld Samples.

**Quantify Sample Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_130-b.qld

Last Altered: Tuesday, April 16, 2019 12:33:52 Pacific Daylight Time
Printed: Tuesday, April 16, 2019 12:54:08 Pacific Daylight Time

**ID: L30821-2,,, Name: FC9W_130S30, Description: 1,WG67438,2/4000uL, Date: 31-Mar-2019, Time: 03:03:09**

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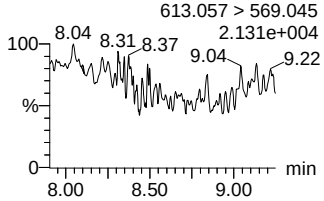


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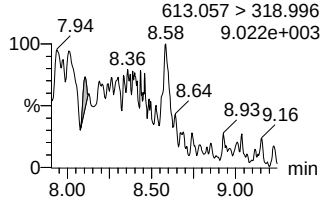


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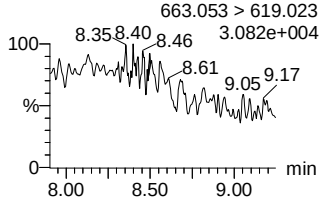


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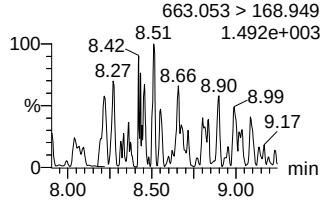


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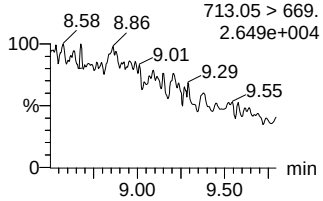


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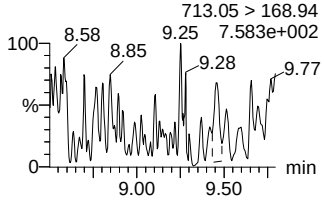


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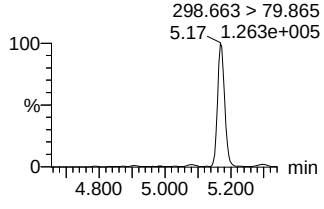


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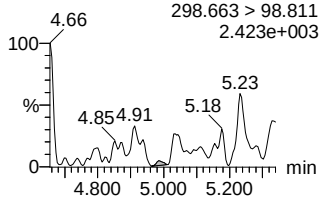


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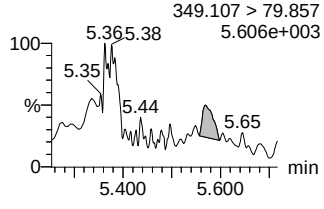


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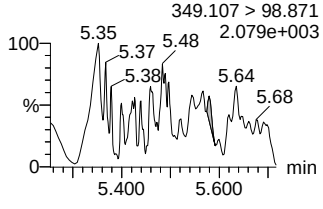


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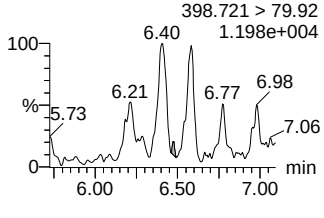


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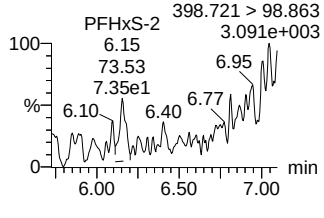


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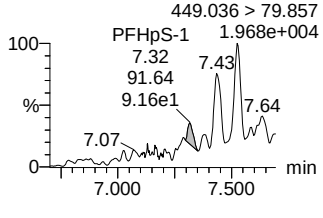


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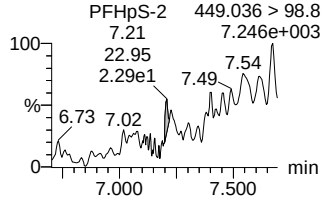


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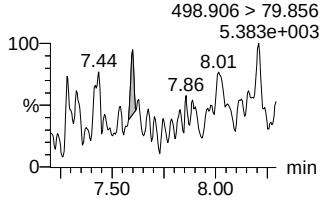


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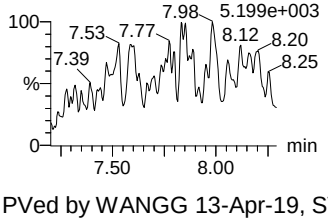


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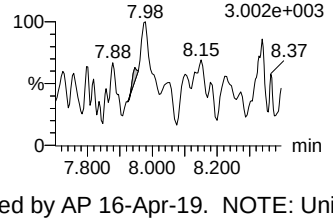


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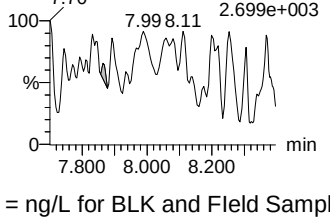


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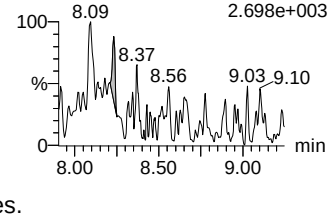


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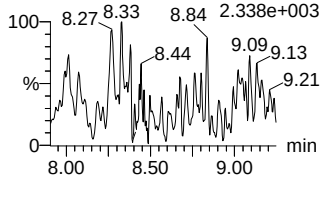


PVed by WANGG 13-Apr-19, SVed by AP 16-Apr-19. NOTE: Units = ng/L for BLK and FIeld Samples.

**Quantify Sample Report** **MassLynx MassLynx V4.1 SCN909**
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**ID: L30821-2,,, Name: FC9W_130S30, Description: 1,WG67438,2/4000uL, Date: 31-Mar-2019, Time: 03:03:09**

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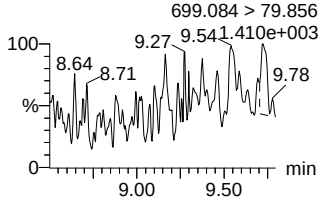


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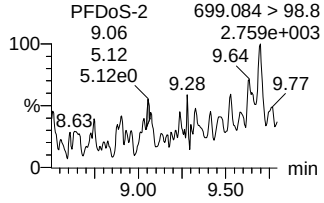


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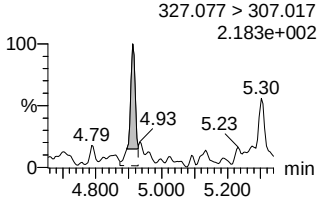


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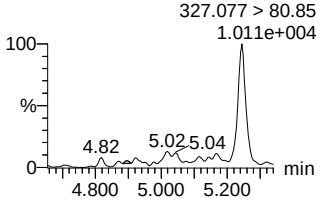


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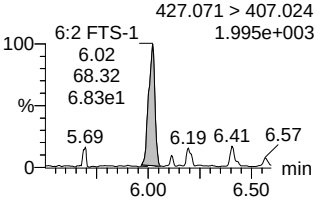


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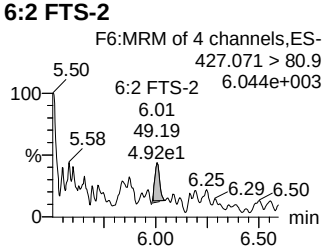


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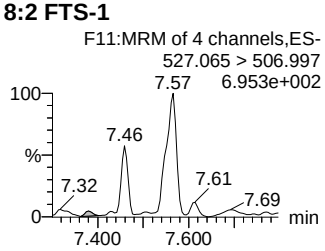


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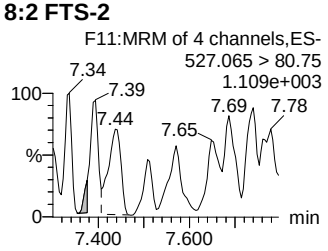


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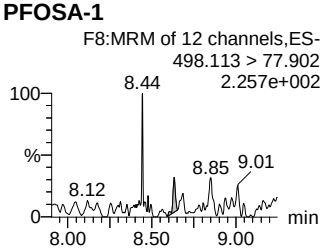


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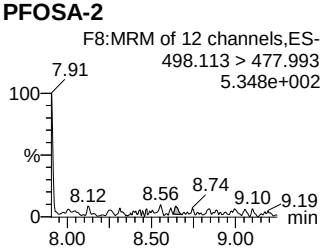


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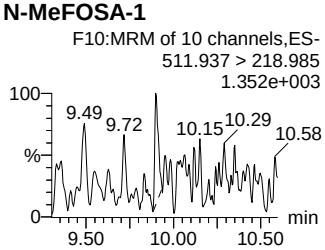


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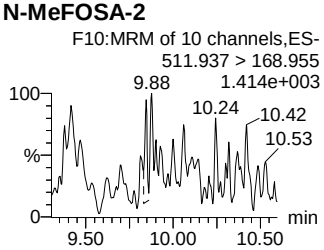


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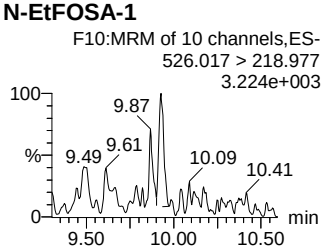


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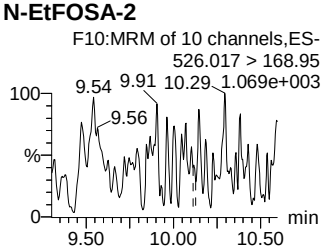


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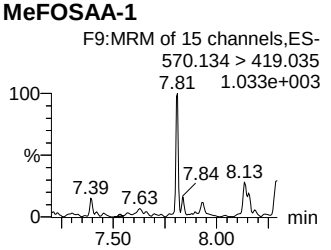
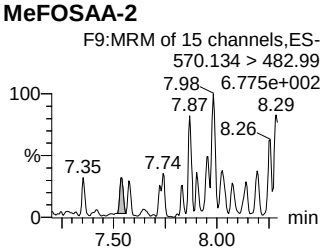



**MeFOSAA-2**

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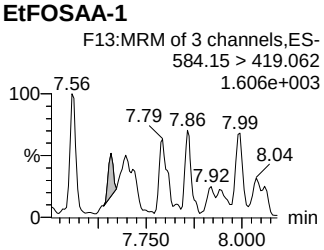


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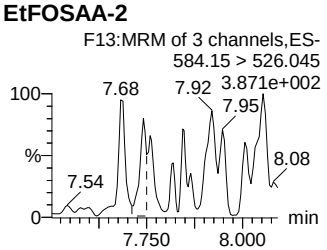
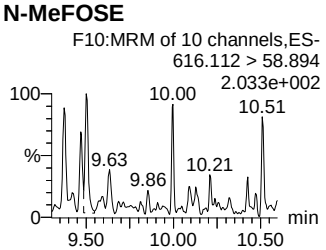
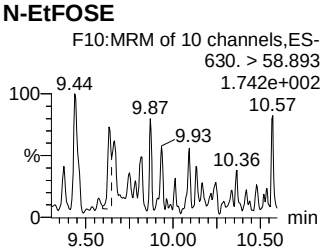



**N-MeFOSE**




**N-EtFOSE**




PVed by WANGG 13-Apr-19, SVed by AP 16-Apr-19. NOTE: Units = ng/L for BLK and FIeld Samples.

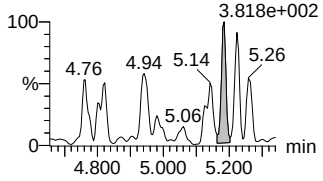
**Quantify Sample Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_130-b.qld

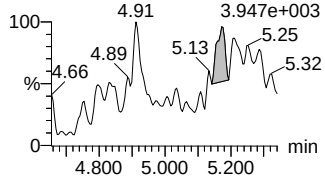
Last Altered: Tuesday, April 16, 2019 12:33:52 Pacific Daylight Time
Printed: Tuesday, April 16, 2019 12:54:08 Pacific Daylight Time

**ID: L30821-2,,, Name: FC9W_130S30, Description: 1,WG67438,2/4000uL, Date: 31-Mar-2019, Time: 03:03:09**

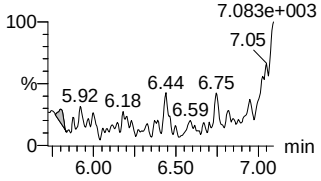
**HFPO-DA-1**



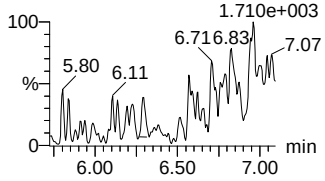

**HFPO-DA-2**



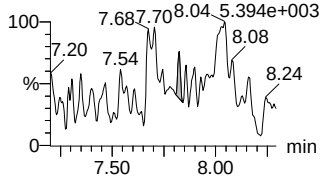

**ADONA-1**



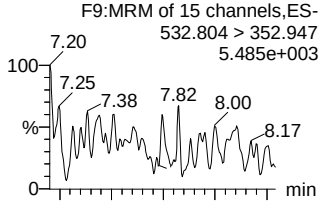

**ADONA-2**



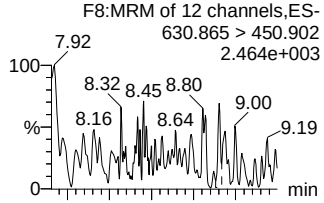

**9Cl-PF3ONS-1**



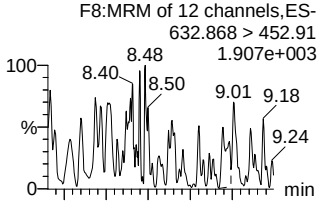

**9Cl-PF3ONS-2**



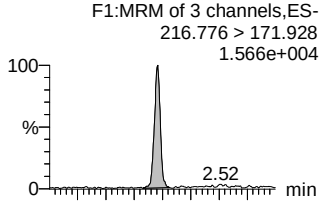

**11Cl-PF3OUdS-1**



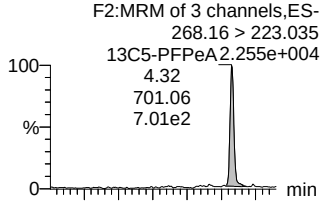

**11Cl-PF3OUdS-2**



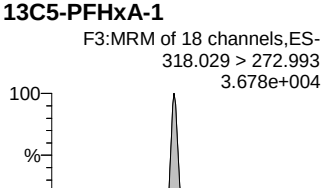

**13C4-PFBA**




**13C5-PFPeA**




**13C5-PFHxA-1**

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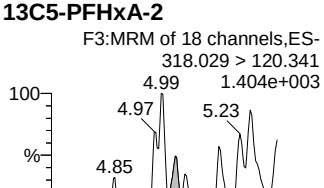
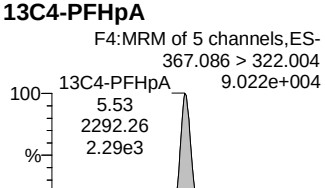
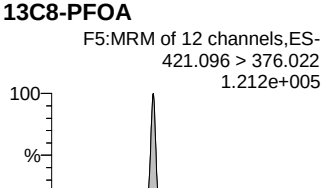


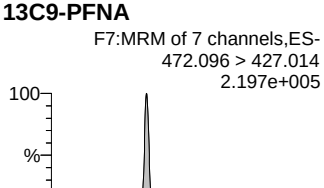

**13C4-PFHpA**



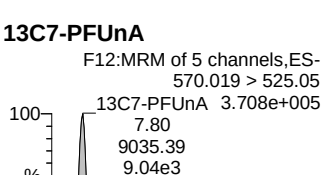

**13C8-PFOA**



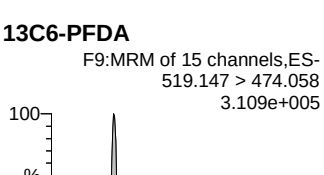

**13C9-PFNA**



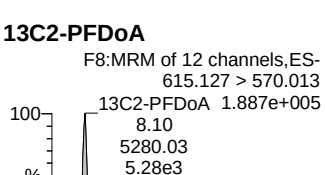

**13C7-PFUnA**



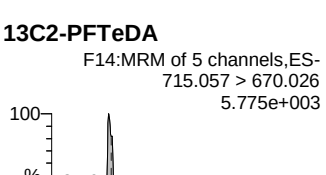

**13C6-PFDA**



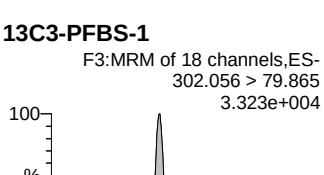

**13C2-PFDoA**




**13C2-PFTeDA**




**13C3-PFBS-1**




PVed by WANGG 13-Apr-19, SVed by AP 16-Apr-19. NOTE: Units = ng/L for BLK and FIeld Samples.

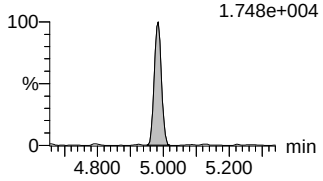
**Quantify Sample Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_130-b.qld

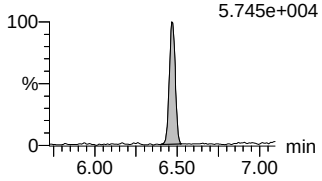
Last Altered: Tuesday, April 16, 2019 12:33:52 Pacific Daylight Time
Printed: Tuesday, April 16, 2019 12:54:08 Pacific Daylight Time

**ID: L30821-2,,, Name: FC9W_130S30, Description: 1,WG67438,2/4000uL, Date: 31-Mar-2019, Time: 03:03:09**

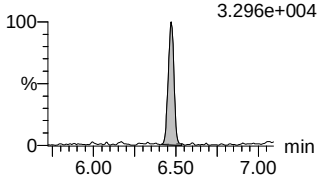
**13C3-PFBS-2**
F3:MRM of 18 channels,ES-
302.056 > 98.875
1.748e+004



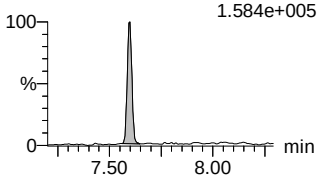
**13C3-PFHxS-1**
F5:MRM of 12 channels,ES-
402.114 > 79.858
5.745e+004



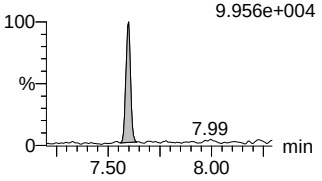
**13C3-PFHxS-2**
F5:MRM of 12 channels,ES-
402.114 > 98.801
3.296e+004



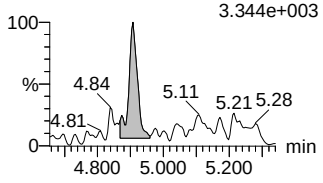
**13C8-PFOS-1**
F9:MRM of 15 channels,ES-
507.124 > 79.858
1.584e+005



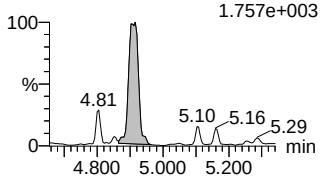
**13C8-PFOS-2**
F9:MRM of 15 channels,ES-
507.124 > 98.867
9.956e+004



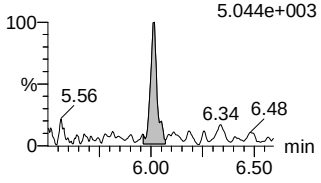

**13C2-4:2 FTS-1**
F3:MRM of 18 channels,ES-
329.084 > 80.9
3.344e+003



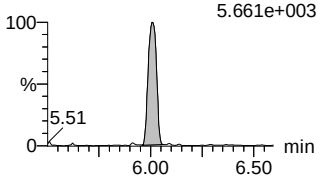

**13C2-4:2 FTS-2**
F3:MRM of 18 channels,ES-
329.084 > 309.024
1.757e+003



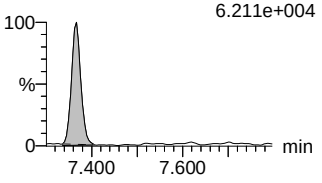

**13C2-6:2 FTS-1**
F6:MRM of 4 channels,ES-
429.078 > 80.900
5.044e+003



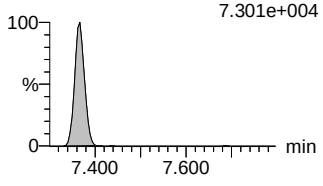

**13C2-6:2 FTS-2**
F6:MRM of 4 channels,ES-
429.078 > 409.031
5.661e+003



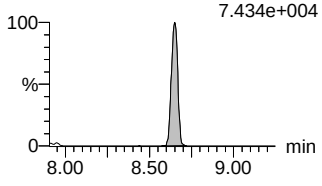

**13C2-8:2 FTS-1**
F11:MRM of 4 channels,ES-
529.1351 > 80.900
6.211e+004



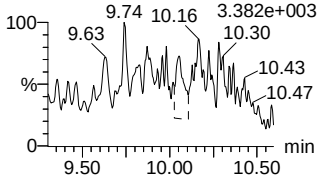
**13C2-8:2 FTS-2**
F11:MRM of 4 channels,ES-
529.135 > 509.003
7.301e+004



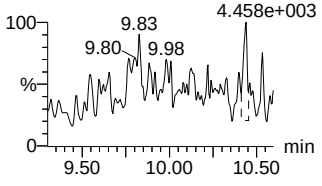
**13C8-PFOSA**
F8:MRM of 12 channels,ES-
506.14 > 77.841
7.434e+004



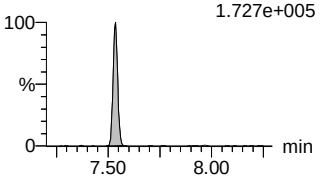
**D3-N-MeFOSA**
F10:MRM of 10 channels,ES-
514.956 > 218.974
3.382e+003



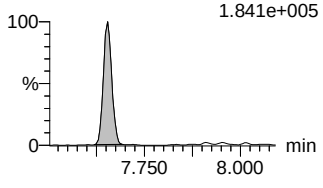

**D5-N-EtFOSA**
F10:MRM of 10 channels,ES-
531.112 > 218.984
4.458e+003



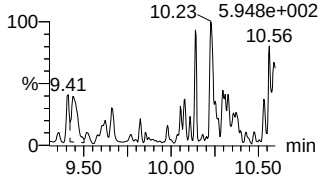

**D3-MeFOSAA**
F9:MRM of 15 channels,ES-
573.153 > 418.99
1.727e+005



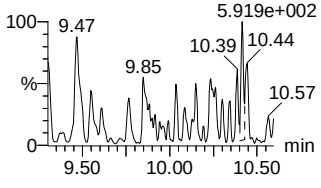
**D5-EtFOSAA**
F13:MRM of 3 channels,ES-
589.245 > 418.971
1.841e+005



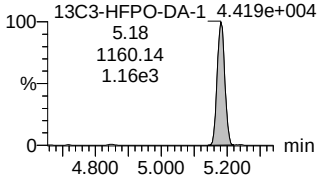
**D7-N-MeFOSE**
F10:MRM of 10 channels,ES-
623.156 > 58.896
5.948e+002



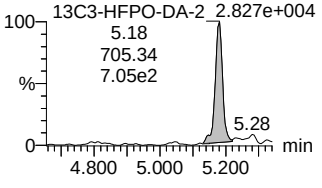

**D9-N-EtFOSE**
F10:MRM of 10 channels,ES-
639.184 > 58.897
5.919e+002




**13C3-HFPO-DA-1**
F3:MRM of 18 channels,ES-
286.8631 > 168.8861
13C3-HFPO-DA-1 4.419e+004




**13C3-HFPO-DA-2**
F3:MRM of 18 channels,ES-
286.8631 > 184.8888
13C3-HFPO-DA-2 2.827e+004




PVed by WANGG 13-Apr-19, SVed by AP 16-Apr-19. NOTE: Units = ng/L for BLK and FIeld Samples.

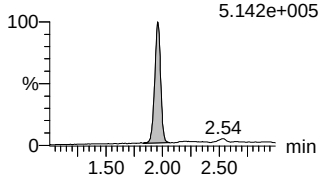
**Quantify Sample Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_130-b.qld

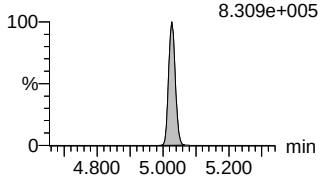
Last Altered: Tuesday, April 16, 2019 12:33:52 Pacific Daylight Time
Printed: Tuesday, April 16, 2019 12:54:08 Pacific Daylight Time

**ID: L30821-2,,, Name: FC9W_130S30, Description: 1,WG67438,2/4000uL, Date: 31-Mar-2019, Time: 03:03:09**

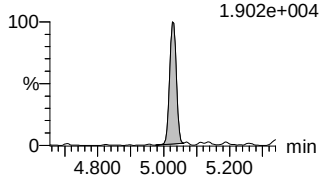
**13C3-PFBA**



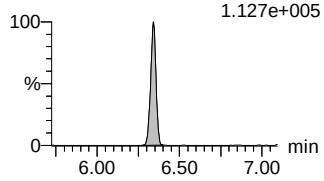

**13C2-PFHxA-1**



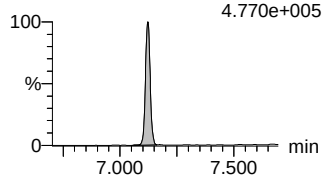

**13C2-PFHxA-2**



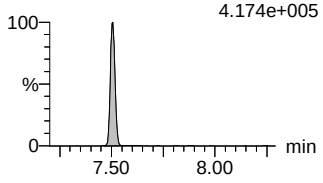

**13C4-PFOA**



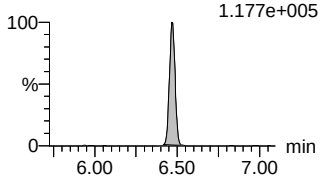

**13C5-PFNA**



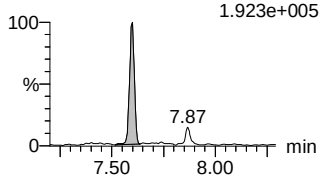

**13C2-PFDA**



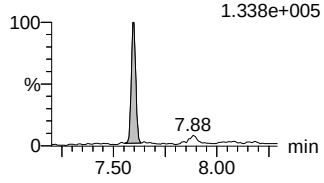

**18O2-PFHxS**




**13C4-PFOS-1**




**13C4-PFOS-2**




PVed by WANGG 13-Apr-19, SVed by AP 16-Apr-19. NOTE: Units = ng/L for BLK and FIeld Samples.

**Quantify Sample Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_130-b.qld

Last Altered: Tuesday, April 16, 2019 12:33:52 Pacific Daylight Time
Printed: Tuesday, April 16, 2019 12:54:08 Pacific Daylight Time

**ID: L30821-2,,, Name: FC9W_130S30, Description: 1,WG67438,2/4000uL, Date: 31-Mar-2019, Time: 03:03:09**

| # | Name | IS# | Trace | RT | Area | IS Area | Std. Conc | Conc. | LOD | %Rec | S/N | Noise | Peak Height | IS Height | Sample size | F2 | Flags |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | PFBA | 64 | 212.763 > 168.903 | 1.95 | 434 | 935 | | 220.052 | 27.9574 | | 22 | 322 | 7226 | 15560 | 0.100 | 0.0 | MM |
| 2 | PFPeA-1 | 65 | 262.951 > 218.996 | 4.31 | 31 | 701 | | 7.423 | 10.5775 | | 5 | 440 | 2011 | 22111 | 0.100 | 0.0 | MM |
| 3 | PFPeA-2 | 65 | 262.951 > 68.925 | 4.34 | 0 | 701 | | 42.718 | 209.01... | | 1 | 25 | 36 | 22111 | 0.100 | 0.0 | MM |
| 4 | PFHxA-1 | 66 | 313.012 > 269.017 | 5.03 | 3 | 860 | | | | | 0 | 3087 | 36 | 35797 | 0.100 | 0.0 | MMI |
| 5 | PFHxA-2 | 66 | 313.012 > 118.918 | 5.04 | 3 | 860 | | 3.280 | 32.8655 | | 1 | 418 | 218 | 35797 | 0.100 | 0.0 | MM |
| 6 | PFHpA-1 | 68 | 363.073 > 319.025 | 5.52 | 319 | 2292 | | 14.943 | 20.0660 | | 4 | 5537 | 24665 | 89818 | 0.100 | 0.0 | MM |
| 7 | PFHpA-2 | 68 | 363.073 > 168.962 | 5.53 | 1 | 2292 | | | | | 0 | 221 | 76 | 89818 | 0.100 | 0.0 | MMI |
| 8 | PFOA-1 | 69 | 413.006 > 369.03 | 6.32 | 265 | 4574 | | 3.089 | 5.0652 | | 2 | 3447 | 7607 | 120944 | 0.100 | 0.0 | MM |
| 9 | PFOA-2 | 69 | 413.006 > 168.963 | 6.34 | 71 | 4574 | | 2.707 | 0.0210 | | 11 | 172 | 1819 | 120944 | 0.100 | 0.0 | MM |
| 10 | PFNA-1 | 70 | 463.002 > 418.97 | 7.12 | 449 | 5292 | | 3.569 | 2.0735 | | 6 | 4142 | 24299 | 219427 | 0.100 | 0.0 | MM |
| 11 | PFNA-2 | 70 | 463.002 > 218.968 | 7.12 | 129 | 5292 | | 4.752 | 1.2913 | | 11 | 529 | 5633 | 219427 | 0.100 | 0.0 | MM |
| 12 | PFDA-1 | 72 | 512.935 > 469.021 | 7.52 | 252 | 8055 | | 0.437 | 2.1894 | | 1 | 5946 | 8597 | 310640 | 0.100 | 0.0 | MM |
| 13 | PFDA-2 | 72 | 512.935 > 218.972 | 7.51 | 32 | 8055 | | 0.678 | 1.6065 | | 1 | 764 | 955 | 310640 | 0.100 | 0.0 | MM |
| 14 | PFUnA-1 | 71 | 563.124 > 519.003 | 7.79 | 340 | 9035 | | 2.469 | 2.0343 | | 4 | 3953 | 15672 | 368066 | 0.100 | 0.0 | MM |
| 15 | PFUnA-2 | 71 | 563.124 > 269.051 | 7.80 | 119 | 9035 | | 4.993 | 1.9665 | | 6 | 785 | 4983 | 368066 | 0.100 | 0.0 | MM |
| 16 | PFDoA-1 | 73 | 613.057 > 569.045 | 8.10 | 8 | 5280 | | | | | 0 | 2300 | 750 | 188185 | 0.100 | 0.0 | MMI |
| 17 | PFDoA-2 | 73 | 613.057 > 318.996 | 8.10 | 57 | 5280 | | 3.857 | 7.9629 | | 2 | 1304 | 2418 | 188185 | 0.100 | 0.0 | MM |
| 18 | PFTrDA-1 | 74 | 663.053 > 619.023 | 8.50 | 32 | 191 | | 8.476 | 135.72... | | 1 | 3780 | 3624 | 5269 | 0.100 | 0.0 | MM |
| 19 | PFTrDA-2 | 74 | 663.053 > 168.949 | | | 191 | | | | | | 348 | | 5269 | 0.100 | 0.0 | MM-I |
| 20 | PFTeDA-1 | 74 | 713.05 > 669. | | | 191 | | | | | | 2237 | | 5269 | 0.100 | 0.0 | MM-I |
| 21 | PFTeDA-2 | 74 | 713.05 > 168.94 | | | 191 | | | | | | 216 | | 5269 | 0.100 | 0.0 | MM-I |
| 22 | PFBS-1 | 75 | 298.663 > 79.865 | 4.98 | 2 | 899 | | 0.220 | 1.9250 | | 1 | 243 | 182 | 33193 | 0.100 | 0.0 | MM |
| 23 | PFBS-2 | 76 | 298.663 > 98.811 | 4.98 | 2 | 433 | | | | | 0 | 301 | 91 | 17458 | 0.100 | 0.0 | MMI |
| 24 | PFPeS-1 | 77 | 349.107 > 79.857 | 5.57 | 36 | 2371 | | 0.812 | 2.0258 | | 3 | 510 | 1464 | 56933 | 0.100 | 0.0 | MM |
| 25 | PFPeS-2 | 78 | 349.107 > 98.871 | 5.58 | 3 | 1332 | | | | | 1 | 468 | 422 | 32867 | 0.100 | 0.0 | MMI |
| 26 | PFHxS-1 | 77 | 398.721 > 79.92 | 6.47 | 20 | 2371 | | 1.821 | 3.6742 | | 2 | 600 | 1283 | 56933 | 0.100 | 0.0 | MM |
| 27 | PFHxS-2 | 78 | 398.721 > 98.863 | | | 1332 | | | | | | 344 | | 32867 | 0.100 | 0.0 | MM-I |
| 28 | PFHpS-1 | 79 | 449.036 > 79.857 | 7.32 | 92 | 3981 | | 1.469 | 0.9938 | | 3 | 967 | 3354 | 156149 | 0.100 | 0.0 | MM |
| 29 | PFHpS-2 | 80 | 449.036 > 98.8 | 7.21 | 23 | 2517 | | 1.045 | 2.9505 | | 2 | 877 | 1886 | 97159 | 0.100 | 0.0 | bb |
| 30 | PFOS-1 | 79 | 498.906 > 79.856 | 7.60 | 50 | 3981 | | 0.079 | 0.7941 | | 3 | 1075 | 2823 | 156149 | 0.100 | 0.0 | MM |
| 31 | PFOS-2 | 80 | 498.906 > 98.801 | | | 2517 | | | | | | 1148 | | 97159 | 0.100 | 0.0 | |
| 32 | PFNS-1 | 79 | 548.775 > 79.858 | 7.95 | 5 | 3981 | | | | | 0 | 1009 | 334 | 156149 | 0.100 | 0.0 | MMI |
| 33 | PFNS-2 | 80 | 548.775 > 98.801 | 7.86 | 4 | 2517 | | | | | 0 | 922 | 336 | 97159 | 0.100 | 0.0 | MMI |
| 34 | PFDS-1 | 79 | 599.027 > 79.92 | 8.23 | 25 | 3981 | | 0.269 | 0.8765 | | 2 | 608 | 1386 | 156149 | 0.100 | 0.0 | MM |
| 35 | PFDS-2 | 80 | 599.027 > 98.8 | | | 2517 | | | 2.7269 | | | 486 | | 97159 | 0.100 | 0.0 | MM- |

PVed by WANGG 13-Apr-19, SVed by AP 16-Apr-19. NOTE: Units = ng/L for BLK and FIeld Samples.

**Quantify Sample Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_130-b.qld

Last Altered: Tuesday, April 16, 2019 12:33:52 Pacific Daylight Time
Printed: Tuesday, April 16, 2019 12:54:08 Pacific Daylight Time

**ID: L30821-2,,, Name: FC9W_130S30, Description: 1,WG67438,2/4000uL, Date: 31-Mar-2019, Time: 03:03:09**

| # | Name | IS# | Trace | RT | Area | IS Area | Std. Conc | Conc. | LOD | %Rec | S/N | Noise | Peak Height | IS Height | Sample size | F2 | Flags |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 36 | PFDoS-1 | 79 | 699.084 > 79.856 | | | 3981 | | | | | | 323 | | 156149 | 0.100 | 0.0 | MM-I |
| 37 | PFDoS-2 | 80 | 699.084 > 98.8 | 9.06 | 5 | 2517 | | | | | 2 | 352 | 534 | 97159 | 0.100 | 0.0 | MMI |
| 38 | 4:2 FTS-1 | 81 | 327.077 > 307.017 | 4.91 | 3 | 94 | | 2.480 | 6.4817 | | 3 | 60 | 185 | 3135 | 0.100 | 0.0 | MM |
| 39 | 4:2 FTS-2 | 81 | 327.077 > 80.85 | 4.89 | 3 | 94 | | 7.718 | 67.6299 | | 1 | 318 | 228 | 3135 | 0.100 | 0.0 | MM |
| 40 | 6:2 FTS-1 | 83 | 427.071 > 407.024 | 6.02 | 68 | 185 | | 37.360 | | | 60 | 33 | 1966 | 4977 | 0.100 | 0.0 | MM |
| 41 | 6:2 FTS-2 | 83 | 427.071 > 80.9 | 6.01 | 49 | 185 | | 46.860 | 44.5282 | | 4 | 419 | 1859 | 4977 | 0.100 | 0.0 | MM |
| 42 | 8:2 FTS-1 | 85 | 527.065 > 506.997 | 7.38 | 1 | 1472 | | | | | 0 | 95 | 29 | 61835 | 0.100 | 0.0 | MMI |
| 43 | 8:2 FTS-2 | 85 | 527.065 > 80.75 | 7.38 | 2 | 1472 | | | | | 1 | 341 | 291 | 61835 | 0.100 | 0.0 | MMI |
| 44 | PFOSA-1 | 87 | 498.113 > 77.902 | 8.63 | 1 | 3225 | | 0.836 | 0.8636 | | 4 | 15 | 64 | 74286 | 0.100 | 0.0 | MM |
| 45 | PFOSA-2 | 87 | 498.113 > 477.993 | 8.64 | 1 | 3225 | | 20.136 | 21.6531 | | 2 | 14 | 34 | 74286 | 0.100 | 0.0 | MM |
| 46 | N-MeFOSA-1 | 88 | 511.937 > 218.985 | | | | | | | | | 272 | | | 0.100 | 0.0 | MM- |
| 47 | N-MeFOSA-2 | 88 | 511.937 > 168.955 | | | | | | | | | 277 | | | 0.100 | 0.0 | MM- |
| 48 | N-EtFOSA-1 | 89 | 526.017 > 218.977 | | | | | | | | | 502 | | | 0.100 | 0.0 | MM- |
| 49 | N-EtFOSA-2 | 89 | 526.017 > 168.95 | | | | | | | | | 291 | | | 0.100 | 0.0 | MM- |
| 50 | MeFOSAA-1 | 90 | 570.134 > 419.035 | 7.53 | 0 | 4307 | | | | | 1 | 16 | 18 | 172218 | 0.100 | 0.0 | MMI |
| 51 | MeFOSAA-2 | 90 | 570.134 > 482.99 | 7.54 | 4 | 4307 | | | | | 1 | 194 | 195 | 172218 | 0.100 | 0.0 | MMI |
| 52 | EtFOSAA-1 | 91 | 584.15 > 419.062 | 7.66 | 8 | 4606 | | 1.080 | 2.3157 | | 1 | 399 | 556 | 183218 | 0.100 | 0.0 | MM |
| 53 | EtFOSAA-2 | 91 | 584.15 > 526.045 | | | 4606 | | | 2.0359 | | | 190 | | 183218 | 0.100 | 0.0 | MM- |
| 54 | N-MeFOSE | 92 | 616.112 > 58.894 | | | | | | | | | 10 | | | 0.100 | 0.0 | MM- |
| 55 | N-EtFOSE | 93 | 630. > 58.893 | | | | | | | | | 53 | | | 0.100 | 0.0 | MM- |
| 56 | HFPO-DA-1 | 94 | 284.8894 > 168.... | 5.18 | 6 | 1160 | | | | | 1 | 260 | 374 | 44132 | 0.100 | 0.0 | ddI |
| 57 | HFPO-DA-2 | 95 | 284.8894 > 184.... | 5.17 | 51 | 705 | | 30.928 | 29.6615 | | 3 | 638 | 1751 | 27556 | 0.100 | 0.0 | MM |
| 58 | ADONA-1 | 94 | 376.88 > 250.937 | 5.80 | 28 | 1160 | | | | | 2 | 417 | 805 | 44132 | 0.100 | 0.0 | MMI |
| 59 | ADONA-2 | 95 | 376.88 > 84.832 | | | 705 | | | 8.6176 | | | 369 | | 27556 | 0.100 | 0.0 | MM- |
| 60 | 9Cl-PF3ONS-1 | 94 | 530.807 > 350.967 | 7.82 | 29 | 1160 | | | | | 2 | 1035 | 2047 | 44132 | 0.100 | 0.0 | MMI |
| 61 | 9Cl-PF3ONS-2 | 95 | 532.804 > 352.947 | | | 705 | | | | | | 1060 | | 27556 | 0.100 | 0.0 | MM-I |
| 62 | 11Cl-PF3OUdS-1 | 94 | 630.865 > 450.902 | | | 1160 | | | | | | 677 | | 44132 | 0.100 | 0.0 | MM-I |
| 63 | 11Cl-PF3OUdS-2 | 95 | 632.868 > 452.91 | | | 705 | | | | | | 462 | | 27556 | 0.100 | 0.0 | MM-I |
| 64 | 13C4-PFBA | 96 | 216.776 > 171.928 | 1.96 | 935 | 29975 | 40.000 | 6.094 | 0.1006 | 1.5 | 180 | 86 | 15560 | 503717 | 0.100 | 0.0 | bb |
| 65 | 13C5-PFPeA | 97 | 268.16 > 223.035 | 4.32 | 701 | 19313 | 20.000 | 4.475 | 0.0515 | 2.2 | 191 | 116 | 22111 | 829542 | 0.100 | 0.0 | MM |
| 66 | 13C5-PFHxA-1 | 97 | 318.029 > 272.993 | 5.03 | 860 | 19313 | 10.000 | 6.325 | 0.2687 | 6.3 | 68 | 523 | 35797 | 829542 | 0.100 | 0.0 | MM |
| 67 | 13C5-PFHxA-2 | 97 | 318.029 > 120.341 | 5.03 | 10 | 19313 | 10.000 | 2.101 | 3.2148 | 2.1 | 2 | 213 | 503 | 829542 | 0.100 | 0.0 | MM |
| 68 | 13C4-PFHpA | 99 | 367.086 > 322.004 | 5.53 | 2292 | 4220 | 10.000 | 9.990 | 0.2464 | 10.0 | 179 | 503 | 89818 | 112645 | 0.100 | 0.0 | bb |
| 69 | 13C8-PFOA | 99 | 421.096 > 376.022 | 6.34 | 4574 | 4220 | 10.000 | 17.351 | 0.0603 | 17.4 | 855 | 142 | 120944 | 112645 | 0.100 | 0.0 | bb |
| 70 | 13C9-PFNA | 100 | 472.096 > 427.014 | 7.12 | 5292 | 11280 | 5.000 | 21.600 | 0.1439 | 43.2 | 443 | 495 | 219427 | 475536 | 0.100 | 0.0 | MM |

PVed by WANGG 13-Apr-19, SVed by AP 16-Apr-19. NOTE: Units = ng/L for BLK and FIeld Samples.

**Quantify Sample Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_130-b.qld

Last Altered: Tuesday, April 16, 2019 12:33:52 Pacific Daylight Time
Printed: Tuesday, April 16, 2019 12:54:08 Pacific Daylight Time

**ID: L30821-2,,, Name: FC9W_130S30, Description: 1,WG67438,2/4000uL, Date: 31-Mar-2019, Time: 03:03:09**

| # | Name | IS# | Trace | RT | Area | IS Area | Std. Conc | Conc. | LOD | %Rec | S/N | Noise | Peak Height | IS Height | Sample size | F2 | Flags |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 71 | 13C7-PFUnA | 101 | 570.019 > 525.05 | 7.80 | 9035 | 10699 | 5.000 | 37.764 | 0.2499 | 75.5 | 474 | 776 | 368066 | 416628 | 0.100 | 0.0 | bb |
| 72 | 13C6-PFDA | 101 | 519.147 > 474.058 | 7.50 | 8055 | 10699 | 5.000 | 40.009 | 0.1046 | 80.0 | 1136 | 273 | 310640 | 416628 | 0.100 | 0.0 | bb |
| 73 | 13C2-PFDoA | 101 | 615.127 > 570.013 | 8.10 | 5280 | 10699 | 5.000 | 30.917 | 0.0889 | 61.8 | 955 | 197 | 188185 | 416628 | 0.100 | 0.0 | bb |
| 74 | 13C2-PFTeDA | 101 | 715.057 > 670.026 | 8.83 | 191 | 10699 | 5.000 | 1.139 | 0.1947 | 2.3 | 12 | 423 | 5269 | 416628 | 0.100 | 0.0 | MM |
| 75 | 13C3-PFBS-1 | 102 | 302.056 > 79.865 | 4.98 | 899 | 4566 | 10.000 | 16.352 | 0.2925 | 16.4 | 242 | 137 | 33193 | 116921 | 0.100 | 0.0 | bb |
| 76 | 13C3-PFBS-2 | 102 | 302.056 > 98.875 | 4.98 | 433 | 4566 | 10.000 | 16.302 | 0.3326 | 16.3 | 231 | 75 | 17458 | 116921 | 0.100 | 0.0 | bb |
| 77 | 13C3-PFHxS-1 | 102 | 402.114 > 79.858 | 6.47 | 2371 | 4566 | 10.000 | 50.056 | 0.8335 | 50.1 | 169 | 337 | 56933 | 116921 | 0.100 | 0.0 | bb |
| 78 | 13C3-PFHxS-2 | 102 | 402.114 > 98.801 | 6.47 | 1332 | 4566 | 10.000 | 50.481 | 0.9106 | 50.5 | 160 | 205 | 32867 | 116921 | 0.100 | 0.0 | MM |
| 79 | 13C8-PFOS-1 | 103 | 507.124 > 79.858 | 7.60 | 3981 | 5045 | 10.000 | 99.667 | 2.3499 | 99.7 | 133 | 1178 | 156149 | 189969 | 0.100 | 0.0 | bb |
| 80 | 13C8-PFOS-2 | 104 | 507.124 > 98.867 | 7.60 | 2517 | 3203 | 10.000 | 100.145 | 2.0914 | 100.1 | 136 | 717 | 97159 | 131056 | 0.100 | 0.0 | bb |
| 81 | 13C2-4:2 FTS-1 | 102 | 329.084 > 80.9 | 4.91 | 94 | 4566 | 20.000 | 5.780 | 2.2857 | 2.9 | 10 | 316 | 3135 | 116921 | 0.100 | 0.0 | MM |
| 82 | 13C2-4:2 FTS-2 | 102 | 329.084 > 309.024 | 4.92 | 59 | 4566 | 20.000 | 1.572 | 0.4916 | 0.8 | 11 | 159 | 1733 | 116921 | 0.100 | 0.0 | db |
| 83 | 13C2-6:2 FTS-1 | 102 | 429.078 > 80.900 | 6.02 | 185 | 4566 | 20.000 | 14.108 | 1.7137 | 7.1 | 26 | 192 | 4977 | 116921 | 0.100 | 0.0 | MM |
| 84 | 13C2-6:2 FTS-2 | 102 | 429.078 > 409.031 | 6.01 | 262 | 4566 | 20.000 | 8.734 | 0.1024 | 4.4 | 215 | 26 | 5624 | 116921 | 0.100 | 0.0 | bb |
| 85 | 13C2-8:2 FTS-1 | 102 | 529.1351 > 80.900 | 7.37 | 1472 | 4566 | 20.000 | 75.224 | 2.7060 | 37.6 | 137 | 452 | 61835 | 116921 | 0.100 | 0.0 | MM |
| 86 | 13C2-8:2 FTS-2 | 102 | 529.135 > 509.003 | 7.37 | 1799 | 4566 | 20.000 | 68.322 | 0.1081 | 34.2 | 2998 | 24 | 72826 | 116921 | 0.100 | 0.0 | bb |
| 87 | 13C8-PFOSA | 103 | 506.14 > 77.841 | 8.65 | 3225 | 5045 | 10.000 | 51.072 | 0.0205 | 51.1 | 4567 | 16 | 74286 | 189969 | 0.100 | 0.0 | bb |
| 88 | D3-N-MeFOSA | 103 | 514.956 > 218.974 | | | 5045 | 10.000 | | 1.0839 | | | 443 | | 189969 | 0.100 | 0.0 | MM- |
| 89 | D5-N-EtFOSA | 103 | 531.112 > 218.984 | | | 5045 | 10.000 | | 1.6560 | | | 572 | | 189969 | 0.100 | 0.0 | MM- |
| 90 | D3-MeFOSAA | 103 | 573.153 > 418.99 | 7.54 | 4307 | 5045 | 20.000 | 122.821 | 1.2977 | 61.4 | 302 | 571 | 172218 | 189969 | 0.100 | 0.0 | bb |
| 91 | D5-EtFOSAA | 103 | 589.245 > 418.971 | 7.65 | 4606 | 5045 | 20.000 | 157.194 | 1.8252 | 78.6 | 273 | 671 | 183218 | 189969 | 0.100 | 0.0 | bb |
| 92 | D7-N-MeFOSE | 103 | 623.156 > 58.896 | | | 5045 | 100.000 | | 0.6447 | | | 122 | | 189969 | 0.100 | 0.0 | MM- |
| 93 | D9-N-EtFOSE | 103 | 639.184 > 58.897 | | | 5045 | 100.000 | | 0.5980 | | | 117 | | 189969 | 0.100 | 0.0 | MM- |
| 94 | 13C3-HFPO-DA-1 | 97 | 286.8631 > 168.... | 5.18 | 1160 | 19313 | 40.000 | 18.578 | 0.0430 | 4.6 | 1148 | 38 | 44132 | 829542 | 0.100 | 0.0 | bb |
| 95 | 13C3-HFPO-DA-2 | 97 | 286.8631 > 184.... | 5.18 | 705 | 19313 | 40.000 | 23.060 | 0.7933 | 5.8 | 79 | 347 | 27556 | 829542 | 0.100 | 0.0 | MM |
| 96 | 13C3-PFBA | | 216.029 > 171.97 | 1.96 | 29975 | | 20.000 | 214.141 | 0.8386 | 107.1 | 766 | 658 | 503717 | | 0.100 | 0.0 | bb |
| 97 | 13C2-PFHxA-1 | | 315.083 > 269.984 | 5.03 | 19313 | | 10.000 | 108.176 | 0.0519 | 108.2 | 6257 | 133 | 829542 | | 0.100 | 0.0 | bb |
| 98 | 13C2-PFHxA-2 | | 315.083 > 119.359 | 5.03 | 441 | | 10.000 | 81.873 | 1.2217 | 81.9 | 201 | 93 | 18790 | | 0.100 | 0.0 | bb |
| 99 | 13C4-PFOA | | 417.083 > 171.95 | 6.34 | 4220 | | 10.000 | 140.451 | 0.2772 | 140.5 | 1520 | 74 | 112645 | | 0.100 | 0.0 | bb |
| 1... | 13C5-PFNA | | 468.019 > 423.008 | 7.12 | 11280 | | 5.000 | 55.297 | 0.2570 | 110.6 | 645 | 737 | 475536 | | 0.100 | 0.0 | bb |
| 1... | 13C2-PFDA | | 515.134 > 470.05 | 7.51 | 10699 | | 5.000 | 47.036 | 0.1017 | 94.1 | 1388 | 300 | 416628 | | 0.100 | 0.0 | bb |
| 1... | 18O2-PFHxS | | 402.984 > 83.895 | 6.47 | 4566 | | 10.000 | 116.244 | 0.3400 | 116.2 | 1026 | 114 | 116921 | | 0.100 | 0.0 | MM |
| 1... | 13C4-PFOS-1 | | 502.791 > 79.856 | 7.60 | 5045 | | 10.000 | 103.691 | 2.6353 | 103.7 | 118 | 1609 | 189969 | | 0.100 | 0.0 | bb |
| 1... | 13C4-PFOS-2 | | 502.791 > 98.864 | 7.59 | 3203 | | 10.000 | 102.583 | 2.2858 | 102.6 | 135 | 973 | 131056 | | 0.100 | 0.0 | bb |

PVed by WANGG 13-Apr-19, SVed by AP 16-Apr-19. NOTE: Units = ng/L for BLK and FIeld Samples.

**Quantify Sample Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_144-b.qld

Last Altered: Tuesday, April 16, 2019 14:59:53 Pacific Daylight Time
Printed: Monday, April 22, 2019 08:57:47 Pacific Daylight Time

**Method: G:\Masslynx\Master Methods\MassLynx SCN 909\UPLC\FC_110_UPLC_06.mdb 10 Mar 2019 18:18:03**
**Calibration: G:\Masslynx\Inst_W\PFC.PRO\Curve\FC9W_097-a1.cdb 12 Mar 2019 11:26:10**

**ID: L30821-3,i,, Name: FC9W_144S19, Description: 1,WG67663,2/4000uL, Date: 08-Apr-2019, Time: 18:05:51**

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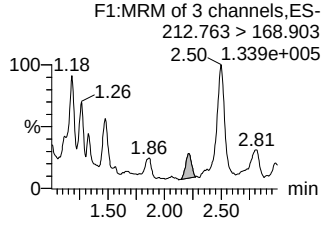


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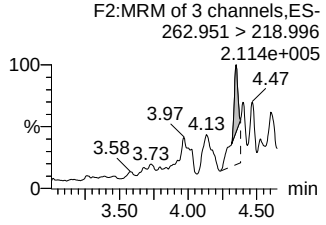


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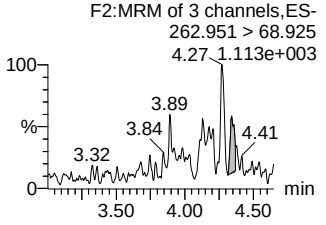


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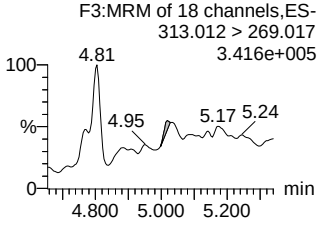


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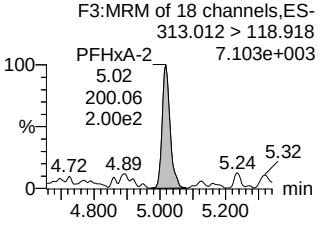


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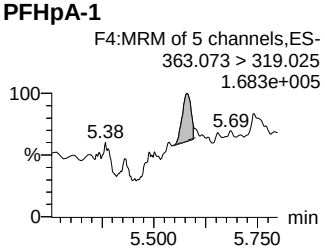


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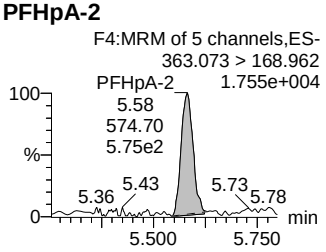


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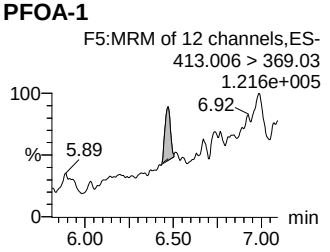


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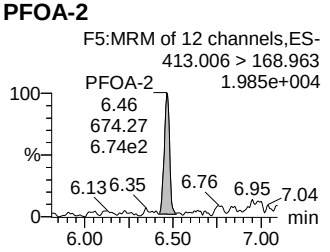


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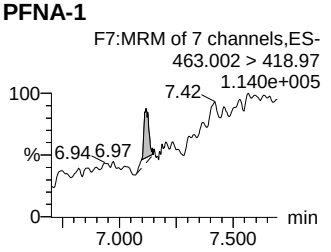


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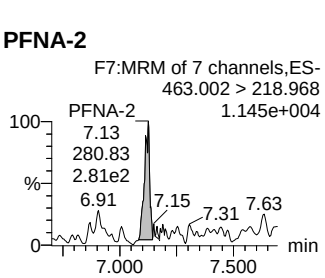


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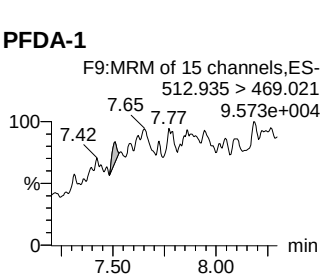


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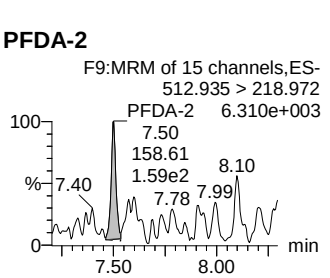


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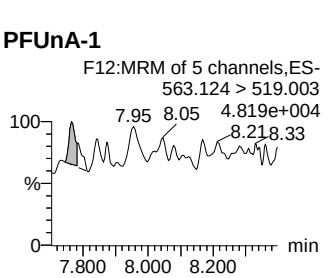


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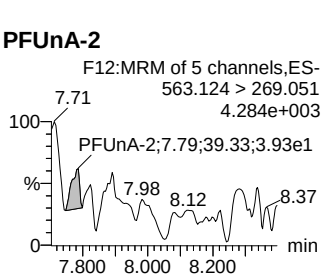


PVed by WANGG 16-Apr-19, SVed by AP 22-Apr-19. NOTE: Units = ng/L for BLK and Field Samples.

**Quantify Sample Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_144-b.qld

Last Altered: Tuesday, April 16, 2019 14:59:53 Pacific Daylight Time
Printed: Monday, April 22, 2019 08:57:47 Pacific Daylight Time

**ID: L30821-3,i,, Name: FC9W_144S19, Description: 1,WG67663,2/4000uL, Date: 08-Apr-2019, Time: 18:05:51**

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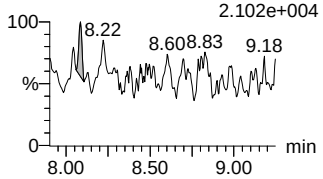


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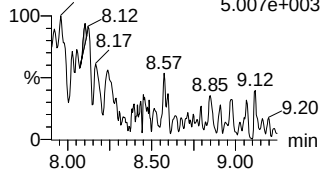


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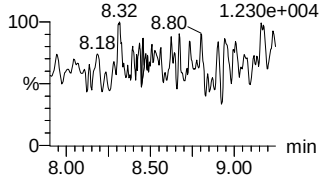


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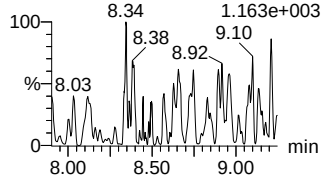


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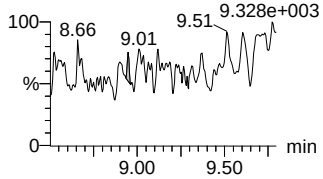


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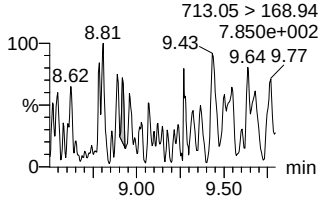


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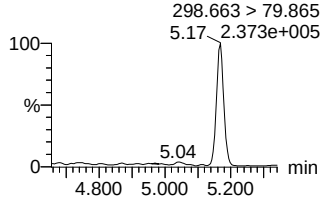


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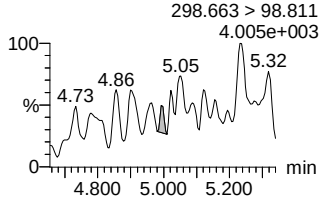


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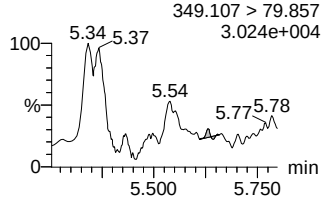


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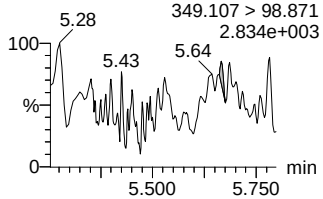


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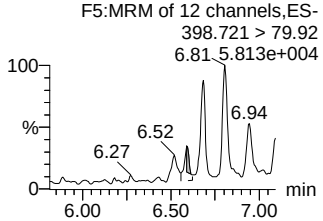


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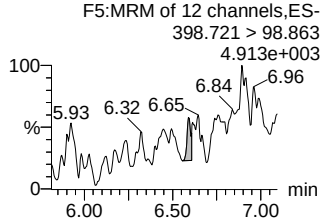


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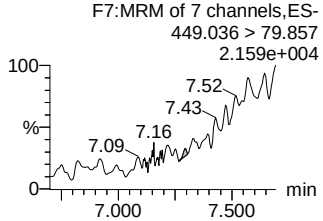


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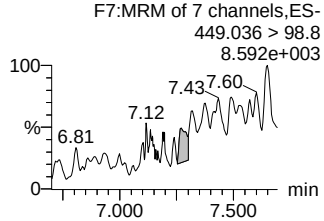


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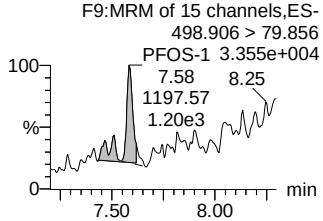


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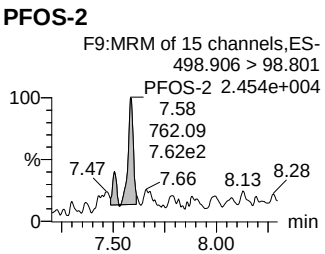


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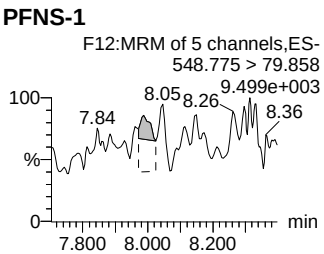


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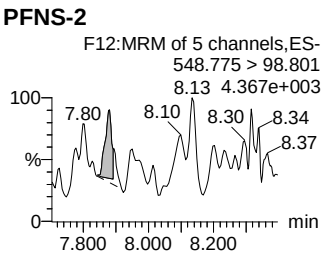


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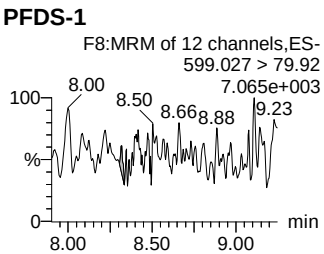


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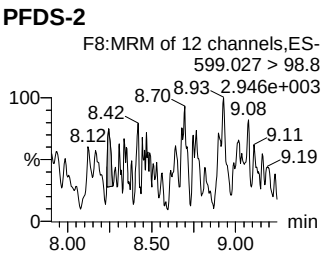


PVed by WANGG 16-Apr-19, SVed by AP 22-Apr-19. NOTE: Units = ng/L for BLK and Field Samples.

**Quantify Sample Report** **MassLynx MassLynx V4.1 SCN909**
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**ID: L30821-3,i,, Name: FC9W_144S19, Description: 1,WG67663,2/4000uL, Date: 08-Apr-2019, Time: 18:05:51**

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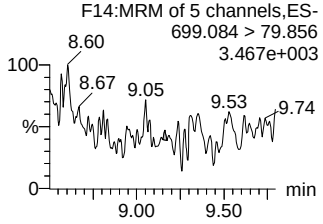


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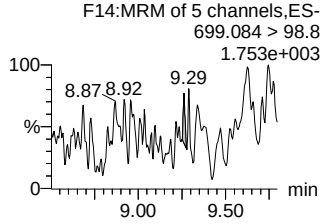


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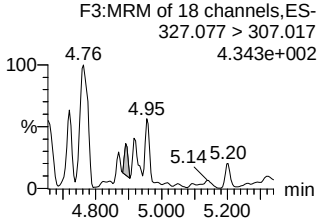


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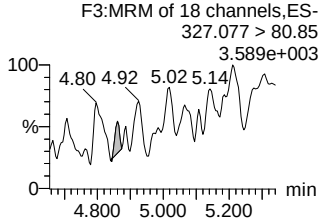


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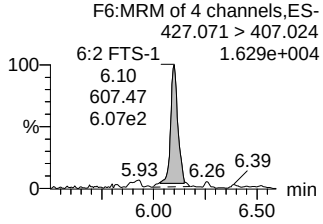


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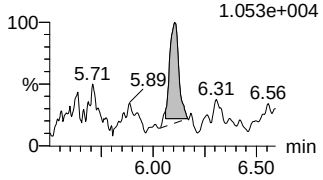


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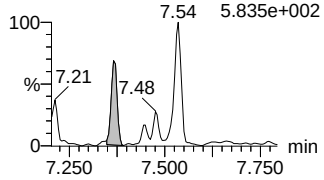


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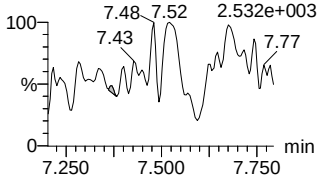


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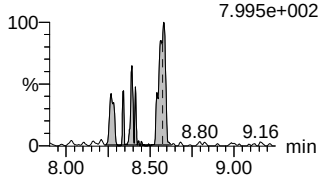


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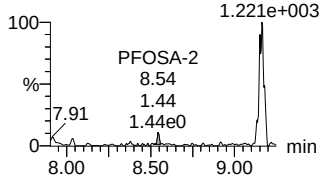


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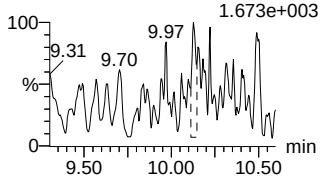
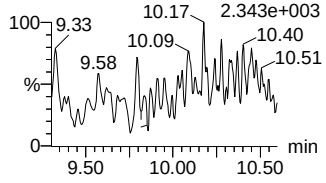
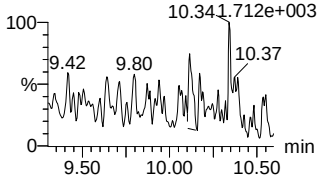



**N-MeFOSA-2**



**N-EtFOSA-1**
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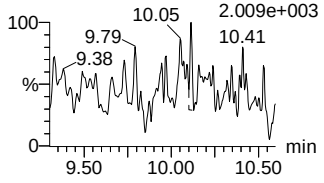
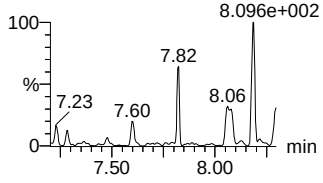
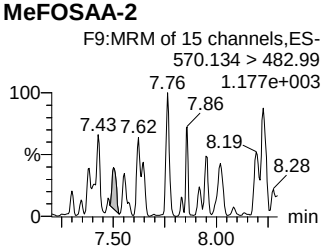
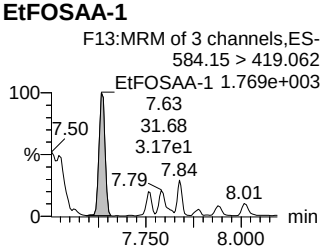
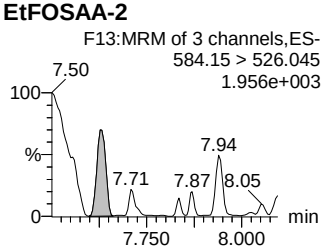
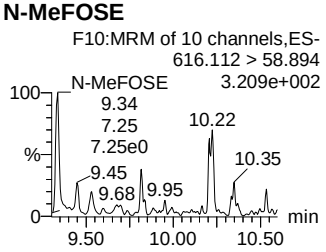


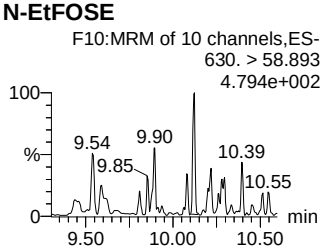

**MeFOSAA-1**



**MeFOSAA-2**



**EtFOSAA-1**



**EtFOSAA-2**



**N-MeFOSE**



**N-EtFOSE**



PVed by WANGG 16-Apr-19, SVed by AP 22-Apr-19. NOTE: Units = ng/L for BLK and Field Samples.

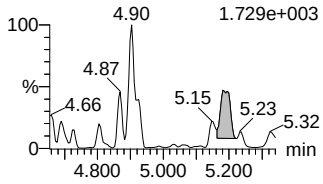
**Quantify Sample Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_144-b.qld

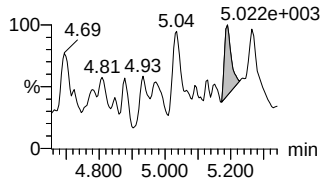
Last Altered: Tuesday, April 16, 2019 14:59:53 Pacific Daylight Time
Printed: Monday, April 22, 2019 08:57:47 Pacific Daylight Time

**ID: L30821-3,i,, Name: FC9W_144S19, Description: 1,WG67663,2/4000uL, Date: 08-Apr-2019, Time: 18:05:51**

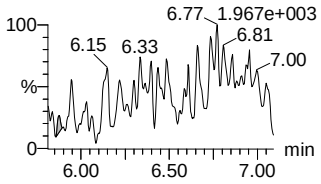
**HFPO-DA-1**



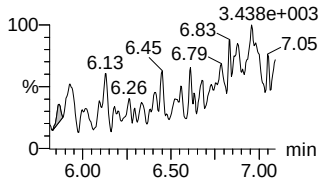

**HFPO-DA-2**



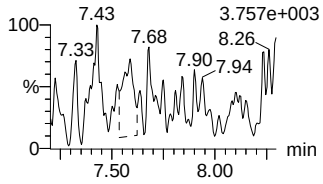

**ADONA-1**



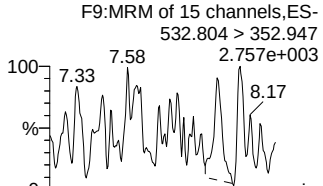

**ADONA-2**



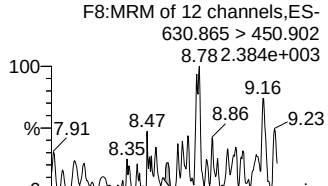

**9Cl-PF3ONS-1**



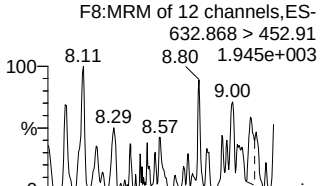

**9Cl-PF3ONS-2**



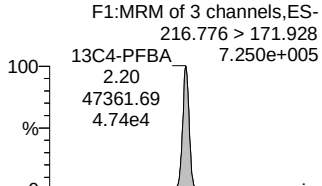

**11Cl-PF3OUdS-1**



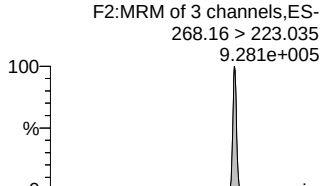

**11Cl-PF3OUdS-2**



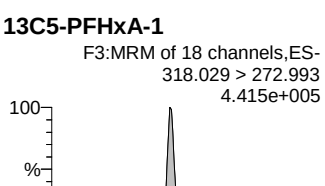

**13C4-PFBA**



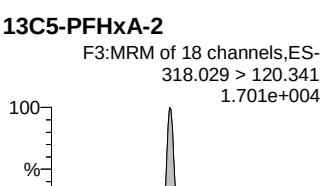

**13C5-PFPeA**



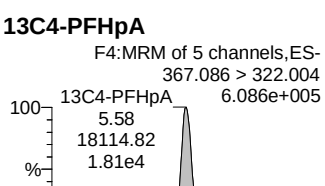

**13C5-PFHxA-1**



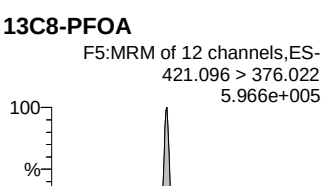

**13C5-PFHxA-2**



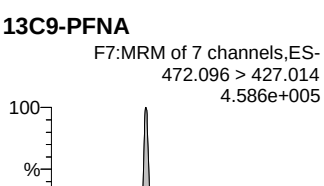

**13C4-PFHpA**



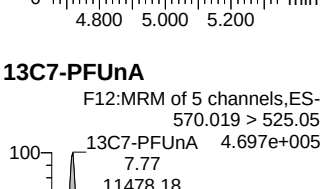

**13C8-PFOA**



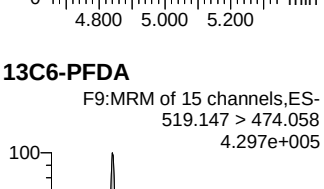

**13C9-PFNA**



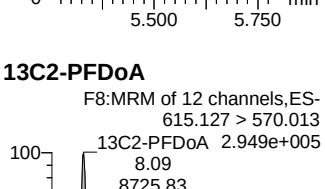

**13C7-PFUnA**



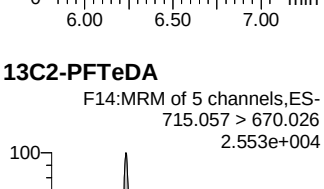

**13C6-PFDA**



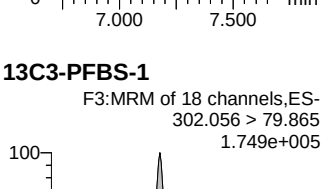

**13C2-PFDoA**




**13C2-PFTeDA**




**13C3-PFBS-1**




PVed by WANGG 16-Apr-19, SVed by AP 22-Apr-19. NOTE: Units = ng/L for BLK and Field Samples.

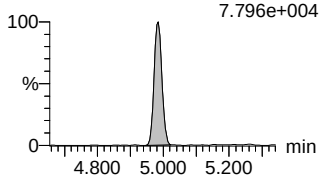
**Quantify Sample Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_144-b.qld

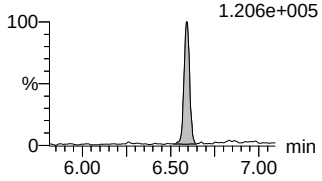
Last Altered: Tuesday, April 16, 2019 14:59:53 Pacific Daylight Time
Printed: Monday, April 22, 2019 08:57:47 Pacific Daylight Time

**ID: L30821-3,i,, Name: FC9W_144S19, Description: 1,WG67663,2/4000uL, Date: 08-Apr-2019, Time: 18:05:51**

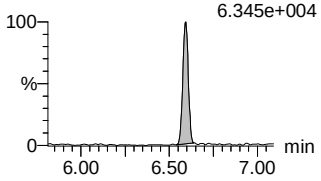
**13C3-PFBS-2**
F3:MRM of 18 channels,ES-
302.056 > 98.875
7.796e+004



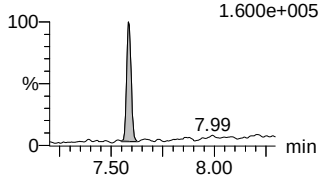

**13C3-PFHxS-1**
F5:MRM of 12 channels,ES-
402.114 > 79.858
1.206e+005



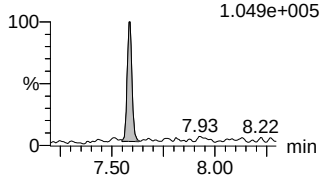

**13C3-PFHxS-2**
F5:MRM of 12 channels,ES-
402.114 > 98.801
6.345e+004



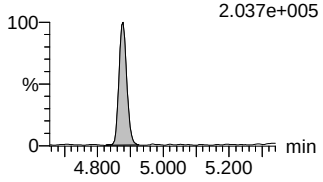

**13C8-PFOS-1**
F9:MRM of 15 channels,ES-
507.124 > 79.858
1.600e+005



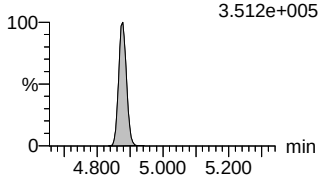

**13C8-PFOS-2**
F9:MRM of 15 channels,ES-
507.124 > 98.867
1.049e+005



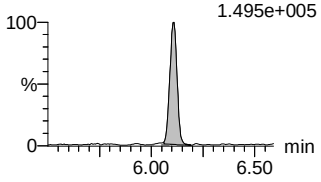

**13C2-4:2 FTS-1**
F3:MRM of 18 channels,ES-
329.084 > 80.9
2.037e+005



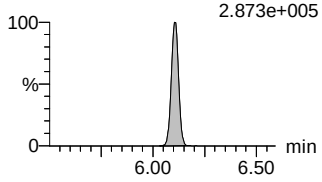

**13C2-4:2 FTS-2**
F3:MRM of 18 channels,ES-
329.084 > 309.024
3.512e+005



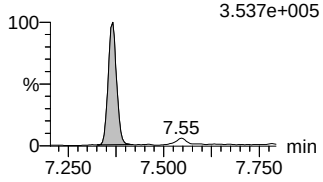

**13C2-6:2 FTS-1**
F6:MRM of 4 channels,ES-
429.078 > 80.900
1.495e+005



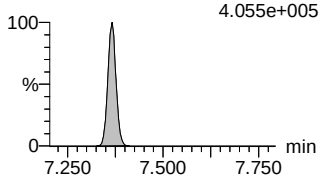

**13C2-6:2 FTS-2**
F6:MRM of 4 channels,ES-
429.078 > 409.031
2.873e+005



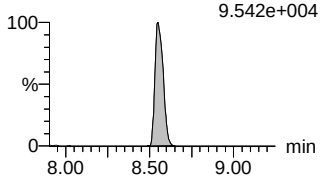

**13C2-8:2 FTS-1**
F11:MRM of 4 channels,ES-
529.1351 > 80.900
3.537e+005



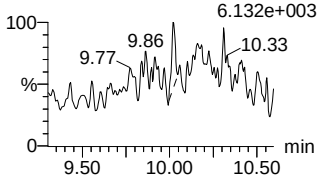

**13C2-8:2 FTS-2**
F11:MRM of 4 channels,ES-
529.135 > 509.003
4.055e+005



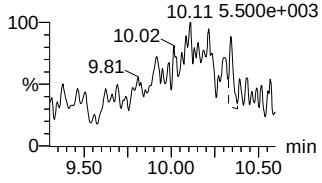

**13C8-PFOSA**
F8:MRM of 12 channels,ES-
506.14 > 77.841
9.542e+004



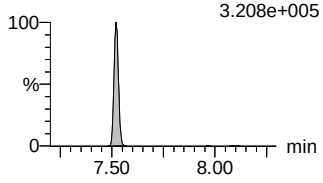

**D3-N-MeFOSA**
F10:MRM of 10 channels,ES-
514.956 > 218.974
6.132e+003



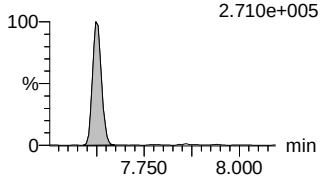

**D5-N-EtFOSA**
F10:MRM of 10 channels,ES-
531.112 > 218.984
10.11 5.500e+003



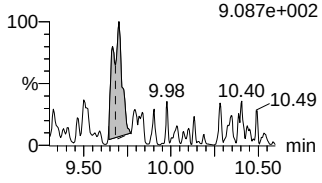

**D3-MeFOSAA**
F9:MRM of 15 channels,ES-
573.153 > 418.99
3.208e+005



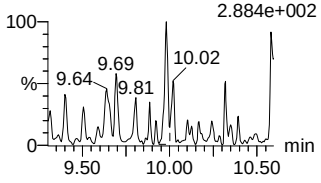

**D5-EtFOSAA**
F13:MRM of 3 channels,ES-
589.245 > 418.971
2.710e+005



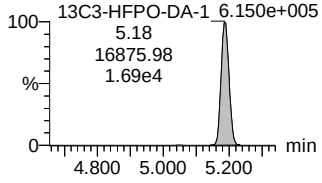

**D7-N-MeFOSE**
F10:MRM of 10 channels,ES-
623.156 > 58.896
9.087e+002



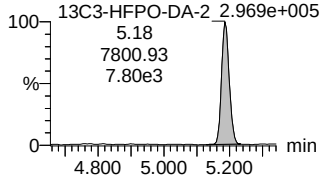

**D9-N-EtFOSE**
F10:MRM of 10 channels,ES-
639.184 > 58.897
2.884e+002




**13C3-HFPO-DA-1**
F3:MRM of 18 channels,ES-
286.8631 > 168.8861
13C3-HFPO-DA-1 6.150e+005
5.18
16875.98
1.69e4




**13C3-HFPO-DA-2**
F3:MRM of 18 channels,ES-
286.8631 > 184.8888
13C3-HFPO-DA-2 2.969e+005
5.18
7800.93
7.80e3




PVed by WANGG 16-Apr-19, SVed by AP 22-Apr-19. NOTE: Units = ng/L for BLK and Field Samples.

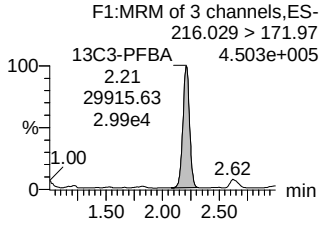
**Quantify Sample Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_144-b.qld

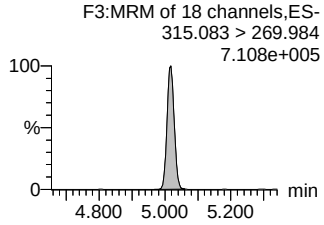
Last Altered: Tuesday, April 16, 2019 14:59:53 Pacific Daylight Time
Printed: Monday, April 22, 2019 08:57:47 Pacific Daylight Time

**ID: L30821-3,i,, Name: FC9W_144S19, Description: 1,WG67663,2/4000uL, Date: 08-Apr-2019, Time: 18:05:51**

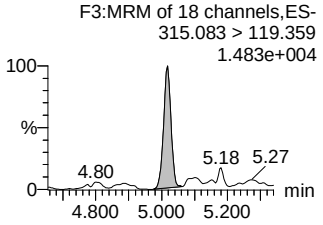
**13C3-PFBA**



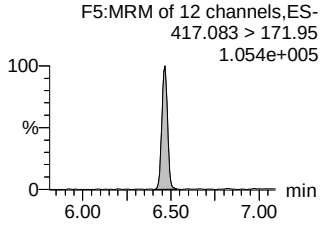

**13C2-PFHxA-1**



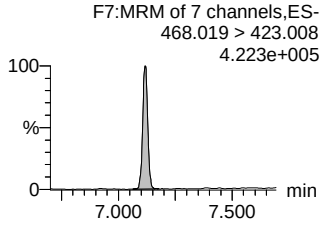

**13C2-PFHxA-2**



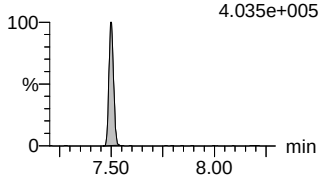

**13C4-PFOA**



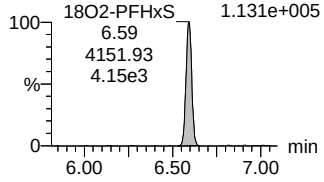

**13C5-PFNA**



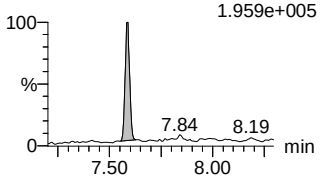

**13C2-PFDA**



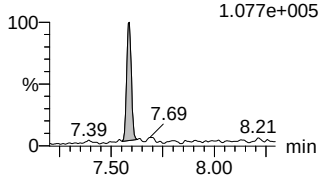

**18O2-PFHxS**




**13C4-PFOS-1**




**13C4-PFOS-2**




PVed by WANGG 16-Apr-19, SVed by AP 22-Apr-19. NOTE: Units = ng/L for BLK and Field Samples.

**Quantify Sample Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_144-b.qld

Last Altered: Tuesday, April 16, 2019 14:59:53 Pacific Daylight Time
Printed: Monday, April 22, 2019 08:57:47 Pacific Daylight Time

**ID: L30821-3,i,, Name: FC9W_144S19, Description: 1,WG67663,2/4000uL, Date: 08-Apr-2019, Time: 18:05:51**

| # | Name | IS# | Trace | RT | Area | IS Area | Std. Conc | Conc. | LOD | %Rec | S/N | Noise | Peak Height | IS Height | Sample size | F2 | Flags |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | PFBA | 64 | 212.763 > 168.903 | 2.21 | 1603 | 47362 | | 28.986 | 1.0260 | | 24 | 1100 | 26804 | 723922 | 0.050 | 0.0 | MM |
| 2 | PFPeA-1 | 65 | 262.951 > 218.996 | 4.35 | 3293 | 27026 | | 46.749 | | | 156 | 735 | 114512 | 926055 | 0.050 | 0.0 | MM |
| 3 | PFPeA-2 | 65 | 262.951 > 68.925 | 4.34 | 17 | 27026 | | 78.072 | 28.3460 | | 7 | 72 | 512 | 926055 | 0.050 | 0.0 | MM |
| 4 | PFHxA-1 | 66 | 313.012 > 269.017 | 5.02 | 433 | 11220 | | 6.627 | 19.0990 | | 2 | 13974 | 23964 | 439734 | 0.050 | 0.0 | MM |
| 5 | PFHxA-2 | 66 | 313.012 > 118.918 | 5.02 | 200 | 11220 | | 33.450 | 3.1537 | | 29 | 248 | 7090 | 439734 | 0.050 | 0.0 | bb |
| 6 | PFHpA-1 | 68 | 363.073 > 319.025 | 5.58 | 1581 | 18115 | | 18.195 | 4.0317 | | 13 | 4902 | 65496 | 607847 | 0.050 | 0.0 | MM |
| 7 | PFHpA-2 | 68 | 363.073 > 168.962 | 5.58 | 575 | 18115 | | 21.607 | 1.7534 | | 28 | 628 | 17317 | 607847 | 0.050 | 0.0 | MM |
| 8 | PFOA-1 | 69 | 413.006 > 369.03 | 6.47 | 1907 | 21183 | | 10.775 | 1.6884 | | 10 | 5243 | 53236 | 595618 | 0.050 | 0.0 | MM |
| 9 | PFOA-2 | 69 | 413.006 > 168.963 | 6.46 | 674 | 21183 | | 13.234 | | | 43 | 450 | 19466 | 595618 | 0.050 | 0.0 | MM |
| 10 | PFNA-1 | 70 | 463.002 > 418.97 | 7.12 | 1087 | 11438 | | 8.235 | 2.7493 | | 7 | 6631 | 45147 | 457486 | 0.050 | 0.0 | MM |
| 11 | PFNA-2 | 70 | 463.002 > 218.968 | 7.13 | 281 | 11438 | | 9.606 | 1.4355 | | 16 | 671 | 10939 | 457486 | 0.050 | 0.0 | MM |
| 12 | PFDA-1 | 72 | 512.935 > 469.021 | 7.51 | 438 | 10844 | | 2.085 | 3.5419 | | 2 | 7323 | 15742 | 429144 | 0.050 | 0.0 | MM |
| 13 | PFDA-2 | 72 | 512.935 > 218.972 | 7.50 | 159 | 10844 | | 7.099 | 1.6820 | | 9 | 646 | 6014 | 429144 | 0.050 | 0.0 | MM |
| 14 | PFUnA-1 | 71 | 563.124 > 519.003 | 7.76 | 366 | 11478 | | 4.010 | 3.8827 | | 3 | 4844 | 16586 | 468012 | 0.050 | 0.0 | MM |
| 15 | PFUnA-2 | 71 | 563.124 > 269.051 | 7.79 | 39 | 11478 | | 1.283 | 3.0919 | | 2 | 851 | 1375 | 468012 | 0.050 | 0.0 | MM |
| 16 | PFDoA-1 | 73 | 613.057 > 569.045 | 8.09 | 198 | 8726 | | | | | 5 | 1998 | 9280 | 294130 | 0.050 | 0.0 | MMI |
| 17 | PFDoA-2 | 73 | 613.057 > 318.996 | 8.10 | 11 | 8726 | | | | | 1 | 665 | 818 | 294130 | 0.050 | 0.0 | MMI |
| 18 | PFTrDA-1 | 74 | 663.053 > 619.023 | 8.46 | 32 | 828 | | 0.402 | 27.0618 | | 2 | 2073 | 3680 | 25190 | 0.050 | 0.0 | MM |
| 19 | PFTrDA-2 | 74 | 663.053 > 168.949 | 8.49 | 1 | 828 | | | | | 0 | 364 | 126 | 25190 | 0.050 | 0.0 | MMI |
| 20 | PFTeDA-1 | 74 | 713.05 > 669. | 8.95 | 26 | 828 | | | | | 2 | 953 | 2171 | 25190 | 0.050 | 0.0 | MMI |
| 21 | PFTeDA-2 | 74 | 713.05 > 168.94 | 8.92 | 6 | 828 | | 1.440 | 18.0247 | | 2 | 245 | 409 | 25190 | 0.050 | 0.0 | MM |
| 22 | PFBS-1 | 75 | 298.663 > 79.865 | 4.97 | 12 | 4548 | | 0.482 | 3.5766 | | 1 | 1176 | 1085 | 172885 | 0.050 | 0.0 | MM |
| 23 | PFBS-2 | 76 | 298.663 > 98.811 | 4.99 | 12 | 2114 | | 0.057 | 3.6717 | | 1 | 700 | 875 | 77769 | 0.050 | 0.0 | MM |
| 24 | PFPeS-1 | 77 | 349.107 > 79.857 | 5.63 | 17 | 4400 | | | | | 2 | 1153 | 2121 | 119566 | 0.050 | 0.0 | MMI |
| 25 | PFPeS-2 | 78 | 349.107 > 98.871 | 5.67 | 4 | 2211 | | | | | 1 | 698 | 523 | 62627 | 0.050 | 0.0 | MMI |
| 26 | PFHxS-1 | 77 | 398.721 > 79.92 | 6.59 | 154 | 4400 | | 7.907 | 7.3117 | | 10 | 1251 | 12229 | 119566 | 0.050 | 0.0 | MM |
| 27 | PFHxS-2 | 78 | 398.721 > 98.863 | 6.59 | 40 | 2211 | | 1.449 | 3.4411 | | 3 | 633 | 1705 | 62627 | 0.050 | 0.0 | MM |
| 28 | PFHpS-1 | 79 | 449.036 > 79.857 | 7.29 | 21 | 3959 | | | | | 1 | 1264 | 1374 | 155298 | 0.050 | 0.0 | MMI |
| 29 | PFHpS-2 | 80 | 449.036 > 98.8 | 7.27 | 88 | 2708 | | 7.070 | 9.0025 | | 2 | 1410 | 2394 | 101499 | 0.050 | 0.0 | dd |
| 30 | PFOS-1 | 79 | 498.906 > 79.856 | 7.58 | 1198 | 3959 | | 51.564 | 7.8435 | | 9 | 2895 | 26364 | 155298 | 0.050 | 0.0 | MM |
| 31 | PFOS-2 | 80 | 498.906 > 98.801 | 7.58 | 762 | 2708 | | 57.946 | 6.3200 | | 16 | 1313 | 21195 | 101499 | 0.050 | 0.0 | MM |
| 32 | PFNS-1 | 79 | 548.775 > 79.858 | 7.99 | 62 | 3959 | | | | | 1 | 1447 | 1835 | 155298 | 0.050 | 0.0 | MMI |
| 33 | PFNS-2 | 80 | 548.775 > 98.801 | 7.88 | 55 | 2708 | | 3.147 | 6.6969 | | 2 | 1314 | 2416 | 101499 | 0.050 | 0.0 | MM |
| 34 | PFDS-1 | 79 | 599.027 > 79.92 | 8.32 | 24 | 3959 | | 0.507 | 4.2662 | | 1 | 1193 | 1545 | 155298 | 0.050 | 0.0 | MM |
| 35 | PFDS-2 | 80 | 599.027 > 98.8 | 8.24 | 29 | 2708 | | 4.486 | 7.2664 | | 2 | 767 | 1384 | 101499 | 0.050 | 0.0 | MM |

PVed by WANGG 16-Apr-19, SVed by AP 22-Apr-19. NOTE: Units = ng/L for BLK and Field Samples.

**Quantify Sample Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_144-b.qld

Last Altered: Tuesday, April 16, 2019 14:59:53 Pacific Daylight Time
Printed: Monday, April 22, 2019 08:57:47 Pacific Daylight Time

**ID: L30821-3,i,, Name: FC9W_144S19, Description: 1,WG67663,2/4000uL, Date: 08-Apr-2019, Time: 18:05:51**

| # | Name | IS# | Trace | RT | Area | IS Area | Std. Conc | Conc. | LOD | %Rec | S/N | Noise | Peak Height | IS Height | Sample size | F2 | Flags |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 36 | PFDoS-1 | 79 | 699.084 > 79.856 | 9.16 | 3 | 3959 | | | | | 0 | 546 | 265 | 155298 | 0.050 | 0.0 | MMI |
| 37 | PFDoS-2 | 80 | 699.084 > 98.8 | 9.26 | 8 | 2708 | | 0.021 | 2.1589 | | 2 | 373 | 707 | 101499 | 0.050 | 0.0 | MM |
| 38 | 4:2 FTS-1 | 81 | 327.077 > 307.017 | 4.89 | 1 | 5458 | | | | | 1 | 102 | 110 | 202736 | 0.050 | 0.0 | MMI |
| 39 | 4:2 FTS-2 | 81 | 327.077 > 80.85 | 4.86 | 14 | 5458 | | 2.338 | 6.0003 | | 1 | 738 | 916 | 202736 | 0.050 | 0.0 | MM |
| 40 | 6:2 FTS-1 | 83 | 427.071 > 407.024 | 6.10 | 607 | 5918 | | 16.782 | | | 86 | 181 | 15620 | 147968 | 0.050 | 0.0 | MM |
| 41 | 6:2 FTS-2 | 83 | 427.071 > 80.9 | 6.10 | 406 | 5918 | | 24.620 | 4.8377 | | 14 | 595 | 8218 | 147968 | 0.050 | 0.0 | MM |
| 42 | 8:2 FTS-1 | 85 | 527.065 > 506.997 | 7.37 | 7 | 8891 | | | | | 2 | 205 | 398 | 351095 | 0.050 | 0.0 | MMI |
| 43 | 8:2 FTS-2 | 85 | 527.065 > 80.75 | 7.37 | 2 | 8891 | | | | | 0 | 444 | 144 | 351095 | 0.050 | 0.0 | MMI |
| 44 | PFOSA-1 | 87 | 498.113 > 77.902 | 8.58 | 59 | 5355 | | 3.963 | 2.4580 | | 6 | 128 | 793 | 95369 | 0.050 | 0.0 | MM |
| 45 | PFOSA-2 | 87 | 498.113 > 477.993 | 8.54 | 1 | 5355 | | 40.351 | 84.4924 | | 1 | 147 | 115 | 95369 | 0.050 | 0.0 | bb |
| 46 | N-MeFOSA-1 | 88 | 511.937 > 218.985 | | | | | | | | | 448 | | | 0.050 | 0.0 | MM- |
| 47 | N-MeFOSA-2 | 88 | 511.937 > 168.955 | | | | | | | | | 389 | | | 0.050 | 0.0 | MM- |
| 48 | N-EtFOSA-1 | 89 | 526.017 > 218.977 | | | | | | | | | 283 | | | 0.050 | 0.0 | MM- |
| 49 | N-EtFOSA-2 | 89 | 526.017 > 168.95 | | | | | | | | | 351 | | | 0.050 | 0.0 | MM- |
| 50 | MeFOSAA-1 | 90 | 570.134 > 419.035 | 7.53 | 0 | 7934 | | | | | 0 | 25 | 5 | 320330 | 0.050 | 0.0 | MMI |
| 51 | MeFOSAA-2 | 90 | 570.134 > 482.99 | 7.50 | 9 | 7934 | | | | | 1 | 266 | 390 | 320330 | 0.050 | 0.0 | MMI |
| 52 | EtFOSAA-1 | 91 | 584.15 > 419.062 | 7.63 | 32 | 7253 | | 3.502 | 2.4382 | | 8 | 209 | 1759 | 270626 | 0.050 | 0.0 | bb |
| 53 | EtFOSAA-2 | 91 | 584.15 > 526.045 | 7.63 | 37 | 7253 | | 5.166 | 4.5352 | | 4 | 356 | 1364 | 270626 | 0.050 | 0.0 | MM |
| 54 | N-MeFOSE | 92 | 616.112 > 58.894 | | | 51 | | | | | | 68 | | 844 | 0.050 | 0.0 | MM-I |
| 55 | N-EtFOSE | 93 | 630. > 58.893 | | | | | | | | | 36 | | | 0.050 | 0.0 | MM- |
| 56 | HFPO-DA-1 | 94 | 284.8894 > 168.... | 5.18 | 23 | 16876 | | | | | 6 | 116 | 677 | 614482 | 0.050 | 0.0 | MMI |
| 57 | HFPO-DA-2 | 95 | 284.8894 > 184.... | 5.19 | 68 | 7801 | | 6.480 | 6.5113 | | 3 | 854 | 2876 | 294580 | 0.050 | 0.0 | MM |
| 58 | ADONA-1 | 94 | 376.88 > 250.937 | 5.88 | 5 | 16876 | | | | | 1 | 442 | 261 | 614482 | 0.050 | 0.0 | MMI |
| 59 | ADONA-2 | 95 | 376.88 > 84.832 | 5.87 | 13 | 7801 | | 10.788 | 11.6958 | | 1 | 695 | 480 | 294580 | 0.050 | 0.0 | MM |
| 60 | 9Cl-PF3ONS-1 | 94 | 530.807 > 350.967 | | | 16876 | | | | | | 1512 | | 614482 | 0.050 | 0.0 | MM-I |
| 61 | 9Cl-PF3ONS-2 | 95 | 532.804 > 352.947 | | | 7801 | | | | | | 703 | | 294580 | 0.050 | 0.0 | MM-I |
| 62 | 11Cl-PF3OUdS-1 | 94 | 630.865 > 450.902 | 8.59 | 9 | 16876 | | | | | 1 | 511 | 398 | 614482 | 0.050 | 0.0 | MMI |
| 63 | 11Cl-PF3OUdS-2 | 95 | 632.868 > 452.91 | | | 7801 | | | | | | 401 | | 294580 | 0.050 | 0.0 | MM-I |
| 64 | 13C4-PFBA | 96 | 216.776 > 171.928 | 2.20 | 47362 | 29916 | 40.000 | 618.593 | 0.2914 | 77.3 | 6552 | 110 | 723922 | 444427 | 0.050 | 0.0 | bb |
| 65 | 13C5-PFPeA | 97 | 268.16 > 223.035 | 4.34 | 27026 | 18075 | 20.000 | 368.614 | 0.1795 | 92.2 | 5374 | 172 | 926055 | 709842 | 0.050 | 0.0 | bb |
| 66 | 13C5-PFHxA-1 | 97 | 318.029 > 272.993 | 5.01 | 11220 | 18075 | 10.000 | 176.313 | 1.4997 | 88.2 | 352 | 1249 | 439734 | 709842 | 0.050 | 0.0 | bb |
| 67 | 13C5-PFHxA-2 | 97 | 318.029 > 120.341 | 5.01 | 437 | 18075 | 10.000 | 202.061 | 16.5601 | 101.0 | 36 | 469 | 16649 | 709842 | 0.050 | 0.0 | bb |
| 68 | 13C4-PFHpA | 99 | 367.086 > 322.004 | 5.58 | 18115 | 3889 | 10.000 | 171.305 | 0.3048 | 85.7 | 2091 | 291 | 607847 | 105234 | 0.050 | 0.0 | bb |
| 69 | 13C8-PFOA | 99 | 421.096 > 376.022 | 6.46 | 21183 | 3889 | 10.000 | 174.345 | 0.2385 | 87.2 | 2279 | 261 | 595618 | 105234 | 0.050 | 0.0 | bb |
| 70 | 13C9-PFNA | 100 | 472.096 > 427.014 | 7.12 | 11438 | 10629 | 5.000 | 99.093 | 0.4486 | 99.1 | 669 | 684 | 457486 | 420972 | 0.050 | 0.0 | bb |

PVed by WANGG 16-Apr-19, SVed by AP 22-Apr-19. NOTE: Units = ng/L for BLK and Field Samples.

**Quantify Sample Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_144-b.qld

Last Altered: Tuesday, April 16, 2019 14:59:53 Pacific Daylight Time
Printed: Monday, April 22, 2019 08:57:47 Pacific Daylight Time

**ID: L30821-3,i,, Name: FC9W_144S19, Description: 1,WG67663,2/4000uL, Date: 08-Apr-2019, Time: 18:05:51**

| # | Name | IS# | Trace | RT | Area | IS Area | Std. Conc | Conc. | LOD | %Rec | S/N | Noise | Peak Height | IS Height | Sample size | F2 | Flags |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 71 | 13C7-PFUnA | 101 | 570.019 > 525.05 | 7.77 | 11478 | 10331 | 5.000 | 99.370 | 0.4754 | 99.4 | 656 | 714 | 468012 | 402784 | 0.050 | 0.0 | bb |
| 72 | 13C6-PFDA | 101 | 519.147 > 474.058 | 7.50 | 10844 | 10331 | 5.000 | 111.570 | 0.3176 | 111.6 | 1070 | 401 | 429144 | 402784 | 0.050 | 0.0 | bb |
| 73 | 13C2-PFDoA | 101 | 615.127 > 570.013 | 8.09 | 8726 | 10331 | 5.000 | 105.833 | 0.4780 | 105.8 | 574 | 512 | 294130 | 402784 | 0.050 | 0.0 | bb |
| 74 | 13C2-PFTeDA | 101 | 715.057 > 670.026 | 8.93 | 828 | 10331 | 5.000 | 10.238 | 0.2165 | 10.2 | 111 | 228 | 25190 | 402784 | 0.050 | 0.0 | MM |
| 75 | 13C3-PFBS-1 | 102 | 302.056 > 79.865 | 4.98 | 4548 | 4152 | 10.000 | 182.021 | 2.6690 | 91.0 | 286 | 605 | 172885 | 112997 | 0.050 | 0.0 | bb |
| 76 | 13C3-PFBS-2 | 102 | 302.056 > 98.875 | 4.98 | 2114 | 4152 | 10.000 | 174.984 | 1.2142 | 87.5 | 585 | 133 | 77769 | 112997 | 0.050 | 0.0 | bb |
| 77 | 13C3-PFHxS-1 | 102 | 402.114 > 79.858 | 6.59 | 4400 | 4152 | 10.000 | 204.338 | 4.2182 | 102.2 | 145 | 824 | 119566 | 112997 | 0.050 | 0.0 | MM |
| 78 | 13C3-PFHxS-2 | 102 | 402.114 > 98.801 | 6.59 | 2211 | 4152 | 10.000 | 184.296 | 2.5407 | 92.1 | 227 | 276 | 62627 | 112997 | 0.050 | 0.0 | bb |
| 79 | 13C8-PFOS-1 | 103 | 507.124 > 79.858 | 7.58 | 3959 | 4682 | 10.000 | 213.620 | 7.1460 | 106.8 | 88 | 1767 | 155298 | 187434 | 0.050 | 0.0 | MM |
| 80 | 13C8-PFOS-2 | 104 | 507.124 > 98.867 | 7.58 | 2708 | 2688 | 10.000 | 256.844 | 9.1001 | 128.4 | 83 | 1227 | 101499 | 103135 | 0.050 | 0.0 | MM |
| 81 | 13C2-4:2 FTS-1 | 102 | 329.084 > 80.9 | 4.88 | 5458 | 4152 | 20.000 | 740.227 | 15.0007 | 185.1 | 202 | 1003 | 202736 | 112997 | 0.050 | 0.0 | bb |
| 82 | 13C2-4:2 FTS-2 | 102 | 329.084 > 309.024 | 4.88 | 9509 | 4152 | 20.000 | 552.608 | 0.8602 | 138.2 | 2612 | 134 | 350754 | 112997 | 0.050 | 0.0 | bb |
| 83 | 13C2-6:2 FTS-1 | 102 | 429.078 > 80.900 | 6.11 | 5918 | 4152 | 20.000 | 993.558 | 11.1918 | 248.4 | 245 | 605 | 147968 | 112997 | 0.050 | 0.0 | MM |
| 84 | 13C2-6:2 FTS-2 | 102 | 429.078 > 409.031 | 6.10 | 11421 | 4152 | 20.000 | 837.396 | 0.5368 | 209.3 | 4316 | 66 | 286687 | 112997 | 0.050 | 0.0 | bb |
| 85 | 13C2-8:2 FTS-1 | 102 | 529.1351 > 80.900 | 7.37 | 8891 | 4152 | 20.000 | 999.054 | 14.0269 | 249.8 | 310 | 1132 | 351095 | 112997 | 0.050 | 0.0 | bb |
| 86 | 13C2-8:2 FTS-2 | 102 | 529.135 > 509.003 | 7.37 | 10083 | 4152 | 20.000 | 842.417 | 1.1697 | 210.6 | 3189 | 127 | 405087 | 112997 | 0.050 | 0.0 | bb |
| 87 | 13C8-PFOSA | 103 | 506.14 > 77.841 | 8.55 | 5355 | 4682 | 10.000 | 182.751 | 0.1372 | 91.4 | 1778 | 54 | 95369 | 187434 | 0.050 | 0.0 | bb |
| 88 | D3-N-MeFOSA | 103 | 514.956 > 218.974 | | | 4682 | 10.000 | | 4.9089 | | | 991 | | 187434 | 0.050 | 0.0 | MM- |
| 89 | D5-N-EtFOSA | 103 | 531.112 > 218.984 | | | 4682 | 10.000 | | 4.3102 | | | 735 | | 187434 | 0.050 | 0.0 | MM- |
| 90 | D3-MeFOSAA | 103 | 573.153 > 418.99 | 7.52 | 7934 | 4682 | 20.000 | 487.592 | 0.6122 | 121.9 | 2410 | 133 | 320330 | 187434 | 0.050 | 0.0 | bb |
| 91 | D5-EtFOSAA | 103 | 589.245 > 418.971 | 7.62 | 7253 | 4682 | 20.000 | 533.484 | 2.3587 | 133.4 | 632 | 428 | 270626 | 187434 | 0.050 | 0.0 | bb |
| 92 | D7-N-MeFOSE | 103 | 623.156 > 58.896 | 9.70 | 51 | 4682 | 100.000 | 7.267 | 0.9700 | 0.4 | 9 | 90 | 844 | 187434 | 0.050 | 0.0 | MM |
| 93 | D9-N-EtFOSE | 103 | 639.184 > 58.897 | | | 4682 | 100.000 | | 0.5753 | | | 56 | | 187434 | 0.050 | 0.0 | MM- |
| 94 | 13C3-HFPO-DA-1 | 97 | 286.8631 > 168.... | 5.18 | 16876 | 18075 | 40.000 | 577.519 | 0.2853 | 72.2 | 5630 | 109 | 614482 | 709842 | 0.050 | 0.0 | bb |
| 95 | 13C3-HFPO-DA-2 | 97 | 286.8631 > 184.... | 5.18 | 7801 | 18075 | 40.000 | 545.017 | 6.2196 | 68.1 | 253 | 1165 | 294580 | 709842 | 0.050 | 0.0 | bb |
| 96 | 13C3-PFBA | | 216.029 > 171.97 | 2.21 | 29916 | | 20.000 | 427.435 | 1.4774 | 106.9 | 868 | 512 | 444427 | | 0.050 | 0.0 | bb |
| 97 | 13C2-PFHxA-1 | | 315.083 > 269.984 | 5.02 | 18075 | | 10.000 | 202.486 | 0.3083 | 101.2 | 1970 | 360 | 709842 | | 0.050 | 0.0 | bb |
| 98 | 13C2-PFHxA-2 | | 315.083 > 119.359 | 5.02 | 387 | | 10.000 | 143.656 | 7.9828 | 71.8 | 54 | 271 | 14640 | | 0.050 | 0.0 | bb |
| 99 | 13C4-PFOA | | 417.083 > 171.95 | 6.46 | 3889 | | 10.000 | 258.915 | 1.6889 | 129.5 | 460 | 229 | 105234 | | 0.050 | 0.0 | bb |
| 1... | 13C5-PFNA | | 468.019 > 423.008 | 7.12 | 10629 | | 5.000 | 104.215 | 0.7035 | 104.2 | 444 | 947 | 420972 | | 0.050 | 0.0 | bb |
| 1... | 13C2-PFDA | | 515.134 > 470.05 | 7.50 | 10331 | | 5.000 | 90.830 | 0.2248 | 90.8 | 1212 | 332 | 402784 | | 0.050 | 0.0 | bb |
| 1... | 18O2-PFHxS | | 402.984 > 83.895 | 6.59 | 4152 | | 10.000 | 211.399 | 0.6399 | 105.7 | 991 | 114 | 112997 | | 0.050 | 0.0 | bb |
| 1... | 13C4-PFOS-1 | | 502.791 > 79.856 | 7.59 | 4682 | | 10.000 | 192.456 | 4.1911 | 96.2 | 138 | 1361 | 187434 | | 0.050 | 0.0 | bb |
| 1... | 13C4-PFOS-2 | | 502.791 > 98.864 | 7.59 | 2688 | | 10.000 | 172.159 | 5.9521 | 86.1 | 87 | 1189 | 103135 | | 0.050 | 0.0 | bb |

PVed by WANGG 16-Apr-19, SVed by AP 22-Apr-19. NOTE: Units = ng/L for BLK and Field Samples.

**Quantify Sample Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

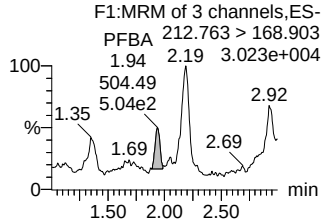
Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_130-b.qld

Last Altered: Tuesday, April 16, 2019 12:33:52 Pacific Daylight Time
Printed: Tuesday, April 16, 2019 12:54:36 Pacific Daylight Time

**Method: G:\Masslynx\Master Methods\MassLynx SCN 909\UPLC\FC_110_UPLC_06.mdb 10 Mar 2019 18:18:03**
**Calibration: G:\Masslynx\Inst_W\PFC.PRO\Curve\FC9W_097-a1.cdb 12 Mar 2019 11:26:10**

**ID: L30821-4,,, Name: FC9W_130S31, Description: 1,WG67438,2/4000uL, Date: 31-Mar-2019, Time: 03:16:29**

**PFBA**

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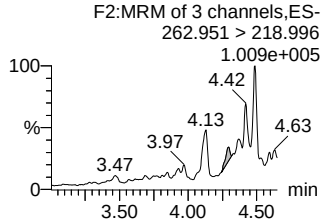


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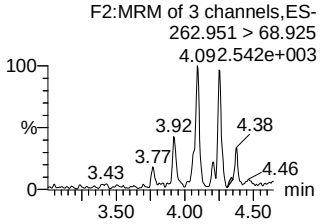


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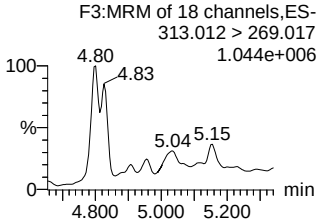


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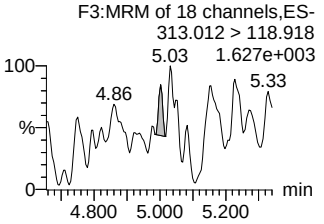


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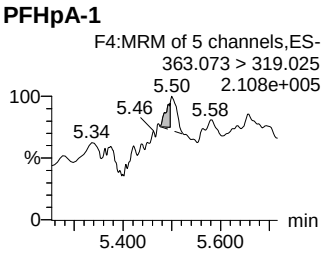


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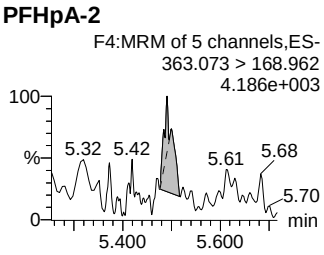


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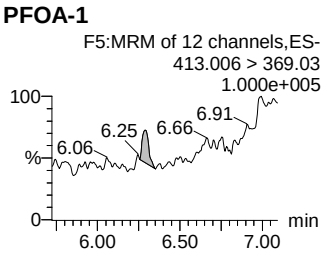


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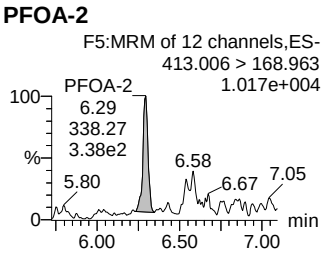


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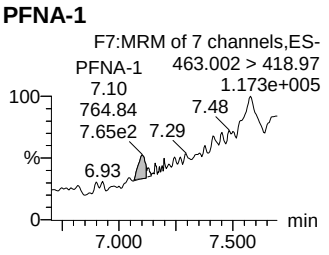


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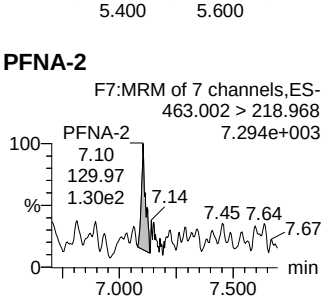


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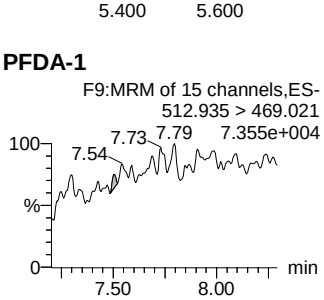


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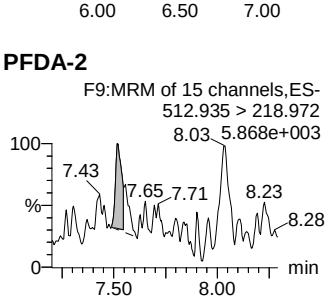


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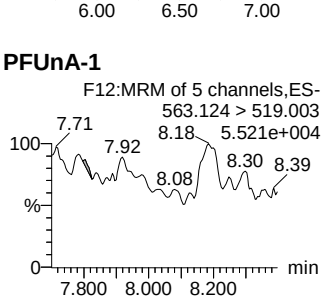


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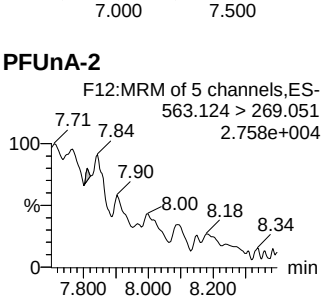


PVed by WANGG 13-Apr-19, SVed by AP 16-Apr-19. NOTE: Units = ng/L for BLK and FIeld Samples.

**Quantify Sample Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_130-b.qld

Last Altered: Tuesday, April 16, 2019 12:33:52 Pacific Daylight Time
Printed: Tuesday, April 16, 2019 12:54:36 Pacific Daylight Time

**ID: L30821-4,,, Name: FC9W_130S31, Description: 1,WG67438,2/4000uL, Date: 31-Mar-2019, Time: 03:16:29**

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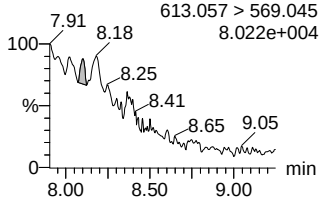


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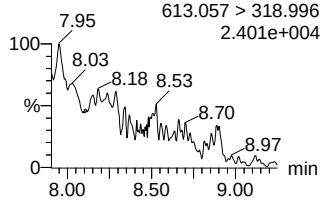


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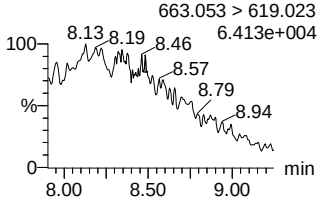


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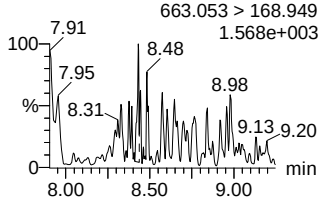


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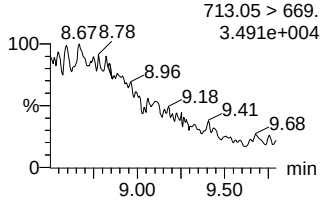


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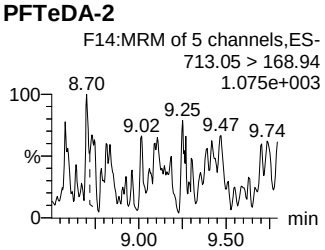


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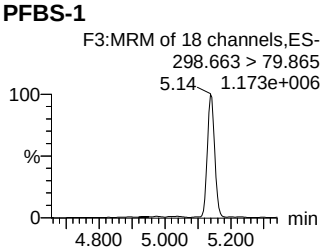


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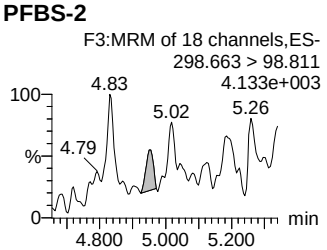


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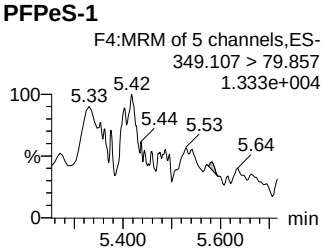


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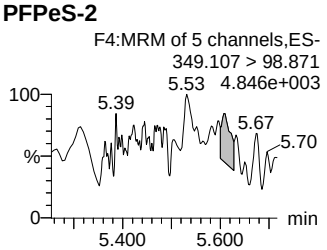


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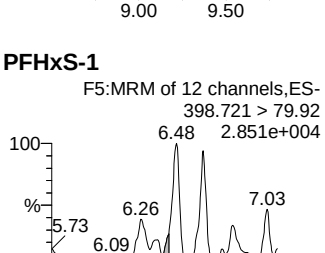


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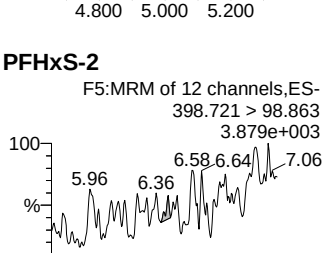


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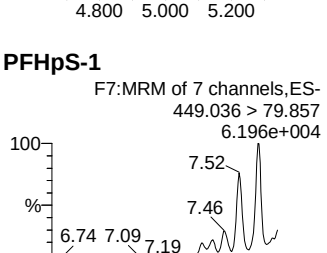


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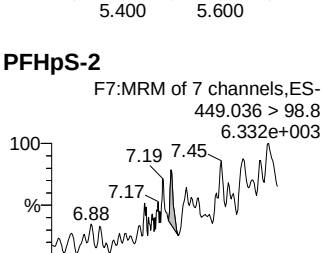


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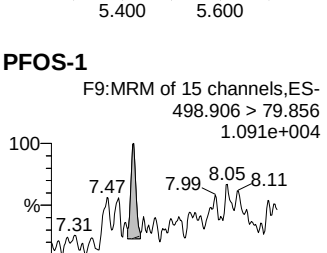


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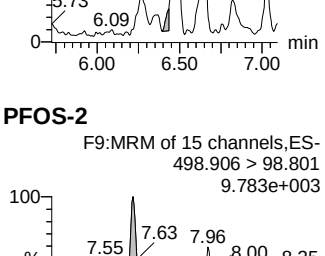


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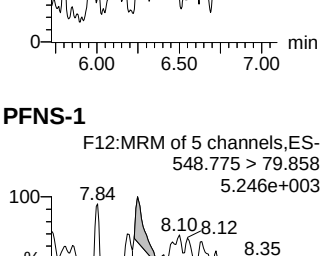


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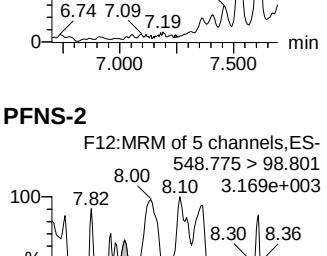


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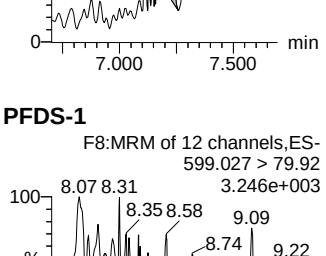


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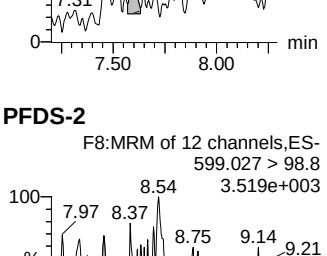


PVed by WANGG 13-Apr-19, SVed by AP 16-Apr-19. NOTE: Units = ng/L for BLK and FIeld Samples.

**Quantify Sample Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_130-b.qld

Last Altered: Tuesday, April 16, 2019 12:33:52 Pacific Daylight Time
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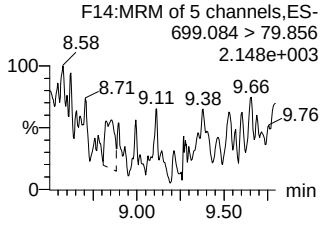
**ID: L30821-4,,, Name: FC9W_130S31, Description: 1,WG67438,2/4000uL, Date: 31-Mar-2019, Time: 03:16:29**

**PFDoS-1**

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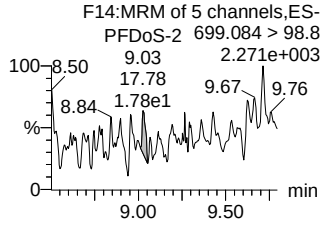
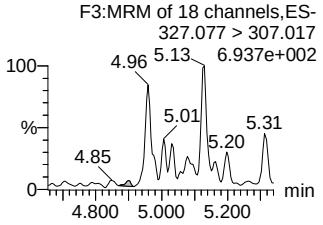



**4:2 FTS-1**

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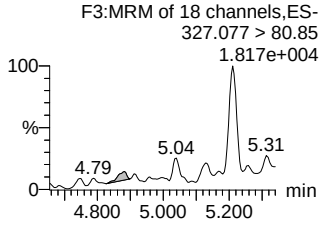


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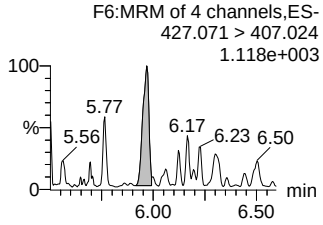


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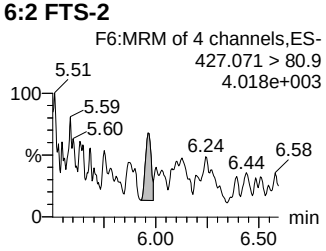
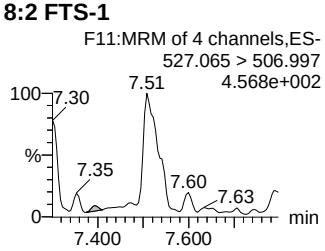
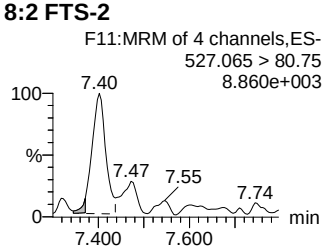


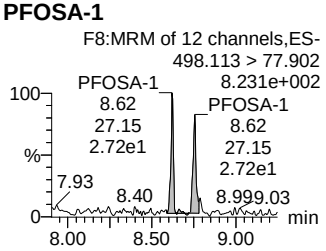

**8:2 FTS-1**



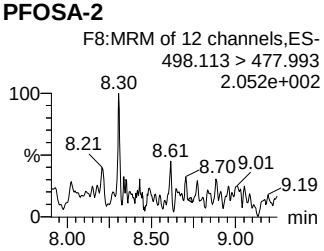

**8:2 FTS-2**



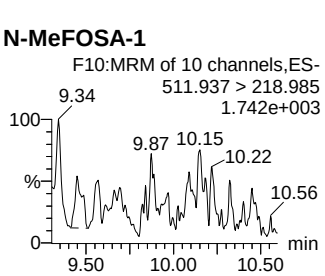

**PFOSA-1**



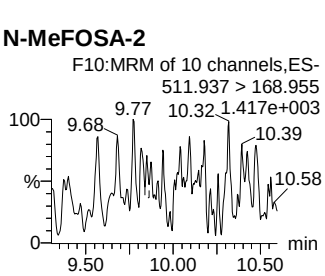

**PFOSA-2**




**N-MeFOSA-1**




**N-MeFOSA-2**

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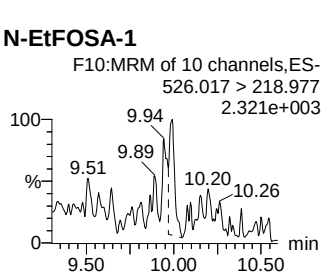


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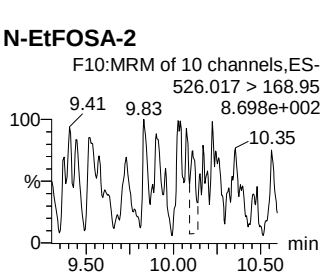
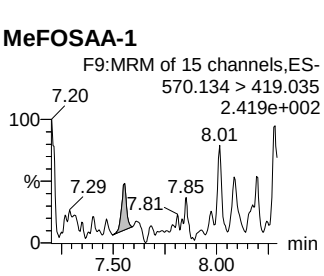



**MeFOSAA-1**

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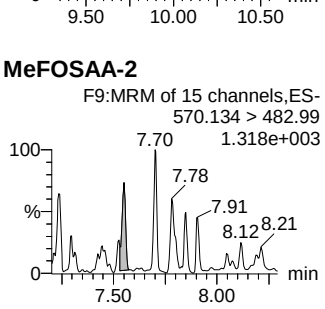
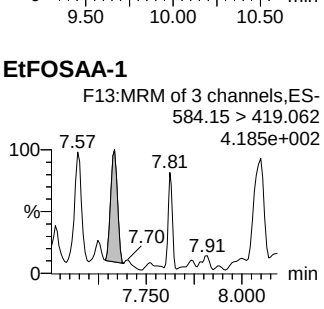
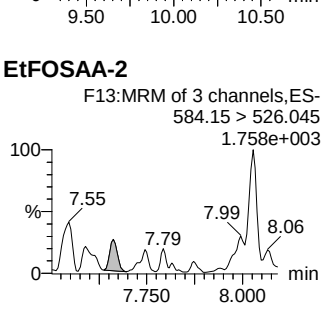


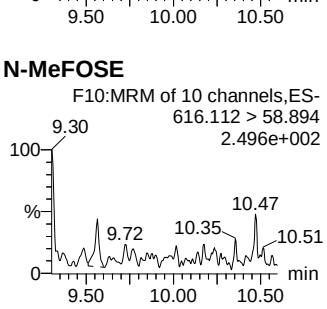

**EtFOSAA-1**



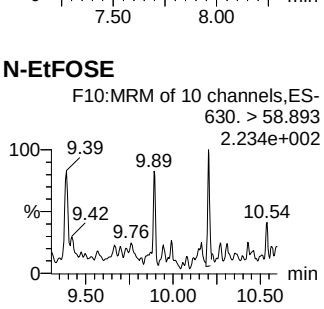

**EtFOSAA-2**




**N-MeFOSE**




**N-EtFOSE**




PVed by WANGG 13-Apr-19, SVed by AP 16-Apr-19. NOTE: Units = ng/L for BLK and FIeld Samples.

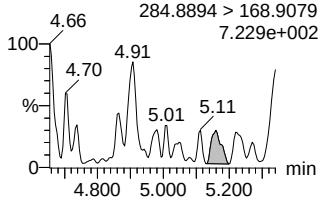
**Quantify Sample Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_130-b.qld

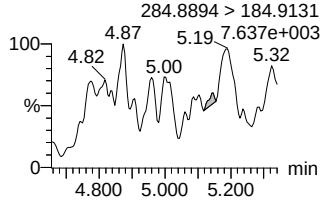
Last Altered: Tuesday, April 16, 2019 12:33:52 Pacific Daylight Time
Printed: Tuesday, April 16, 2019 12:54:36 Pacific Daylight Time

**ID: L30821-4,,, Name: FC9W_130S31, Description: 1,WG67438,2/4000uL, Date: 31-Mar-2019, Time: 03:16:29**

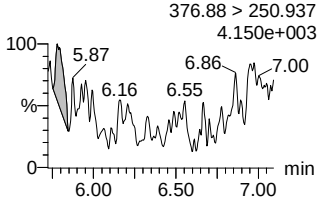
**HFPO-DA-1**



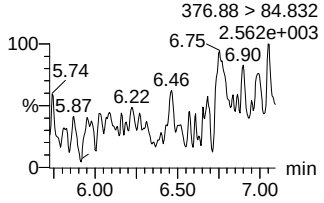

**HFPO-DA-2**



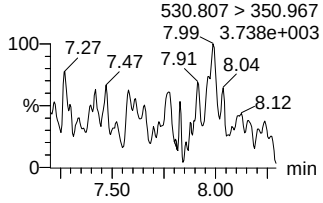

**ADONA-1**



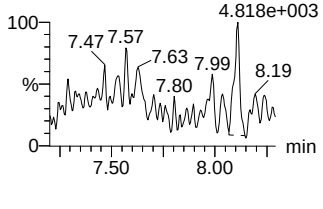

**ADONA-2**



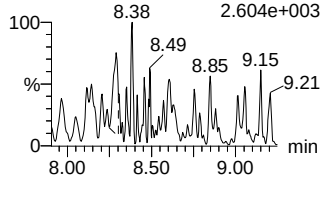

**9Cl-PF3ONS-1**



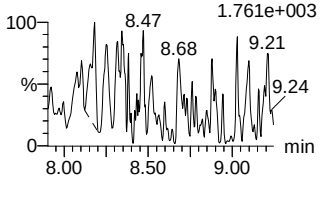

**9Cl-PF3ONS-2**



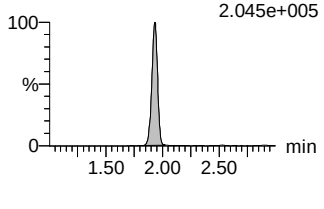

**11Cl-PF3OUdS-1**



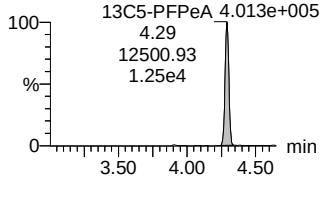

**11Cl-PF3OUdS-2**



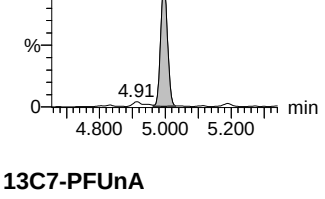

**13C4-PFBA**



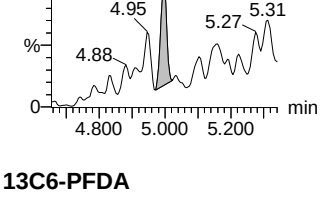

**13C5-PFPeA**



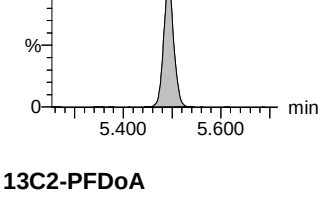

**13C5-PFHxA-1**



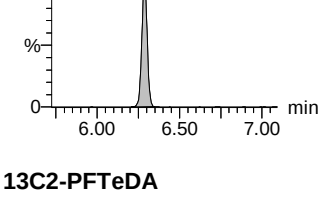

**13C5-PFHxA-2**



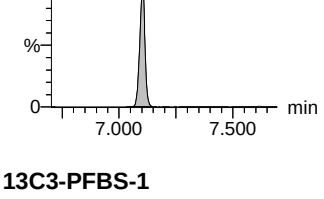

**13C4-PFHpA**



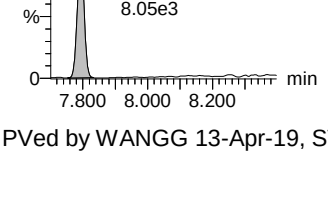

**13C8-PFOA**



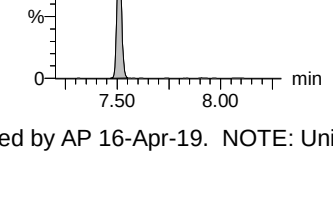

**13C9-PFNA**



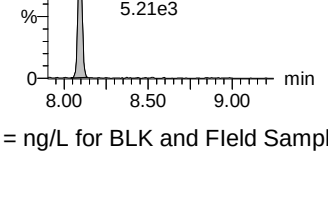

**13C7-PFUnA**



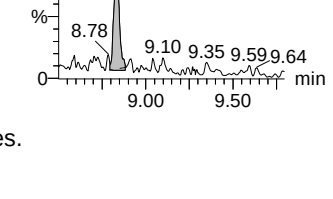

**13C6-PFDA**



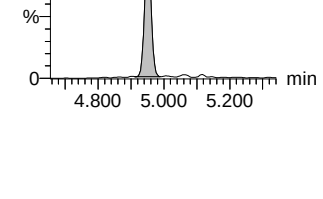

**13C2-PFDoA**




**13C2-PFTeDA**




**13C3-PFBS-1**




PVed by WANGG 13-Apr-19, SVed by AP 16-Apr-19. NOTE: Units = ng/L for BLK and FIeld Samples.

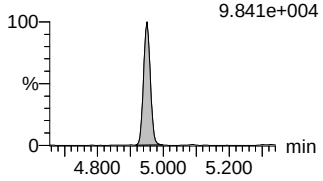
**Quantify Sample Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_130-b.qld

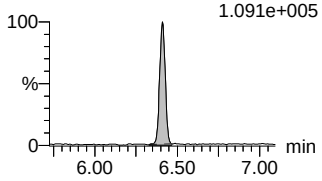
Last Altered: Tuesday, April 16, 2019 12:33:52 Pacific Daylight Time
Printed: Tuesday, April 16, 2019 12:54:36 Pacific Daylight Time

**ID: L30821-4,,, Name: FC9W_130S31, Description: 1,WG67438,2/4000uL, Date: 31-Mar-2019, Time: 03:16:29**

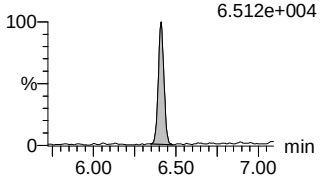
**13C3-PFBS-2**
F3:MRM of 18 channels,ES-
302.056 > 98.875
9.841e+004



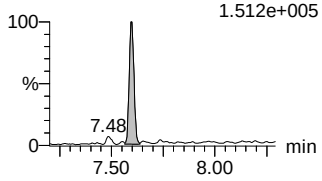

**13C3-PFHxS-1**
F5:MRM of 12 channels,ES-
402.114 > 79.858
1.091e+005



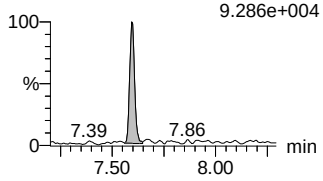

**13C3-PFHxS-2**
F5:MRM of 12 channels,ES-
402.114 > 98.801
6.512e+004



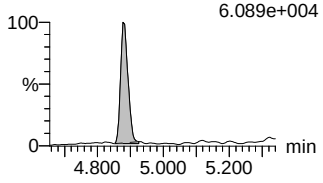

**13C8-PFOS-1**
F9:MRM of 15 channels,ES-
507.124 > 79.858
1.512e+005



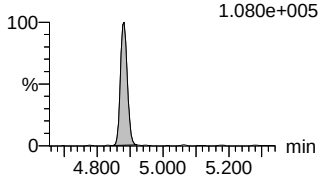

**13C8-PFOS-2**
F9:MRM of 15 channels,ES-
507.124 > 98.867
9.286e+004



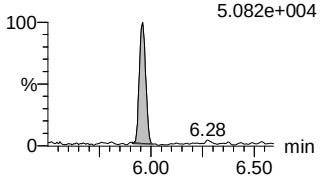

**13C2-4:2 FTS-1**
F3:MRM of 18 channels,ES-
329.084 > 80.9
6.089e+004



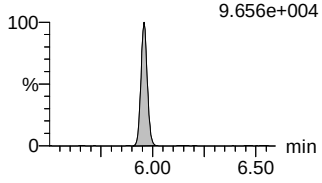

**13C2-4:2 FTS-2**
F3:MRM of 18 channels,ES-
329.084 > 309.024
1.080e+005



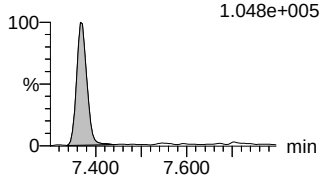

**13C2-6:2 FTS-1**
F6:MRM of 4 channels,ES-
429.078 > 80.900
5.082e+004



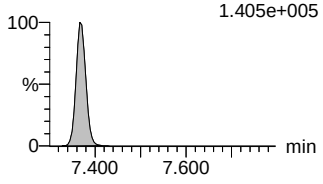

**13C2-6:2 FTS-2**
F6:MRM of 4 channels,ES-
429.078 > 409.031
9.656e+004



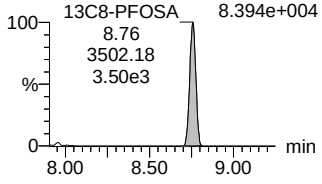

**13C2-8:2 FTS-1**
F11:MRM of 4 channels,ES-
529.1351 > 80.900
1.048e+005



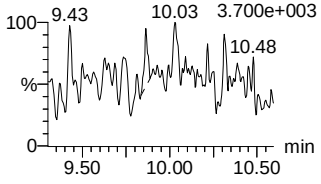

**13C2-8:2 FTS-2**
F11:MRM of 4 channels,ES-
529.135 > 509.003
1.405e+005



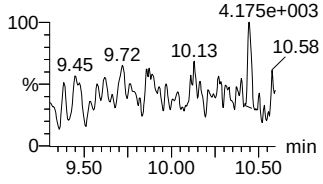

**13C8-PFOSA**
F8:MRM of 12 channels,ES-
506.14 > 77.841
8.394e+004



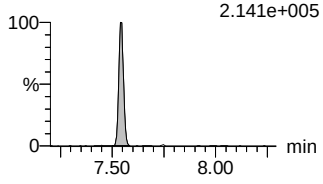

**D3-N-MeFOSA**
F10:MRM of 10 channels,ES-
514.956 > 218.974
3.700e+003



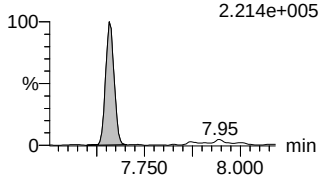

**D5-N-EtFOSA**
F10:MRM of 10 channels,ES-
531.112 > 218.984
4.175e+003



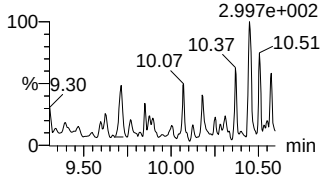

**D3-MeFOSAA**
F9:MRM of 15 channels,ES-
573.153 > 418.99
2.141e+005



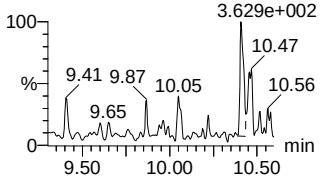

**D5-EtFOSAA**
F13:MRM of 3 channels,ES-
589.245 > 418.971
2.214e+005



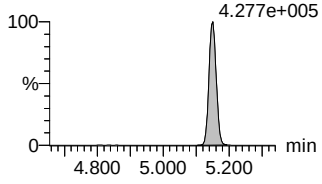

**D7-N-MeFOSE**
F10:MRM of 10 channels,ES-
623.156 > 58.896
2.997e+002



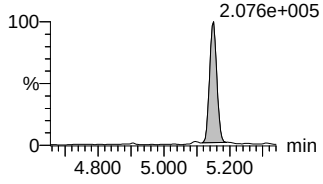

**D9-N-EtFOSE**
F10:MRM of 10 channels,ES-
639.184 > 58.897
3.629e+002




**13C3-HFPO-DA-1**
F3:MRM of 18 channels,ES-
286.8631 > 168.8861
4.277e+005




**13C3-HFPO-DA-2**
F3:MRM of 18 channels,ES-
286.8631 > 184.8888
2.076e+005




PVed by WANGG 13-Apr-19, SVed by AP 16-Apr-19. NOTE: Units = ng/L for BLK and FIeld Samples.

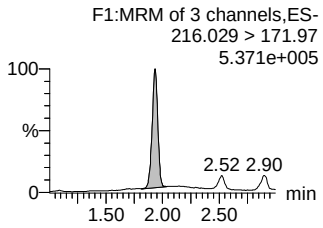
**Quantify Sample Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_130-b.qld

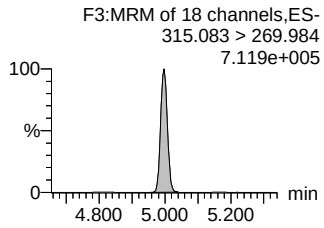
Last Altered: Tuesday, April 16, 2019 12:33:52 Pacific Daylight Time
Printed: Tuesday, April 16, 2019 12:54:36 Pacific Daylight Time

**ID: L30821-4,,, Name: FC9W_130S31, Description: 1,WG67438,2/4000uL, Date: 31-Mar-2019, Time: 03:16:29**

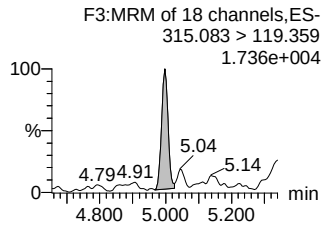
**13C3-PFBA**



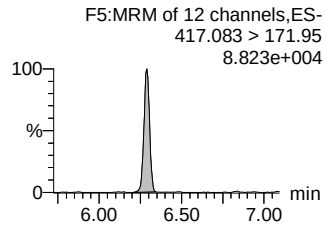

**13C2-PFHxA-1**



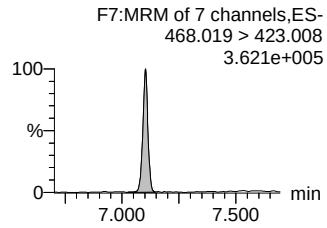

**13C2-PFHxA-2**



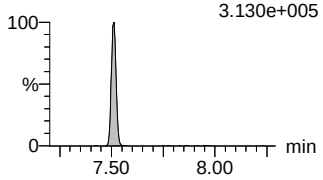

**13C4-PFOA**



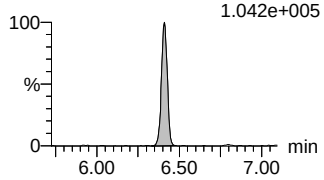

**13C5-PFNA**



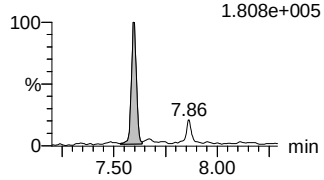

**13C2-PFDA**



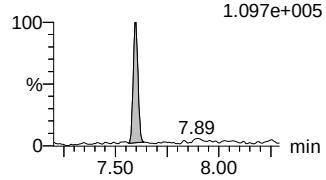

**18O2-PFHxS**




**13C4-PFOS-1**




**13C4-PFOS-2**




PVed by WANGG 13-Apr-19, SVed by AP 16-Apr-19. NOTE: Units = ng/L for BLK and FIeld Samples.

**Quantify Sample Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_130-b.qld

Last Altered: Tuesday, April 16, 2019 12:33:52 Pacific Daylight Time
Printed: Tuesday, April 16, 2019 12:54:36 Pacific Daylight Time

**ID: L30821-4,,, Name: FC9W_130S31, Description: 1,WG67438,2/4000uL, Date: 31-Mar-2019, Time: 03:16:29**

| # | Name | IS# | Trace | RT | Area | IS Area | Std. Conc | Conc. | LOD | %Rec | S/N | Noise | Peak Height | IS Height | Sample size | F2 | Flags |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | PFBA | 64 | 212.763 > 168.903 | 1.94 | 504 | 11724 | | 18.874 | 0.6899 | | 30 | 335 | 10058 | 203786 | 0.100 | 0.0 | MM |
| 2 | PFPeA-1 | 65 | 262.951 > 218.996 | 4.30 | 419 | 12501 | | 5.170 | | | 11 | 978 | 10873 | 399796 | 0.100 | 0.0 | MM |
| 3 | PFPeA-2 | 65 | 262.951 > 68.925 | 4.34 | 2 | 12501 | | 7.909 | 43.6878 | | 1 | 95 | 71 | 399796 | 0.100 | 0.0 | MM |
| 4 | PFHxA-1 | 66 | 313.012 > 269.017 | 5.00 | 1 | 7806 | | | | | 0 | 17963 | 5785 | 324748 | 0.100 | 0.0 | MMI |
| 5 | PFHxA-2 | 66 | 313.012 > 118.918 | 5.00 | 9 | 7806 | | 1.104 | 3.1472 | | 2 | 364 | 669 | 324748 | 0.100 | 0.0 | MM |
| 6 | PFHpA-1 | 68 | 363.073 > 319.025 | 5.50 | 457 | 16328 | | 2.440 | 3.3851 | | 5 | 8373 | 40565 | 690368 | 0.100 | 0.0 | MM |
| 7 | PFHpA-2 | 68 | 363.073 > 168.962 | 5.49 | 64 | 16328 | | 1.155 | 0.5829 | | 6 | 518 | 3228 | 690368 | 0.100 | 0.0 | MM |
| 8 | PFOA-1 | 69 | 413.006 > 369.03 | 6.29 | 1171 | 18678 | | 3.436 | 1.0443 | | 6 | 4780 | 26356 | 490933 | 0.100 | 0.0 | MM |
| 9 | PFOA-2 | 69 | 413.006 > 168.963 | 6.29 | 338 | 18678 | | 3.334 | 0.0476 | | 13 | 717 | 9539 | 490933 | 0.100 | 0.0 | MM |
| 10 | PFNA-1 | 70 | 463.002 > 418.97 | 7.10 | 765 | 9938 | | 3.154 | 1.9328 | | 3 | 6891 | 22287 | 382986 | 0.100 | 0.0 | MM |
| 11 | PFNA-2 | 70 | 463.002 > 218.968 | 7.10 | 130 | 9938 | | 2.477 | 0.9831 | | 9 | 729 | 6271 | 382986 | 0.100 | 0.0 | MM |
| 12 | PFDA-1 | 72 | 512.935 > 469.021 | 7.51 | 150 | 8778 | | | | | 1 | 7091 | 7550 | 340423 | 0.100 | 0.0 | MMI |
| 13 | PFDA-2 | 72 | 512.935 > 218.972 | 7.52 | 134 | 8778 | | 3.734 | 3.5404 | | 2 | 1656 | 4028 | 340423 | 0.100 | 0.0 | MM |
| 14 | PFUnA-1 | 71 | 563.124 > 519.003 | 7.80 | 50 | 8048 | | | | | 0 | 6427 | 2750 | 330538 | 0.100 | 0.0 | MMI |
| 15 | PFUnA-2 | 71 | 563.124 > 269.051 | 7.81 | 28 | 8048 | | 0.645 | 10.0207 | | 1 | 2694 | 2798 | 330538 | 0.100 | 0.0 | MM |
| 16 | PFDoA-1 | 73 | 613.057 > 569.045 | 8.10 | 475 | 5212 | | 2.899 | 1.4110 | | 4 | 3718 | 16428 | 181524 | 0.100 | 0.0 | MM |
| 17 | PFDoA-2 | 73 | 613.057 > 318.996 | 8.10 | 7 | 5212 | | | | | 0 | 1640 | 562 | 181524 | 0.100 | 0.0 | MMI |
| 18 | PFTrDA-1 | 74 | 663.053 > 619.023 | 8.48 | 73 | 302 | | 13.235 | 110.53... | | 2 | 5200 | 8808 | 8866 | 0.100 | 0.0 | MM |
| 19 | PFTrDA-2 | 74 | 663.053 > 168.949 | | | 302 | | | | | | 294 | | 8866 | 0.100 | 0.0 | MM-I |
| 20 | PFTeDA-1 | 74 | 713.05 > 669. | 8.84 | 27 | 302 | | 4.372 | 76.4004 | | 1 | 2945 | 1904 | 8866 | 0.100 | 0.0 | MM |
| 21 | PFTeDA-2 | 74 | 713.05 > 168.94 | | | 302 | | | | | | 319 | | 8866 | 0.100 | 0.0 | MM-I |
| 22 | PFBS-1 | 75 | 298.663 > 79.865 | 4.94 | 35 | 4633 | | 0.661 | 2.0557 | | 1 | 1548 | 2271 | 197817 | 0.100 | 0.0 | MM |
| 23 | PFBS-2 | 76 | 298.663 > 98.811 | 4.95 | 34 | 2314 | | 0.804 | 0.7543 | | 3 | 465 | 1343 | 98141 | 0.100 | 0.0 | bb |
| 24 | PFPeS-1 | 77 | 349.107 > 79.857 | 5.58 | 8 | 4304 | | | | | 1 | 1124 | 811 | 108749 | 0.100 | 0.0 | MMI |
| 25 | PFPeS-2 | 78 | 349.107 > 98.871 | 5.61 | 42 | 2530 | | | | | 2 | 839 | 1882 | 64563 | 0.100 | 0.0 | ddI |
| 26 | PFHxS-1 | 77 | 398.721 > 79.92 | 6.43 | 95 | 4304 | | 2.902 | 2.7939 | | 7 | 749 | 5001 | 108749 | 0.100 | 0.0 | MM |
| 27 | PFHxS-2 | 78 | 398.721 > 98.863 | 6.43 | 17 | 2530 | | | | | 1 | 579 | 732 | 64563 | 0.100 | 0.0 | MMI |
| 28 | PFHpS-1 | 79 | 449.036 > 79.857 | 7.24 | 9 | 3949 | | | | | 1 | 1153 | 1003 | 149797 | 0.100 | 0.0 | MMI |
| 29 | PFHpS-2 | 80 | 449.036 > 98.8 | 7.23 | 47 | 2493 | | 2.083 | 3.5174 | | 3 | 988 | 2781 | 91458 | 0.100 | 0.0 | MM |
| 30 | PFOS-1 | 79 | 498.906 > 79.856 | 7.60 | 241 | 3949 | | 4.370 | 1.0819 | | 7 | 1193 | 8427 | 149797 | 0.100 | 0.0 | MM |
| 31 | PFOS-2 | 80 | 498.906 > 98.801 | 7.59 | 148 | 2493 | | 5.366 | 2.2207 | | 7 | 914 | 6032 | 91458 | 0.100 | 0.0 | MM |
| 32 | PFNS-1 | 79 | 548.775 > 79.858 | 7.97 | 57 | 3949 | | | | | 3 | 746 | 1932 | 149797 | 0.100 | 0.0 | MMI |
| 33 | PFNS-2 | 80 | 548.775 > 98.801 | 7.92 | 17 | 2493 | | 0.305 | 3.9682 | | 1 | 1383 | 804 | 91458 | 0.100 | 0.0 | MM |
| 34 | PFDS-1 | 79 | 599.027 > 79.92 | 8.22 | 12 | 3949 | | | | | 1 | 667 | 468 | 149797 | 0.100 | 0.0 | MMI |
| 35 | PFDS-2 | 80 | 599.027 > 98.8 | 8.22 | 23 | 2493 | | 2.040 | 5.1797 | | 1 | 1091 | 1300 | 91458 | 0.100 | 0.0 | MM |

PVed by WANGG 13-Apr-19, SVed by AP 16-Apr-19. NOTE: Units = ng/L for BLK and FIeld Samples.

**Quantify Sample Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_130-b.qld

Last Altered: Tuesday, April 16, 2019 12:33:52 Pacific Daylight Time
Printed: Tuesday, April 16, 2019 12:54:36 Pacific Daylight Time

**ID: L30821-4,,, Name: FC9W_130S31, Description: 1,WG67438,2/4000uL, Date: 31-Mar-2019, Time: 03:16:29**

| # | Name | IS# | Trace | RT | Area | IS Area | Std. Conc | Conc. | LOD | %Rec | S/N | Noise | Peak Height | IS Height | Sample size | F2 | Flags |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 36 | PFDoS-1 | 79 | 699.084 > 79.856 | | | 3949 | | | | | | 567 | | 149797 | 0.100 | 0.0 | MM-I |
| 37 | PFDoS-2 | 80 | 699.084 > 98.8 | 9.03 | 18 | 2493 | | 0.558 | 1.2549 | | 2 | 376 | 786 | 91458 | 0.100 | 0.0 | MM |
| 38 | 4:2 FTS-1 | 81 | 327.077 > 307.017 | 4.90 | 1 | 1548 | | | | | 0 | 93 | 33 | 59967 | 0.100 | 0.0 | MMI |
| 39 | 4:2 FTS-2 | 81 | 327.077 > 80.85 | 4.88 | 39 | 1548 | | 6.149 | 9.0256 | | 2 | 765 | 1299 | 59967 | 0.100 | 0.0 | MM |
| 40 | 6:2 FTS-1 | 83 | 427.071 > 407.024 | 5.97 | 37 | 1756 | | | | | 13 | 82 | 1086 | 50050 | 0.100 | 0.0 | bdI |
| 41 | 6:2 FTS-2 | 83 | 427.071 > 80.9 | 5.96 | 68 | 1756 | | 7.113 | 4.7930 | | 5 | 428 | 2197 | 50050 | 0.100 | 0.0 | bd |
| 42 | 8:2 FTS-1 | 85 | 527.065 > 506.997 | 7.39 | 0 | 2695 | | | | | 0 | 42 | 20 | 104300 | 0.100 | 0.0 | MMI |
| 43 | 8:2 FTS-2 | 85 | 527.065 > 80.75 | 7.37 | 10 | 2695 | | | | | 2 | 621 | 1010 | 104300 | 0.100 | 0.0 | MMI |
| 44 | PFOSA-1 | 87 | 498.113 > 77.902 | 8.62 | 27 | 3502 | | 1.626 | 0.9283 | | 24 | 34 | 801 | 83954 | 0.100 | 0.0 | MM |
| 45 | PFOSA-2 | 87 | 498.113 > 477.993 | 8.73 | 0 | 3502 | | 18.948 | 21.3227 | | 0 | 14 | 6 | 83954 | 0.100 | 0.0 | MM |
| 46 | N-MeFOSA-1 | 88 | 511.937 > 218.985 | | | | | | | | | 282 | | | 0.100 | 0.0 | MM- |
| 47 | N-MeFOSA-2 | 88 | 511.937 > 168.955 | | | | | | | | | 307 | | | 0.100 | 0.0 | MM- |
| 48 | N-EtFOSA-1 | 89 | 526.017 > 218.977 | | | | | | | | | 527 | | | 0.100 | 0.0 | MM- |
| 49 | N-EtFOSA-2 | 89 | 526.017 > 168.95 | | | | | | | | | 269 | | | 0.100 | 0.0 | MM- |
| 50 | MeFOSAA-1 | 90 | 570.134 > 419.035 | 7.56 | 2 | 5538 | | | | | 2 | 41 | 92 | 213732 | 0.100 | 0.0 | MMI |
| 51 | MeFOSAA-2 | 90 | 570.134 > 482.99 | 7.55 | 19 | 5538 | | 0.038 | | | 8 | 123 | 935 | 213732 | 0.100 | 0.0 | MM |
| 52 | EtFOSAA-1 | 91 | 584.15 > 419.062 | 7.67 | 8 | 5627 | | 0.974 | 0.8049 | | 7 | 53 | 380 | 220895 | 0.100 | 0.0 | MM |
| 53 | EtFOSAA-2 | 91 | 584.15 > 526.045 | 7.66 | 10 | 5627 | | 1.673 | 2.1722 | | 2 | 265 | 447 | 220895 | 0.100 | 0.0 | MM |
| 54 | N-MeFOSE | 92 | 616.112 > 58.894 | | | | | | | | | 15 | | | 0.100 | 0.0 | MM- |
| 55 | N-EtFOSE | 93 | 630. > 58.893 | | | | | | | | | 25 | | | 0.100 | 0.0 | MM- |
| 56 | HFPO-DA-1 | 94 | 284.8894 > 168.... | 5.16 | 7 | 10644 | | | | | 1 | 146 | 197 | 426929 | 0.100 | 0.0 | MMI |
| 57 | HFPO-DA-2 | 95 | 284.8894 > 184.... | 5.15 | 14 | 5100 | | 0.655 | 5.8722 | | 1 | 997 | 645 | 203151 | 0.100 | 0.0 | MM |
| 58 | ADONA-1 | 94 | 376.88 > 250.937 | 5.78 | 114 | 10644 | | | | | 3 | 732 | 1879 | 426929 | 0.100 | 0.0 | bbI |
| 59 | ADONA-2 | 95 | 376.88 > 84.832 | | | 5100 | | | 5.8169 | | | 454 | | 203151 | 0.100 | 0.0 | MM- |
| 60 | 9Cl-PF3ONS-1 | 94 | 530.807 > 350.967 | 7.81 | 1 | 10644 | | | | | 0 | 582 | 180 | 426929 | 0.100 | 0.0 | MMI |
| 61 | 9Cl-PF3ONS-2 | 95 | 532.804 > 352.947 | | | 5100 | | | | | | 870 | | 203151 | 0.100 | 0.0 | MM-I |
| 62 | 11Cl-PF3OUdS-1 | 94 | 630.865 > 450.902 | | | 10644 | | | | | | 429 | | 426929 | 0.100 | 0.0 | MM-I |
| 63 | 11Cl-PF3OUdS-2 | 95 | 632.868 > 452.91 | | | 5100 | | | | | | 553 | | 203151 | 0.100 | 0.0 | MM-I |
| 64 | 13C4-PFBA | 96 | 216.776 > 171.928 | 1.93 | 11724 | 29692 | 40.000 | 77.141 | 0.1331 | 19.3 | 1737 | 117 | 203786 | 516749 | 0.100 | 0.0 | bb |
| 65 | 13C5-PFPeA | 97 | 268.16 > 223.035 | 4.29 | 12501 | 16741 | 20.000 | 92.046 | 0.0800 | 46.0 | 2598 | 154 | 399796 | 711217 | 0.100 | 0.0 | bb |
| 66 | 13C5-PFHxA-1 | 97 | 318.029 > 272.993 | 5.00 | 7806 | 16741 | 10.000 | 66.225 | 0.5169 | 66.2 | 376 | 863 | 324748 | 711217 | 0.100 | 0.0 | MM |
| 67 | 13C5-PFHxA-2 | 97 | 318.029 > 120.341 | 5.00 | 276 | 16741 | 10.000 | 69.027 | 31.1257 | 69.0 | 7 | 1765 | 13145 | 711217 | 0.100 | 0.0 | MM |
| 68 | 13C4-PFHpA | 99 | 367.086 > 322.004 | 5.49 | 16328 | 3416 | 10.000 | 87.906 | 0.3803 | 87.9 | 1138 | 607 | 690368 | 87990 | 0.100 | 0.0 | bb |
| 69 | 13C8-PFOA | 99 | 421.096 > 376.022 | 6.29 | 18678 | 3416 | 10.000 | 87.517 | 0.1289 | 87.5 | 2079 | 236 | 490933 | 87990 | 0.100 | 0.0 | bb |
| 70 | 13C9-PFNA | 100 | 472.096 > 427.014 | 7.10 | 9938 | 9217 | 5.000 | 49.649 | 0.7567 | 99.3 | 193 | 1979 | 382986 | 361364 | 0.100 | 0.0 | bb |

PVed by WANGG 13-Apr-19, SVed by AP 16-Apr-19. NOTE: Units = ng/L for BLK and FIeld Samples.

**Quantify Sample Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_130-b.qld

Last Altered: Tuesday, April 16, 2019 12:33:52 Pacific Daylight Time
Printed: Tuesday, April 16, 2019 12:54:36 Pacific Daylight Time

**ID: L30821-4,,, Name: FC9W_130S31, Description: 1,WG67438,2/4000uL, Date: 31-Mar-2019, Time: 03:16:29**

| # | Name | IS# | Trace | RT | Area | IS Area | Std. Conc | Conc. | LOD | %Rec | S/N | Noise | Peak Height | IS Height | Sample size | F2 | Flags |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 71 | 13C7-PFUnA | 101 | 570.019 > 525.05 | 7.79 | 8048 | 8165 | 5.000 | 44.078 | 0.6134 | 88.2 | 231 | 1429 | 330538 | 312596 | 0.100 | 0.0 | bb |
| 72 | 13C6-PFDA | 101 | 519.147 > 474.058 | 7.51 | 8778 | 8165 | 5.000 | 57.137 | 0.1747 | 114.3 | 994 | 342 | 340423 | 312596 | 0.100 | 0.0 | bb |
| 73 | 13C2-PFDoA | 101 | 615.127 > 570.013 | 8.09 | 5212 | 8165 | 5.000 | 39.996 | 0.3481 | 80.0 | 314 | 579 | 181524 | 312596 | 0.100 | 0.0 | bb |
| 74 | 13C2-PFTeDA | 101 | 715.057 > 670.026 | 8.83 | 302 | 8165 | 5.000 | 2.363 | 0.2675 | 4.7 | 20 | 436 | 8866 | 312596 | 0.100 | 0.0 | MM |
| 75 | 13C3-PFBS-1 | 102 | 302.056 > 79.865 | 4.95 | 4633 | 4221 | 10.000 | 91.194 | 3.4923 | 91.2 | 136 | 1458 | 197817 | 104040 | 0.100 | 0.0 | bb |
| 76 | 13C3-PFBS-2 | 102 | 302.056 > 98.875 | 4.95 | 2314 | 4221 | 10.000 | 94.212 | 0.8931 | 94.2 | 545 | 180 | 98141 | 104040 | 0.100 | 0.0 | bb |
| 77 | 13C3-PFHxS-1 | 102 | 402.114 > 79.858 | 6.41 | 4304 | 4221 | 10.000 | 98.301 | 1.3393 | 98.3 | 226 | 482 | 108749 | 104040 | 0.100 | 0.0 | MM |
| 78 | 13C3-PFHxS-2 | 102 | 402.114 > 98.801 | 6.41 | 2530 | 4221 | 10.000 | 103.746 | 1.7710 | 103.7 | 182 | 355 | 64563 | 104040 | 0.100 | 0.0 | bb |
| 79 | 13C8-PFOS-1 | 103 | 507.124 > 79.858 | 7.60 | 3949 | 4961 | 10.000 | 100.566 | 2.3129 | 100.6 | 138 | 1088 | 149797 | 178313 | 0.100 | 0.0 | MM |
| 80 | 13C8-PFOS-2 | 104 | 507.124 > 98.867 | 7.59 | 2493 | 2820 | 10.000 | 112.670 | 4.0104 | 112.7 | 81 | 1122 | 91458 | 107023 | 0.100 | 0.0 | MM |
| 81 | 13C2-4:2 FTS-1 | 102 | 329.084 > 80.9 | 4.88 | 1548 | 4221 | 20.000 | 103.255 | 6.5988 | 51.6 | 74 | 813 | 59967 | 104040 | 0.100 | 0.0 | MM |
| 82 | 13C2-4:2 FTS-2 | 102 | 329.084 > 309.024 | 4.88 | 2563 | 4221 | 20.000 | 73.255 | 0.8693 | 36.6 | 430 | 250 | 107553 | 104040 | 0.100 | 0.0 | bb |
| 83 | 13C2-6:2 FTS-1 | 102 | 429.078 > 80.900 | 5.96 | 1756 | 4221 | 20.000 | 144.995 | 5.8687 | 72.5 | 86 | 584 | 50050 | 104040 | 0.100 | 0.0 | MM |
| 84 | 13C2-6:2 FTS-2 | 102 | 429.078 > 409.031 | 5.96 | 3333 | 4221 | 20.000 | 120.190 | 0.4750 | 60.1 | 891 | 108 | 96392 | 104040 | 0.100 | 0.0 | bb |
| 85 | 13C2-8:2 FTS-1 | 102 | 529.1351 > 80.900 | 7.37 | 2695 | 4221 | 20.000 | 148.927 | 1.1418 | 74.5 | 614 | 170 | 104300 | 104040 | 0.100 | 0.0 | bb |
| 86 | 13C2-8:2 FTS-2 | 102 | 529.135 > 509.003 | 7.37 | 3425 | 4221 | 20.000 | 140.748 | 0.6088 | 70.4 | 1152 | 122 | 140168 | 104040 | 0.100 | 0.0 | bb |
| 87 | 13C8-PFOSA | 103 | 506.14 > 77.841 | 8.76 | 3502 | 4961 | 10.000 | 56.405 | 0.1324 | 56.4 | 852 | 99 | 83954 | 178313 | 0.100 | 0.0 | MM |
| 88 | D3-N-MeFOSA | 103 | 514.956 > 218.974 | | | 4961 | 10.000 | | 1.9509 | | | 749 | | 178313 | 0.100 | 0.0 | MM- |
| 89 | D5-N-EtFOSA | 103 | 531.112 > 218.984 | | | 4961 | 10.000 | | 2.0930 | | | 679 | | 178313 | 0.100 | 0.0 | MM- |
| 90 | D3-MeFOSAA | 103 | 573.153 > 418.99 | 7.54 | 5538 | 4961 | 20.000 | 160.621 | 0.4703 | 80.3 | 1100 | 194 | 213732 | 178313 | 0.100 | 0.0 | bb |
| 91 | D5-EtFOSAA | 103 | 589.245 > 418.971 | 7.66 | 5627 | 4961 | 20.000 | 195.300 | 0.9590 | 97.6 | 667 | 331 | 220895 | 178313 | 0.100 | 0.0 | bb |
| 92 | D7-N-MeFOSE | 103 | 623.156 > 58.896 | | | 4961 | 100.000 | | 0.1578 | | | 28 | | 178313 | 0.100 | 0.0 | MM- |
| 93 | D9-N-EtFOSE | 103 | 639.184 > 58.897 | | | 4961 | 100.000 | | 0.2464 | | | 45 | | 178313 | 0.100 | 0.0 | MM- |
| 94 | 13C3-HFPO-DA-1 | 97 | 286.8631 > 168.... | 5.15 | 10644 | 16741 | 40.000 | 196.640 | 0.0775 | 49.2 | 7189 | 59 | 426929 | 711217 | 0.100 | 0.0 | bb |
| 95 | 13C3-HFPO-DA-2 | 97 | 286.8631 > 184.... | 5.15 | 5100 | 16741 | 40.000 | 192.355 | 2.4651 | 48.1 | 219 | 926 | 203151 | 711217 | 0.100 | 0.0 | bb |
| 96 | 13C3-PFBA | | 216.029 > 171.97 | 1.93 | 29692 | | 20.000 | 212.117 | 1.8058 | 106.1 | 352 | 1466 | 516749 | | 0.100 | 0.0 | bb |
| 97 | 13C2-PFHxA-1 | | 315.083 > 269.984 | 5.00 | 16741 | | 10.000 | 93.770 | 0.0942 | 93.8 | 2987 | 238 | 711217 | | 0.100 | 0.0 | bb |
| 98 | 13C2-PFHxA-2 | | 315.083 > 119.359 | 5.00 | 381 | | 10.000 | 70.720 | 5.2180 | 70.7 | 41 | 415 | 16881 | | 0.100 | 0.0 | bd |
| 99 | 13C4-PFOA | | 417.083 > 171.95 | 6.29 | 3416 | | 10.000 | 113.699 | 0.8465 | 113.7 | 403 | 218 | 87990 | | 0.100 | 0.0 | bb |
| 1... | 13C5-PFNA | | 468.019 > 423.008 | 7.10 | 9217 | | 5.000 | 45.183 | 0.3962 | 90.4 | 342 | 1056 | 361364 | | 0.100 | 0.0 | bb |
| 1... | 13C2-PFDA | | 515.134 > 470.05 | 7.51 | 8165 | | 5.000 | 35.893 | 0.0824 | 71.8 | 1307 | 239 | 312596 | | 0.100 | 0.0 | bb |
| 1... | 18O2-PFHxS | | 402.984 > 83.895 | 6.41 | 4221 | | 10.000 | 107.459 | 0.1961 | 107.5 | 1644 | 63 | 104040 | | 0.100 | 0.0 | bb |
| 1... | 13C4-PFOS-1 | | 502.791 > 79.856 | 7.59 | 4961 | | 10.000 | 101.958 | 1.9784 | 102.0 | 155 | 1153 | 178313 | | 0.100 | 0.0 | dd |
| 1... | 13C4-PFOS-2 | | 502.791 > 98.864 | 7.60 | 2820 | | 10.000 | 90.314 | 2.3999 | 90.3 | 113 | 948 | 107023 | | 0.100 | 0.0 | bb |

PVed by WANGG 13-Apr-19, SVed by AP 16-Apr-19. NOTE: Units = ng/L for BLK and FIeld Samples.

**Quantify Sample Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

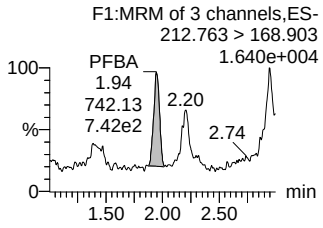
Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_130-b.qld

Last Altered: Tuesday, April 16, 2019 12:33:52 Pacific Daylight Time
Printed: Tuesday, April 16, 2019 12:55:13 Pacific Daylight Time

**Method: G:\Masslynx\Master Methods\MassLynx SCN 909\UPLC\FC_110_UPLC_06.mdb 10 Mar 2019 18:18:03**
**Calibration: G:\Masslynx\Inst_W\PFC.PRO\Curve\FC9W_097-a1.cdb 12 Mar 2019 11:26:10**

**ID: L30821-5,,, Name: FC9W_130S32, Description: 1,WG67438,2/4000uL, Date: 31-Mar-2019, Time: 03:29:49**

**PFBA**

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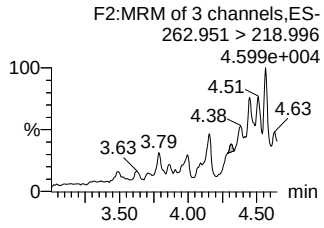


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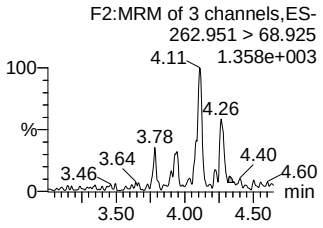


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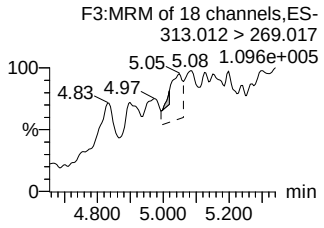


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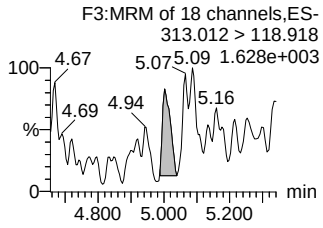


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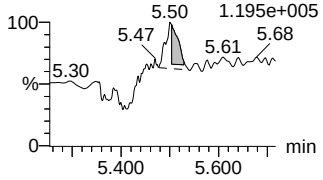


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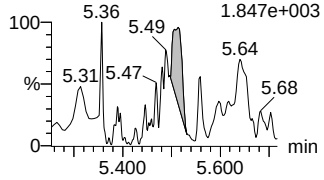


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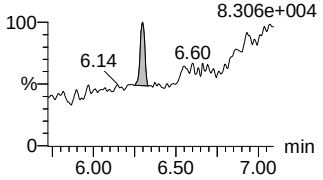


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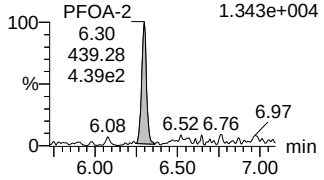


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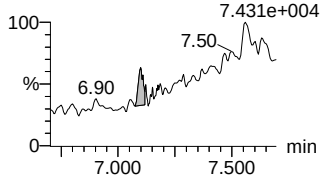


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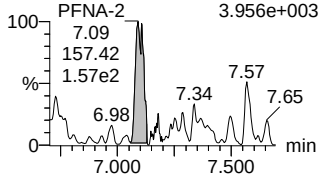


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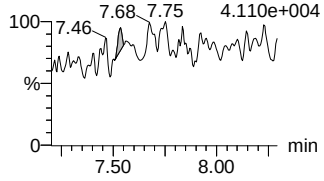


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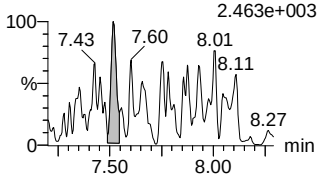


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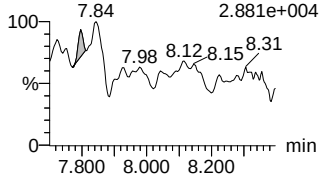


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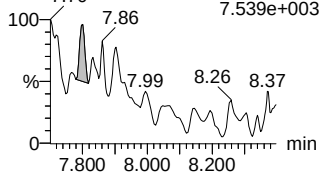



PVed by WANGG 13-Apr-19, SVed by AP 16-Apr-19. NOTE: Units = ng/L for BLK and FIeld Samples.

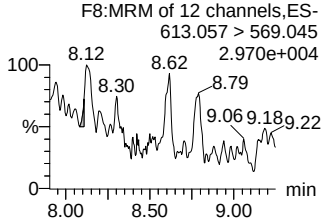
**Quantify Sample Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_130-b.qld

Last Altered: Tuesday, April 16, 2019 12:33:52 Pacific Daylight Time
Printed: Tuesday, April 16, 2019 12:55:13 Pacific Daylight Time

**ID: L30821-5,,, Name: FC9W_130S32, Description: 1,WG67438,2/4000uL, Date: 31-Mar-2019, Time: 03:29:49**

**PFDoA-1**

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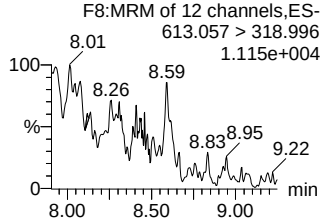


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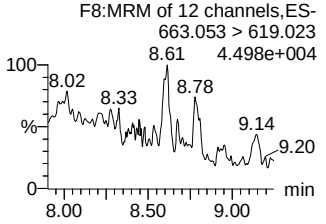


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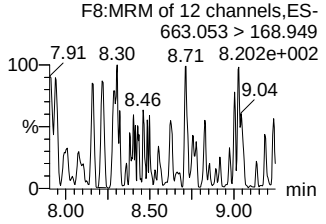


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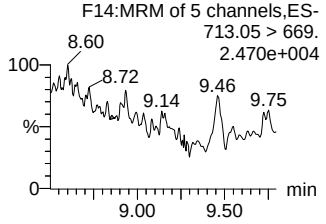


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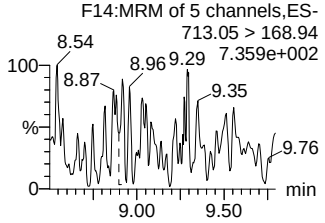


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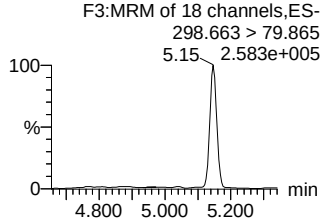


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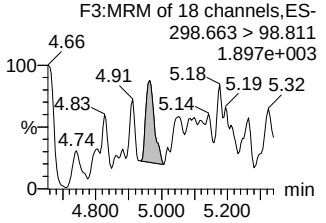


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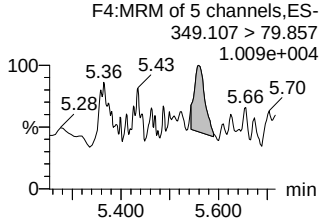


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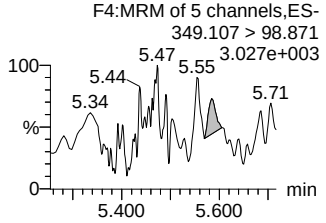


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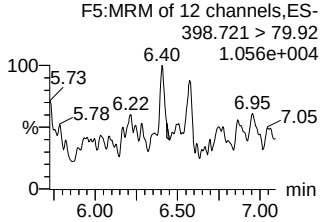


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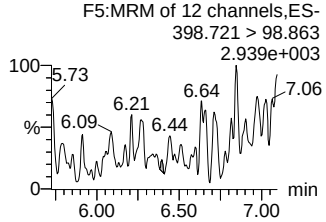


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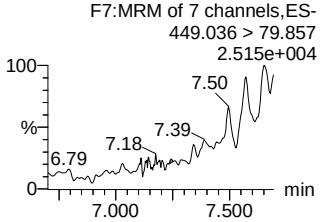


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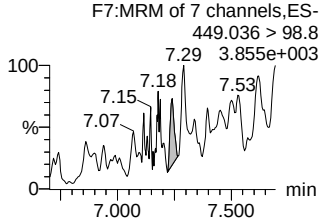


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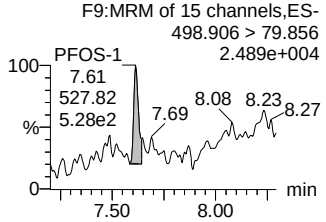


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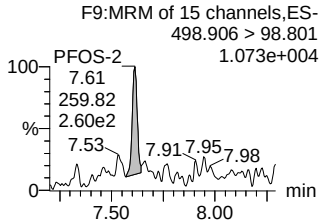


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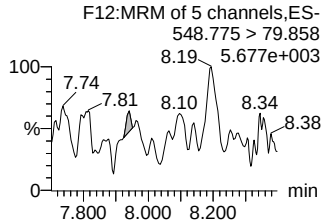


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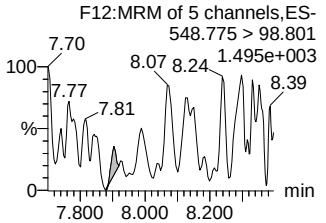


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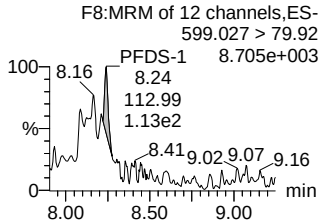


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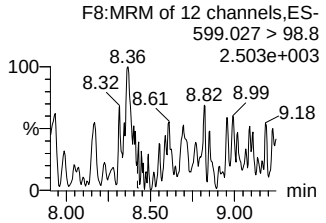


PVed by WANGG 13-Apr-19, SVed by AP 16-Apr-19. NOTE: Units = ng/L for BLK and FIeld Samples.

**Quantify Sample Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_130-b.qld

Last Altered: Tuesday, April 16, 2019 12:33:52 Pacific Daylight Time
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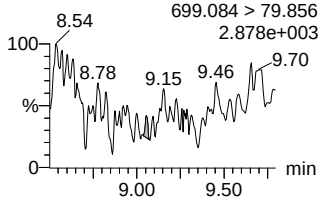
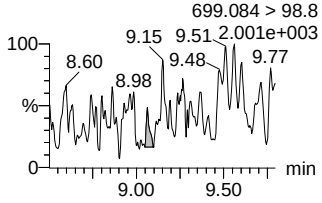
**ID: L30821-5,,, Name: FC9W_130S32, Description: 1,WG67438,2/4000uL, Date: 31-Mar-2019, Time: 03:29:49**

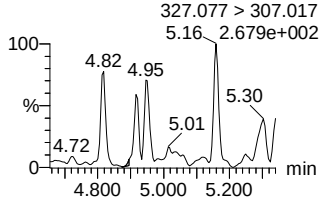
**PFDoS-1**
F14:MRM of 5 channels,ES-
699.084 > 79.856
2.878e+003



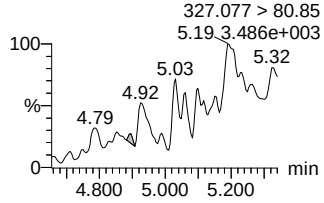

**PFDoS-2**
F14:MRM of 5 channels,ES-
699.084 > 98.8
2.001e+003



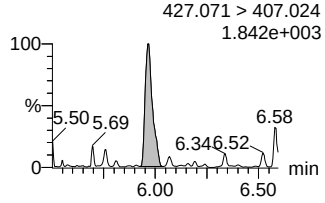

**4:2 FTS-1**
F3:MRM of 18 channels,ES-
327.077 > 307.017
2.679e+002



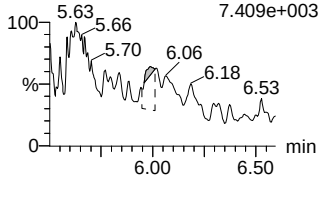

**4:2 FTS-2**
F3:MRM of 18 channels,ES-
327.077 > 80.85
3.486e+003



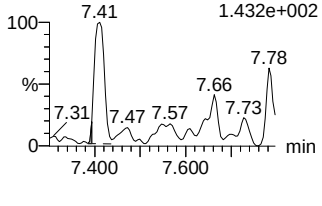

**6:2 FTS-1**
F6:MRM of 4 channels,ES-
427.071 > 407.024
1.842e+003



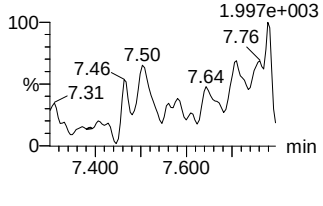

**6:2 FTS-2**
F6:MRM of 4 channels,ES-
427.071 > 80.9
7.409e+003



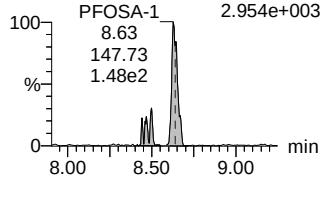

**8:2 FTS-1**
F11:MRM of 4 channels,ES-
527.065 > 506.997
1.432e+002



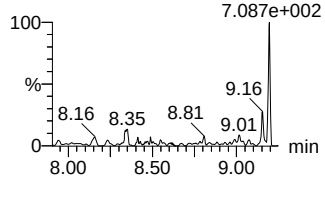

**8:2 FTS-2**
F11:MRM of 4 channels,ES-
527.065 > 80.75
1.997e+003



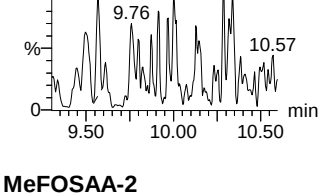

**PFOSA-1**
F8:MRM of 12 channels,ES-
498.113 > 77.902
2.954e+003



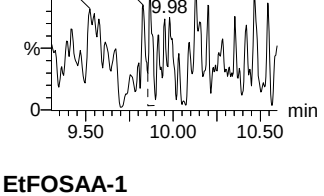

**PFOSA-2**
F8:MRM of 12 channels,ES-
498.113 > 477.993
7.087e+002



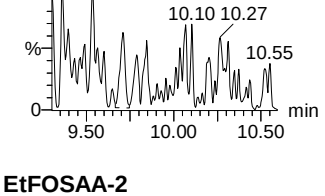

**N-MeFOSA-1**
F10:MRM of 10 channels,ES-
511.937 > 218.985
5.994e+002



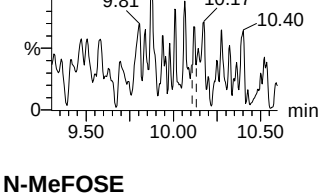

**N-MeFOSA-2**
F10:MRM of 10 channels,ES-
511.937 > 168.955
7.534e+002



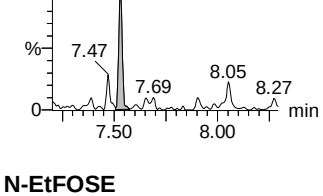

**N-EtFOSA-1**
F10:MRM of 10 channels,ES-
526.017 > 218.977
7.925e+002



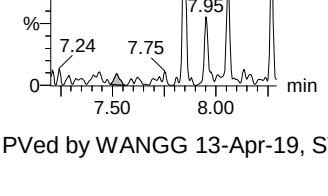

**N-EtFOSA-2**
F10:MRM of 10 channels,ES-
526.017 > 168.95
8.403e+002



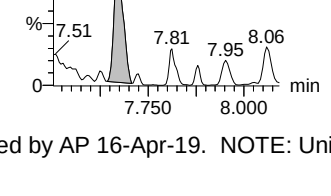

**MeFOSAA-1**
F9:MRM of 15 channels,ES-
570.134 > 419.035
4.556e+002



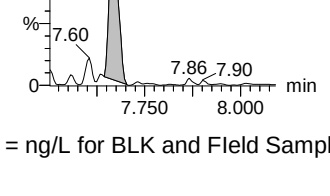

**MeFOSAA-2**
F9:MRM of 15 channels,ES-
570.134 > 482.99
3.268e+002



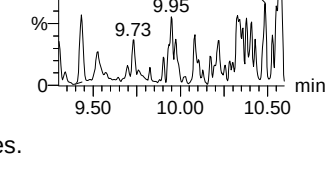

**EtFOSAA-1**
F13:MRM of 3 channels,ES-
584.15 > 419.062
4.807e+003



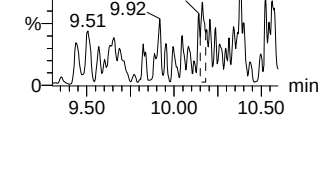

**EtFOSAA-2**
F13:MRM of 3 channels,ES-
584.15 > 526.045
2.066e+003




**N-MeFOSE**
F10:MRM of 10 channels,ES-
616.112 > 58.894
4.774e+002




**N-EtFOSE**
F10:MRM of 10 channels,ES-
630. > 58.893
7.089e+002




PVed by WANGG 13-Apr-19, SVed by AP 16-Apr-19. NOTE: Units = ng/L for BLK and FIeld Samples.

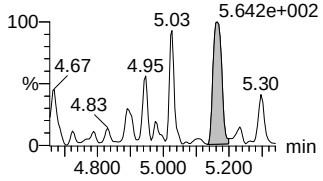
**Quantify Sample Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_130-b.qld

Last Altered: Tuesday, April 16, 2019 12:33:52 Pacific Daylight Time
Printed: Tuesday, April 16, 2019 12:55:13 Pacific Daylight Time

**ID: L30821-5,,, Name: FC9W_130S32, Description: 1,WG67438,2/4000uL, Date: 31-Mar-2019, Time: 03:29:49**

**HFPO-DA-1**

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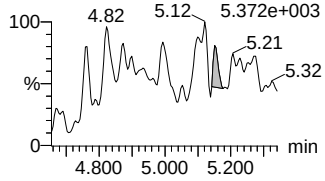
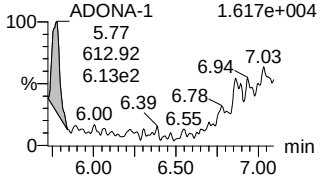
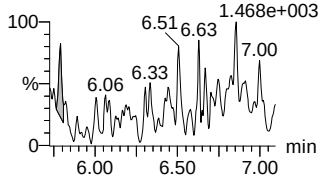


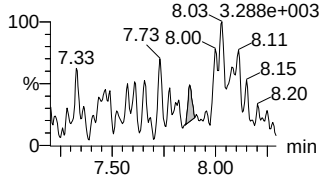

**ADONA-1**



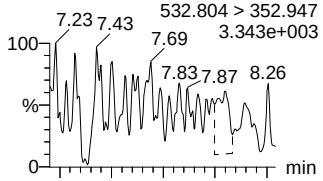

**ADONA-2**



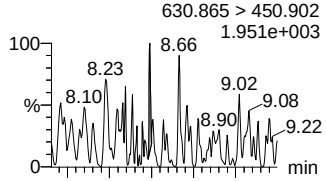

**9Cl-PF3ONS-1**



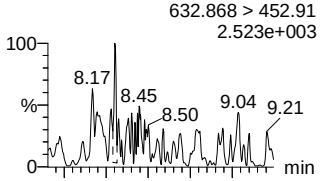

**9Cl-PF3ONS-2**



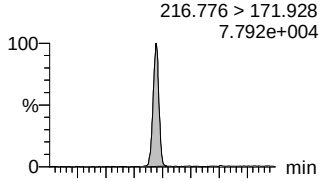

**11Cl-PF3OUdS-1**



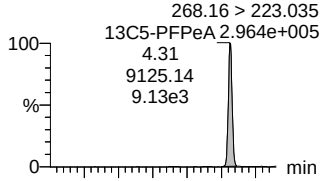

**11Cl-PF3OUdS-2**



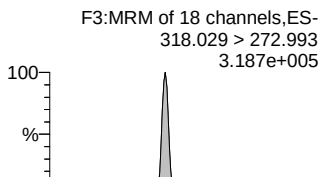

**13C4-PFBA**



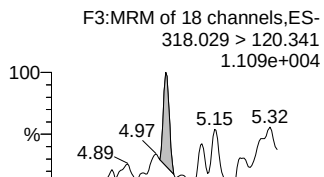

**13C5-PFPeA**



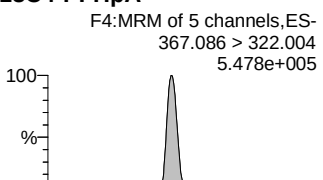

**13C5-PFHxA-1**



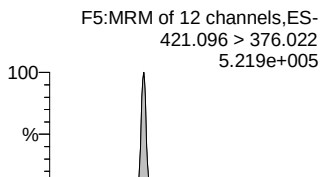

**13C5-PFHxA-2**



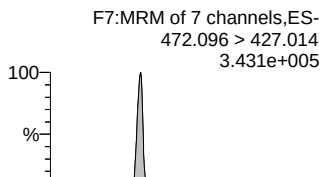

**13C4-PFHpA**



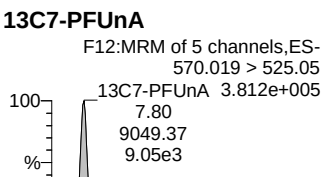

**13C8-PFOA**



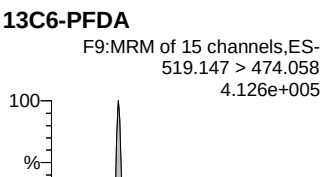

**13C9-PFNA**



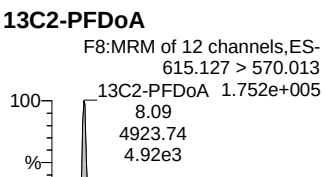

**13C7-PFUnA**



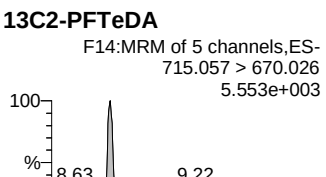

**13C6-PFDA**



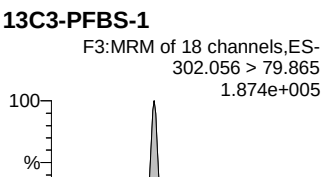

**13C2-PFDoA**




**13C2-PFTeDA**




**13C3-PFBS-1**




PVed by WANGG 13-Apr-19, SVed by AP 16-Apr-19. NOTE: Units = ng/L for BLK and FIeld Samples.

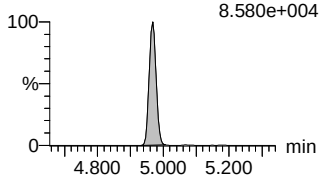
**Quantify Sample Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_130-b.qld

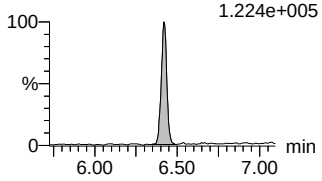
Last Altered: Tuesday, April 16, 2019 12:33:52 Pacific Daylight Time
Printed: Tuesday, April 16, 2019 12:55:13 Pacific Daylight Time

**ID: L30821-5,,, Name: FC9W_130S32, Description: 1,WG67438,2/4000uL, Date: 31-Mar-2019, Time: 03:29:49**

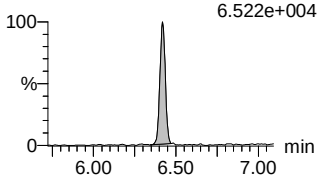
**13C3-PFBS-2**
F3:MRM of 18 channels,ES-
302.056 > 98.875
8.580e+004



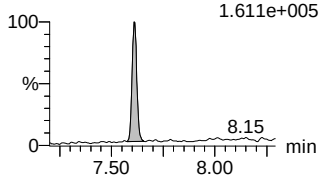

**13C3-PFHxS-1**
F5:MRM of 12 channels,ES-
402.114 > 79.858
1.224e+005



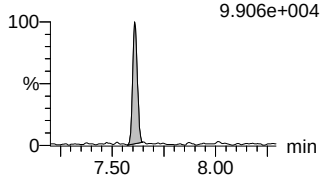

**13C3-PFHxS-2**
F5:MRM of 12 channels,ES-
402.114 > 98.801
6.522e+004



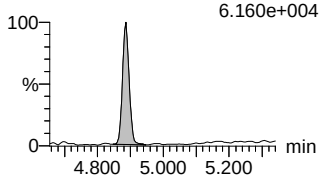

**13C8-PFOS-1**
F9:MRM of 15 channels,ES-
507.124 > 79.858
1.611e+005



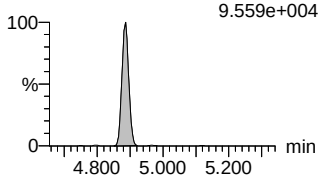

**13C8-PFOS-2**
F9:MRM of 15 channels,ES-
507.124 > 98.867
9.906e+004



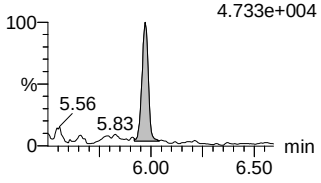

**13C2-4:2 FTS-1**
F3:MRM of 18 channels,ES-
329.084 > 80.9
6.160e+004



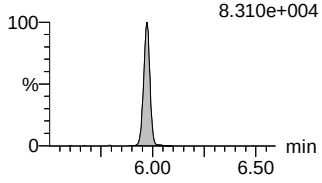

**13C2-4:2 FTS-2**
F3:MRM of 18 channels,ES-
329.084 > 309.024
9.559e+004



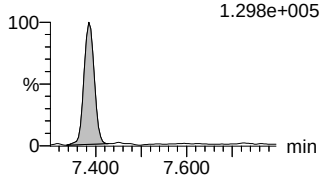

**13C2-6:2 FTS-1**
F6:MRM of 4 channels,ES-
429.078 > 80.900
4.733e+004



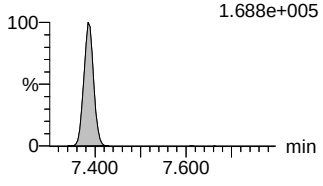

**13C2-6:2 FTS-2**
F6:MRM of 4 channels,ES-
429.078 > 409.031
8.310e+004



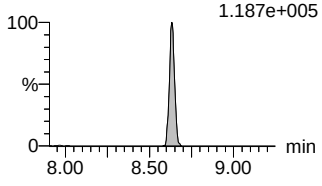

**13C2-8:2 FTS-1**
F11:MRM of 4 channels,ES-
529.1351 > 80.900
1.298e+005



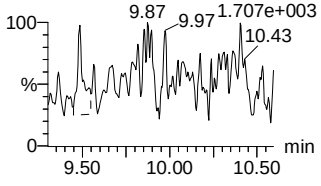

**13C2-8:2 FTS-2**
F11:MRM of 4 channels,ES-
529.135 > 509.003
1.688e+005



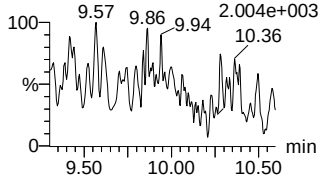

**13C8-PFOSA**
F8:MRM of 12 channels,ES-
506.14 > 77.841
1.187e+005



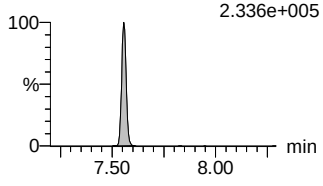

**D3-N-MeFOSA**
F10:MRM of 10 channels,ES-
514.956 > 218.974
1.707e+003



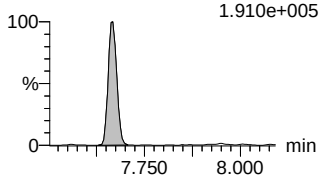

**D5-N-EtFOSA**
F10:MRM of 10 channels,ES-
531.112 > 218.984
2.004e+003



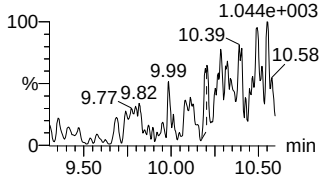

**D3-MeFOSAA**
F9:MRM of 15 channels,ES-
573.153 > 418.99
2.336e+005



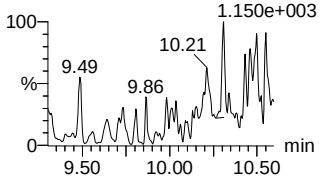

**D5-EtFOSAA**
F13:MRM of 3 channels,ES-
589.245 > 418.971
1.910e+005



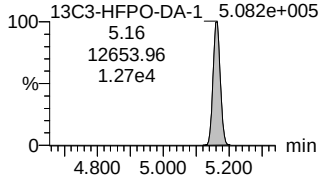

**D7-N-MeFOSE**
F10:MRM of 10 channels,ES-
623.156 > 58.896
1.044e+003



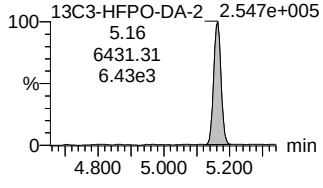

**D9-N-EtFOSE**
F10:MRM of 10 channels,ES-
639.184 > 58.897
1.150e+003




**13C3-HFPO-DA-1**
F3:MRM of 18 channels,ES-
286.8631 > 168.8861
13C3-HFPO-DA-1 5.082e+005




**13C3-HFPO-DA-2**
F3:MRM of 18 channels,ES-
286.8631 > 184.8888
13C3-HFPO-DA-2 2.547e+005




PVed by WANGG 13-Apr-19, SVed by AP 16-Apr-19. NOTE: Units = ng/L for BLK and FIeld Samples.

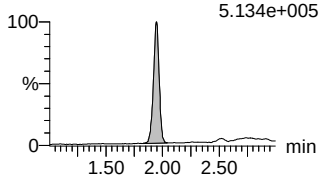
**Quantify Sample Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_130-b.qld

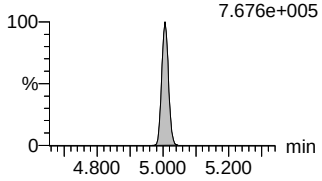
Last Altered: Tuesday, April 16, 2019 12:33:52 Pacific Daylight Time
Printed: Tuesday, April 16, 2019 12:55:13 Pacific Daylight Time

**ID: L30821-5,,, Name: FC9W_130S32, Description: 1,WG67438,2/4000uL, Date: 31-Mar-2019, Time: 03:29:49**

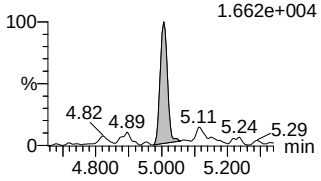
**13C3-PFBA**



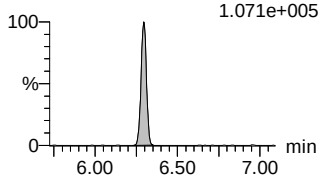

**13C2-PFHxA-1**



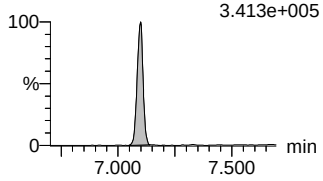

**13C2-PFHxA-2**



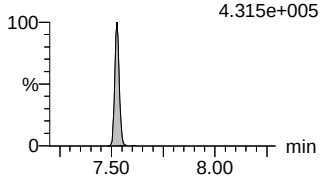

**13C4-PFOA**



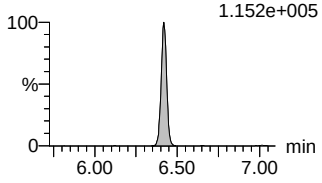

**13C5-PFNA**



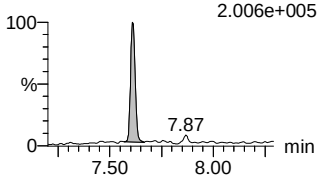

**13C2-PFDA**



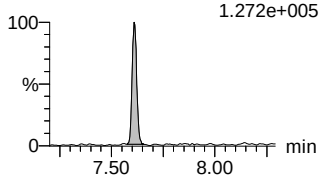

**18O2-PFHxS**




**13C4-PFOS-1**




**13C4-PFOS-2**




PVed by WANGG 13-Apr-19, SVed by AP 16-Apr-19. NOTE: Units = ng/L for BLK and FIeld Samples.

**Quantify Sample Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_130-b.qld

Last Altered: Tuesday, April 16, 2019 12:33:52 Pacific Daylight Time
Printed: Tuesday, April 16, 2019 12:55:13 Pacific Daylight Time

**ID: L30821-5,,, Name: FC9W_130S32, Description: 1,WG67438,2/4000uL, Date: 31-Mar-2019, Time: 03:29:49**

| # | Name | IS# | Trace | RT | Area | IS Area | Std. Conc | Conc. | LOD | %Rec | S/N | Noise | Peak Height | IS Height | Sample size | F2 | Flags |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | PFBA | 64 | 212.763 > 168.903 | 1.94 | 742 | 4536 | | 76.421 | 6.7815 | | 27 | 458 | 12469 | 77591 | 0.100 | 0.0 | MM |
| 2 | PFPeA-1 | 65 | 262.951 > 218.996 | 4.31 | 67 | 9125 | | | | | 8 | 374 | 2857 | 295294 | 0.100 | 0.0 | MMI |
| 3 | PFPeA-2 | 65 | 262.951 > 68.925 | 4.33 | 2 | 9125 | | 10.068 | 28.9259 | | 2 | 47 | 71 | 295294 | 0.100 | 0.0 | MM |
| 4 | PFHxA-1 | 66 | 313.012 > 269.017 | 5.02 | 112 | 7599 | | 0.695 | 3.4233 | | 3 | 4192 | 12160 | 317799 | 0.100 | 0.0 | MM |
| 5 | PFHxA-2 | 66 | 313.012 > 118.918 | 5.00 | 32 | 7599 | | 3.969 | 3.1386 | | 3 | 356 | 1141 | 317799 | 0.100 | 0.0 | MM |
| 6 | PFHpA-1 | 68 | 363.073 > 319.025 | 5.50 | 574 | 14382 | | 3.781 | 2.8210 | | 7 | 5721 | 37964 | 547291 | 0.100 | 0.0 | MM |
| 7 | PFHpA-2 | 68 | 363.073 > 168.962 | 5.51 | 24 | 14382 | | 0.380 | 0.3170 | | 4 | 271 | 1154 | 547291 | 0.100 | 0.0 | MM |
| 8 | PFOA-1 | 69 | 413.006 > 369.03 | 6.30 | 1384 | 18876 | | 4.194 | 0.7700 | | 10 | 4409 | 42661 | 521423 | 0.100 | 0.0 | bb |
| 9 | PFOA-2 | 69 | 413.006 > 168.963 | 6.30 | 439 | 18876 | | 4.569 | | | 37 | 359 | 13215 | 521423 | 0.100 | 0.0 | MM |
| 10 | PFNA-1 | 70 | 463.002 > 418.97 | 7.10 | 560 | 10545 | | 1.888 | 0.8036 | | 6 | 3739 | 22737 | 342554 | 0.100 | 0.0 | MM |
| 11 | PFNA-2 | 70 | 463.002 > 218.968 | 7.09 | 157 | 10545 | | 2.852 | 0.5455 | | 10 | 406 | 3880 | 342554 | 0.100 | 0.0 | MM |
| 12 | PFDA-1 | 72 | 512.935 > 469.021 | 7.54 | 167 | 10257 | | | | | 1 | 5274 | 7562 | 411903 | 0.100 | 0.0 | MMI |
| 13 | PFDA-2 | 72 | 512.935 > 218.972 | 7.52 | 74 | 10257 | | 1.553 | 0.7187 | | 4 | 558 | 2420 | 411903 | 0.100 | 0.0 | dd |
| 14 | PFUnA-1 | 71 | 563.124 > 519.003 | 7.80 | 101 | 9049 | | 0.349 | 1.3047 | | 2 | 2917 | 6221 | 379188 | 0.100 | 0.0 | MM |
| 15 | PFUnA-2 | 71 | 563.124 > 269.051 | 7.80 | 64 | 9049 | | 2.252 | 5.0039 | | 2 | 1669 | 3478 | 379188 | 0.100 | 0.0 | MM |
| 16 | PFDoA-1 | 73 | 613.057 > 569.045 | 8.11 | 61 | 4924 | | | | | 3 | 2227 | 6653 | 175140 | 0.100 | 0.0 | MMI |
| 17 | PFDoA-2 | 73 | 613.057 > 318.996 | 8.12 | 10 | 4924 | | 0.251 | 12.6160 | | 0 | 1875 | 822 | 175140 | 0.100 | 0.0 | MM |
| 18 | PFTrDA-1 | 74 | 663.053 > 619.023 | 8.45 | 34 | 169 | | 10.443 | 101.72... | | 2 | 2661 | 5454 | 4921 | 0.100 | 0.0 | MM |
| 19 | PFTrDA-2 | 74 | 663.053 > 168.949 | | | 169 | | | | | | 195 | | 4921 | 0.100 | 0.0 | MM-I |
| 20 | PFTeDA-1 | 74 | 713.05 > 669. | 8.85 | 9 | 169 | | 1.375 | 104.58... | | 0 | 2217 | 699 | 4921 | 0.100 | 0.0 | MM |
| 21 | PFTeDA-2 | 74 | 713.05 > 168.94 | | | 169 | | | | | | 192 | | 4921 | 0.100 | 0.0 | MM-I |
| 22 | PFBS-1 | 75 | 298.663 > 79.865 | 4.96 | 6 | 4589 | | 0.132 | 1.1369 | | 0 | 806 | 211 | 186960 | 0.100 | 0.0 | MM |
| 23 | PFBS-2 | 76 | 298.663 > 98.811 | 4.96 | 38 | 2068 | | 1.091 | 0.3695 | | 5 | 276 | 1259 | 85643 | 0.100 | 0.0 | MM |
| 24 | PFPeS-1 | 77 | 349.107 > 79.857 | 5.56 | 137 | 4681 | | 2.285 | 3.1860 | | 4 | 1531 | 5436 | 121507 | 0.100 | 0.0 | MM |
| 25 | PFPeS-2 | 78 | 349.107 > 98.871 | 5.58 | 15 | 2446 | | | | | 1 | 958 | 870 | 64552 | 0.100 | 0.0 | MMI |
| 26 | PFHxS-1 | 77 | 398.721 > 79.92 | 6.43 | 11 | 4681 | | 1.327 | 3.2081 | | 1 | 1046 | 1190 | 121507 | 0.100 | 0.0 | MM |
| 27 | PFHxS-2 | 78 | 398.721 > 98.863 | 6.39 | 4 | 2446 | | | | | 1 | 372 | 278 | 64552 | 0.100 | 0.0 | MMI |
| 28 | PFHpS-1 | 79 | 449.036 > 79.857 | 7.24 | 6 | 4097 | | | | | 1 | 1061 | 681 | 155833 | 0.100 | 0.0 | MMI |
| 29 | PFHpS-2 | 80 | 449.036 > 98.8 | 7.24 | 44 | 2572 | | 1.882 | 2.9663 | | 2 | 887 | 2058 | 97729 | 0.100 | 0.0 | MM |
| 30 | PFOS-1 | 79 | 498.906 > 79.856 | 7.61 | 528 | 4097 | | 10.384 | 1.9886 | | 11 | 1773 | 19819 | 155833 | 0.100 | 0.0 | MM |
| 31 | PFOS-2 | 80 | 498.906 > 98.801 | 7.61 | 260 | 2572 | | 9.779 | 1.5561 | | 12 | 773 | 9329 | 97729 | 0.100 | 0.0 | MM |
| 32 | PFNS-1 | 79 | 548.775 > 79.858 | 7.94 | 14 | 4097 | | | | | 1 | 1094 | 966 | 155833 | 0.100 | 0.0 | MMI |
| 33 | PFNS-2 | 80 | 548.775 > 98.801 | 7.90 | 6 | 2572 | | | | | 1 | 502 | 351 | 97729 | 0.100 | 0.0 | MMI |
| 34 | PFDS-1 | 79 | 599.027 > 79.92 | 8.24 | 113 | 4097 | | 2.634 | 1.5249 | | 5 | 911 | 4728 | 155833 | 0.100 | 0.0 | MM |
| 35 | PFDS-2 | 80 | 599.027 > 98.8 | | | 2572 | | | 2.5287 | | | 434 | | 97729 | 0.100 | 0.0 | MM- |

PVed by WANGG 13-Apr-19, SVed by AP 16-Apr-19. NOTE: Units = ng/L for BLK and FIeld Samples.

**Quantify Sample Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_130-b.qld

Last Altered: Tuesday, April 16, 2019 12:33:52 Pacific Daylight Time
Printed: Tuesday, April 16, 2019 12:55:13 Pacific Daylight Time

**ID: L30821-5,,, Name: FC9W_130S32, Description: 1,WG67438,2/4000uL, Date: 31-Mar-2019, Time: 03:29:49**

| # | Name | IS# | Trace | RT | Area | IS Area | Std. Conc | Conc. | LOD | %Rec | S/N | Noise | Peak Height | IS Height | Sample size | F2 | Flags |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 36 | PFDoS-1 | 79 | 699.084 > 79.856 | 9.06 | 9 | 4097 | | | | | 1 | 477 | 517 | 155833 | 0.100 | 0.0 | MMI |
| 37 | PFDoS-2 | 80 | 699.084 > 98.8 | 9.06 | 13 | 2572 | | 0.290 | 1.5062 | | 1 | 463 | 640 | 97729 | 0.100 | 0.0 | MM |
| 38 | 4:2 FTS-1 | 81 | 327.077 > 307.017 | 4.89 | 0 | 1403 | | | | | 0 | 60 | 13 | 61018 | 0.100 | 0.0 | MMI |
| 39 | 4:2 FTS-2 | 81 | 327.077 > 80.85 | 4.89 | 4 | 1403 | | 1.177 | 5.9898 | | 1 | 498 | 263 | 61018 | 0.100 | 0.0 | MM |
| 40 | 6:2 FTS-1 | 83 | 427.071 > 407.024 | 5.97 | 74 | 1599 | | 2.295 | | | 24 | 75 | 1831 | 45502 | 0.100 | 0.0 | bb |
| 41 | 6:2 FTS-2 | 83 | 427.071 > 80.9 | 5.99 | 20 | 1599 | | 2.441 | 6.4544 | | 1 | 533 | 516 | 45502 | 0.100 | 0.0 | MM |
| 42 | 8:2 FTS-1 | 85 | 527.065 > 506.997 | 7.39 | 0 | 3303 | | | | | 2 | 15 | 25 | 128351 | 0.100 | 0.0 | MMI |
| 43 | 8:2 FTS-2 | 85 | 527.065 > 80.75 | 7.39 | 0 | 3303 | | | | | 0 | 407 | 19 | 128351 | 0.100 | 0.0 | MMI |
| 44 | PFOSA-1 | 87 | 498.113 > 77.902 | 8.63 | 148 | 4158 | | 4.582 | 0.9538 | | 52 | 57 | 2957 | 118618 | 0.100 | 0.0 | MM |
| 45 | PFOSA-2 | 87 | 498.113 > 477.993 | 8.62 | 0 | 4158 | | 18.900 | 20.2180 | | 1 | 11 | 7 | 118618 | 0.100 | 0.0 | MM |
| 46 | N-MeFOSA-1 | 88 | 511.937 > 218.985 | | | | | | | | | 138 | | | 0.100 | 0.0 | MM- |
| 47 | N-MeFOSA-2 | 88 | 511.937 > 168.955 | | | | | | | | | 211 | | | 0.100 | 0.0 | MM- |
| 48 | N-EtFOSA-1 | 89 | 526.017 > 218.977 | | | | | | | | | 171 | | | 0.100 | 0.0 | MM- |
| 49 | N-EtFOSA-2 | 89 | 526.017 > 168.95 | | | | | | | | | 204 | | | 0.100 | 0.0 | MM- |
| 50 | MeFOSAA-1 | 90 | 570.134 > 419.035 | 7.53 | 9 | 5829 | | 0.052 | | | 30 | 15 | 453 | 233318 | 0.100 | 0.0 | db |
| 51 | MeFOSAA-2 | 90 | 570.134 > 482.99 | 7.52 | 1 | 5829 | | | | | 1 | 48 | 29 | 233318 | 0.100 | 0.0 | MMI |
| 52 | EtFOSAA-1 | 91 | 584.15 > 419.062 | 7.67 | 128 | 4894 | | 7.427 | 0.8396 | | 86 | 55 | 4682 | 190697 | 0.100 | 0.0 | bb |
| 53 | EtFOSAA-2 | 91 | 584.15 > 526.045 | 7.67 | 59 | 4894 | | 4.559 | 1.5483 | | 23 | 87 | 1973 | 190697 | 0.100 | 0.0 | bb |
| 54 | N-MeFOSE | 92 | 616.112 > 58.894 | | | | | | | | | 115 | | | 0.100 | 0.0 | MM- |
| 55 | N-EtFOSE | 93 | 630. > 58.893 | | | | | | | | | 159 | | | 0.100 | 0.0 | MM- |
| 56 | HFPO-DA-1 | 94 | 284.8894 > 168.... | 5.16 | 17 | 12654 | | | | | 15 | 37 | 559 | 507685 | 0.100 | 0.0 | bdI |
| 57 | HFPO-DA-2 | 95 | 284.8894 > 184.... | 5.15 | 29 | 6431 | | 1.468 | 4.1686 | | 2 | 911 | 1799 | 253077 | 0.100 | 0.0 | bb |
| 58 | ADONA-1 | 94 | 376.88 > 250.937 | 5.77 | 613 | 12654 | | | | | 13 | 913 | 11706 | 507685 | 0.100 | 0.0 | bbI |
| 59 | ADONA-2 | 95 | 376.88 > 84.832 | 5.79 | 18 | 6431 | | 5.494 | 5.5487 | | 3 | 296 | 869 | 253077 | 0.100 | 0.0 | bd |
| 60 | 9Cl-PF3ONS-1 | 94 | 530.807 > 350.967 | 7.87 | 21 | 12654 | | | | | 1 | 697 | 973 | 507685 | 0.100 | 0.0 | MMI |
| 61 | 9Cl-PF3ONS-2 | 95 | 532.804 > 352.947 | | | 6431 | | | | | | 888 | | 253077 | 0.100 | 0.0 | MM-I |
| 62 | 11Cl-PF3OUdS-1 | 94 | 630.865 > 450.902 | 8.49 | 13 | 12654 | | | | | 4 | 405 | 1693 | 507685 | 0.100 | 0.0 | MMI |
| 63 | 11Cl-PF3OUdS-2 | 95 | 632.868 > 452.91 | | | 6431 | | | | | | 504 | | 253077 | 0.100 | 0.0 | MM-I |
| 64 | 13C4-PFBA | 96 | 216.776 > 171.928 | 1.94 | 4536 | 29180 | 40.000 | 30.370 | 0.1368 | 7.6 | 660 | 118 | 77591 | 503508 | 0.100 | 0.0 | MM |
| 65 | 13C5-PFPeA | 97 | 268.16 > 223.035 | 4.31 | 9125 | 18314 | 20.000 | 61.418 | 0.0455 | 30.7 | 3132 | 94 | 295294 | 766641 | 0.100 | 0.0 | bb |
| 66 | 13C5-PFHxA-1 | 97 | 318.029 > 272.993 | 5.01 | 7599 | 18314 | 10.000 | 58.925 | 0.1655 | 58.9 | 1067 | 298 | 317799 | 766641 | 0.100 | 0.0 | bb |
| 67 | 13C5-PFHxA-2 | 97 | 318.029 > 120.341 | 5.00 | 175 | 18314 | 10.000 | 39.968 | 6.8314 | 40.0 | 20 | 418 | 8348 | 766641 | 0.100 | 0.0 | bb |
| 68 | 13C4-PFHpA | 99 | 367.086 > 322.004 | 5.51 | 14382 | 3985 | 10.000 | 66.373 | 0.1154 | 66.4 | 2447 | 224 | 547291 | 106974 | 0.100 | 0.0 | bb |
| 69 | 13C8-PFOA | 99 | 421.096 > 376.022 | 6.29 | 18876 | 3985 | 10.000 | 75.816 | 0.1136 | 75.8 | 2060 | 253 | 521423 | 106974 | 0.100 | 0.0 | MM |
| 70 | 13C9-PFNA | 100 | 472.096 > 427.014 | 7.10 | 10545 | 10128 | 5.000 | 47.939 | 0.1696 | 95.9 | 820 | 418 | 342554 | 340238 | 0.100 | 0.0 | bb |

PVed by WANGG 13-Apr-19, SVed by AP 16-Apr-19. NOTE: Units = ng/L for BLK and FIeld Samples.

**Quantify Sample Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_130-b.qld

Last Altered: Tuesday, April 16, 2019 12:33:52 Pacific Daylight Time
Printed: Tuesday, April 16, 2019 12:55:13 Pacific Daylight Time

**ID: L30821-5,,, Name: FC9W_130S32, Description: 1,WG67438,2/4000uL, Date: 31-Mar-2019, Time: 03:29:49**

| # | Name | IS# | Trace | RT | Area | IS Area | Std. Conc | Conc. | LOD | %Rec | S/N | Noise | Peak Height | IS Height | Sample size | F2 | Flags |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 71 | 13C7-PFUnA | 101 | 570.019 > 525.05 | 7.80 | 9049 | 10720 | 5.000 | 37.747 | 0.2411 | 75.5 | 490 | 774 | 379188 | 430947 | 0.100 | 0.0 | bb |
| 72 | 13C6-PFDA | 101 | 519.147 > 474.058 | 7.53 | 10257 | 10720 | 5.000 | 50.843 | 0.1179 | 101.7 | 1293 | 319 | 411903 | 430947 | 0.100 | 0.0 | bb |
| 73 | 13C2-PFDoA | 101 | 615.127 > 570.013 | 8.09 | 4924 | 10720 | 5.000 | 28.774 | 0.0867 | 57.5 | 882 | 199 | 175140 | 430947 | 0.100 | 0.0 | MM |
| 74 | 13C2-PFTeDA | 101 | 715.057 > 670.026 | 8.84 | 169 | 10720 | 5.000 | 1.009 | 0.1269 | 2.0 | 17 | 285 | 4921 | 430947 | 0.100 | 0.0 | MM |
| 75 | 13C3-PFBS-1 | 102 | 302.056 > 79.865 | 4.97 | 4589 | 4374 | 10.000 | 87.165 | 0.5320 | 87.2 | 761 | 246 | 186960 | 115176 | 0.100 | 0.0 | MM |
| 76 | 13C3-PFBS-2 | 102 | 302.056 > 98.875 | 4.97 | 2068 | 4374 | 10.000 | 81.246 | 0.2052 | 81.2 | 1869 | 46 | 85643 | 115176 | 0.100 | 0.0 | bb |
| 77 | 13C3-PFHxS-1 | 102 | 402.114 > 79.858 | 6.42 | 4681 | 4374 | 10.000 | 103.171 | 1.0877 | 103.2 | 281 | 433 | 121507 | 115176 | 0.100 | 0.0 | bb |
| 78 | 13C3-PFHxS-2 | 102 | 402.114 > 98.801 | 6.42 | 2446 | 4374 | 10.000 | 96.779 | 1.3390 | 96.8 | 217 | 297 | 64552 | 115176 | 0.100 | 0.0 | bb |
| 79 | 13C8-PFOS-1 | 103 | 507.124 > 79.858 | 7.61 | 4097 | 5002 | 10.000 | 103.466 | 2.4166 | 103.5 | 126 | 1240 | 155833 | 194451 | 0.100 | 0.0 | bb |
| 80 | 13C8-PFOS-2 | 104 | 507.124 > 98.867 | 7.61 | 2572 | 3207 | 10.000 | 102.224 | 2.7337 | 102.2 | 109 | 900 | 97729 | 125833 | 0.100 | 0.0 | bb |
| 81 | 13C2-4:2 FTS-1 | 102 | 329.084 > 80.9 | 4.89 | 1403 | 4374 | 20.000 | 90.277 | 3.7620 | 45.1 | 119 | 513 | 61018 | 115176 | 0.100 | 0.0 | bb |
| 82 | 13C2-4:2 FTS-2 | 102 | 329.084 > 309.024 | 4.89 | 2252 | 4374 | 20.000 | 62.101 | 0.1298 | 31.1 | 2311 | 41 | 95461 | 115176 | 0.100 | 0.0 | bb |
| 83 | 13C2-6:2 FTS-1 | 102 | 429.078 > 80.900 | 5.97 | 1599 | 4374 | 20.000 | 127.388 | 4.5366 | 63.7 | 91 | 500 | 45502 | 115176 | 0.100 | 0.0 | MM |
| 84 | 13C2-6:2 FTS-2 | 102 | 429.078 > 409.031 | 5.97 | 2878 | 4374 | 20.000 | 100.130 | 0.1768 | 50.1 | 1862 | 45 | 83014 | 115176 | 0.100 | 0.0 | bb |
| 85 | 13C2-8:2 FTS-1 | 102 | 529.1351 > 80.900 | 7.38 | 3303 | 4374 | 20.000 | 176.132 | 5.8204 | 88.1 | 134 | 958 | 128351 | 115176 | 0.100 | 0.0 | bb |
| 86 | 13C2-8:2 FTS-2 | 102 | 529.135 > 509.003 | 7.38 | 4138 | 4374 | 20.000 | 164.074 | 0.0352 | 82.0 | 216... | 8 | 168693 | 115176 | 0.100 | 0.0 | bb |
| 87 | 13C8-PFOSA | 103 | 506.14 > 77.841 | 8.63 | 4158 | 5002 | 10.000 | 66.414 | 0.0274 | 66.4 | 5334 | 22 | 118618 | 194451 | 0.100 | 0.0 | bb |
| 88 | D3-N-MeFOSA | 103 | 514.956 > 218.974 | | | 5002 | 10.000 | | 0.9947 | | | 417 | | 194451 | 0.100 | 0.0 | MM- |
| 89 | D5-N-EtFOSA | 103 | 531.112 > 218.984 | | | 5002 | 10.000 | | 1.2028 | | | 425 | | 194451 | 0.100 | 0.0 | MM- |
| 90 | D3-MeFOSAA | 103 | 573.153 > 418.99 | 7.56 | 5829 | 5002 | 20.000 | 167.659 | 0.3500 | 83.8 | 1480 | 158 | 233318 | 194451 | 0.100 | 0.0 | bb |
| 91 | D5-EtFOSAA | 103 | 589.245 > 418.971 | 7.67 | 4894 | 5002 | 20.000 | 168.452 | 3.0402 | 84.2 | 167 | 1145 | 190697 | 194451 | 0.100 | 0.0 | bb |
| 92 | D7-N-MeFOSE | 103 | 623.156 > 58.896 | | | 5002 | 100.000 | | 0.9792 | | | 189 | | 194451 | 0.100 | 0.0 | MM- |
| 93 | D9-N-EtFOSE | 103 | 639.184 > 58.897 | | | 5002 | 100.000 | | 0.7070 | | | 142 | | 194451 | 0.100 | 0.0 | MM- |
| 94 | 13C3-HFPO-DA-1 | 97 | 286.8631 > 168.... | 5.16 | 12654 | 18314 | 40.000 | 213.693 | 0.3134 | 53.4 | 1961 | 259 | 507685 | 766641 | 0.100 | 0.0 | bb |
| 95 | 13C3-HFPO-DA-2 | 97 | 286.8631 > 184.... | 5.16 | 6431 | 18314 | 40.000 | 221.732 | 1.2230 | 55.4 | 511 | 495 | 253077 | 766641 | 0.100 | 0.0 | bb |
| 96 | 13C3-PFBA | | 216.029 > 171.97 | 1.95 | 29180 | | 20.000 | 208.460 | 1.8497 | 104.2 | 338 | 1489 | 503508 | | 0.100 | 0.0 | bb |
| 97 | 13C2-PFHxA-1 | | 315.083 > 269.984 | 5.01 | 18314 | | 10.000 | 102.581 | 0.1089 | 102.6 | 2826 | 271 | 766641 | | 0.100 | 0.0 | bb |
| 98 | 13C2-PFHxA-2 | | 315.083 > 119.359 | 5.01 | 427 | | 10.000 | 79.270 | 8.4391 | 79.3 | 28 | 581 | 16360 | | 0.100 | 0.0 | bb |
| 99 | 13C4-PFOA | | 417.083 > 171.95 | 6.29 | 3985 | | 10.000 | 132.638 | 0.2078 | 132.6 | 1915 | 56 | 106974 | | 0.100 | 0.0 | bb |
| 1... | 13C5-PFNA | | 468.019 > 423.008 | 7.10 | 10128 | | 5.000 | 49.651 | 0.2669 | 99.3 | 558 | 610 | 340238 | | 0.100 | 0.0 | bb |
| 1... | 13C2-PFDA | | 515.134 > 470.05 | 7.53 | 10720 | | 5.000 | 47.129 | 0.0482 | 94.3 | 2935 | 147 | 430947 | | 0.100 | 0.0 | bb |
| 1... | 18O2-PFHxS | | 402.984 > 83.895 | 6.42 | 4374 | | 10.000 | 111.360 | 0.2998 | 111.4 | 1114 | 103 | 115176 | | 0.100 | 0.0 | bb |
| 1... | 13C4-PFOS-1 | | 502.791 > 79.856 | 7.61 | 5002 | | 10.000 | 102.807 | 2.1531 | 102.8 | 143 | 1357 | 194451 | | 0.100 | 0.0 | bb |
| 1... | 13C4-PFOS-2 | | 502.791 > 98.864 | 7.61 | 3207 | | 10.000 | 102.710 | 1.2087 | 102.7 | 255 | 494 | 125833 | | 0.100 | 0.0 | bb |

PVed by WANGG 13-Apr-19, SVed by AP 16-Apr-19. NOTE: Units = ng/L for BLK and FIeld Samples.

**Quantify Sample Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

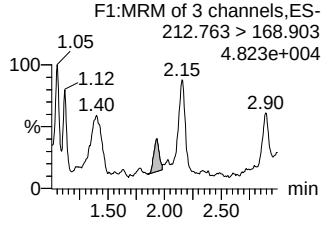
Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_130-b.qld

Last Altered: Tuesday, April 16, 2019 12:33:52 Pacific Daylight Time
Printed: Tuesday, April 16, 2019 12:55:41 Pacific Daylight Time

**Method: G:\Masslynx\Master Methods\MassLynx SCN 909\UPLC\FC_110_UPLC_06.mdb 10 Mar 2019 18:18:03**
**Calibration: G:\Masslynx\Inst_W\PFC.PRO\Curve\FC9W_097-a1.cdb 12 Mar 2019 11:26:10**

**ID: L30821-6,,, Name: FC9W_130S33, Description: 1,WG67438,2/4000uL, Date: 31-Mar-2019, Time: 03:43:09**

**PFBA**

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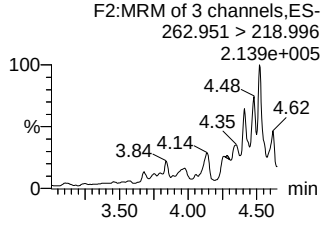


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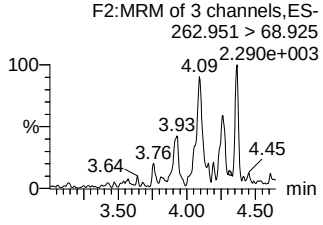


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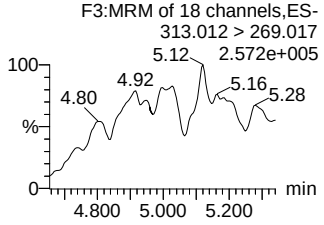


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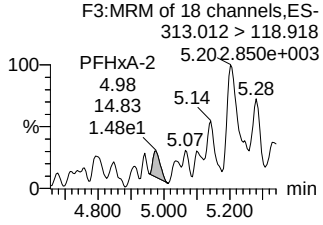


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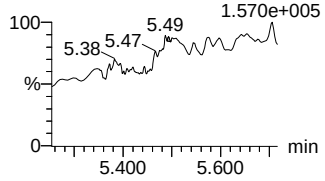


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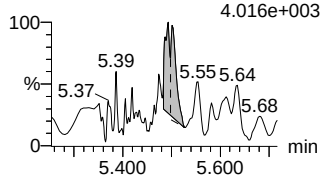


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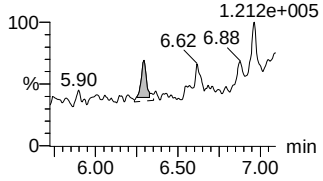


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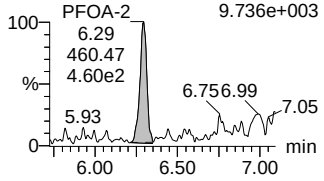


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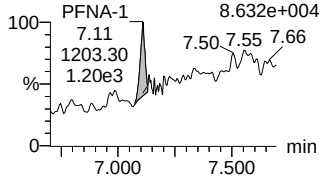


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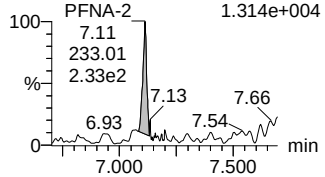


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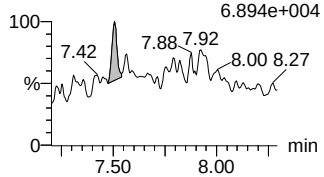


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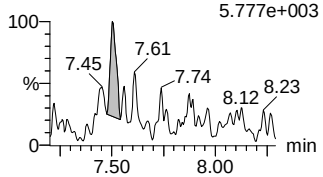


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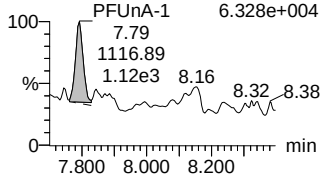


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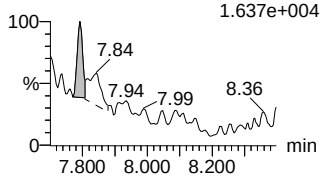


PVed by WANGG 13-Apr-19, SVed by AP 16-Apr-19. NOTE: Units = ng/L for BLK and FIeld Samples.

**Quantify Sample Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_130-b.qld

Last Altered: Tuesday, April 16, 2019 12:33:52 Pacific Daylight Time
Printed: Tuesday, April 16, 2019 12:55:41 Pacific Daylight Time

**ID: L30821-6,,, Name: FC9W_130S33, Description: 1,WG67438,2/4000uL, Date: 31-Mar-2019, Time: 03:43:09**

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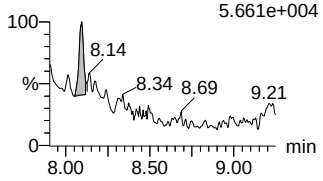


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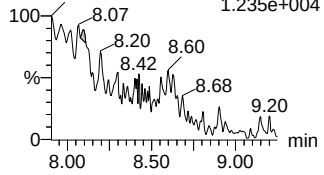


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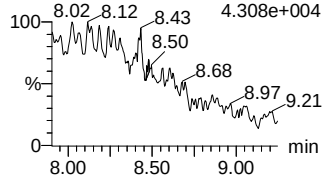


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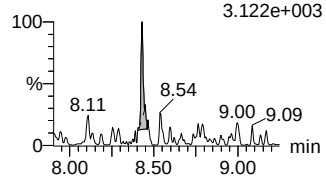


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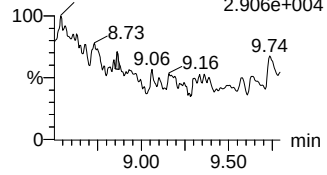


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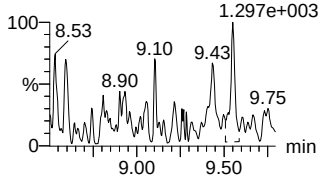


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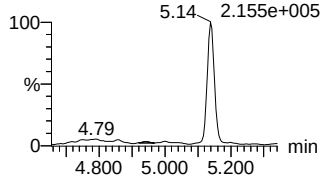


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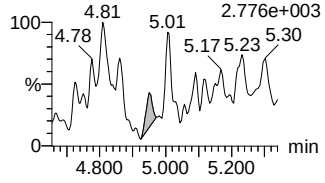


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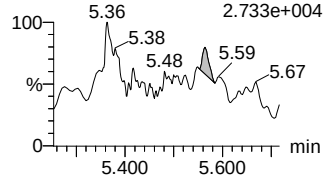


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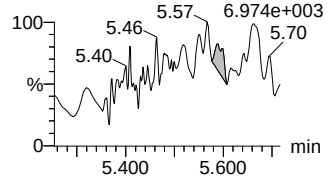


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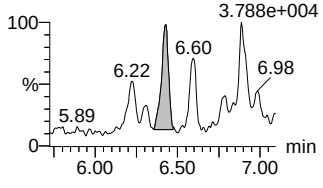


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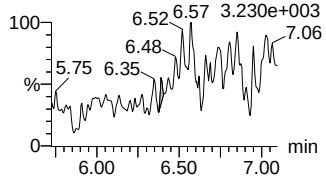


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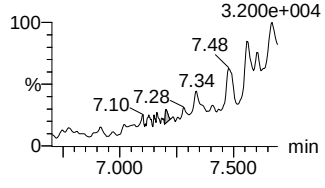


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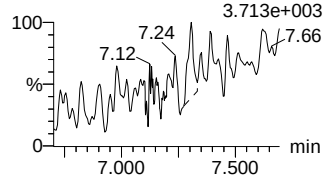


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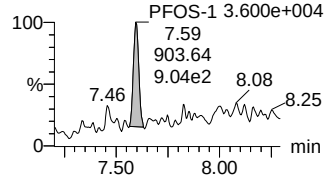
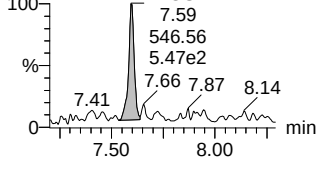
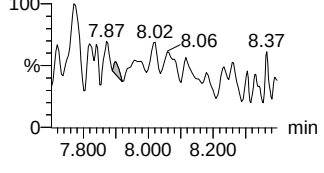


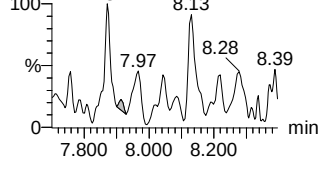

**PFOS-2**



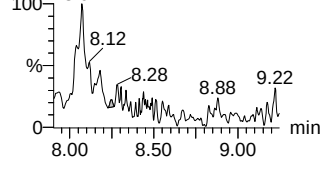

**PFNS-1**



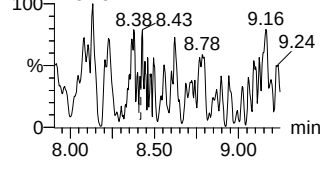

**PFNS-2**




**PFDS-1**




**PFDS-2**




PVed by WANGG 13-Apr-19, SVed by AP 16-Apr-19. NOTE: Units = ng/L for BLK and FIeld Samples.

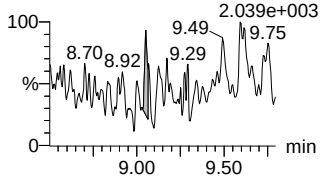
**Quantify Sample Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_130-b.qld

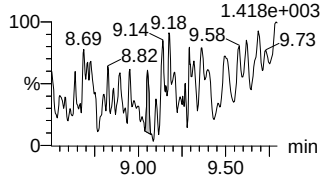
Last Altered: Tuesday, April 16, 2019 12:33:52 Pacific Daylight Time
Printed: Tuesday, April 16, 2019 12:55:41 Pacific Daylight Time

**ID: L30821-6,,, Name: FC9W_130S33, Description: 1,WG67438,2/4000uL, Date: 31-Mar-2019, Time: 03:43:09**

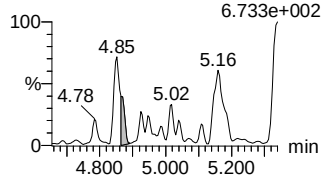
**PFDoS-1**
F14:MRM of 5 channels,ES-
699.084 > 79.856
2.039e+003



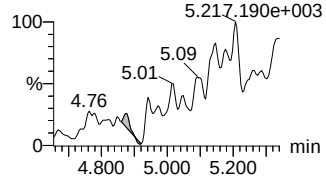

**PFDoS-2**
F14:MRM of 5 channels,ES-
699.084 > 98.8
1.418e+003



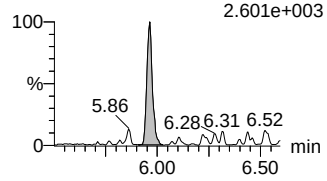

**4:2 FTS-1**
F3:MRM of 18 channels,ES-
327.077 > 307.017
6.733e+002



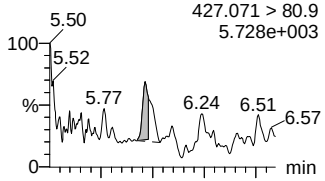

**4:2 FTS-2**
F3:MRM of 18 channels,ES-
327.077 > 80.85
5.217.190e+003



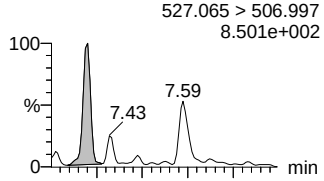

**6:2 FTS-1**
F6:MRM of 4 channels,ES-
427.071 > 407.024
2.601e+003



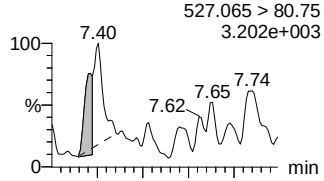

**6:2 FTS-2**
F6:MRM of 4 channels,ES-
427.071 > 80.9
5.728e+003



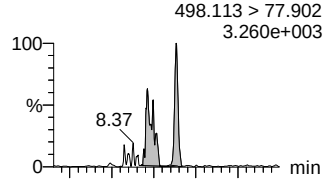

**8:2 FTS-1**
F11:MRM of 4 channels,ES-
527.065 > 506.997
8.501e+002



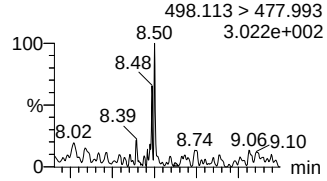

**8:2 FTS-2**
F11:MRM of 4 channels,ES-
527.065 > 80.75
3.202e+003



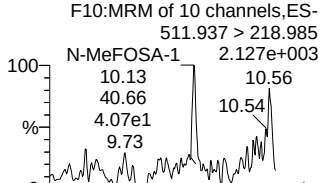

**PFOSA-1**
F8:MRM of 12 channels,ES-
498.113 > 77.902
3.260e+003



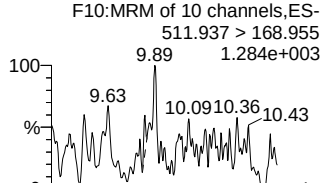

**PFOSA-2**
F8:MRM of 12 channels,ES-
498.113 > 477.993
3.022e+002



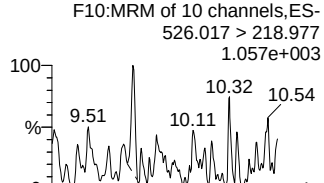

**N-MeFOSA-1**
F10:MRM of 10 channels,ES-
511.937 > 218.985
2.127e+003



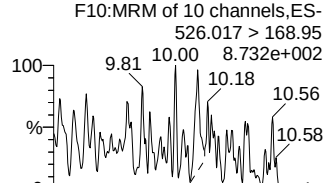

**N-MeFOSA-2**
F10:MRM of 10 channels,ES-
511.937 > 168.955
1.284e+003



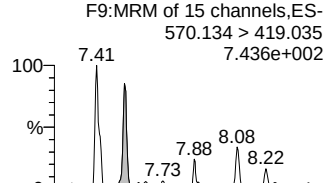

**N-EtFOSA-1**
F10:MRM of 10 channels,ES-
526.017 > 218.977
1.057e+003



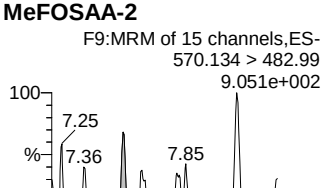

**N-EtFOSA-2**
F10:MRM of 10 channels,ES-
526.017 > 168.95
8.732e+002



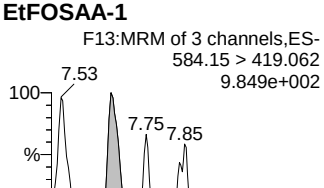

**MeFOSAA-1**
F9:MRM of 15 channels,ES-
570.134 > 419.035
7.436e+002



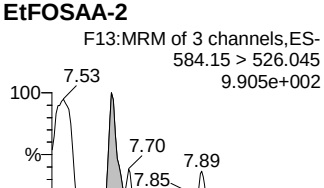

**MeFOSAA-2**
F9:MRM of 15 channels,ES-
570.134 > 482.99
9.051e+002



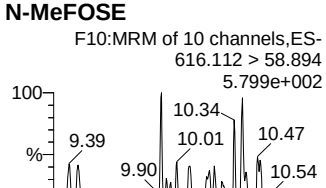

**EtFOSAA-1**
F13:MRM of 3 channels,ES-
584.15 > 419.062
9.849e+002



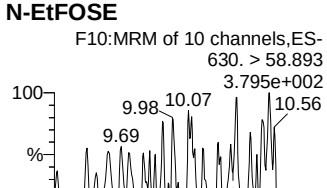

**EtFOSAA-2**
F13:MRM of 3 channels,ES-
584.15 > 526.045
9.905e+002




**N-MeFOSE**
F10:MRM of 10 channels,ES-
616.112 > 58.894
5.799e+002




**N-EtFOSE**
F10:MRM of 10 channels,ES-
630. > 58.893
3.795e+002




PVed by WANGG 13-Apr-19, SVed by AP 16-Apr-19. NOTE: Units = ng/L for BLK and FIeld Samples.

**Quantify Sample Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_130-b.qld

Last Altered: Tuesday, April 16, 2019 12:33:52 Pacific Daylight Time
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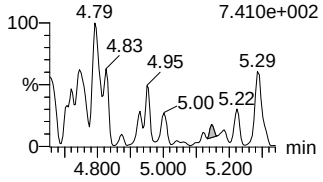
**ID: L30821-6,,, Name: FC9W_130S33, Description: 1,WG67438,2/4000uL, Date: 31-Mar-2019, Time: 03:43:09**

**HFPO-DA-1**

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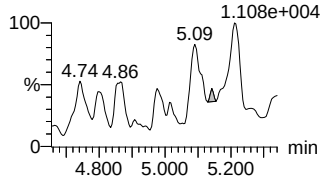
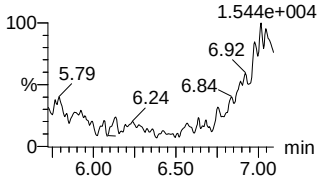
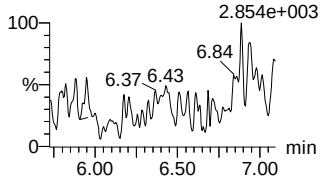


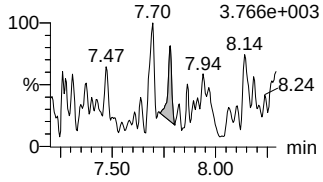

**ADONA-1**



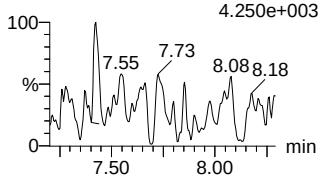

**ADONA-2**



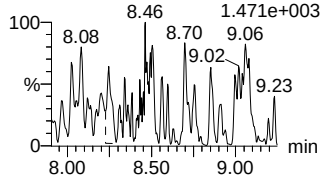

**9Cl-PF3ONS-1**



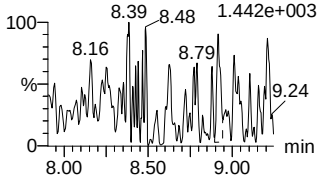

**9Cl-PF3ONS-2**



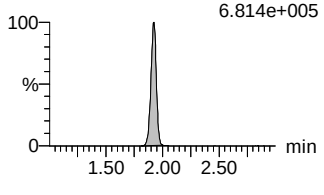

**11Cl-PF3OUdS-1**



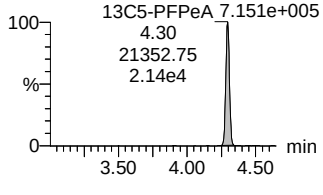

**11Cl-PF3OUdS-2**



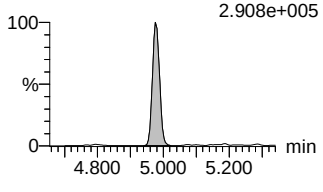

**13C4-PFBA**



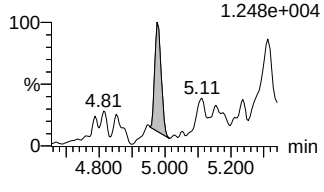

**13C5-PFPeA**



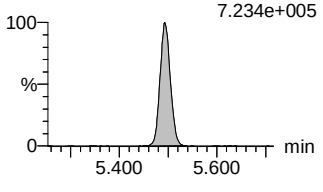

**13C5-PFHxA-1**



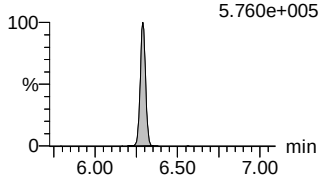

**13C5-PFHxA-2**



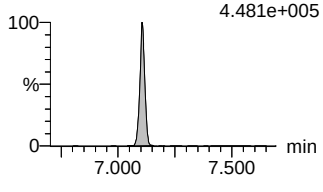

**13C4-PFHpA**



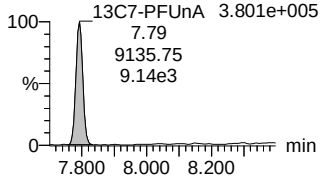

**13C8-PFOA**



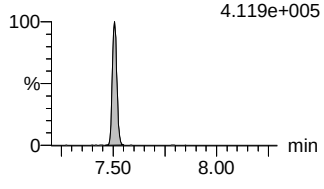

**13C9-PFNA**



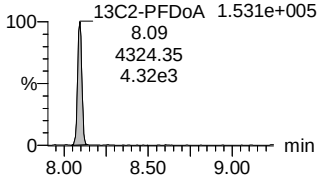

**13C7-PFUnA**



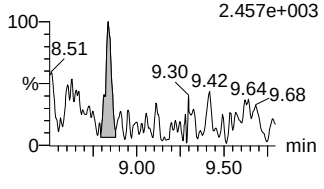

**13C6-PFDA**



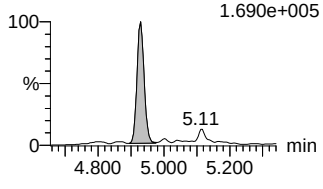

**13C2-PFDoA**




**13C2-PFTeDA**




**13C3-PFBS-1**




PVed by WANGG 13-Apr-19, SVed by AP 16-Apr-19. NOTE: Units = ng/L for BLK and FIeld Samples.

**Quantify Sample Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_130-b.qld

Last Altered: Tuesday, April 16, 2019 12:33:52 Pacific Daylight Time
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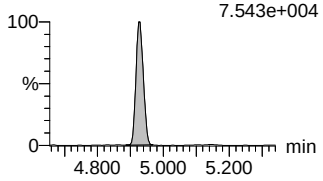
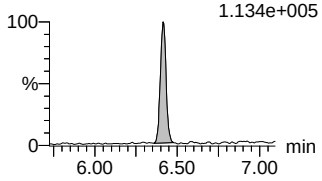
**ID: L30821-6,,, Name: FC9W_130S33, Description: 1,WG67438,2/4000uL, Date: 31-Mar-2019, Time: 03:43:09**

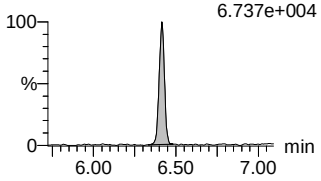
**13C3-PFBS-2**
F3:MRM of 18 channels,ES-
302.056 > 98.875
7.543e+004



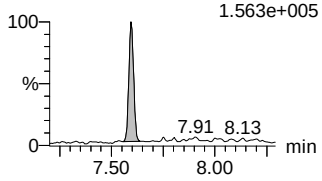

**13C3-PFHxS-1**
F5:MRM of 12 channels,ES-
402.114 > 79.858
1.134e+005



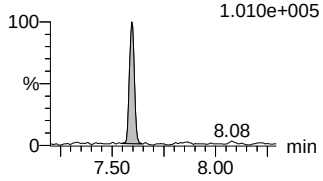

**13C3-PFHxS-2**
F5:MRM of 12 channels,ES-
402.114 > 98.801
6.737e+004



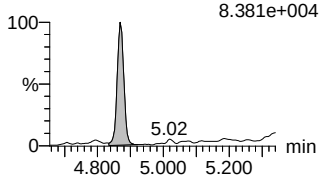

**13C8-PFOS-1**
F9:MRM of 15 channels,ES-
507.124 > 79.858
1.563e+005



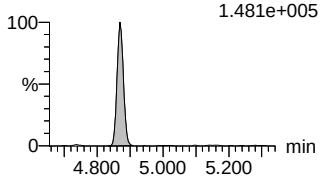

**13C8-PFOS-2**
F9:MRM of 15 channels,ES-
507.124 > 98.867
1.010e+005



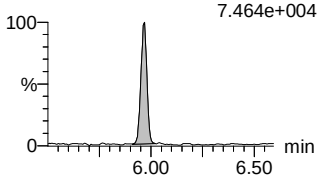

**13C2-4:2 FTS-1**
F3:MRM of 18 channels,ES-
329.084 > 80.9
8.381e+004



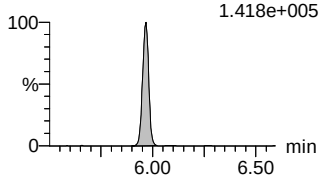

**13C2-4:2 FTS-2**
F3:MRM of 18 channels,ES-
329.084 > 309.024
1.481e+005



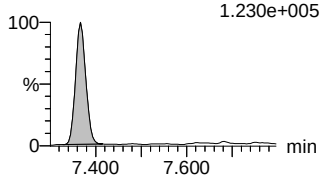

**13C2-6:2 FTS-1**
F6:MRM of 4 channels,ES-
429.078 > 80.900
7.464e+004



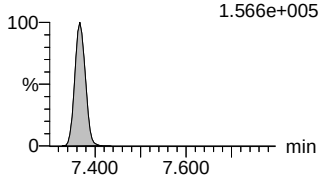

**13C2-6:2 FTS-2**
F6:MRM of 4 channels,ES-
429.078 > 409.031
1.418e+005



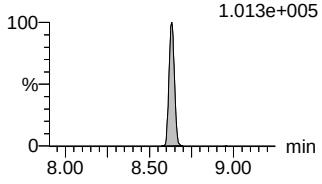

**13C2-8:2 FTS-1**
F11:MRM of 4 channels,ES-
529.1351 > 80.900
1.230e+005



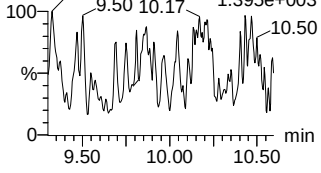

**13C2-8:2 FTS-2**
F11:MRM of 4 channels,ES-
529.135 > 509.003
1.566e+005



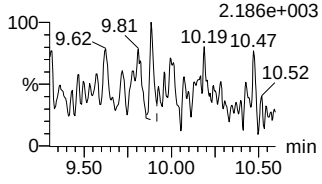

**13C8-PFOSA**
F8:MRM of 12 channels,ES-
506.14 > 77.841
1.013e+005



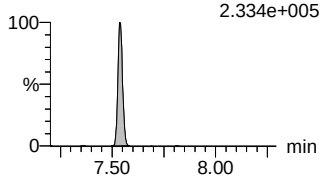

**D3-N-MeFOSA**
F10:MRM of 10 channels,ES-
514.956 > 218.974
1.395e+003



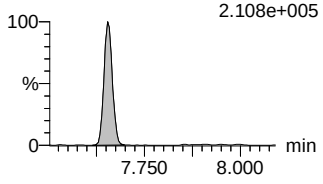

**D5-N-EtFOSA**
F10:MRM of 10 channels,ES-
531.112 > 218.984
2.186e+003



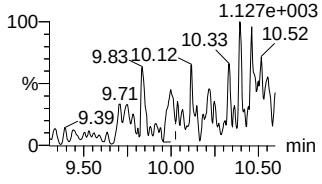

**D3-MeFOSAA**
F9:MRM of 15 channels,ES-
573.153 > 418.99
2.334e+005



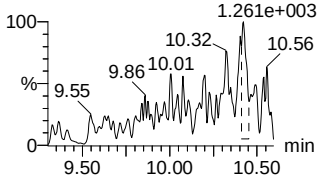

**D5-EtFOSAA**
F13:MRM of 3 channels,ES-
589.245 > 418.971
2.108e+005



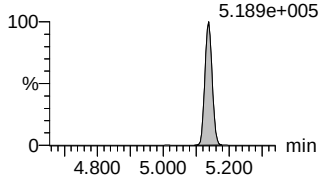

**D7-N-MeFOSE**
F10:MRM of 10 channels,ES-
623.156 > 58.896
1.127e+003



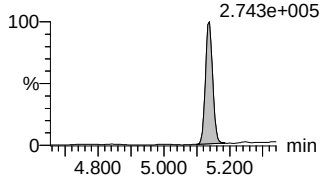

**D9-N-EtFOSE**
F10:MRM of 10 channels,ES-
639.184 > 58.897
1.261e+003




**13C3-HFPO-DA-1**
F3:MRM of 18 channels,ES-
286.8631 > 168.8861
5.189e+005




**13C3-HFPO-DA-2**
F3:MRM of 18 channels,ES-
286.8631 > 184.8888
2.743e+005




PVed by WANGG 13-Apr-19, SVed by AP 16-Apr-19. NOTE: Units = ng/L for BLK and FIeld Samples.

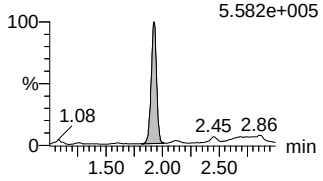
**Quantify Sample Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_130-b.qld

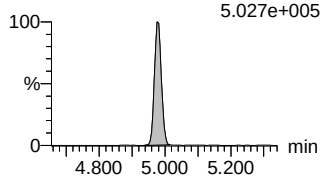
Last Altered: Tuesday, April 16, 2019 12:33:52 Pacific Daylight Time
Printed: Tuesday, April 16, 2019 12:55:41 Pacific Daylight Time

**ID: L30821-6,,, Name: FC9W_130S33, Description: 1,WG67438,2/4000uL, Date: 31-Mar-2019, Time: 03:43:09**

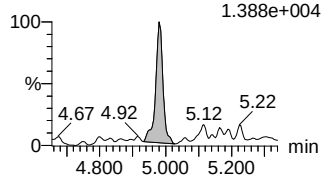
**13C3-PFBA**



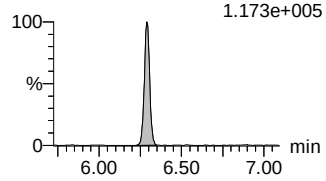

**13C2-PFHxA-1**



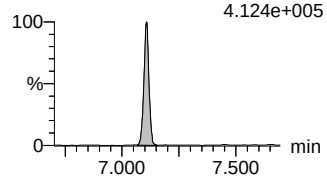

**13C2-PFHxA-2**



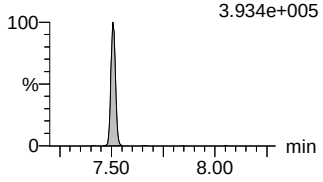

**13C4-PFOA**



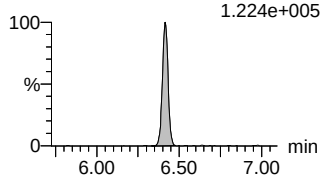

**13C5-PFNA**



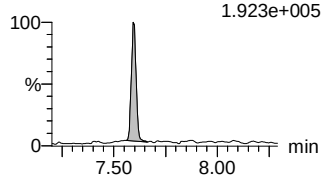

**13C2-PFDA**



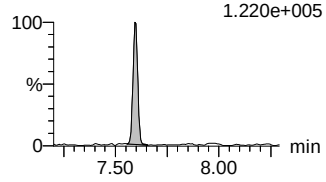

**18O2-PFHxS**




**13C4-PFOS-1**




**13C4-PFOS-2**




PVed by WANGG 13-Apr-19, SVed by AP 16-Apr-19. NOTE: Units = ng/L for BLK and FIeld Samples.

**Quantify Sample Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_130-b.qld

Last Altered: Tuesday, April 16, 2019 12:33:52 Pacific Daylight Time
Printed: Tuesday, April 16, 2019 12:55:41 Pacific Daylight Time

**ID: L30821-6,,, Name: FC9W_130S33, Description: 1,WG67438,2/4000uL, Date: 31-Mar-2019, Time: 03:43:09**

| # | Name | IS# | Trace | RT | Area | IS Area | Std. Conc | Conc. | LOD | %Rec | S/N | Noise | Peak Height | IS Height | Sample size | F2 | Flags |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | PFBA | 64 | 212.763 > 168.903 | 1.93 | 702 | 37005 | | 7.388 | 0.0059 | | 16 | 793 | 12768 | 680005 | 0.100 | 0.0 | MM |
| 2 | PFPeA-1 | 65 | 262.951 > 218.996 | 4.28 | 64 | 21353 | | | | | 4 | 952 | 3893 | 712879 | 0.100 | 0.0 | MMI |
| 3 | PFPeA-2 | 65 | 262.951 > 68.925 | 4.31 | 2 | 21353 | | 4.459 | 16.6219 | | 1 | 65 | 82 | 712879 | 0.100 | 0.0 | MM |
| 4 | PFHxA-1 | 66 | 313.012 > 269.017 | 4.96 | 14 | 7169 | | | | | 1 | 9994 | 6044 | 289523 | 0.100 | 0.0 | MMI |
| 5 | PFHxA-2 | 66 | 313.012 > 118.918 | 4.98 | 15 | 7169 | | 1.930 | 3.2202 | | 2 | 332 | 600 | 289523 | 0.100 | 0.0 | MM |
| 6 | PFHpA-1 | 68 | 363.073 > 319.025 | 5.49 | 21 | 17361 | | | | | 1 | 8287 | 5688 | 722554 | 0.100 | 0.0 | MMI |
| 7 | PFHpA-2 | 68 | 363.073 > 168.962 | 5.49 | 71 | 17361 | | 1.217 | 0.7787 | | 4 | 678 | 2955 | 722554 | 0.100 | 0.0 | MM |
| 8 | PFOA-1 | 69 | 413.006 > 369.03 | 6.29 | 1245 | 21000 | | 3.191 | 0.8938 | | 7 | 5196 | 36392 | 575140 | 0.100 | 0.0 | MM |
| 9 | PFOA-2 | 69 | 413.006 > 168.963 | 6.29 | 460 | 21000 | | 4.247 | | | 25 | 378 | 9524 | 575140 | 0.100 | 0.0 | MM |
| 10 | PFNA-1 | 70 | 463.002 > 418.97 | 7.11 | 1203 | 11089 | | 4.831 | 1.1716 | | 9 | 5918 | 51426 | 447614 | 0.100 | 0.0 | MM |
| 11 | PFNA-2 | 70 | 463.002 > 218.968 | 7.11 | 233 | 11089 | | 4.085 | 0.5021 | | 24 | 498 | 11945 | 447614 | 0.100 | 0.0 | bb |
| 12 | PFDA-1 | 72 | 512.935 > 469.021 | 7.51 | 915 | 10258 | | 4.328 | 1.1601 | | 6 | 5773 | 32675 | 411388 | 0.100 | 0.0 | bd |
| 13 | PFDA-2 | 72 | 512.935 > 218.972 | 7.50 | 148 | 10258 | | 3.506 | 1.0383 | | 6 | 721 | 4428 | 411388 | 0.100 | 0.0 | bd |
| 14 | PFUnA-1 | 71 | 563.124 > 519.003 | 7.79 | 1117 | 9136 | | 9.223 | 1.1677 | | 15 | 2696 | 41287 | 378538 | 0.100 | 0.0 | MM |
| 15 | PFUnA-2 | 71 | 563.124 > 269.051 | 7.79 | 191 | 9136 | | 8.461 | 5.3913 | | 6 | 1776 | 10033 | 378538 | 0.100 | 0.0 | MM |
| 16 | PFDoA-1 | 73 | 613.057 > 569.045 | 8.09 | 1016 | 4324 | | 10.094 | 1.1591 | | 12 | 2871 | 33467 | 152684 | 0.100 | 0.0 | MM |
| 17 | PFDoA-2 | 73 | 613.057 > 318.996 | 8.09 | 20 | 4324 | | 1.290 | 14.9364 | | 1 | 1922 | 1035 | 152684 | 0.100 | 0.0 | MM |
| 18 | PFTrDA-1 | 74 | 663.053 > 619.023 | 8.48 | 57 | 88 | | 39.095 | 235.63... | | 2 | 2837 | 5037 | 2294 | 0.100 | 0.0 | MM |
| 19 | PFTrDA-2 | 74 | 663.053 > 168.949 | 8.43 | 44 | 88 | | 172.922 | 101.72... | | 12 | 223 | 2717 | 2294 | 0.100 | 0.0 | MM |
| 20 | PFTeDA-1 | 74 | 713.05 > 669. | 8.86 | 49 | 88 | | 41.490 | 236.92... | | 2 | 2309 | 4051 | 2294 | 0.100 | 0.0 | MM |
| 21 | PFTeDA-2 | 74 | 713.05 > 168.94 | | | 88 | | | | | | 247 | | 2294 | 0.100 | 0.0 | MM-I |
| 22 | PFBS-1 | 75 | 298.663 > 79.865 | 4.94 | 50 | 4121 | | 1.057 | 2.4033 | | 1 | 1520 | 1911 | 166044 | 0.100 | 0.0 | MM |
| 23 | PFBS-2 | 76 | 298.663 > 98.811 | 4.95 | 17 | 1923 | | 0.293 | 1.8251 | | 1 | 674 | 775 | 75220 | 0.100 | 0.0 | MM |
| 24 | PFPeS-1 | 77 | 349.107 > 79.857 | 5.56 | 88 | 4425 | | 1.294 | 8.3439 | | 2 | 3202 | 5940 | 111048 | 0.100 | 0.0 | MM |
| 25 | PFPeS-2 | 78 | 349.107 > 98.871 | 5.59 | 31 | 2478 | | | | | 1 | 992 | 1395 | 66898 | 0.100 | 0.0 | MMI |
| 26 | PFHxS-1 | 77 | 398.721 > 79.92 | 6.43 | 1596 | 4425 | | 30.119 | 4.8413 | | 19 | 1708 | 32167 | 111048 | 0.100 | 0.0 | MM |
| 27 | PFHxS-2 | 78 | 398.721 > 98.863 | 6.39 | 10 | 2478 | | | | | 1 | 649 | 672 | 66898 | 0.100 | 0.0 | MMI |
| 28 | PFHpS-1 | 79 | 449.036 > 79.857 | 7.20 | 45 | 3976 | | 0.222 | 4.1866 | | 1 | 2442 | 3381 | 151273 | 0.100 | 0.0 | MM |
| 29 | PFHpS-2 | 80 | 449.036 > 98.8 | | | 2734 | | | 3.1135 | | | 949 | | 99528 | 0.100 | 0.0 | MM- |
| 30 | PFOS-1 | 79 | 498.906 > 79.856 | 7.59 | 904 | 3976 | | 19.115 | 2.5245 | | 15 | 2026 | 30354 | 151273 | 0.100 | 0.0 | bb |
| 31 | PFOS-2 | 80 | 498.906 > 98.801 | 7.59 | 547 | 2734 | | 20.303 | 1.5487 | | 22 | 785 | 17421 | 99528 | 0.100 | 0.0 | MM |
| 32 | PFNS-1 | 79 | 548.775 > 79.858 | 7.90 | 11 | 3976 | | | | | 1 | 867 | 637 | 151273 | 0.100 | 0.0 | MMI |
| 33 | PFNS-2 | 80 | 548.775 > 98.801 | 7.91 | 4 | 2734 | | | | | 0 | 729 | 226 | 99528 | 0.100 | 0.0 | MMI |
| 34 | PFDS-1 | 79 | 599.027 > 79.92 | 8.25 | 10 | 3976 | | | | | 1 | 807 | 507 | 151273 | 0.100 | 0.0 | MMI |
| 35 | PFDS-2 | 80 | 599.027 > 98.8 | | | 2734 | | | 2.6095 | | | 464 | | 99528 | 0.100 | 0.0 | MM- |

PVed by WANGG 13-Apr-19, SVed by AP 16-Apr-19. NOTE: Units = ng/L for BLK and FIeld Samples.

**Quantify Sample Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_130-b.qld

Last Altered: Tuesday, April 16, 2019 12:33:52 Pacific Daylight Time
Printed: Tuesday, April 16, 2019 12:55:41 Pacific Daylight Time

**ID: L30821-6,,, Name: FC9W_130S33, Description: 1,WG67438,2/4000uL, Date: 31-Mar-2019, Time: 03:43:09**

| # | Name | IS# | Trace | RT | Area | IS Area | Std. Conc | Conc. | LOD | %Rec | S/N | Noise | Peak Height | IS Height | Sample size | F2 | Flags |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 36 | PFDoS-1 | 79 | 699.084 > 79.856 | 9.05 | 23 | 3976 | | 0.065 | 0.1492 | | 4 | 329 | 1406 | 151273 | 0.100 | 0.0 | MM |
| 37 | PFDoS-2 | 80 | 699.084 > 98.8 | 9.05 | 11 | 2734 | | 0.145 | 1.0027 | | 2 | 347 | 715 | 99528 | 0.100 | 0.0 | MM |
| 38 | 4:2 FTS-1 | 81 | 327.077 > 307.017 | 4.86 | 3 | 1902 | | | | | 4 | 60 | 269 | 83328 | 0.100 | 0.0 | MMI |
| 39 | 4:2 FTS-2 | 81 | 327.077 > 80.85 | 4.87 | 14 | 1902 | | 2.183 | 4.4072 | | 2 | 481 | 745 | 83328 | 0.100 | 0.0 | MM |
| 40 | 6:2 FTS-1 | 83 | 427.071 > 407.024 | 5.96 | 78 | 2444 | | 0.706 | | | 36 | 71 | 2590 | 73547 | 0.100 | 0.0 | bb |
| 41 | 6:2 FTS-2 | 83 | 427.071 > 80.9 | 5.96 | 71 | 2444 | | 5.406 | 4.9782 | | 4 | 655 | 2682 | 73547 | 0.100 | 0.0 | MM |
| 42 | 8:2 FTS-1 | 85 | 527.065 > 506.997 | 7.38 | 16 | 3159 | | | | | 20 | 42 | 835 | 121772 | 0.100 | 0.0 | bdI |
| 43 | 8:2 FTS-2 | 85 | 527.065 > 80.75 | 7.38 | 40 | 3159 | | 3.114 | 7.0104 | | 2 | 928 | 2112 | 121772 | 0.100 | 0.0 | MM |
| 44 | PFOSA-1 | 87 | 498.113 > 77.902 | 8.63 | 168 | 3732 | | 5.584 | 1.0301 | | 45 | 73 | 3246 | 101232 | 0.100 | 0.0 | MM |
| 45 | PFOSA-2 | 87 | 498.113 > 477.993 | 8.62 | 0 | 3732 | | 18.980 | 21.8731 | | 0 | 20 | 7 | 101232 | 0.100 | 0.0 | MM |
| 46 | N-MeFOSA-1 | 88 | 511.937 > 218.985 | | | | | | | | | 238 | | | 0.100 | 0.0 | MM- |
| 47 | N-MeFOSA-2 | 88 | 511.937 > 168.955 | | | | | | | | | 269 | | | 0.100 | 0.0 | MM- |
| 48 | N-EtFOSA-1 | 89 | 526.017 > 218.977 | | | | | | | | | 179 | | | 0.100 | 0.0 | MM- |
| 49 | N-EtFOSA-2 | 89 | 526.017 > 168.95 | | | | | | | | | 237 | | | 0.100 | 0.0 | MM- |
| 50 | MeFOSAA-1 | 90 | 570.134 > 419.035 | 7.54 | 13 | 5960 | | 0.185 | | | 32 | 19 | 621 | 233196 | 0.100 | 0.0 | MM |
| 51 | MeFOSAA-2 | 90 | 570.134 > 482.99 | 7.55 | 12 | 5960 | | | | | 5 | 125 | 593 | 233196 | 0.100 | 0.0 | MMI |
| 52 | EtFOSAA-1 | 91 | 584.15 > 419.062 | 7.66 | 29 | 5283 | | 2.059 | 1.8450 | | 3 | 332 | 977 | 210435 | 0.100 | 0.0 | bd |
| 53 | EtFOSAA-2 | 91 | 584.15 > 526.045 | 7.66 | 27 | 5283 | | 2.574 | 1.9485 | | 5 | 196 | 981 | 210435 | 0.100 | 0.0 | MM |
| 54 | N-MeFOSE | 92 | 616.112 > 58.894 | | | | | | | | | 82 | | | 0.100 | 0.0 | MM- |
| 55 | N-EtFOSE | 93 | 630. > 58.893 | | | | | | | | | 112 | | | 0.100 | 0.0 | MM- |
| 56 | HFPO-DA-1 | 94 | 284.8894 > 168.... | 5.15 | 1 | 13001 | | | | | 0 | 231 | 79 | 517909 | 0.100 | 0.0 | MMI |
| 57 | HFPO-DA-2 | 95 | 284.8894 > 184.... | 5.14 | 14 | 6778 | | 0.373 | 4.9914 | | 1 | 1146 | 1158 | 271006 | 0.100 | 0.0 | MM |
| 58 | ADONA-1 | 94 | 376.88 > 250.937 | | | 13001 | | | | | | 892 | | 517909 | 0.100 | 0.0 | MM-I |
| 59 | ADONA-2 | 95 | 376.88 > 84.832 | | | 6778 | | | 5.6627 | | | 440 | | 271006 | 0.100 | 0.0 | MM- |
| 60 | 9Cl-PF3ONS-1 | 94 | 530.807 > 350.967 | 7.78 | 51 | 13001 | | | | | 4 | 606 | 2293 | 517909 | 0.100 | 0.0 | MMI |
| 61 | 9Cl-PF3ONS-2 | 95 | 532.804 > 352.947 | | | 6778 | | | | | | 855 | | 271006 | 0.100 | 0.0 | MM-I |
| 62 | 11Cl-PF3OUdS-1 | 94 | 630.865 > 450.902 | | | 13001 | | | | | | 485 | | 517909 | 0.100 | 0.0 | MM-I |
| 63 | 11Cl-PF3OUdS-2 | 95 | 632.868 > 452.91 | | | 6778 | | | | | | 413 | | 271006 | 0.100 | 0.0 | MM-I |
| 64 | 13C4-PFBA | 96 | 216.776 > 171.928 | 1.92 | 37005 | 29878 | 40.000 | 241.965 | 0.1508 | 60.5 | 4815 | 141 | 680005 | 549054 | 0.100 | 0.0 | bb |
| 65 | 13C5-PFPeA | 97 | 268.16 > 223.035 | 4.30 | 21353 | 12087 | 20.000 | 217.749 | 0.0902 | 108.9 | 5830 | 122 | 712879 | 501448 | 0.100 | 0.0 | bb |
| 66 | 13C5-PFHxA-1 | 97 | 318.029 > 272.993 | 4.98 | 7169 | 12087 | 10.000 | 84.231 | 1.5141 | 84.2 | 162 | 1782 | 289523 | 501448 | 0.100 | 0.0 | bb |
| 67 | 13C5-PFHxA-2 | 97 | 318.029 > 120.341 | 4.98 | 245 | 12087 | 10.000 | 84.633 | 27.0859 | 84.6 | 10 | 1083 | 10974 | 501448 | 0.100 | 0.0 | MM |
| 68 | 13C4-PFHpA | 99 | 367.086 > 322.004 | 5.49 | 17361 | 4289 | 10.000 | 74.444 | 0.2282 | 74.4 | 1492 | 484 | 722554 | 117072 | 0.100 | 0.0 | bb |
| 69 | 13C8-PFOA | 99 | 421.096 > 376.022 | 6.29 | 21000 | 4289 | 10.000 | 78.373 | 0.0717 | 78.4 | 3291 | 175 | 575140 | 117072 | 0.100 | 0.0 | bb |
| 70 | 13C9-PFNA | 100 | 472.096 > 427.014 | 7.10 | 11089 | 10518 | 5.000 | 48.547 | 0.2710 | 97.1 | 554 | 807 | 447614 | 411514 | 0.100 | 0.0 | bb |

PVed by WANGG 13-Apr-19, SVed by AP 16-Apr-19. NOTE: Units = ng/L for BLK and FIeld Samples.

**Quantify Sample Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_130-b.qld

Last Altered: Tuesday, April 16, 2019 12:33:52 Pacific Daylight Time
Printed: Tuesday, April 16, 2019 12:55:41 Pacific Daylight Time

**ID: L30821-6,,, Name: FC9W_130S33, Description: 1,WG67438,2/4000uL, Date: 31-Mar-2019, Time: 03:43:09**

| # | Name | IS# | Trace | RT | Area | IS Area | Std. Conc | Conc. | LOD | %Rec | S/N | Noise | Peak Height | IS Height | Sample size | F2 | Flags |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 71 | 13C7-PFUnA | 101 | 570.019 > 525.05 | 7.79 | 9136 | 9907 | 5.000 | 41.236 | 0.3003 | 82.5 | 430 | 880 | 378538 | 392987 | 0.100 | 0.0 | bb |
| 72 | 13C6-PFDA | 101 | 519.147 > 474.058 | 7.51 | 10258 | 9907 | 5.000 | 55.025 | 0.1466 | 110.1 | 1138 | 361 | 411388 | 392987 | 0.100 | 0.0 | bb |
| 73 | 13C2-PFDoA | 101 | 615.127 > 570.013 | 8.09 | 4324 | 9907 | 5.000 | 27.346 | 0.0504 | 54.7 | 1450 | 105 | 152684 | 392987 | 0.100 | 0.0 | bb |
| 74 | 13C2-PFTeDA | 101 | 715.057 > 670.026 | 8.84 | 88 | 9907 | 5.000 | 0.570 | 0.1780 | 1.1 | 6 | 365 | 2294 | 392987 | 0.100 | 0.0 | MM |
| 75 | 13C3-PFBS-1 | 102 | 302.056 > 79.865 | 4.93 | 4121 | 4810 | 10.000 | 71.192 | 1.3234 | 71.2 | 256 | 649 | 166044 | 122258 | 0.100 | 0.0 | bd |
| 76 | 13C3-PFBS-2 | 102 | 302.056 > 98.875 | 4.92 | 1923 | 4810 | 10.000 | 68.722 | 0.3509 | 68.7 | 904 | 83 | 75220 | 122258 | 0.100 | 0.0 | bb |
| 77 | 13C3-PFHxS-1 | 102 | 402.114 > 79.858 | 6.41 | 4425 | 4810 | 10.000 | 88.702 | 1.8824 | 88.7 | 140 | 796 | 111048 | 122258 | 0.100 | 0.0 | bb |
| 78 | 13C3-PFHxS-2 | 102 | 402.114 > 98.801 | 6.41 | 2478 | 4810 | 10.000 | 89.168 | 1.3589 | 89.2 | 209 | 320 | 66898 | 122258 | 0.100 | 0.0 | bb |
| 79 | 13C8-PFOS-1 | 103 | 507.124 > 79.858 | 7.59 | 3976 | 4814 | 10.000 | 104.318 | 3.5811 | 104.3 | 87 | 1746 | 151273 | 184800 | 0.100 | 0.0 | bb |
| 80 | 13C8-PFOS-2 | 104 | 507.124 > 98.867 | 7.59 | 2734 | 3130 | 10.000 | 111.334 | 2.4573 | 111.3 | 128 | 776 | 99528 | 120700 | 0.100 | 0.0 | bb |
| 81 | 13C2-4:2 FTS-1 | 102 | 329.084 > 80.9 | 4.87 | 1902 | 4810 | 20.000 | 111.349 | 5.3613 | 55.7 | 107 | 776 | 83328 | 122258 | 0.100 | 0.0 | MM |
| 82 | 13C2-4:2 FTS-2 | 102 | 329.084 > 309.024 | 4.87 | 3246 | 4810 | 20.000 | 81.437 | 0.5268 | 40.7 | 831 | 178 | 147896 | 122258 | 0.100 | 0.0 | bb |
| 83 | 13C2-6:2 FTS-1 | 102 | 429.078 > 80.900 | 5.97 | 2444 | 4810 | 20.000 | 177.075 | 3.0538 | 88.5 | 206 | 357 | 73547 | 122258 | 0.100 | 0.0 | bb |
| 84 | 13C2-6:2 FTS-2 | 102 | 429.078 > 409.031 | 5.97 | 4762 | 4810 | 20.000 | 150.715 | 0.2848 | 75.4 | 1858 | 76 | 141667 | 122258 | 0.100 | 0.0 | bb |
| 85 | 13C2-8:2 FTS-1 | 102 | 529.1351 > 80.900 | 7.37 | 3159 | 4810 | 20.000 | 153.224 | 3.4145 | 76.6 | 204 | 597 | 121772 | 122258 | 0.100 | 0.0 | bb |
| 86 | 13C2-8:2 FTS-2 | 102 | 529.135 > 509.003 | 7.37 | 4140 | 4810 | 20.000 | 149.300 | 0.0556 | 74.6 | 119... | 13 | 156287 | 122258 | 0.100 | 0.0 | bb |
| 87 | 13C8-PFOSA | 103 | 506.14 > 77.841 | 8.63 | 3732 | 4814 | 10.000 | 61.938 | 0.0290 | 61.9 | 4531 | 22 | 101232 | 184800 | 0.100 | 0.0 | bb |
| 88 | D3-N-MeFOSA | 103 | 514.956 > 218.974 | | | 4814 | 10.000 | | 1.1263 | | | 448 | | 184800 | 0.100 | 0.0 | MM- |
| 89 | D5-N-EtFOSA | 103 | 531.112 > 218.984 | | | 4814 | 10.000 | | 0.8495 | | | 285 | | 184800 | 0.100 | 0.0 | MM- |
| 90 | D3-MeFOSAA | 103 | 573.153 > 418.99 | 7.54 | 5960 | 4814 | 20.000 | 178.128 | 0.1406 | 89.1 | 3873 | 60 | 233196 | 184800 | 0.100 | 0.0 | bb |
| 91 | D5-EtFOSAA | 103 | 589.245 > 418.971 | 7.65 | 5283 | 4814 | 20.000 | 188.948 | 2.0257 | 94.5 | 290 | 725 | 210435 | 184800 | 0.100 | 0.0 | bb |
| 92 | D7-N-MeFOSE | 103 | 623.156 > 58.896 | | | 4814 | 100.000 | | 0.8008 | | | 147 | | 184800 | 0.100 | 0.0 | MM- |
| 93 | D9-N-EtFOSE | 103 | 639.184 > 58.897 | | | 4814 | 100.000 | | 1.8174 | | | 346 | | 184800 | 0.100 | 0.0 | MM- |
| 94 | 13C3-HFPO-DA-1 | 97 | 286.8631 > 168.... | 5.14 | 13001 | 12087 | 40.000 | 332.641 | 0.1271 | 83.2 | 7539 | 69 | 517909 | 501448 | 0.100 | 0.0 | bb |
| 95 | 13C3-HFPO-DA-2 | 97 | 286.8631 > 184.... | 5.14 | 6778 | 12087 | 40.000 | 354.059 | 2.6458 | 88.5 | 387 | 700 | 271006 | 501448 | 0.100 | 0.0 | bb |
| 96 | 13C3-PFBA | | 216.029 > 171.97 | 1.92 | 29878 | | 20.000 | 213.448 | 0.8410 | 106.7 | 761 | 721 | 549054 | | 0.100 | 0.0 | bb |
| 97 | 13C2-PFHxA-1 | | 315.083 > 269.984 | 4.98 | 12087 | | 10.000 | 67.706 | 0.2323 | 67.7 | 874 | 574 | 501448 | | 0.100 | 0.0 | bb |
| 98 | 13C2-PFHxA-2 | | 315.083 > 119.359 | 4.98 | 346 | | 10.000 | 64.135 | 5.9802 | 64.1 | 32 | 422 | 13564 | | 0.100 | 0.0 | bb |
| 99 | 13C4-PFOA | | 417.083 > 171.95 | 6.29 | 4289 | | 10.000 | 142.748 | 0.5050 | 142.7 | 848 | 138 | 117072 | | 0.100 | 0.0 | bb |
| 1... | 13C5-PFNA | | 468.019 > 423.008 | 7.11 | 10518 | | 5.000 | 51.560 | 0.2104 | 103.1 | 735 | 560 | 411514 | | 0.100 | 0.0 | bb |
| 1... | 13C2-PFDA | | 515.134 > 470.05 | 7.51 | 9907 | | 5.000 | 43.553 | 0.0625 | 87.1 | 2092 | 188 | 392987 | | 0.100 | 0.0 | bb |
| 1... | 18O2-PFHxS | | 402.984 > 83.895 | 6.41 | 4810 | | 10.000 | 122.443 | 0.3289 | 122.4 | 1117 | 109 | 122258 | | 0.100 | 0.0 | bb |
| 1... | 13C4-PFOS-1 | | 502.791 > 79.856 | 7.59 | 4814 | | 10.000 | 98.940 | 1.7681 | 98.9 | 168 | 1101 | 184800 | | 0.100 | 0.0 | bb |
| 1... | 13C4-PFOS-2 | | 502.791 > 98.864 | 7.59 | 3130 | | 10.000 | 100.232 | 1.7404 | 100.2 | 173 | 699 | 120700 | | 0.100 | 0.0 | bb |

PVed by WANGG 13-Apr-19, SVed by AP 16-Apr-19. NOTE: Units = ng/L for BLK and FIeld Samples.

**Quantify Sample Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

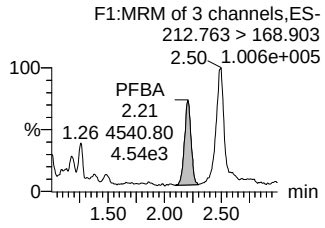
Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_144-b.qld

Last Altered: Tuesday, April 16, 2019 14:59:53 Pacific Daylight Time
Printed: Monday, April 22, 2019 08:58:18 Pacific Daylight Time

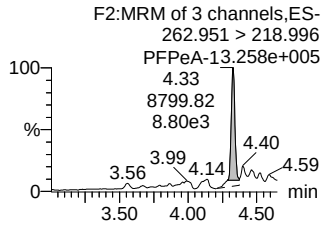
**Method: G:\Masslynx\Master Methods\MassLynx SCN 909\UPLC\FC_110_UPLC_06.mdb 10 Mar 2019 18:18:03**
**Calibration: G:\Masslynx\Inst_W\PFC.PRO\Curve\FC9W_097-a1.cdb 12 Mar 2019 11:26:10**

**ID: L30821-7,i,, Name: FC9W_144S20, Description: 1,WG67663,2/4000uL, Date: 08-Apr-2019, Time: 18:19:19**

**PFBA**




**PFPeA-1**

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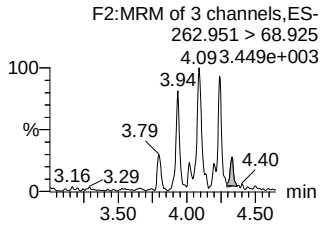
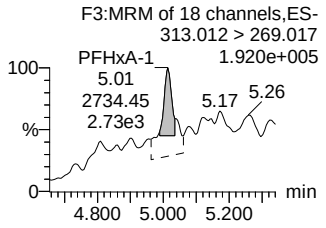



**PFHxA-1**

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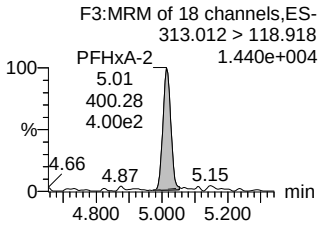


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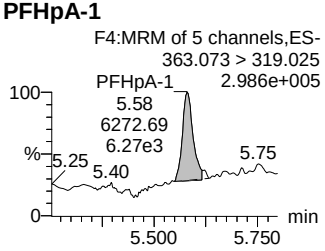


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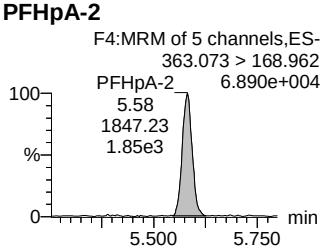


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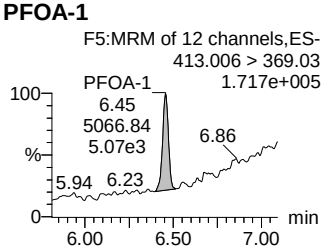


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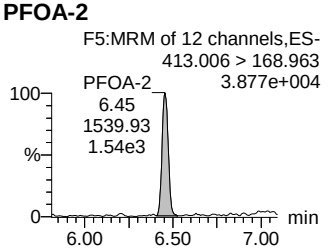


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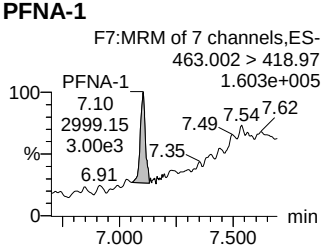


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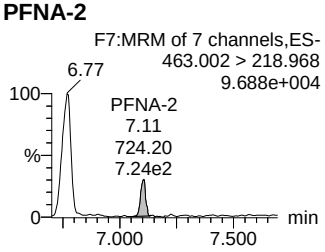


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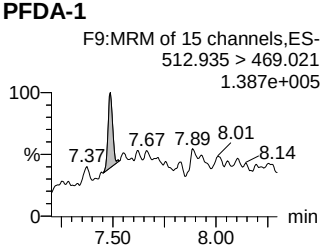


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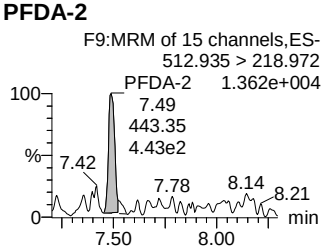


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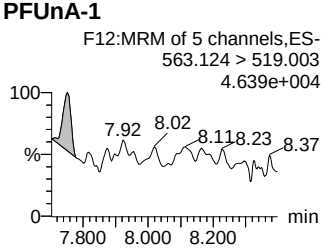


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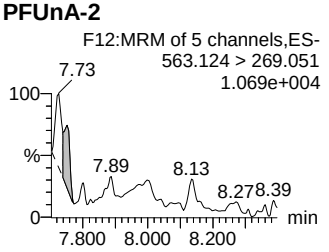


PVed by WANGG 16-Apr-19, SVed by AP 22-Apr-19. NOTE: Units = ng/L for BLK and Field Samples.

**Quantify Sample Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_144-b.qld

Last Altered: Tuesday, April 16, 2019 14:59:53 Pacific Daylight Time
Printed: Monday, April 22, 2019 08:58:18 Pacific Daylight Time

**ID: L30821-7,i,, Name: FC9W_144S20, Description: 1,WG67663,2/4000uL, Date: 08-Apr-2019, Time: 18:19:19**

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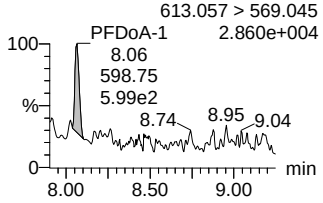


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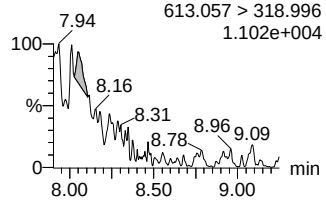


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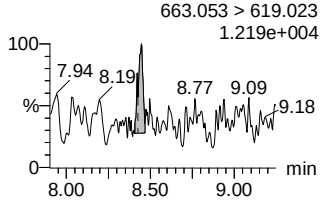


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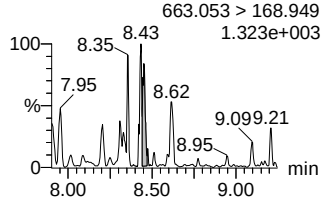


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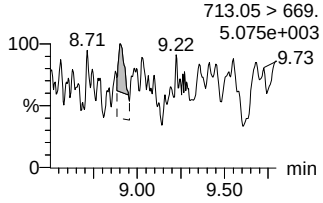


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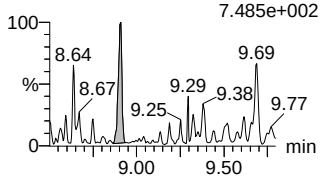
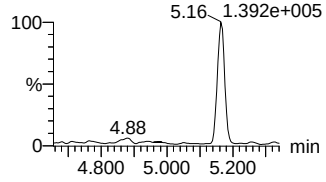
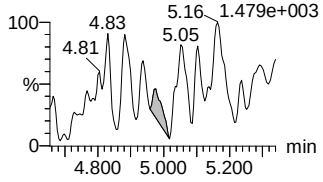



**PFBS-1**




**PFBS-2**

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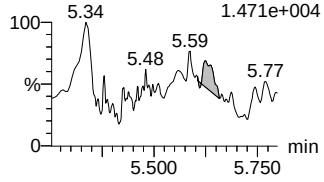


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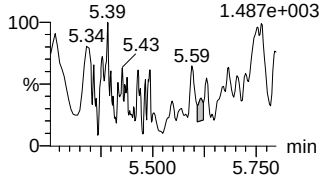


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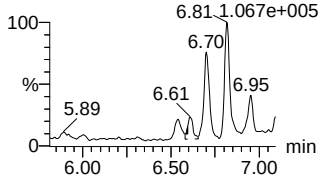


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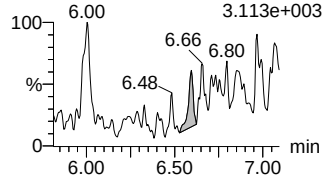


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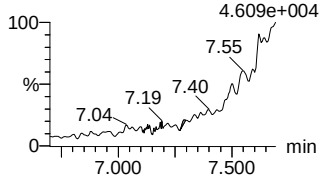


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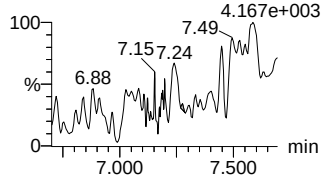


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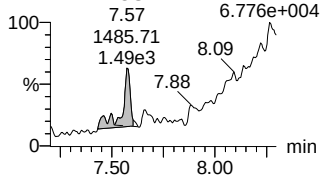


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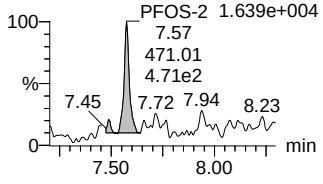


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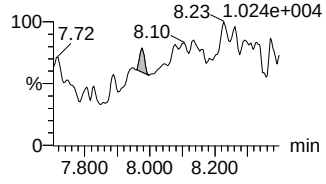


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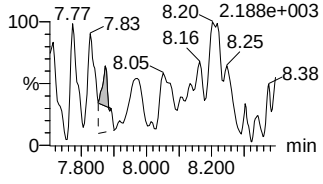


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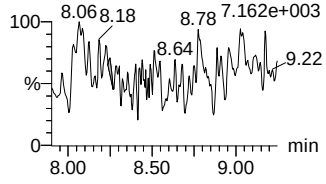


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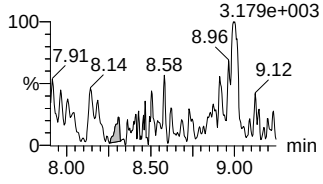


PVed by WANGG 16-Apr-19, SVed by AP 22-Apr-19. NOTE: Units = ng/L for BLK and Field Samples.

**Quantify Sample Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_144-b.qld

Last Altered: Tuesday, April 16, 2019 14:59:53 Pacific Daylight Time
Printed: Monday, April 22, 2019 08:58:18 Pacific Daylight Time

**ID: L30821-7,i,, Name: FC9W_144S20, Description: 1,WG67663,2/4000uL, Date: 08-Apr-2019, Time: 18:19:19**

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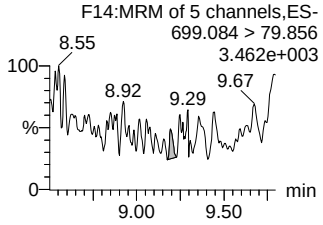


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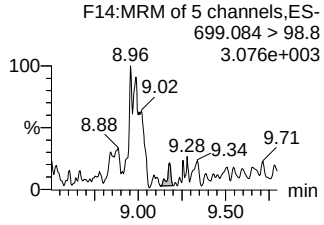


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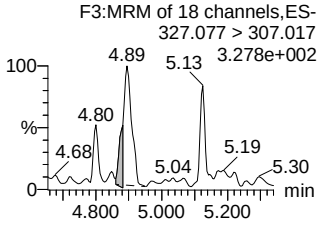


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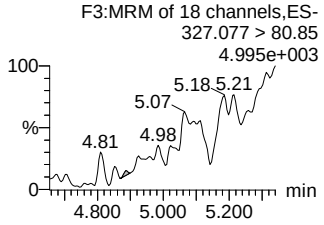


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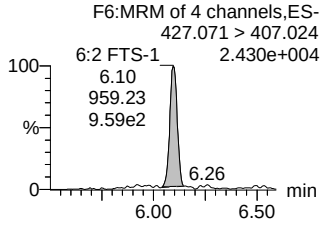


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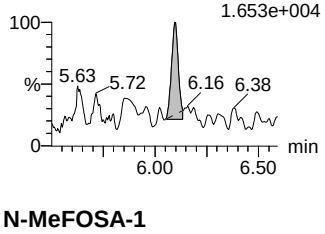


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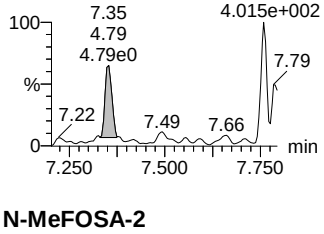


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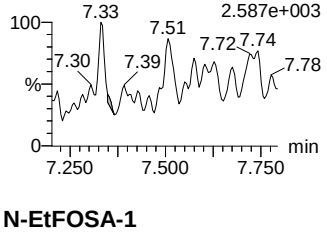


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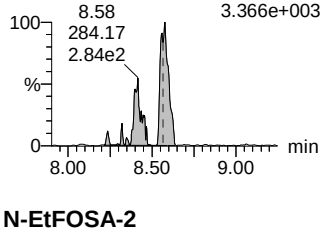


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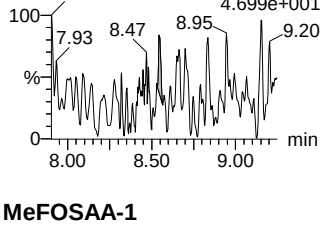


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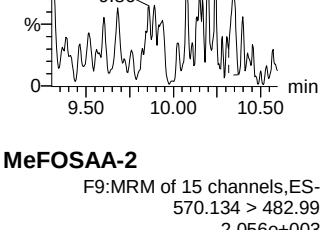


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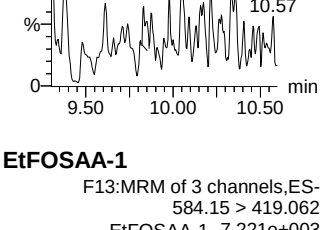


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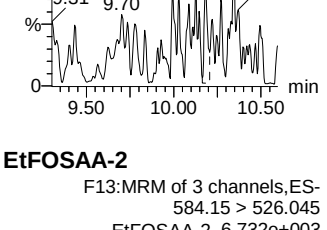


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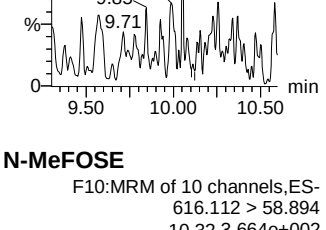


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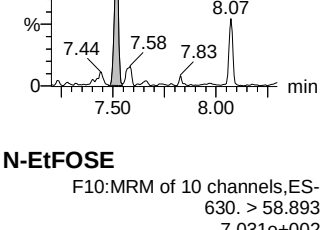


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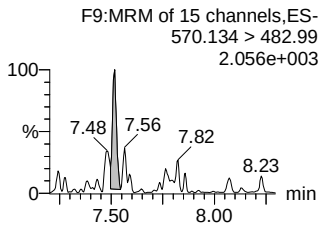


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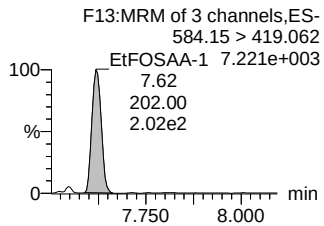


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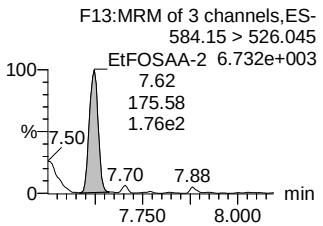


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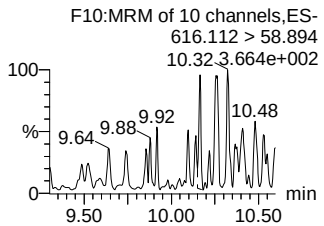


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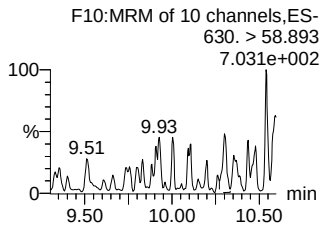


PVed by WANGG 16-Apr-19, SVed by AP 22-Apr-19. NOTE: Units = ng/L for BLK and Field Samples.

**Quantify Sample Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_144-b.qld

Last Altered: Tuesday, April 16, 2019 14:59:53 Pacific Daylight Time
Printed: Monday, April 22, 2019 08:58:18 Pacific Daylight Time

**ID: L30821-7,i,, Name: FC9W_144S20, Description: 1,WG67663,2/4000uL, Date: 08-Apr-2019, Time: 18:19:19**

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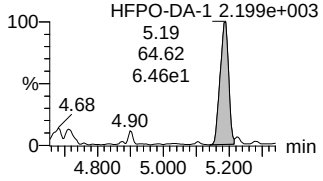


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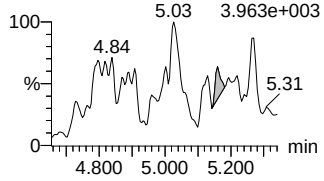


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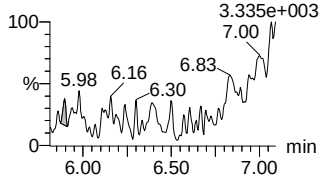


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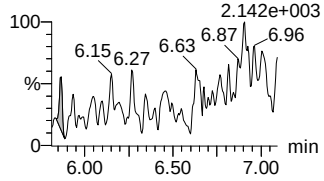


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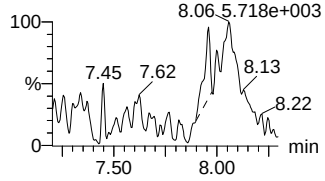


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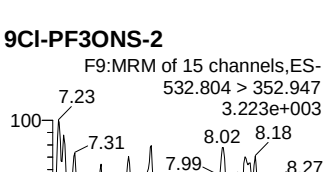
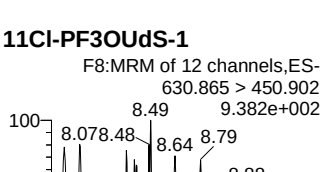



**11Cl-PF3OUdS-1**

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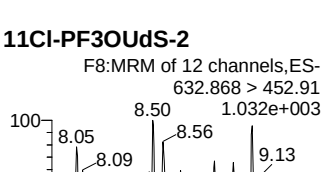


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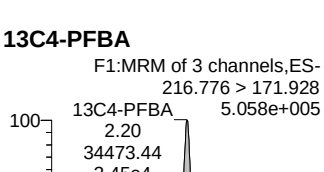


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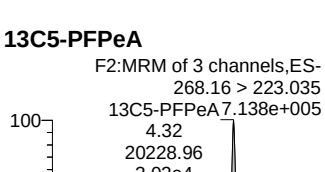


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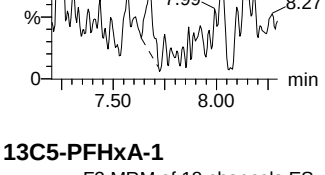


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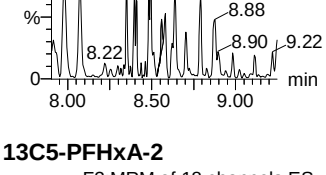


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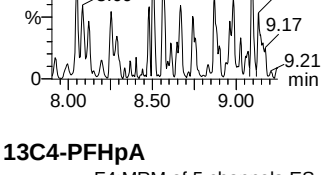


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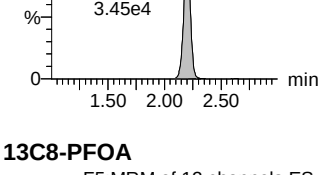


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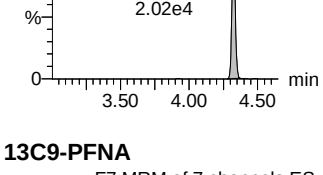


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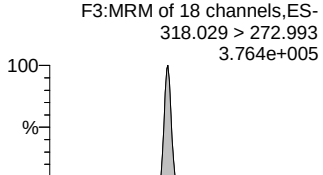


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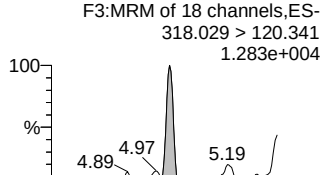


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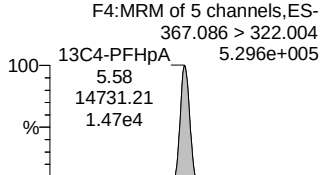
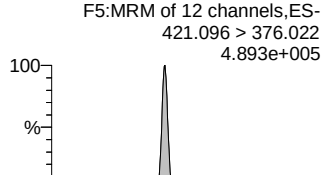
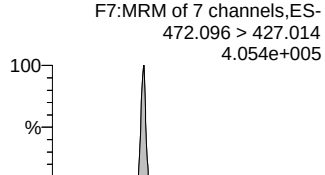



**13C2-PFTeDA**




**13C3-PFBS-1**




PVed by WANGG 16-Apr-19, SVed by AP 22-Apr-19. NOTE: Units = ng/L for BLK and Field Samples.

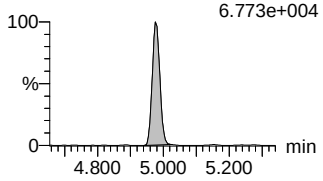
**Quantify Sample Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_144-b.qld

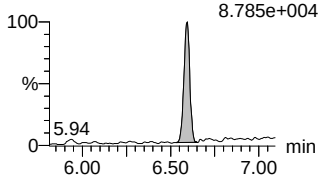
Last Altered: Tuesday, April 16, 2019 14:59:53 Pacific Daylight Time
Printed: Monday, April 22, 2019 08:58:18 Pacific Daylight Time

**ID: L30821-7,i,, Name: FC9W_144S20, Description: 1,WG67663,2/4000uL, Date: 08-Apr-2019, Time: 18:19:19**

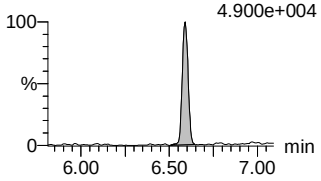
**13C3-PFBS-2**
F3:MRM of 18 channels,ES-
302.056 > 98.875
6.773e+004



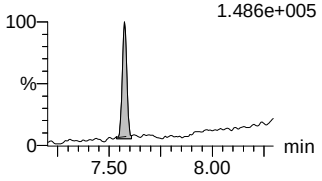

**13C3-PFHxS-1**
F5:MRM of 12 channels,ES-
402.114 > 79.858
8.785e+004



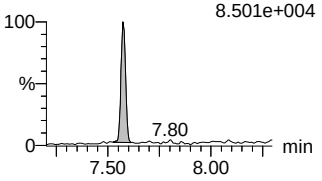

**13C3-PFHxS-2**
F5:MRM of 12 channels,ES-
402.114 > 98.801
4.900e+004



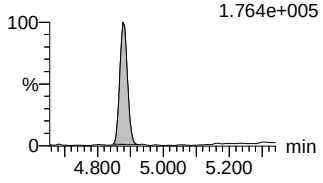

**13C8-PFOS-1**
F9:MRM of 15 channels,ES-
507.124 > 79.858
1.486e+005



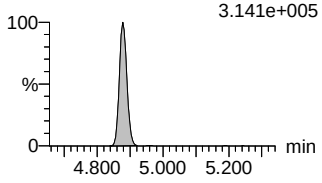

**13C8-PFOS-2**
F9:MRM of 15 channels,ES-
507.124 > 98.867
8.501e+004



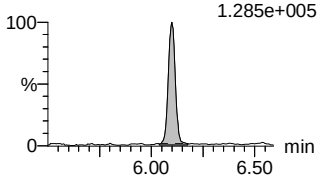

**13C2-4:2 FTS-1**
F3:MRM of 18 channels,ES-
329.084 > 80.9
1.764e+005



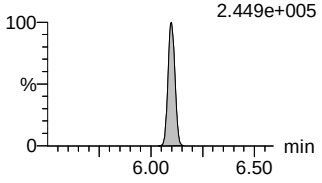

**13C2-4:2 FTS-2**
F3:MRM of 18 channels,ES-
329.084 > 309.024
3.141e+005



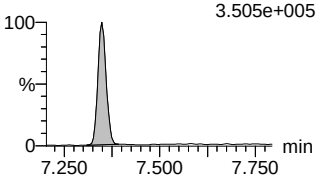

**13C2-6:2 FTS-1**
F6:MRM of 4 channels,ES-
429.078 > 80.900
1.285e+005



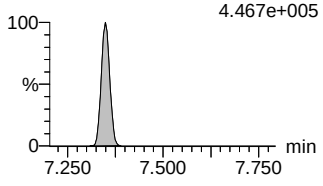

**13C2-6:2 FTS-2**
F6:MRM of 4 channels,ES-
429.078 > 409.031
2.449e+005



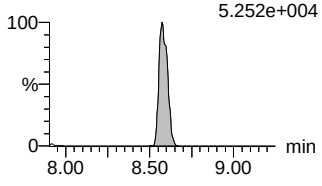

**13C2-8:2 FTS-1**
F11:MRM of 4 channels,ES-
529.1351 > 80.900
3.505e+005



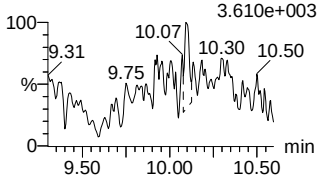

**13C2-8:2 FTS-2**
F11:MRM of 4 channels,ES-
529.135 > 509.003
4.467e+005



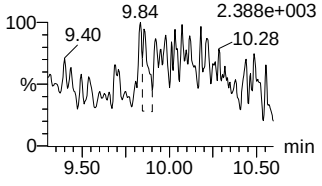

**13C8-PFOSA**
F8:MRM of 12 channels,ES-
506.14 > 77.841
5.252e+004



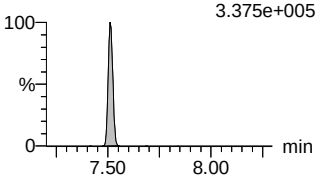

**D3-N-MeFOSA**
F10:MRM of 10 channels,ES-
514.956 > 218.974
3.610e+003



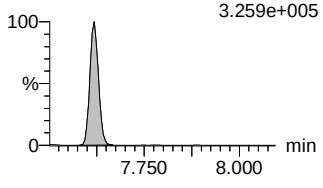

**D5-N-EtFOSA**
F10:MRM of 10 channels,ES-
531.112 > 218.984
2.388e+003



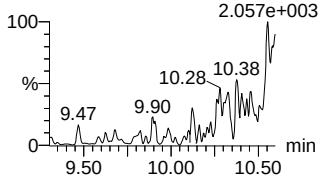

**D3-MeFOSAA**
F9:MRM of 15 channels,ES-
573.153 > 418.99
3.375e+005



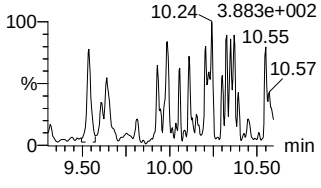

**D5-EtFOSAA**
F13:MRM of 3 channels,ES-
589.245 > 418.971
3.259e+005



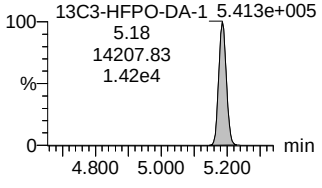

**D7-N-MeFOSE**
F10:MRM of 10 channels,ES-
623.156 > 58.896
2.057e+003



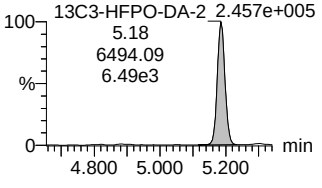

**D9-N-EtFOSE**
F10:MRM of 10 channels,ES-
639.184 > 58.897
3.883e+002




**13C3-HFPO-DA-1**
F3:MRM of 18 channels,ES-
286.8631 > 168.8861
13C3-HFPO-DA-1 5.413e+005




**13C3-HFPO-DA-2**
F3:MRM of 18 channels,ES-
286.8631 > 184.8888
13C3-HFPO-DA-2 2.457e+005




PVed by WANGG 16-Apr-19, SVed by AP 22-Apr-19. NOTE: Units = ng/L for BLK and Field Samples.

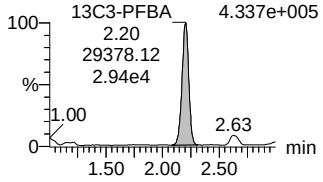
**Quantify Sample Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_144-b.qld

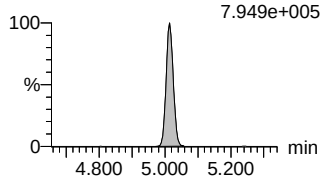
Last Altered: Tuesday, April 16, 2019 14:59:53 Pacific Daylight Time
Printed: Monday, April 22, 2019 08:58:18 Pacific Daylight Time

**ID: L30821-7,i,, Name: FC9W_144S20, Description: 1,WG67663,2/4000uL, Date: 08-Apr-2019, Time: 18:19:19**

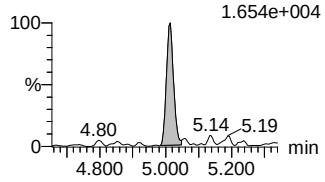
**13C3-PFBA**



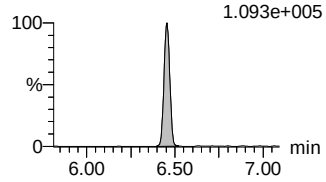

**13C2-PFHxA-1**



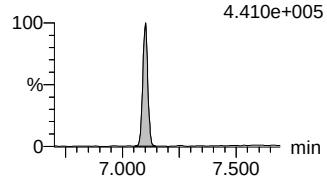

**13C2-PFHxA-2**



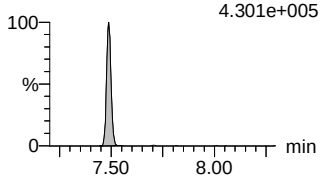

**13C4-PFOA**



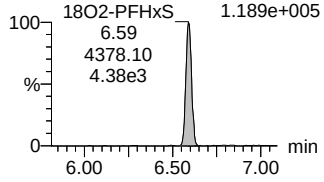

**13C5-PFNA**



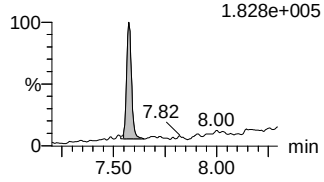

**13C2-PFDA**



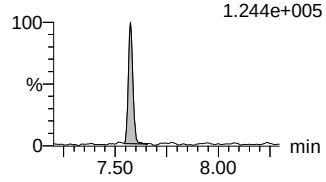

**18O2-PFHxS**




**13C4-PFOS-1**




**13C4-PFOS-2**




PVed by WANGG 16-Apr-19, SVed by AP 22-Apr-19. NOTE: Units = ng/L for BLK and Field Samples.

**Quantify Sample Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_144-b.qld

Last Altered: Tuesday, April 16, 2019 14:59:53 Pacific Daylight Time
Printed: Monday, April 22, 2019 08:58:18 Pacific Daylight Time

**ID: L30821-7,i,, Name: FC9W_144S20, Description: 1,WG67663,2/4000uL, Date: 08-Apr-2019, Time: 18:19:19**

| # | Name | IS# | Trace | RT | Area | IS Area | Std. Conc | Conc. | LOD | %Rec | S/N | Noise | Peak Height | IS Height | Sample size | F2 | Flags |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | PFBA | 64 | 212.763 > 168.903 | 2.21 | 4541 | 34473 | | 61.202 | 0.6407 | | 85 | 814 | 68798 | 505816 | 0.100 | 0.0 | MM |
| 2 | PFPeA-1 | 65 | 262.951 > 218.996 | 4.33 | 8800 | 20229 | | 87.923 | | | 485 | 611 | 296419 | 711849 | 0.100 | 0.0 | MM |
| 3 | PFPeA-2 | 65 | 262.951 > 68.925 | 4.33 | 22 | 20229 | | 66.405 | 8.6142 | | 24 | 34 | 799 | 711849 | 0.100 | 0.0 | MM |
| 4 | PFHxA-1 | 66 | 313.012 > 269.017 | 5.01 | 2734 | 9640 | | 30.238 | 9.6883 | | 9 | 12078 | 105011 | 375098 | 0.100 | 0.0 | MM |
| 5 | PFHxA-2 | 66 | 313.012 > 118.918 | 5.01 | 400 | 9640 | | 38.962 | 1.3569 | | 78 | 182 | 14241 | 375098 | 0.100 | 0.0 | MM |
| 6 | PFHpA-1 | 68 | 363.073 > 319.025 | 5.58 | 6273 | 14731 | | 47.112 | 2.8481 | | 38 | 5573 | 213784 | 529007 | 0.100 | 0.0 | MM |
| 7 | PFHpA-2 | 68 | 363.073 > 168.962 | 5.58 | 1847 | 14731 | | 43.284 | 0.4147 | | 219 | 311 | 68225 | 529007 | 0.100 | 0.0 | bb |
| 8 | PFOA-1 | 69 | 413.006 > 369.03 | 6.45 | 5067 | 18626 | | 18.390 | 0.3224 | | 43 | 3111 | 134553 | 488553 | 0.100 | 0.0 | bb |
| 9 | PFOA-2 | 69 | 413.006 > 168.963 | 6.45 | 1540 | 18626 | | 18.785 | | | 123 | 312 | 38448 | 488553 | 0.100 | 0.0 | bb |
| 10 | PFNA-1 | 70 | 463.002 > 418.97 | 7.10 | 2999 | 10204 | | 14.688 | 1.0960 | | 23 | 5156 | 117558 | 404517 | 0.100 | 0.0 | bb |
| 11 | PFNA-2 | 70 | 463.002 > 218.968 | 7.11 | 724 | 10204 | | 14.214 | 0.6634 | | 52 | 557 | 28782 | 404517 | 0.100 | 0.0 | bb |
| 12 | PFDA-1 | 72 | 512.935 > 469.021 | 7.49 | 2139 | 10336 | | 12.237 | 0.8943 | | 16 | 5222 | 84267 | 410677 | 0.100 | 0.0 | bb |
| 13 | PFDA-2 | 72 | 512.935 > 218.972 | 7.49 | 443 | 10336 | | 11.125 | 0.5255 | | 29 | 458 | 13118 | 410677 | 0.100 | 0.0 | MM |
| 14 | PFUnA-1 | 71 | 563.124 > 519.003 | 7.75 | 649 | 9462 | | 4.935 | 1.7161 | | 6 | 3610 | 21915 | 383674 | 0.100 | 0.0 | bb |
| 15 | PFUnA-2 | 71 | 563.124 > 269.051 | 7.75 | 118 | 9462 | | 4.655 | 1.4155 | | 8 | 660 | 5425 | 383674 | 0.100 | 0.0 | MM |
| 16 | PFDoA-1 | 73 | 613.057 > 569.045 | 8.06 | 599 | 7169 | | 2.515 | | | 10 | 1962 | 20496 | 253668 | 0.100 | 0.0 | bb |
| 17 | PFDoA-2 | 73 | 613.057 > 318.996 | 8.05 | 121 | 7169 | | 6.375 | 6.0505 | | 2 | 1364 | 2721 | 253668 | 0.100 | 0.0 | MM |
| 18 | PFTrDA-1 | 74 | 663.053 > 619.023 | 8.45 | 294 | 962 | | 17.327 | 11.6113 | | 5 | 1844 | 8811 | 25498 | 0.100 | 0.0 | MM |
| 19 | PFTrDA-2 | 74 | 663.053 > 168.949 | 8.45 | 19 | 962 | | 4.832 | 1.6169 | | 13 | 87 | 1098 | 25498 | 0.100 | 0.0 | dd |
| 20 | PFTeDA-1 | 74 | 713.05 > 669. | 8.90 | 74 | 962 | | 3.505 | 7.0643 | | 2 | 1040 | 1980 | 25498 | 0.100 | 0.0 | MM |
| 21 | PFTeDA-2 | 74 | 713.05 > 168.94 | 8.91 | 17 | 962 | | 4.677 | | | 21 | 35 | 731 | 25498 | 0.100 | 0.0 | db |
| 22 | PFBS-1 | 75 | 298.663 > 79.865 | 4.98 | 9 | 3504 | | 0.226 | 3.1943 | | 0 | 1617 | 582 | 132747 | 0.100 | 0.0 | MM |
| 23 | PFBS-2 | 76 | 298.663 > 98.811 | 4.98 | 11 | 1780 | | 0.087 | 1.7329 | | 1 | 581 | 345 | 67556 | 0.100 | 0.0 | MM |
| 24 | PFPeS-1 | 77 | 349.107 > 79.857 | 5.62 | 90 | 3248 | | 2.121 | 4.1385 | | 2 | 1338 | 3091 | 85741 | 0.100 | 0.0 | MM |
| 25 | PFPeS-2 | 78 | 349.107 > 98.871 | 5.62 | 4 | 1846 | | | | | 1 | 371 | 267 | 48791 | 0.100 | 0.0 | ddI |
| 26 | PFHxS-1 | 77 | 398.721 > 79.92 | 6.59 | 30 | 3248 | | 1.879 | 8.2908 | | 2 | 2545 | 6169 | 85741 | 0.100 | 0.0 | MM |
| 27 | PFHxS-2 | 78 | 398.721 > 98.863 | 6.59 | 45 | 1846 | | 1.249 | 1.3979 | | 3 | 428 | 1422 | 48791 | 0.100 | 0.0 | MM |
| 28 | PFHpS-1 | 79 | 449.036 > 79.857 | 7.29 | 20 | 3632 | | | | | 0 | 1701 | 817 | 140423 | 0.100 | 0.0 | MMI |
| 29 | PFHpS-2 | 80 | 449.036 > 98.8 | 7.28 | 2 | 2125 | | 0.175 | 2.4254 | | 0 | 612 | 213 | 82943 | 0.100 | 0.0 | MM |
| 30 | PFOS-1 | 79 | 498.906 > 79.856 | 7.57 | 1486 | 3632 | | 35.230 | 3.9486 | | 12 | 2632 | 31970 | 140423 | 0.100 | 0.0 | MM |
| 31 | PFOS-2 | 80 | 498.906 > 98.801 | 7.57 | 471 | 2125 | | 22.611 | 3.3767 | | 13 | 1129 | 14726 | 82943 | 0.100 | 0.0 | MM |
| 32 | PFNS-1 | 79 | 548.775 > 79.858 | 7.98 | 33 | 3632 | | | | | 2 | 1234 | 1978 | 140423 | 0.100 | 0.0 | MMI |
| 33 | PFNS-2 | 80 | 548.775 > 98.801 | 7.87 | 11 | 2125 | | 0.133 | 2.4018 | | 1 | 798 | 701 | 82943 | 0.100 | 0.0 | MM |
| 34 | PFDS-1 | 79 | 599.027 > 79.92 | 8.25 | 15 | 3632 | | 0.054 | 2.7181 | | 1 | 1326 | 895 | 140423 | 0.100 | 0.0 | MM |
| 35 | PFDS-2 | 80 | 599.027 > 98.8 | 8.31 | 19 | 2125 | | 2.015 | 2.6123 | | 2 | 388 | 626 | 82943 | 0.100 | 0.0 | MM |

PVed by WANGG 16-Apr-19, SVed by AP 22-Apr-19. NOTE: Units = ng/L for BLK and Field Samples.

**Quantify Sample Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_144-b.qld

Last Altered: Tuesday, April 16, 2019 14:59:53 Pacific Daylight Time
Printed: Monday, April 22, 2019 08:58:18 Pacific Daylight Time

**ID: L30821-7,i,, Name: FC9W_144S20, Description: 1,WG67663,2/4000uL, Date: 08-Apr-2019, Time: 18:19:19**

| # | Name | IS# | Trace | RT | Area | IS Area | Std. Conc | Conc. | LOD | %Rec | S/N | Noise | Peak Height | IS Height | Sample size | F2 | Flags |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 36 | PFDoS-1 | 79 | 699.084 > 79.856 | 9.19 | 19 | 3632 | | | | | 2 | 439 | 828 | 140423 | 0.100 | 0.0 | MMI |
| 37 | PFDoS-2 | 80 | 699.084 > 98.8 | 9.18 | 13 | 2125 | | 0.441 | 0.8855 | | 2 | 265 | 572 | 82943 | 0.100 | 0.0 | MM |
| 38 | 4:2 FTS-1 | 81 | 327.077 > 307.017 | 4.88 | 2 | 4604 | | | | | 4 | 42 | 165 | 174183 | 0.100 | 0.0 | MMI |
| 39 | 4:2 FTS-2 | 81 | 327.077 > 80.85 | 4.89 | 3 | 4604 | | 0.715 | 3.1219 | | 0 | 666 | 198 | 174183 | 0.100 | 0.0 | MM |
| 40 | 6:2 FTS-1 | 83 | 427.071 > 407.024 | 6.10 | 959 | 4991 | | 18.107 | | | 71 | 336 | 23701 | 127553 | 0.100 | 0.0 | MM |
| 41 | 6:2 FTS-2 | 83 | 427.071 > 80.9 | 6.10 | 485 | 4991 | | 17.306 | 5.4334 | | 10 | 1246 | 12985 | 127553 | 0.100 | 0.0 | MM |
| 42 | 8:2 FTS-1 | 85 | 527.065 > 506.997 | 7.35 | 5 | 8599 | | | | | 5 | 49 | 234 | 348017 | 0.100 | 0.0 | MMI |
| 43 | 8:2 FTS-2 | 85 | 527.065 > 80.75 | 7.35 | 2 | 8599 | | | | | 0 | 588 | 164 | 348017 | 0.100 | 0.0 | MMI |
| 44 | PFOSA-1 | 87 | 498.113 > 77.902 | 8.58 | 284 | 3091 | | 10.584 | 1.4653 | | 31 | 109 | 3353 | 52492 | 0.100 | 0.0 | MM |
| 45 | PFOSA-2 | 87 | 498.113 > 477.993 | 8.54 | 0 | 3091 | | 19.349 | 21.8723 | | 2 | 11 | 22 | 52492 | 0.100 | 0.0 | MM |
| 46 | N-MeFOSA-1 | 88 | 511.937 > 218.985 | | | | | | | | | 203 | | | 0.100 | 0.0 | MM- |
| 47 | N-MeFOSA-2 | 88 | 511.937 > 168.955 | | | | | | | | | 339 | | | 0.100 | 0.0 | MM- |
| 48 | N-EtFOSA-1 | 89 | 526.017 > 218.977 | | | | | | | | | 253 | | | 0.100 | 0.0 | MM- |
| 49 | N-EtFOSA-2 | 89 | 526.017 > 168.95 | | | | | | | | | 215 | | | 0.100 | 0.0 | MM- |
| 50 | MeFOSAA-1 | 90 | 570.134 > 419.035 | 7.52 | 34 | 8635 | | 0.557 | | | 11 | 126 | 1443 | 337191 | 0.100 | 0.0 | MM |
| 51 | MeFOSAA-2 | 90 | 570.134 > 482.99 | 7.52 | 45 | 8635 | | 0.874 | | | 7 | 290 | 1987 | 337191 | 0.100 | 0.0 | MM |
| 52 | EtFOSAA-1 | 91 | 584.15 > 419.062 | 7.62 | 202 | 8352 | | 6.899 | 0.6390 | | 767 | 9 | 7198 | 325593 | 0.100 | 0.0 | bb |
| 53 | EtFOSAA-2 | 91 | 584.15 > 526.045 | 7.62 | 176 | 8352 | | 7.042 | 1.3288 | | 105 | 63 | 6682 | 325593 | 0.100 | 0.0 | MM |
| 54 | N-MeFOSE | 92 | 616.112 > 58.894 | | | | | | | | | 79 | | | 0.100 | 0.0 | MM- |
| 55 | N-EtFOSE | 93 | 630. > 58.893 | | | | | | | | | 93 | | | 0.100 | 0.0 | MM- |
| 56 | HFPO-DA-1 | 94 | 284.8894 > 168.... | 5.19 | 65 | 14208 | | | | | 16 | 133 | 2183 | 540335 | 0.100 | 0.0 | bdI |
| 57 | HFPO-DA-2 | 95 | 284.8894 > 184.... | 5.16 | 18 | 6494 | | 0.700 | 2.9601 | | 2 | 654 | 1040 | 244764 | 0.100 | 0.0 | MM |
| 58 | ADONA-1 | 94 | 376.88 > 250.937 | 5.90 | 14 | 14208 | | | | | 1 | 498 | 723 | 540335 | 0.100 | 0.0 | MMI |
| 59 | ADONA-2 | 95 | 376.88 > 84.832 | 5.87 | 17 | 6494 | | 5.478 | 5.6942 | | 2 | 428 | 931 | 244764 | 0.100 | 0.0 | MM |
| 60 | 9Cl-PF3ONS-1 | 94 | 530.807 > 350.967 | | | 14208 | | | | | | 856 | | 540335 | 0.100 | 0.0 | MM-I |
| 61 | 9Cl-PF3ONS-2 | 95 | 532.804 > 352.947 | | | 6494 | | | | | | 721 | | 244764 | 0.100 | 0.0 | MM-I |
| 62 | 11Cl-PF3OUdS-1 | 94 | 630.865 > 450.902 | 8.56 | 2 | 14208 | | | | | 1 | 268 | 235 | 540335 | 0.100 | 0.0 | MMI |
| 63 | 11Cl-PF3OUdS-2 | 95 | 632.868 > 452.91 | | | 6494 | | | | | | 186 | | 244764 | 0.100 | 0.0 | MM-I |
| 64 | 13C4-PFBA | 96 | 216.776 > 171.928 | 2.20 | 34473 | 29378 | 40.000 | 229.249 | 0.1132 | 57.3 | 6103 | 83 | 505816 | 429185 | 0.100 | 0.0 | MM |
| 65 | 13C5-PFPeA | 97 | 268.16 > 223.035 | 4.32 | 20229 | 20121 | 20.000 | 123.922 | 0.0901 | 62.0 | 3681 | 193 | 711849 | 794030 | 0.100 | 0.0 | bb |
| 66 | 13C5-PFHxA-1 | 97 | 318.029 > 272.993 | 5.01 | 9640 | 20121 | 10.000 | 68.043 | 0.3685 | 68.0 | 546 | 687 | 375098 | 794030 | 0.100 | 0.0 | MM |
| 67 | 13C5-PFHxA-2 | 97 | 318.029 > 120.341 | 5.01 | 290 | 20121 | 10.000 | 60.353 | 17.5373 | 60.4 | 11 | 1110 | 11988 | 794030 | 0.100 | 0.0 | bb |
| 68 | 13C4-PFHpA | 99 | 367.086 > 322.004 | 5.58 | 14731 | 4099 | 10.000 | 66.096 | 0.2215 | 66.1 | 1207 | 438 | 529007 | 109151 | 0.100 | 0.0 | bb |
| 69 | 13C8-PFOA | 99 | 421.096 > 376.022 | 6.45 | 18626 | 4099 | 10.000 | 72.733 | 0.1631 | 72.7 | 1318 | 371 | 488553 | 109151 | 0.100 | 0.0 | bb |
| 70 | 13C9-PFNA | 100 | 472.096 > 427.014 | 7.10 | 10204 | 11147 | 5.000 | 42.149 | 0.1261 | 84.3 | 1007 | 402 | 404517 | 440140 | 0.100 | 0.0 | bb |

PVed by WANGG 16-Apr-19, SVed by AP 22-Apr-19. NOTE: Units = ng/L for BLK and Field Samples.

**Quantify Sample Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_144-b.qld

Last Altered: Tuesday, April 16, 2019 14:59:53 Pacific Daylight Time
Printed: Monday, April 22, 2019 08:58:18 Pacific Daylight Time

**ID: L30821-7,i,, Name: FC9W_144S20, Description: 1,WG67663,2/4000uL, Date: 08-Apr-2019, Time: 18:19:19**

| # | Name | IS# | Trace | RT | Area | IS Area | Std. Conc | Conc. | LOD | %Rec | S/N | Noise | Peak Height | IS Height | Sample size | F2 | Flags |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 71 | 13C7-PFUnA | 101 | 570.019 > 525.05 | 7.75 | 9462 | 10681 | 5.000 | 39.617 | 0.2465 | 79.2 | 486 | 790 | 383674 | 429814 | 0.100 | 0.0 | bb |
| 72 | 13C6-PFDA | 101 | 519.147 > 474.058 | 7.49 | 10336 | 10681 | 5.000 | 51.428 | 0.1750 | 102.9 | 870 | 472 | 410677 | 429814 | 0.100 | 0.0 | bb |
| 73 | 13C2-PFDoA | 101 | 615.127 > 570.013 | 8.06 | 7169 | 10681 | 5.000 | 42.052 | 0.0770 | 84.1 | 1440 | 176 | 253668 | 429814 | 0.100 | 0.0 | bb |
| 74 | 13C2-PFTeDA | 101 | 715.057 > 670.026 | 8.90 | 962 | 10681 | 5.000 | 5.749 | 0.0546 | 11.5 | 208 | 122 | 25498 | 429814 | 0.100 | 0.0 | bb |
| 75 | 13C3-PFBS-1 | 102 | 302.056 > 79.865 | 4.98 | 3504 | 4378 | 10.000 | 66.492 | 2.4242 | 66.5 | 114 | 1160 | 132747 | 119251 | 0.100 | 0.0 | bb |
| 76 | 13C3-PFBS-2 | 102 | 302.056 > 98.875 | 4.98 | 1780 | 4378 | 10.000 | 69.892 | 0.8451 | 69.9 | 346 | 195 | 67556 | 119251 | 0.100 | 0.0 | bb |
| 77 | 13C3-PFHxS-1 | 102 | 402.114 > 79.858 | 6.59 | 3248 | 4378 | 10.000 | 71.533 | 1.5639 | 71.5 | 133 | 645 | 85741 | 119251 | 0.100 | 0.0 | bb |
| 78 | 13C3-PFHxS-2 | 102 | 402.114 > 98.801 | 6.59 | 1846 | 4378 | 10.000 | 72.956 | 0.9781 | 73.0 | 217 | 225 | 48791 | 119251 | 0.100 | 0.0 | bb |
| 79 | 13C8-PFOS-1 | 103 | 507.124 > 79.858 | 7.57 | 3632 | 4636 | 10.000 | 98.962 | 3.9304 | 99.0 | 79 | 1787 | 140423 | 172288 | 0.100 | 0.0 | MM |
| 80 | 13C8-PFOS-2 | 104 | 507.124 > 98.867 | 7.57 | 2125 | 3112 | 10.000 | 87.063 | 2.7466 | 87.1 | 95 | 877 | 82943 | 122153 | 0.100 | 0.0 | bb |
| 81 | 13C2-4:2 FTS-1 | 102 | 329.084 > 80.9 | 4.88 | 4604 | 4378 | 20.000 | 296.068 | 4.1329 | 148.0 | 299 | 583 | 174183 | 119251 | 0.100 | 0.0 | MM |
| 82 | 13C2-4:2 FTS-2 | 102 | 329.084 > 309.024 | 4.88 | 8179 | 4378 | 20.000 | 225.386 | 0.2611 | 112.7 | 3648 | 86 | 313814 | 119251 | 0.100 | 0.0 | bb |
| 83 | 13C2-6:2 FTS-1 | 102 | 429.078 > 80.900 | 6.10 | 4991 | 4378 | 20.000 | 397.324 | 3.3439 | 198.7 | 334 | 381 | 127553 | 119251 | 0.100 | 0.0 | MM |
| 84 | 13C2-6:2 FTS-2 | 102 | 429.078 > 409.031 | 6.10 | 9366 | 4378 | 20.000 | 325.633 | 0.1525 | 162.8 | 6145 | 40 | 244649 | 119251 | 0.100 | 0.0 | bb |
| 85 | 13C2-8:2 FTS-1 | 102 | 529.1351 > 80.900 | 7.35 | 8599 | 4378 | 20.000 | 458.159 | 4.1167 | 229.1 | 496 | 701 | 348017 | 119251 | 0.100 | 0.0 | bb |
| 86 | 13C2-8:2 FTS-2 | 102 | 529.135 > 509.003 | 7.35 | 11330 | 4378 | 20.000 | 448.831 | 0.0439 | 224.4 | 443... | 10 | 446225 | 119251 | 0.100 | 0.0 | bb |
| 87 | 13C8-PFOSA | 103 | 506.14 > 77.841 | 8.57 | 3091 | 4636 | 10.000 | 53.272 | 0.0488 | 53.3 | 1495 | 35 | 52492 | 172288 | 0.100 | 0.0 | bb |
| 88 | D3-N-MeFOSA | 103 | 514.956 > 218.974 | | | 4636 | 10.000 | | 1.5605 | | | 579 | | 172288 | 0.100 | 0.0 | MM- |
| 89 | D5-N-EtFOSA | 103 | 531.112 > 218.984 | | | 4636 | 10.000 | | 1.7133 | | | 537 | | 172288 | 0.100 | 0.0 | MM- |
| 90 | D3-MeFOSAA | 103 | 573.153 > 418.99 | 7.51 | 8635 | 4636 | 20.000 | 267.975 | 0.5850 | 134.0 | 1444 | 234 | 337191 | 172288 | 0.100 | 0.0 | bb |
| 91 | D5-EtFOSAA | 103 | 589.245 > 418.971 | 7.62 | 8352 | 4636 | 20.000 | 310.206 | 0.4895 | 155.1 | 1994 | 163 | 325593 | 172288 | 0.100 | 0.0 | bb |
| 92 | D7-N-MeFOSE | 103 | 623.156 > 58.896 | | | 4636 | 100.000 | | 1.0519 | | | 180 | | 172288 | 0.100 | 0.0 | MM- |
| 93 | D9-N-EtFOSE | 103 | 639.184 > 58.897 | | | 4636 | 100.000 | | 0.4224 | | | 75 | | 172288 | 0.100 | 0.0 | MM- |
| 94 | 13C3-HFPO-DA-1 | 97 | 286.8631 > 168.... | 5.18 | 14208 | 20121 | 40.000 | 218.378 | 0.0550 | 54.6 | 114... | 47 | 540335 | 794030 | 0.100 | 0.0 | bb |
| 95 | 13C3-HFPO-DA-2 | 97 | 286.8631 > 184.... | 5.18 | 6494 | 20121 | 40.000 | 203.781 | 0.9788 | 50.9 | 597 | 410 | 244764 | 794030 | 0.100 | 0.0 | bb |
| 96 | 13C3-PFBA | | 216.029 > 171.97 | 2.20 | 29378 | | 20.000 | 209.877 | 0.6123 | 104.9 | 1028 | 417 | 429185 | | 0.100 | 0.0 | bb |
| 97 | 13C2-PFHxA-1 | | 315.083 > 269.984 | 5.01 | 20121 | | 10.000 | 112.707 | 0.0575 | 112.7 | 5876 | 135 | 794030 | | 0.100 | 0.0 | bb |
| 98 | 13C2-PFHxA-2 | | 315.083 > 119.359 | 5.01 | 417 | | 10.000 | 77.420 | 3.6042 | 77.4 | 64 | 254 | 16367 | | 0.100 | 0.0 | bd |
| 99 | 13C4-PFOA | | 417.083 > 171.95 | 6.45 | 4099 | | 10.000 | 136.427 | 0.6779 | 136.4 | 604 | 181 | 109151 | | 0.100 | 0.0 | bb |
| 1... | 13C5-PFNA | | 468.019 > 423.008 | 7.10 | 11147 | | 5.000 | 54.645 | 0.2163 | 109.3 | 758 | 581 | 440140 | | 0.100 | 0.0 | bb |
| 1... | 13C2-PFDA | | 515.134 > 470.05 | 7.49 | 10681 | | 5.000 | 46.954 | 0.0825 | 93.9 | 1707 | 252 | 429814 | | 0.100 | 0.0 | bb |
| 1... | 18O2-PFHxS | | 402.984 > 83.895 | 6.59 | 4378 | | 10.000 | 111.457 | 0.3986 | 111.5 | 839 | 142 | 119251 | | 0.100 | 0.0 | MM |
| 1... | 13C4-PFOS-1 | | 502.791 > 79.856 | 7.57 | 4636 | | 10.000 | 95.283 | 4.2035 | 95.3 | 68 | 2534 | 172288 | | 0.100 | 0.0 | MM |
| 1... | 13C4-PFOS-2 | | 502.791 > 98.864 | 7.57 | 3112 | | 10.000 | 99.648 | 1.8494 | 99.6 | 162 | 756 | 122153 | | 0.100 | 0.0 | bb |

PVed by WANGG 16-Apr-19, SVed by AP 22-Apr-19. NOTE: Units = ng/L for BLK and Field Samples.

**Quantify Sample Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

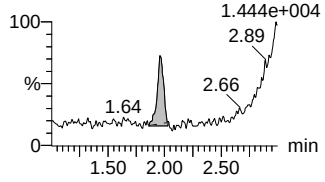
Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_130-b.qld

Last Altered: Tuesday, April 16, 2019 12:33:52 Pacific Daylight Time
Printed: Tuesday, April 16, 2019 12:41:28 Pacific Daylight Time

**Method: G:\Masslynx\Master Methods\MassLynx SCN 909\UPLC\FC_110_UPLC_06.mdb 10 Mar 2019 18:18:03**
**Calibration: G:\Masslynx\Inst_W\PFC.PRO\Curve\FC9W_097-a1.cdb 12 Mar 2019 11:26:10**

**ID: WG67438-101,,BLK, Name: FC9W_130S24, Description: 1,WG67438,2/4000uL, Date: 31-Mar-2019, Time: 01:42:45**

**PFBA**

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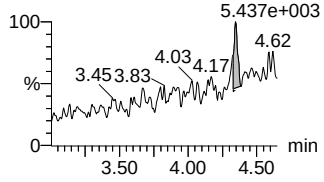


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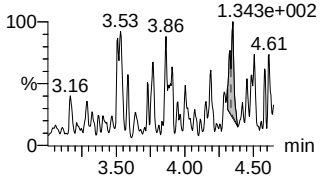


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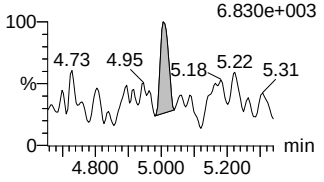


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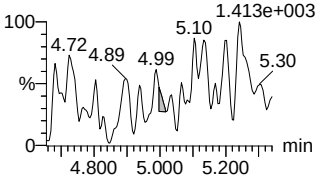


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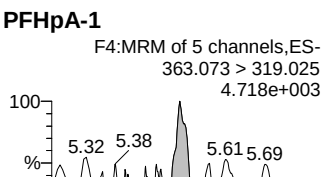


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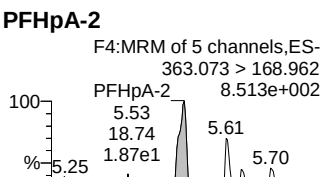


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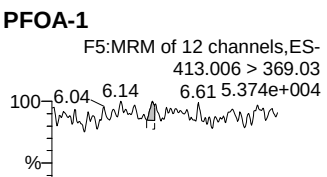


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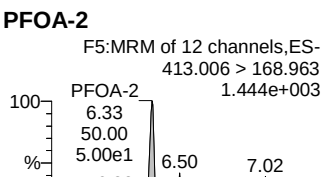


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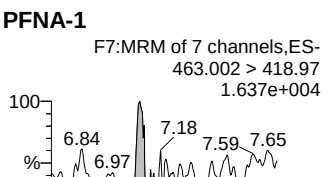
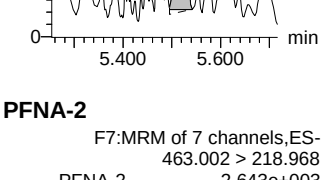



**PFNA-2**

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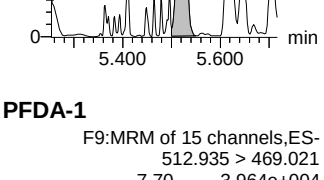
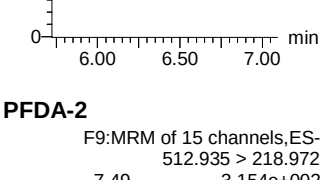



**PFDA-2**

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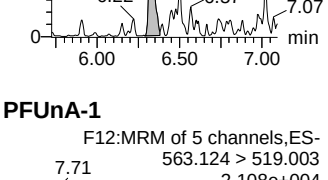
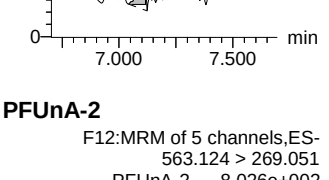



**PFUnA-2**




PVed by WANGG 13-Apr-19, SVed by AP 16-Apr-19. NOTE: Units = ng/L for BLK and FIeld Samples.

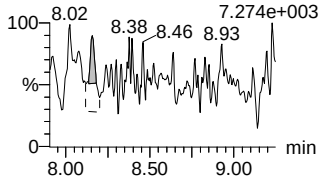
**Quantify Sample Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_130-b.qld

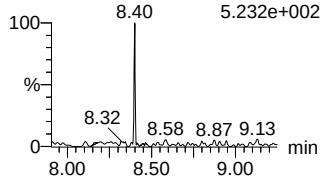
Last Altered: Tuesday, April 16, 2019 12:33:52 Pacific Daylight Time
Printed: Tuesday, April 16, 2019 12:41:28 Pacific Daylight Time

**ID: WG67438-101,,BLK, Name: FC9W_130S24, Description: 1,WG67438,2/4000uL, Date: 31-Mar-2019, Time: 01:42:45**

**PFDoA-1**




**PFDoA-2**

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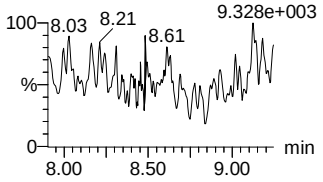


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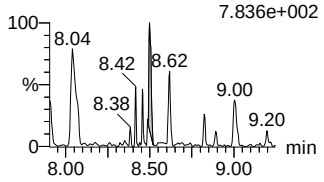


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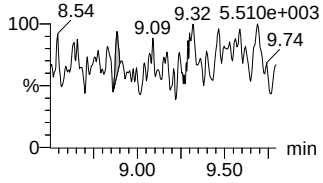


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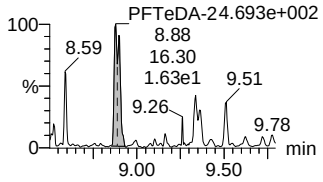


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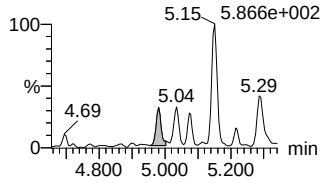


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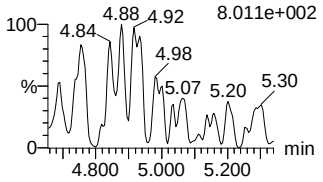


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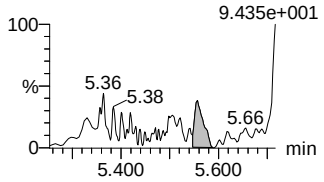


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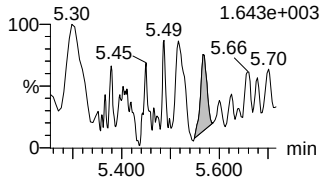


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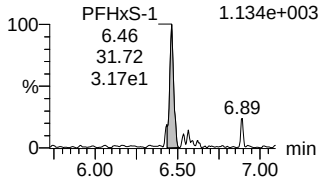


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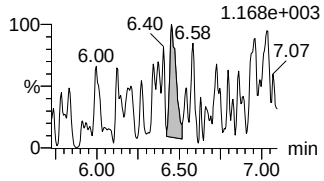


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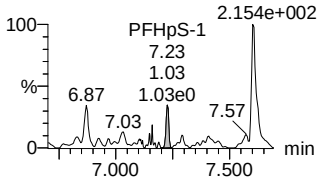


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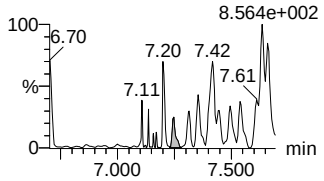


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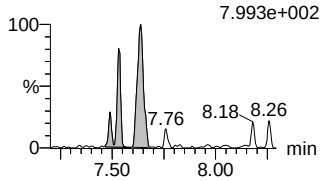


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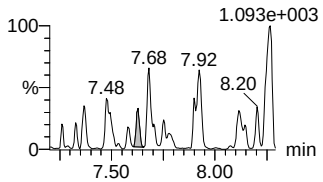


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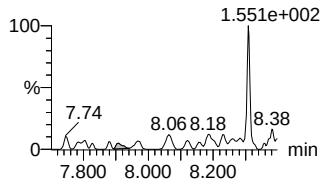


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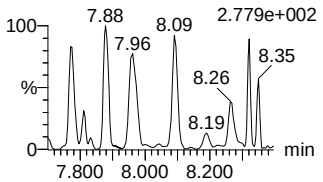


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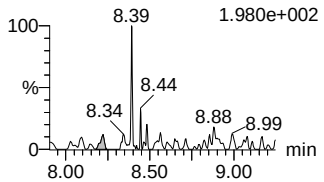


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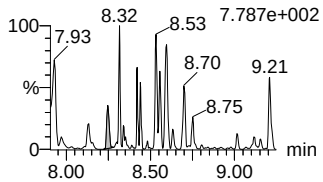


PVed by WANGG 13-Apr-19, SVed by AP 16-Apr-19. NOTE: Units = ng/L for BLK and FIeld Samples.

**Quantify Sample Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_130-b.qld

Last Altered: Tuesday, April 16, 2019 12:33:52 Pacific Daylight Time
Printed: Tuesday, April 16, 2019 12:41:28 Pacific Daylight Time

**ID: WG67438-101,,BLK, Name: FC9W_130S24, Description: 1,WG67438,2/4000uL, Date: 31-Mar-2019, Time: 01:42:45**

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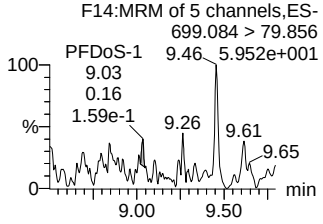


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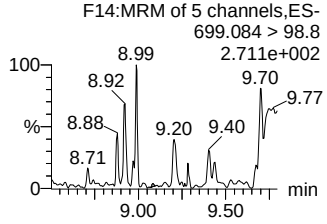


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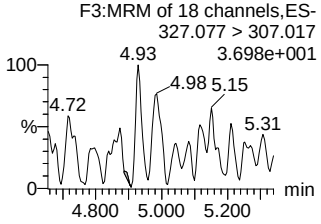


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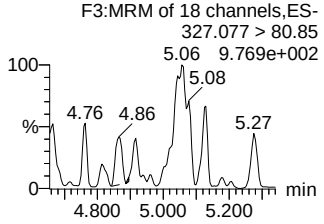


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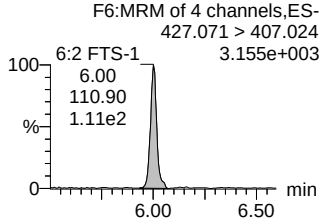


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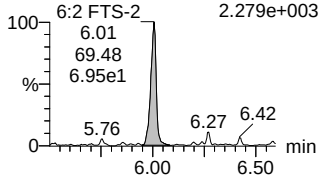


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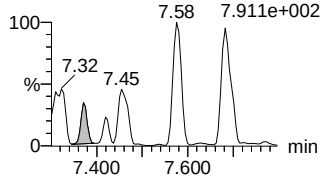


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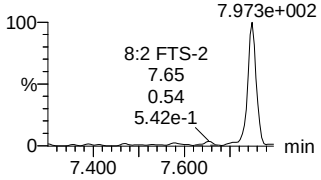


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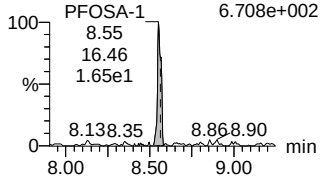


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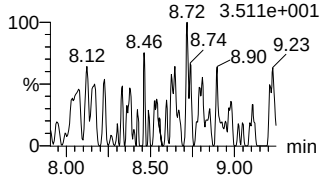


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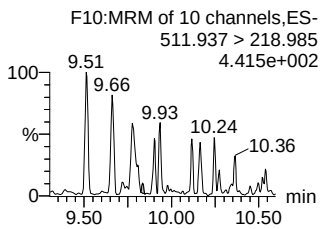


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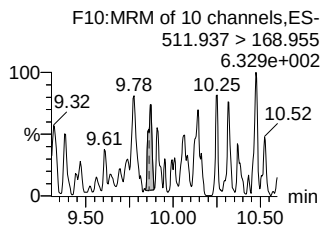


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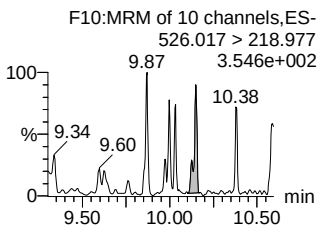


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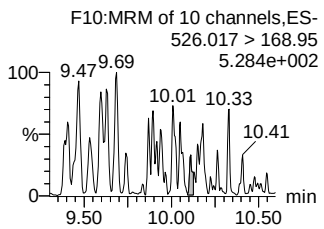


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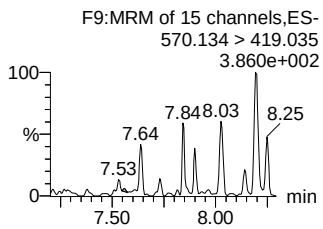


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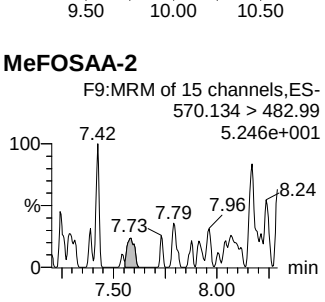


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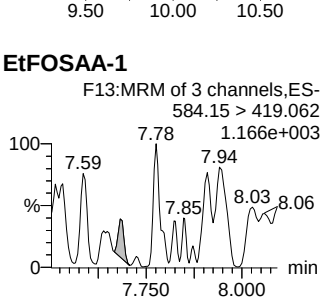


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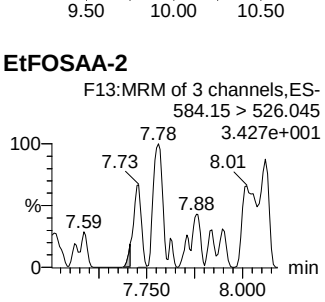


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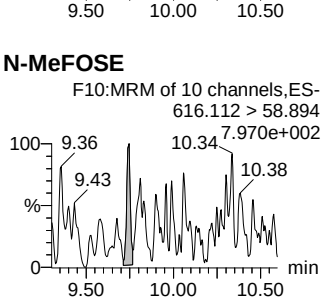


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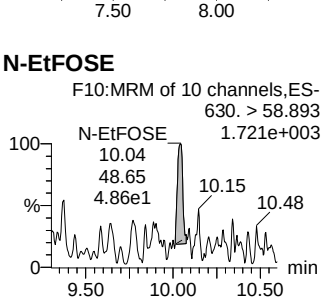


PVed by WANGG 13-Apr-19, SVed by AP 16-Apr-19. NOTE: Units = ng/L for BLK and FIeld Samples.

**Quantify Sample Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_130-b.qld

Last Altered: Tuesday, April 16, 2019 12:33:52 Pacific Daylight Time
Printed: Tuesday, April 16, 2019 12:41:28 Pacific Daylight Time

**ID: WG67438-101,,BLK, Name: FC9W_130S24, Description: 1,WG67438,2/4000uL, Date: 31-Mar-2019, Time: 01:42:45**

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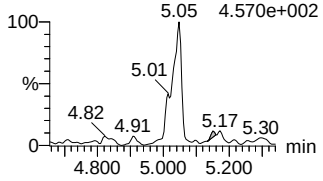


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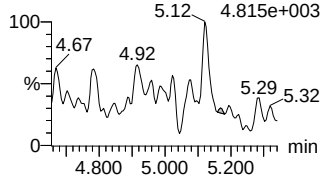


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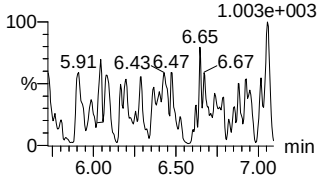


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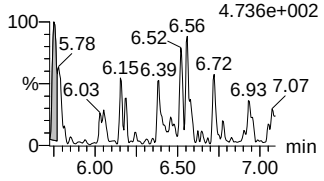


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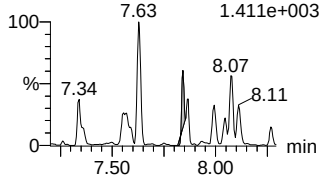


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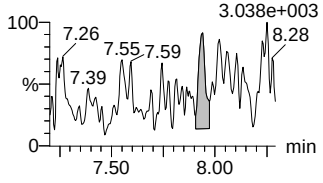


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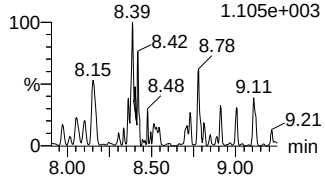


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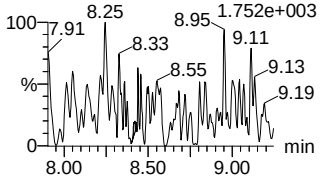
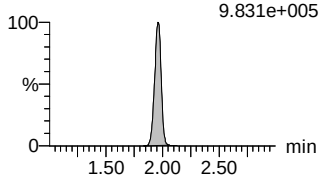
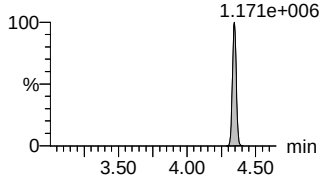



**13C4-PFBA**




**13C5-PFPeA**

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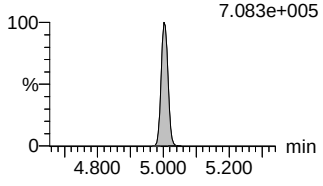


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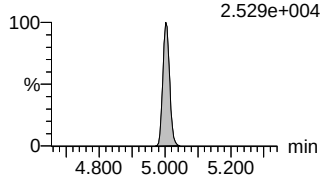
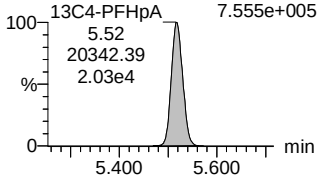
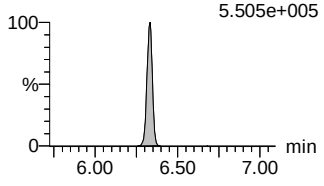


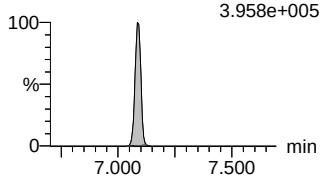

**13C4-PFHpA**



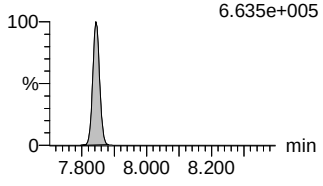

**13C8-PFOA**



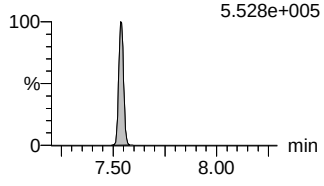

**13C9-PFNA**



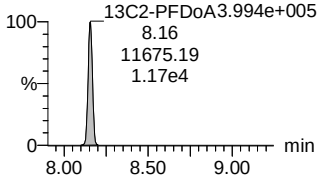

**13C7-PFUnA**



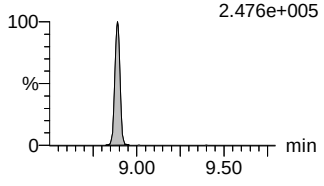

**13C6-PFDA**



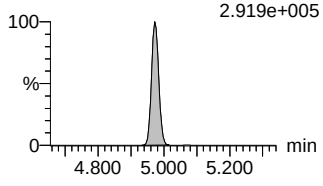

**13C2-PFDoA**




**13C2-PFTeDA**




**13C3-PFBS-1**



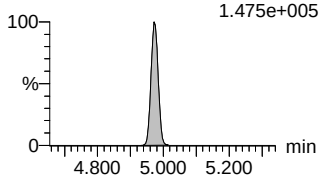

PVed by WANGG 13-Apr-19, SVed by AP 16-Apr-19. NOTE: Units = ng/L for BLK and FIeld Samples.

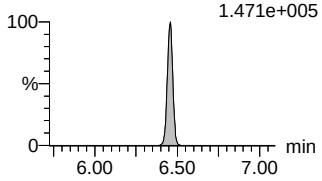
**Quantify Sample Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

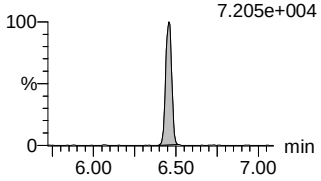
Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_130-b.qld

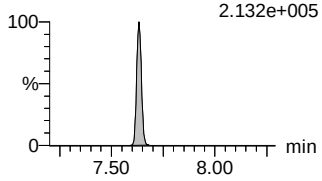
Last Altered: Tuesday, April 16, 2019 12:33:52 Pacific Daylight Time
Printed: Tuesday, April 16, 2019 12:41:28 Pacific Daylight Time

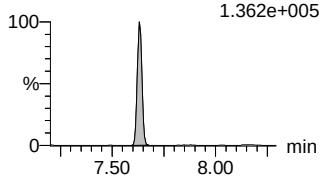
**ID: WG67438-101,,BLK, Name: FC9W_130S24, Description: 1,WG67438,2/4000uL, Date: 31-Mar-2019, Time: 01:42:45**

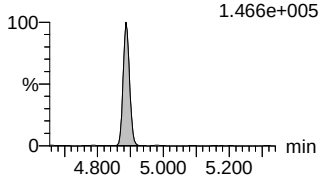
**13C3-PFBS-2**
F3:MRM of 18 channels,ES-
302.056 > 98.875
1.475e+005


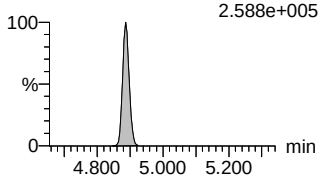

**13C3-PFHxS-1**
F5:MRM of 12 channels,ES-
402.114 > 79.858
1.471e+005


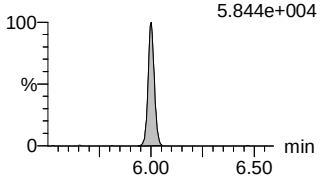

**13C3-PFHxS-2**
F5:MRM of 12 channels,ES-
402.114 > 98.801
7.205e+004


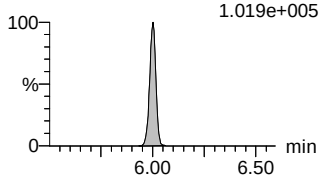

**13C8-PFOS-1**
F9:MRM of 15 channels,ES-
507.124 > 79.858
2.132e+005


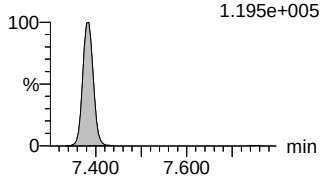

**13C8-PFOS-2**
F9:MRM of 15 channels,ES-
507.124 > 98.867
1.362e+005


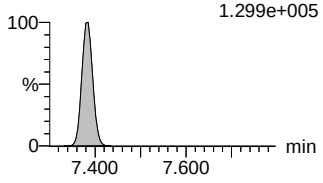

**13C2-4:2 FTS-1**
F3:MRM of 18 channels,ES-
329.084 > 80.9
1.466e+005


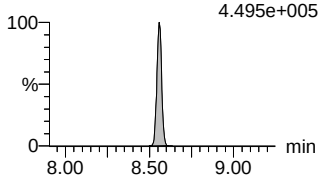

**13C2-4:2 FTS-2**
F3:MRM of 18 channels,ES-
329.084 > 309.024
2.588e+005


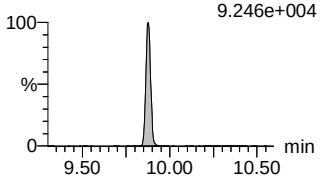

**13C2-6:2 FTS-1**
F6:MRM of 4 channels,ES-
429.078 > 80.900
5.844e+004


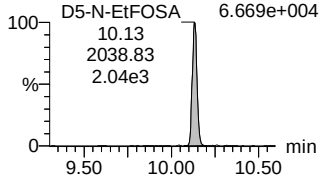

**13C2-6:2 FTS-2**
F6:MRM of 4 channels,ES-
429.078 > 409.031
1.019e+005


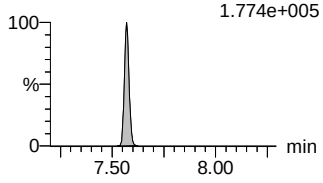

**13C2-8:2 FTS-1**
F11:MRM of 4 channels,ES-
529.1351 > 80.900
1.195e+005


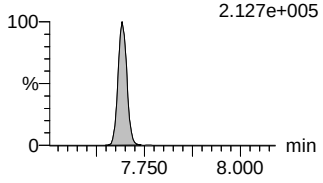

**13C2-8:2 FTS-2**
F11:MRM of 4 channels,ES-
529.135 > 509.003
1.299e+005


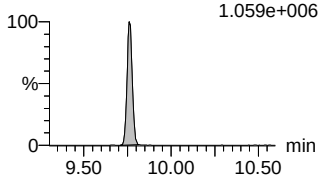

**13C8-PFOSA**
F8:MRM of 12 channels,ES-
506.14 > 77.841
4.495e+005


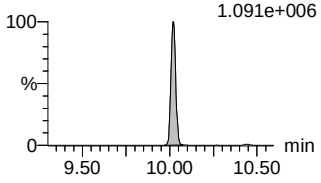

**D3-N-MeFOSA**
F10:MRM of 10 channels,ES-
514.956 > 218.974
9.246e+004


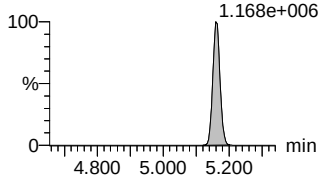

**D5-N-EtFOSA**
F10:MRM of 10 channels,ES-
531.112 > 218.984
6.669e+004


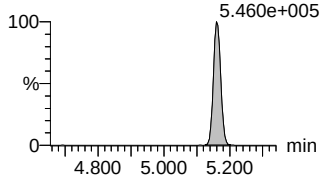

**D3-MeFOSAA**
F9:MRM of 15 channels,ES-
573.153 > 418.99
1.774e+005



**D5-EtFOSAA**
F13:MRM of 3 channels,ES-
589.245 > 418.971
2.127e+005



**D7-N-MeFOSE**
F10:MRM of 10 channels,ES-
623.156 > 58.896
1.059e+006



**D9-N-EtFOSE**
F10:MRM of 10 channels,ES-
639.184 > 58.897
1.091e+006



**13C3-HFPO-DA-1**
F3:MRM of 18 channels,ES-
286.8631 > 168.8861
1.168e+006



**13C3-HFPO-DA-2**
F3:MRM of 18 channels,ES-
286.8631 > 184.8888
5.460e+005



PVed by WANGG 13-Apr-19, SVed by AP 16-Apr-19. NOTE: Units = ng/L for BLK and FIeld Samples.

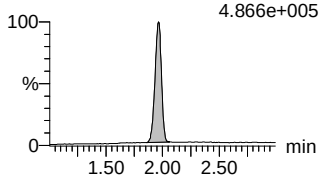
**Quantify Sample Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_130-b.qld

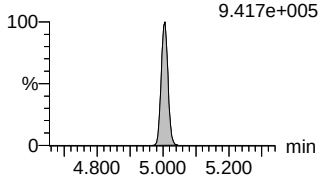
Last Altered: Tuesday, April 16, 2019 12:33:52 Pacific Daylight Time
Printed: Tuesday, April 16, 2019 12:41:28 Pacific Daylight Time

**ID: WG67438-101,,BLK, Name: FC9W_130S24, Description: 1,WG67438,2/4000uL, Date: 31-Mar-2019, Time: 01:42:45**

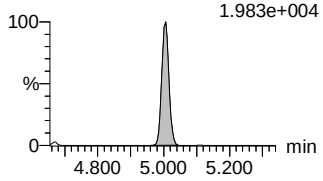
**13C3-PFBA**



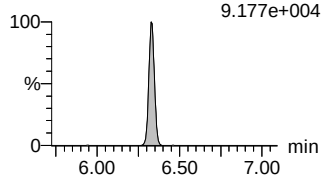

**13C2-PFHxA-1**



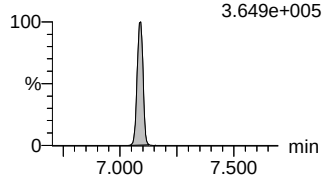

**13C2-PFHxA-2**



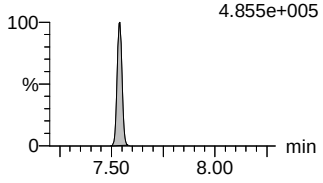

**13C4-PFOA**



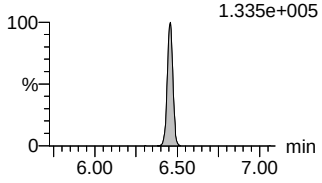

**13C5-PFNA**



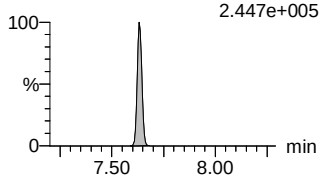

**13C2-PFDA**



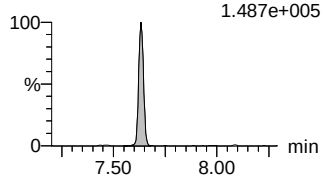

**18O2-PFHxS**




**13C4-PFOS-1**




**13C4-PFOS-2**




PVed by WANGG 13-Apr-19, SVed by AP 16-Apr-19. NOTE: Units = ng/L for BLK and FIeld Samples.

**Quantify Sample Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_130-b.qld

Last Altered: Tuesday, April 16, 2019 12:33:52 Pacific Daylight Time
Printed: Tuesday, April 16, 2019 12:41:28 Pacific Daylight Time

**ID: WG67438-101,,BLK, Name: FC9W_130S24, Description: 1,WG67438,2/4000uL, Date: 31-Mar-2019, Time: 01:42:45**

| # | Name | IS# | Trace | RT | Area | IS Area | Std. Conc | Conc. | LOD | %Rec | S/N | Noise | Peak Height | IS Height | Sample size | F2 | Flags |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | PFBA | 64 | 212.763 > 168.903 | 1.96 | 534 | 65095 | | 0.451 | | | 15 | 552 | 8176 | 981133 | 0.500 | 0.0 | MM |
| 2 | PFPeA-1 | 65 | 262.951 > 218.996 | 4.34 | 86 | 36373 | | | | | 10 | 302 | 2907 | 1169226 | 0.500 | 0.0 | MMI |
| 3 | PFPeA-2 | 65 | 262.951 > 68.925 | 4.35 | 3 | 36373 | | 1.083 | 1.2794 | | 3 | 42 | 104 | 1169226 | 0.500 | 0.0 | MM |
| 4 | PFHxA-1 | 66 | 313.012 > 269.017 | 5.01 | 147 | 16995 | | 0.005 | | | 5 | 1011 | 5054 | 708006 | 0.500 | 0.0 | MM |
| 5 | PFHxA-2 | 66 | 313.012 > 118.918 | 5.00 | 3 | 16995 | | 0.030 | 0.2685 | | 1 | 341 | 275 | 708006 | 0.500 | 0.0 | MM |
| 6 | PFHpA-1 | 68 | 363.073 > 319.025 | 5.52 | 90 | 20342 | | | | | 6 | 665 | 3670 | 754227 | 0.500 | 0.0 | MMI |
| 7 | PFHpA-2 | 68 | 363.073 > 168.962 | 5.53 | 19 | 20342 | | 0.024 | | | 6 | 131 | 847 | 754227 | 0.500 | 0.0 | db |
| 8 | PFOA-1 | 69 | 413.006 > 369.03 | 6.33 | 236 | 20723 | | | | | 2 | 3970 | 8220 | 549782 | 0.500 | 0.0 | MMI |
| 9 | PFOA-2 | 69 | 413.006 > 168.963 | 6.33 | 50 | 20723 | | | | | 14 | 101 | 1426 | 549782 | 0.500 | 0.0 | MMI |
| 10 | PFNA-1 | 70 | 463.002 > 418.97 | 7.09 | 409 | 11664 | | 0.185 | | | 8 | 1492 | 12073 | 396235 | 0.500 | 0.0 | MM |
| 11 | PFNA-2 | 70 | 463.002 > 218.968 | 7.08 | 66 | 11664 | | 0.193 | | | 148 | 17 | 2581 | 396235 | 0.500 | 0.0 | MM |
| 12 | PFDA-1 | 72 | 512.935 > 469.021 | 7.55 | 53 | 14573 | | | | | 1 | 2893 | 2969 | 551992 | 0.500 | 0.0 | MMI |
| 13 | PFDA-2 | 72 | 512.935 > 218.972 | 7.55 | 2 | 14573 | | | | | 6 | 22 | 123 | 551992 | 0.500 | 0.0 | MMI |
| 14 | PFUnA-1 | 71 | 563.124 > 519.003 | 7.85 | 171 | 15756 | | 0.066 | 0.0261 | | 4 | 1847 | 7035 | 662130 | 0.500 | 0.0 | MM |
| 15 | PFUnA-2 | 71 | 563.124 > 269.051 | 7.85 | 13 | 15756 | | | | | 18 | 44 | 803 | 662130 | 0.500 | 0.0 | bdl |
| 16 | PFDoA-1 | 73 | 613.057 > 569.045 | 8.16 | 70 | 11675 | | | | | 2 | 1402 | 2810 | 398930 | 0.500 | 0.0 | MMI |
| 17 | PFDoA-2 | 73 | 613.057 > 318.996 | 8.17 | 0 | 11675 | | | | | 1 | 12 | 7 | 398930 | 0.500 | 0.0 | MMI |
| 18 | PFTrDA-1 | 74 | 663.053 > 619.023 | 8.48 | 21 | 8361 | | | | | 2 | 1755 | 3740 | 247287 | 0.500 | 0.0 | MMI |
| 19 | PFTrDA-2 | 74 | 663.053 > 168.949 | 8.50 | 10 | 8361 | | | | | 7 | 91 | 676 | 247287 | 0.500 | 0.0 | bbl |
| 20 | PFTeDA-1 | 74 | 713.05 > 669. | 8.88 | 38 | 8361 | | | | | 2 | 1299 | 1990 | 247287 | 0.500 | 0.0 | MMI |
| 21 | PFTeDA-2 | 74 | 713.05 > 168.94 | 8.88 | 16 | 8361 | | | | | 12 | 39 | 464 | 247287 | 0.500 | 0.0 | MMI |
| 22 | PFBS-1 | 75 | 298.663 > 79.865 | 4.98 | 3 | 7311 | | 0.009 | 0.0068 | | 6 | 28 | 182 | 291605 | 0.500 | 0.0 | MM |
| 23 | PFBS-2 | 76 | 298.663 > 98.811 | | | 3669 | | | | | | 202 | | 147378 | 0.500 | 0.0 | |
| 24 | PFPeS-1 | 77 | 349.107 > 79.857 | 5.56 | 1 | 5532 | | | | | 2 | 16 | 36 | 147043 | 0.500 | 0.0 | dbl |
| 25 | PFPeS-2 | 78 | 349.107 > 98.871 | 5.57 | 15 | 3018 | | | | | 2 | 413 | 1019 | 71715 | 0.500 | 0.0 | bbl |
| 26 | PFHxS-1 | 77 | 398.721 > 79.92 | 6.46 | 32 | 5532 | | 0.319 | 0.2310 | | 82 | 14 | 1134 | 147043 | 0.500 | 0.0 | MM |
| 27 | PFHxS-2 | 78 | 398.721 > 98.863 | 6.45 | 48 | 3018 | | 0.111 | 0.0786 | | 3 | 330 | 1065 | 71715 | 0.500 | 0.0 | dd |
| 28 | PFHpS-1 | 79 | 449.036 > 79.857 | 7.23 | 1 | 5491 | | | | | 7 | 12 | 75 | 213072 | 0.500 | 0.0 | MMI |
| 29 | PFHpS-2 | 80 | 449.036 > 98.8 | 7.25 | 4 | 3495 | | 0.038 | 0.1019 | | 1 | 185 | 212 | 136119 | 0.500 | 0.0 | dd |
| 30 | PFOS-1 | 79 | 498.906 > 79.856 | 7.64 | 43 | 5491 | | | | | 12 | 68 | 796 | 213072 | 0.500 | 0.0 | MMI |
| 31 | PFOS-2 | 80 | 498.906 > 98.801 | 7.63 | 6 | 3495 | | | | | 2 | 187 | 339 | 136119 | 0.500 | 0.0 | MMI |
| 32 | PFNS-1 | 79 | 548.775 > 79.858 | 7.91 | 0 | 5491 | | | | | 0 | 14 | 7 | 213072 | 0.500 | 0.0 | MMI |
| 33 | PFNS-2 | 80 | 548.775 > 98.801 | 7.90 | 0 | 3495 | | | | | 0 | 66 | 1 | 136119 | 0.500 | 0.0 | MMI |
| 34 | PFDS-1 | 79 | 599.027 > 79.92 | 8.22 | 1 | 5491 | | | | | 2 | 12 | 23 | 213072 | 0.500 | 0.0 | MMI |
| 35 | PFDS-2 | 80 | 599.027 > 98.8 | 8.25 | 5 | 3495 | | 0.223 | 0.2061 | | 10 | 28 | 270 | 136119 | 0.500 | 0.0 | MM |

PVed by WANGG 13-Apr-19, SVed by AP 16-Apr-19. NOTE: Units = ng/L for BLK and FIeld Samples.

**Quantify Sample Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_130-b.qld

Last Altered: Tuesday, April 16, 2019 12:33:52 Pacific Daylight Time
Printed: Tuesday, April 16, 2019 12:41:28 Pacific Daylight Time

**ID: WG67438-101,,BLK, Name: FC9W_130S24, Description: 1,WG67438,2/4000uL, Date: 31-Mar-2019, Time: 01:42:45**

| # | Name | IS# | Trace | RT | Area | IS Area | Std. Conc | Conc. | LOD | %Rec | S/N | Noise | Peak Height | IS Height | Sample size | F2 | Flags |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 36 | PFDoS-1 | 79 | 699.084 > 79.856 | 9.03 | 0 | 5491 | | | | | 2 | 8 | 13 | 213072 | 0.500 | 0.0 | MMI |
| 37 | PFDoS-2 | 80 | 699.084 > 98.8 | 9.08 | 0 | 3495 | | | | | 0 | 18 | 7 | 136119 | 0.500 | 0.0 | MMI |
| 38 | 4:2 FTS-1 | 81 | 327.077 > 307.017 | 4.89 | 0 | 3208 | | | | | 0 | 21 | 0 | 146221 | 0.500 | 0.0 | MMI |
| 39 | 4:2 FTS-2 | 81 | 327.077 > 80.85 | 4.89 | 0 | 3208 | | 0.120 | 0.3221 | | 0 | 225 | 32 | 146221 | 0.500 | 0.0 | MM |
| 40 | 6:2 FTS-1 | 83 | 427.071 > 407.024 | 6.00 | 111 | 2015 | | 0.645 | | | 45 | 70 | 3151 | 58367 | 0.500 | 0.0 | bb |
| 41 | 6:2 FTS-2 | 83 | 427.071 > 80.9 | 6.01 | 69 | 2015 | | 1.268 | 0.1316 | | 58 | 39 | 2270 | 58367 | 0.500 | 0.0 | bb |
| 42 | 8:2 FTS-1 | 85 | 527.065 > 506.997 | 7.37 | 4 | 3135 | | | | | 1 | 278 | 264 | 119342 | 0.500 | 0.0 | MMI |
| 43 | 8:2 FTS-2 | 85 | 527.065 > 80.75 | | | 3135 | | | | | | 213 | | 119342 | 0.500 | 0.0 | MM-I |
| 44 | PFOSA-1 | 87 | 498.113 > 77.902 | 8.55 | 16 | 14483 | | 0.184 | 0.1629 | | 35 | 19 | 670 | 448902 | 0.500 | 0.0 | MM |
| 45 | PFOSA-2 | 87 | 498.113 > 477.993 | 8.55 | 0 | 14483 | | 3.765 | 3.8518 | | 0 | 13 | 3 | 448902 | 0.500 | 0.0 | MM |
| 46 | N-MeFOSA-1 | 88 | 511.937 > 218.985 | 9.83 | 0 | 2851 | | | | | 1 | 60 | 36 | 92321 | 0.500 | 0.0 | MMI |
| 47 | N-MeFOSA-2 | 88 | 511.937 > 168.955 | 9.87 | 11 | 2851 | | | | | 3 | 137 | 438 | 92321 | 0.500 | 0.0 | MMI |
| 48 | N-EtFOSA-1 | 89 | 526.017 > 218.977 | 10.15 | 6 | 2039 | | | | | 24 | 13 | 310 | 66618 | 0.500 | 0.0 | MMI |
| 49 | N-EtFOSA-2 | 89 | 526.017 > 168.95 | 10.11 | 3 | 2039 | | | | | 1 | 158 | 171 | 66618 | 0.500 | 0.0 | ddI |
| 50 | MeFOSAA-1 | 90 | 570.134 > 419.035 | 7.56 | 0 | 4602 | | | | | 0 | 20 | 9 | 177226 | 0.500 | 0.0 | MMI |
| 51 | MeFOSAA-2 | 90 | 570.134 > 482.99 | 7.58 | 1 | 4602 | | | | | 1 | 14 | 12 | 177226 | 0.500 | 0.0 | dbI |
| 52 | EtFOSAA-1 | 91 | 584.15 > 419.062 | 7.68 | 6 | 5622 | | 0.181 | 0.4467 | | 1 | 441 | 359 | 212521 | 0.500 | 0.0 | MM |
| 53 | EtFOSAA-2 | 91 | 584.15 > 526.045 | 7.71 | 0 | 5622 | | 0.234 | 0.2416 | | 1 | 11 | 6 | 212521 | 0.500 | 0.0 | MM |
| 54 | N-MeFOSE | 92 | 616.112 > 58.894 | 9.74 | 19 | 35886 | | | | | 4 | 223 | 782 | 1055679 | 0.500 | 0.0 | ddI |
| 55 | N-EtFOSE | 93 | 630. > 58.893 | 10.04 | 49 | 33486 | | | | | 7 | 195 | 1395 | 1089270 | 0.500 | 0.0 | MMI |
| 56 | HFPO-DA-1 | 94 | 284.8894 > 168.... | 5.15 | 0 | 28977 | | | | | 0 | 47 | 23 | 1166647 | 0.500 | 0.0 | MMI |
| 57 | HFPO-DA-2 | 95 | 284.8894 > 184.... | 5.17 | 2 | 13819 | | | | | 0 | 458 | 194 | 545179 | 0.500 | 0.0 | MMI |
| 58 | ADONA-1 | 94 | 376.88 > 250.937 | | | 28977 | | | | | | 274 | | 1166647 | 0.500 | 0.0 | MM-I |
| 59 | ADONA-2 | 95 | 376.88 > 84.832 | 5.75 | 12 | 13819 | | 1.066 | 1.0591 | | 5 | 88 | 453 | 545179 | 0.500 | 0.0 | bd |
| 60 | 9Cl-PF3ONS-1 | 94 | 530.807 > 350.967 | 7.84 | 7 | 28977 | | | | | 6 | 117 | 652 | 1166647 | 0.500 | 0.0 | MMI |
| 61 | 9Cl-PF3ONS-2 | 95 | 532.804 > 352.947 | 7.94 | 88 | 13819 | | | | | 3 | 910 | 2353 | 545179 | 0.500 | 0.0 | ddI |
| 62 | 11Cl-PF3OUdS-1 | 94 | 630.865 > 450.902 | 8.40 | 1 | 28977 | | | | | 1 | 230 | 200 | 1166647 | 0.500 | 0.0 | MMI |
| 63 | 11Cl-PF3OUdS-2 | 95 | 632.868 > 452.91 | 8.42 | 2 | 13819 | | | | | 0 | 391 | 155 | 545179 | 0.500 | 0.0 | MMI |
| 64 | 13C4-PFBA | 96 | 216.776 > 171.928 | 1.96 | 65095 | 30895 | 40.000 | 82.326 | 0.0209 | 102.9 | 116... | 84 | 981133 | 474363 | 0.500 | 0.0 | bb |
| 65 | 13C5-PFPeA | 97 | 268.16 > 223.035 | 4.34 | 36373 | 22445 | 20.000 | 39.950 | 0.0104 | 99.9 | 8866 | 132 | 1169226 | 940931 | 0.500 | 0.0 | bb |
| 66 | 13C5-PFHxA-1 | 97 | 318.029 > 272.993 | 5.00 | 16995 | 22445 | 10.000 | 21.507 | 0.0181 | 107.5 | 3545 | 200 | 708006 | 940931 | 0.500 | 0.0 | MM |
| 67 | 13C5-PFHxA-2 | 97 | 318.029 > 120.341 | 5.00 | 600 | 22445 | 10.000 | 22.337 | 0.0149 | 111.7 | 4513 | 6 | 25258 | 940931 | 0.500 | 0.0 | bb |
| 68 | 13C4-PFHpA | 99 | 367.086 > 322.004 | 5.52 | 20342 | 3546 | 10.000 | 21.099 | 0.0021 | 105.5 | 431... | 17 | 754227 | 91713 | 0.500 | 0.0 | bb |
| 69 | 13C8-PFOA | 99 | 421.096 > 376.022 | 6.33 | 20723 | 3546 | 10.000 | 18.707 | 0.0202 | 93.5 | 2856 | 193 | 549782 | 91713 | 0.500 | 0.0 | bb |
| 70 | 13C9-PFNA | 100 | 472.096 > 427.014 | 7.08 | 11664 | 10802 | 5.000 | 9.943 | 0.0317 | 99.4 | 948 | 418 | 396235 | 363936 | 0.500 | 0.0 | MM |

PVed by WANGG 13-Apr-19, SVed by AP 16-Apr-19. NOTE: Units = ng/L for BLK and FIeld Samples.

**Quantify Sample Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_130-b.qld

Last Altered: Tuesday, April 16, 2019 12:33:52 Pacific Daylight Time
Printed: Tuesday, April 16, 2019 12:41:28 Pacific Daylight Time

**ID: WG67438-101,,BLK, Name: FC9W_130S24, Description: 1,WG67438,2/4000uL, Date: 31-Mar-2019, Time: 01:42:45**

| # | Name | IS# | Trace | RT | Area | IS Area | Std. Conc | Conc. | LOD | %Rec | S/N | Noise | Peak Height | IS Height | Sample size | F2 | Flags |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 71 | 13C7-PFUnA | 101 | 570.019 > 525.05 | 7.84 | 15756 | 13126 | 5.000 | 10.736 | 0.0010 | 107.4 | 361... | 18 | 662130 | 484518 | 0.500 | 0.0 | bb |
| 72 | 13C6-PFDA | 101 | 519.147 > 474.058 | 7.54 | 14573 | 13126 | 5.000 | 11.800 | 0.0018 | 118.0 | 205... | 27 | 551992 | 484518 | 0.500 | 0.0 | bb |
| 73 | 13C2-PFDoA | 101 | 615.127 > 570.013 | 8.16 | 11675 | 13126 | 5.000 | 11.145 | 0.0055 | 111.4 | 5660 | 70 | 398930 | 484518 | 0.500 | 0.0 | bb |
| 74 | 13C2-PFTeDA | 101 | 715.057 > 670.026 | 8.89 | 8361 | 13126 | 5.000 | 8.135 | 0.0066 | 81.4 | 2983 | 83 | 247287 | 484518 | 0.500 | 0.0 | bb |
| 75 | 13C3-PFBS-1 | 102 | 302.056 > 79.865 | 4.97 | 7311 | 5166 | 10.000 | 23.515 | 0.0065 | 117.6 | 166... | 18 | 291605 | 133465 | 0.500 | 0.0 | bb |
| 76 | 13C3-PFBS-2 | 102 | 302.056 > 98.875 | 4.97 | 3669 | 5166 | 10.000 | 24.412 | 0.0089 | 122.1 | 128... | 12 | 147378 | 133465 | 0.500 | 0.0 | bb |
| 77 | 13C3-PFHxS-1 | 102 | 402.114 > 79.858 | 6.46 | 5532 | 5166 | 10.000 | 20.650 | 0.0062 | 103.2 | 102... | 14 | 147043 | 133465 | 0.500 | 0.0 | bb |
| 78 | 13C3-PFHxS-2 | 102 | 402.114 > 98.801 | 6.46 | 3018 | 5166 | 10.000 | 20.218 | 0.0805 | 101.1 | 693 | 103 | 71715 | 133465 | 0.500 | 0.0 | bb |
| 79 | 13C8-PFOS-1 | 103 | 507.124 > 79.858 | 7.63 | 5491 | 6176 | 10.000 | 22.461 | 0.0043 | 112.3 | 152... | 14 | 213072 | 244381 | 0.500 | 0.0 | bb |
| 80 | 13C8-PFOS-2 | 104 | 507.124 > 98.867 | 7.63 | 3495 | 3889 | 10.000 | 22.911 | 0.1096 | 114.6 | 639 | 213 | 136119 | 148612 | 0.500 | 0.0 | bb |
| 81 | 13C2-4:2 FTS-1 | 102 | 329.084 > 80.9 | 4.89 | 3208 | 5166 | 20.000 | 34.963 | 0.1746 | 87.4 | 1060 | 138 | 146221 | 133465 | 0.500 | 0.0 | bb |
| 82 | 13C2-4:2 FTS-2 | 102 | 329.084 > 309.024 | 4.89 | 5876 | 5166 | 20.000 | 27.446 | 0.0228 | 68.6 | 6152 | 42 | 258604 | 133465 | 0.500 | 0.0 | bb |
| 83 | 13C2-6:2 FTS-1 | 102 | 429.078 > 80.900 | 6.00 | 2015 | 5166 | 20.000 | 27.186 | 0.0388 | 68.0 | 2359 | 25 | 58367 | 133465 | 0.500 | 0.0 | bb |
| 84 | 13C2-6:2 FTS-2 | 102 | 429.078 > 409.031 | 6.00 | 3515 | 5166 | 20.000 | 20.711 | 0.0069 | 51.8 | 101... | 10 | 101779 | 133465 | 0.500 | 0.0 | bb |
| 85 | 13C2-8:2 FTS-1 | 102 | 529.1351 > 80.900 | 7.38 | 3135 | 5166 | 20.000 | 28.308 | 0.1130 | 70.8 | 1108 | 108 | 119342 | 133465 | 0.500 | 0.0 | bb |
| 86 | 13C2-8:2 FTS-2 | 102 | 529.135 > 509.003 | 7.38 | 3555 | 5166 | 20.000 | 23.870 | 0.0723 | 59.7 | 1399 | 93 | 129782 | 133465 | 0.500 | 0.0 | bb |
| 87 | 13C8-PFOSA | 103 | 506.14 > 77.841 | 8.56 | 14483 | 6176 | 10.000 | 37.471 | 0.0157 | 187.4 | 5625 | 80 | 448902 | 244381 | 0.500 | 0.0 | bb |
| 88 | D3-N-MeFOSA | 103 | 514.956 > 218.974 | 9.88 | 2851 | 6176 | 10.000 | 14.287 | 0.0674 | 71.4 | 521 | 177 | 92321 | 244381 | 0.500 | 0.0 | bb |
| 89 | D5-N-EtFOSA | 103 | 531.112 > 218.984 | 10.13 | 2039 | 6176 | 10.000 | 12.101 | 0.0947 | 60.5 | 317 | 210 | 66618 | 244381 | 0.500 | 0.0 | bb |
| 90 | D3-MeFOSAA | 103 | 573.153 > 418.99 | 7.57 | 4602 | 6176 | 20.000 | 21.443 | 0.0069 | 53.6 | 9093 | 19 | 177226 | 244381 | 0.500 | 0.0 | bb |
| 91 | D5-EtFOSAA | 103 | 589.245 > 418.971 | 7.69 | 5622 | 6176 | 20.000 | 31.343 | 0.0041 | 78.4 | 220... | 10 | 212521 | 244381 | 0.500 | 0.0 | bb |
| 92 | D7-N-MeFOSE | 103 | 623.156 > 58.896 | 9.76 | 35886 | 6176 | 100.000 | 389.476 | 0.2846 | 194.7 | 3052 | 346 | 1055679 | 244381 | 0.500 | 0.0 | bb |
| 93 | D9-N-EtFOSE | 103 | 639.184 > 58.897 | 10.02 | 33486 | 6176 | 100.000 | 350.874 | 0.2393 | 175.4 | 3616 | 301 | 1089270 | 244381 | 0.500 | 0.0 | bb |
| 94 | 13C3-HFPO-DA-1 | 97 | 286.8631 > 168.... | 5.16 | 28977 | 22445 | 40.000 | 79.855 | 0.0564 | 99.8 | 4076 | 286 | 1166647 | 940931 | 0.500 | 0.0 | bb |
| 95 | 13C3-HFPO-DA-2 | 97 | 286.8631 > 184.... | 5.16 | 13819 | 22445 | 40.000 | 77.748 | 0.0734 | 97.2 | 2989 | 182 | 545179 | 940931 | 0.500 | 0.0 | bb |
| 96 | 13C3-PFBA | | 216.029 > 171.97 | 1.96 | 30895 | | 20.000 | 44.143 | 0.1776 | 110.4 | 746 | 636 | 474363 | | 0.500 | 0.0 | bb |
| 97 | 13C2-PFHxA-1 | | 315.083 > 269.984 | 5.01 | 22445 | | 10.000 | 25.145 | 0.0047 | 125.7 | 161... | 58 | 940931 | | 0.500 | 0.0 | bb |
| 98 | 13C2-PFHxA-2 | | 315.083 > 119.359 | 5.01 | 504 | | 10.000 | 18.705 | 0.0267 | 93.5 | 2104 | 9 | 19813 | | 0.500 | 0.0 | bb |
| 99 | 13C4-PFOA | | 417.083 > 171.95 | 6.33 | 3546 | | 10.000 | 23.607 | 0.0080 | 118.0 | 8901 | 10 | 91713 | | 0.500 | 0.0 | bb |
| 1... | 13C5-PFNA | | 468.019 > 423.008 | 7.09 | 10802 | | 5.000 | 10.591 | 0.0121 | 105.9 | 2624 | 139 | 363936 | | 0.500 | 0.0 | bb |
| 1... | 13C2-PFDA | | 515.134 > 470.05 | 7.54 | 13126 | | 5.000 | 11.541 | 0.0049 | 115.4 | 7034 | 69 | 484518 | | 0.500 | 0.0 | bb |
| 1... | 18O2-PFHxS | | 402.984 > 83.895 | 6.46 | 5166 | | 10.000 | 26.304 | 0.0109 | 131.5 | 7217 | 18 | 133465 | | 0.500 | 0.0 | bb |
| 1... | 13C4-PFOS-1 | | 502.791 > 79.856 | 7.63 | 6176 | | 10.000 | 25.388 | 0.0193 | 126.9 | 3942 | 62 | 244381 | | 0.500 | 0.0 | bb |
| 1... | 13C4-PFOS-2 | | 502.791 > 98.864 | 7.63 | 3889 | | 10.000 | 24.911 | 0.1425 | 124.6 | 524 | 283 | 148612 | | 0.500 | 0.0 | bb |

PVed by WANGG 13-Apr-19, SVed by AP 16-Apr-19. NOTE: Units = ng/L for BLK and FIeld Samples.

**Quantify Sample Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

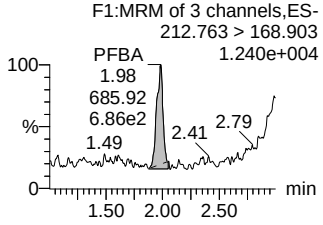
Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_130-b.qld

Last Altered: Tuesday, April 16, 2019 12:33:52 Pacific Daylight Time
Printed: Tuesday, April 16, 2019 12:41:58 Pacific Daylight Time

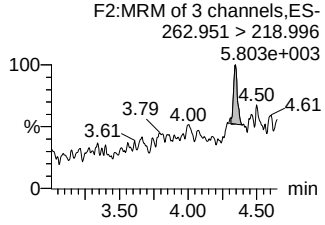
**Method: G:\Masslynx\Master Methods\MassLynx SCN 909\UPLC\FC_110_UPLC_06.mdb 10 Mar 2019 18:18:03**
**Calibration: G:\Masslynx\Inst_W\PFC.PRO\Curve\FC9W_097-a1.cdb 12 Mar 2019 11:26:10**

**ID: WG67438-102,,BLK, Name: FC9W_130S25, Description: 1,WG67438,2/4000uL, Date: 31-Mar-2019, Time: 01:56:13**

**PFBA**




**PFPeA-1**

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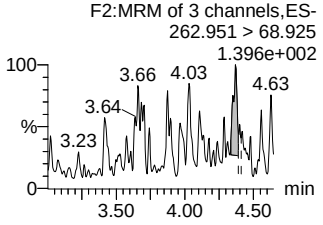


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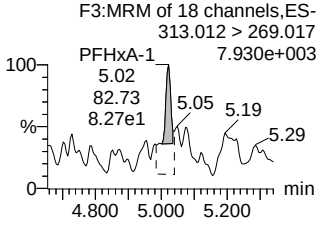


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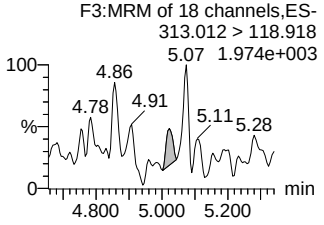


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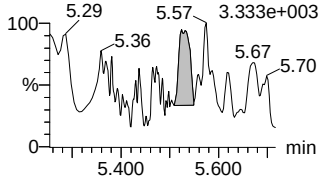


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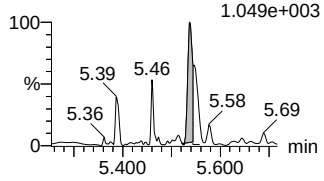


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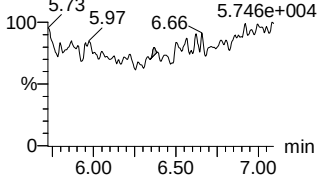


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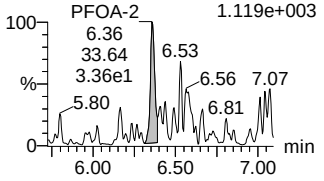


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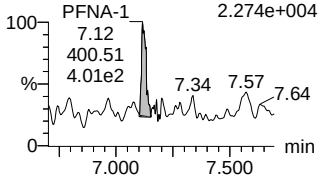


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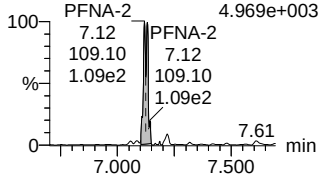


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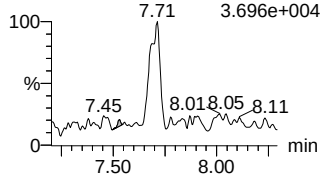


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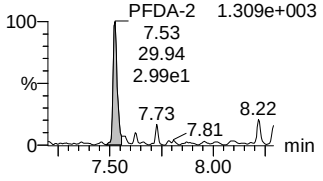


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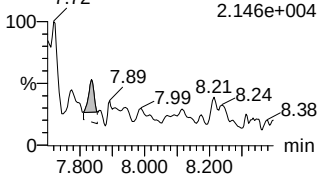


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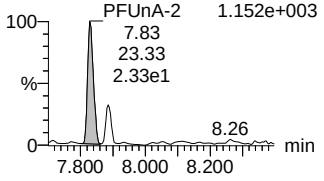


PVed by WANGG 13-Apr-19, SVed by AP 16-Apr-19. NOTE: Units = ng/L for BLK and FIeld Samples.

**Quantify Sample Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_130-b.qld

Last Altered: Tuesday, April 16, 2019 12:33:52 Pacific Daylight Time
Printed: Tuesday, April 16, 2019 12:41:58 Pacific Daylight Time

**ID: WG67438-102,,BLK, Name: FC9W_130S25, Description: 1,WG67438,2/4000uL, Date: 31-Mar-2019, Time: 01:56:13**

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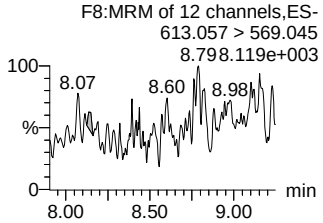


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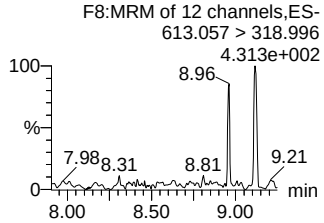


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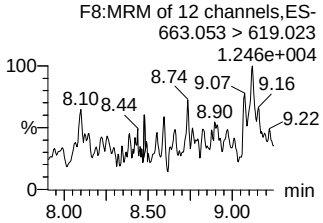


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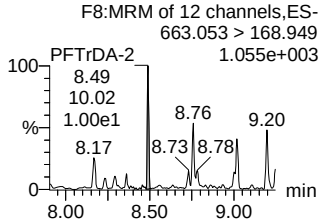


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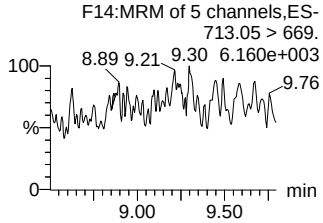


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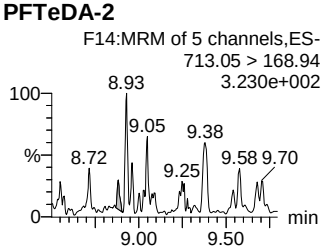


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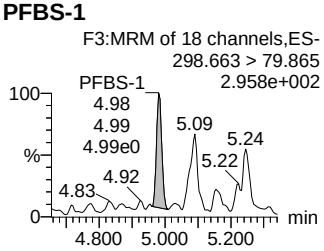


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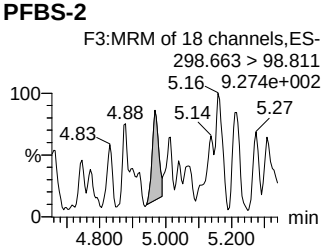


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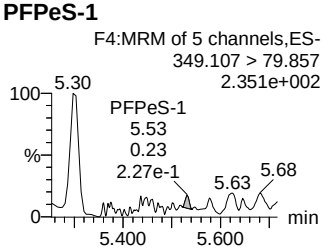


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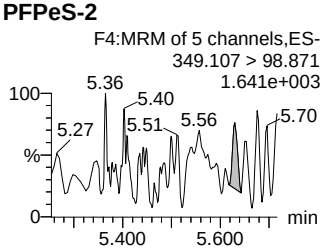


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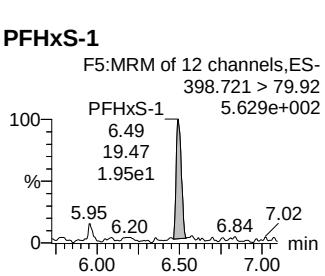


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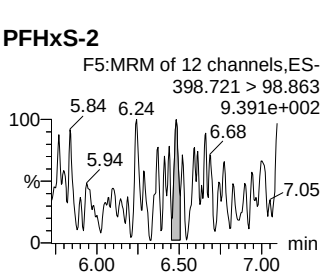


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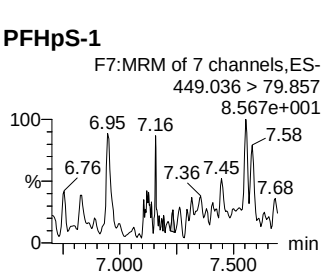


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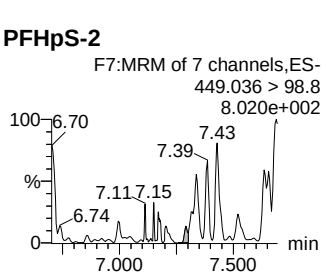


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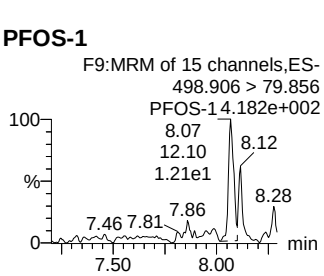


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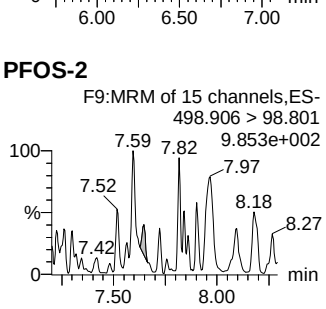


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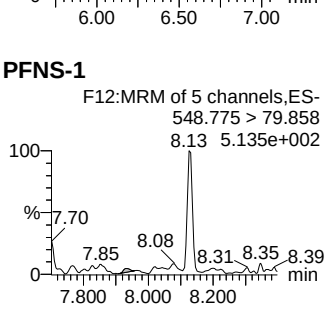


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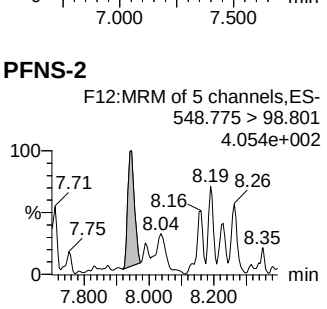


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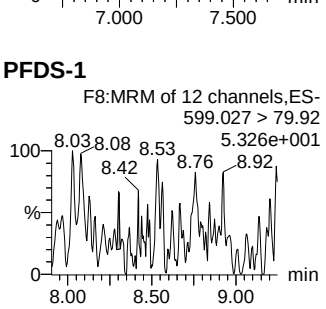


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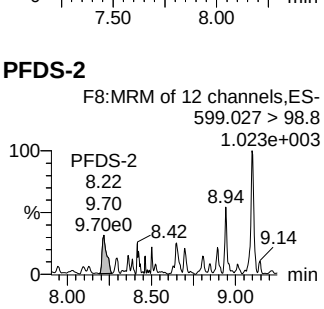


PVed by WANGG 13-Apr-19, SVed by AP 16-Apr-19. NOTE: Units = ng/L for BLK and FIeld Samples.

**Quantify Sample Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_130-b.qld

Last Altered: Tuesday, April 16, 2019 12:33:52 Pacific Daylight Time
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**ID: WG67438-102,,BLK, Name: FC9W_130S25, Description: 1,WG67438,2/4000uL, Date: 31-Mar-2019, Time: 01:56:13**

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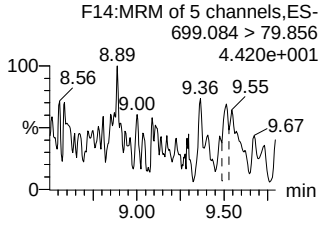


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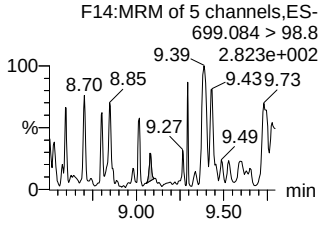


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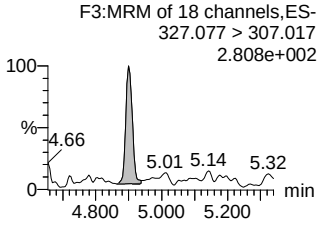


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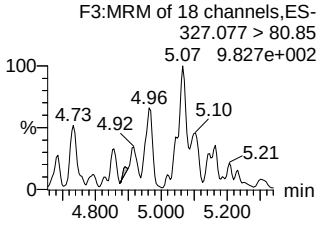


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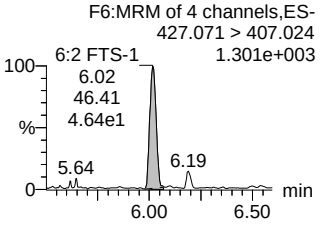


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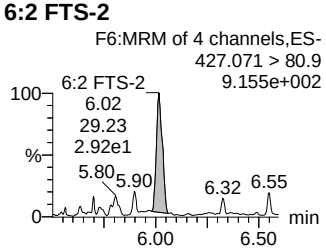


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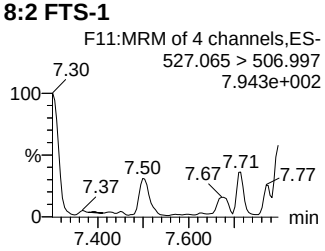


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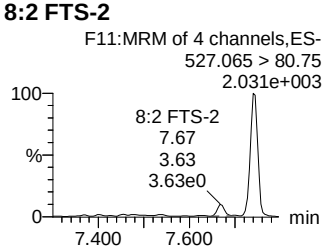


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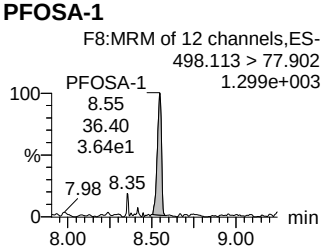


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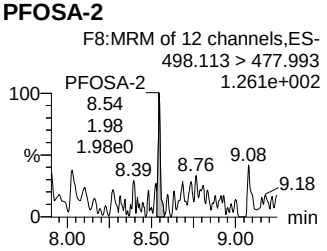


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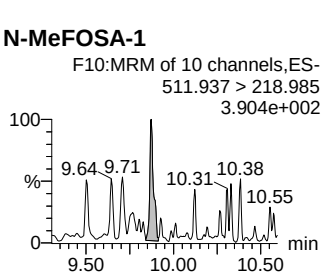


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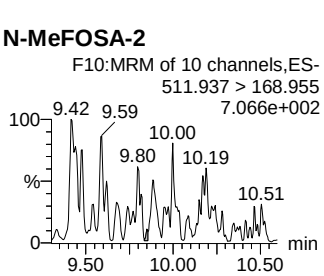


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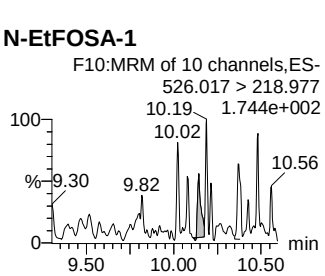


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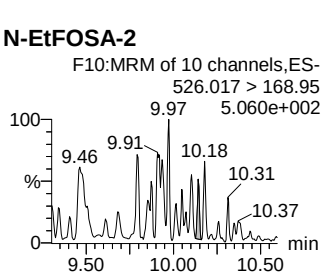


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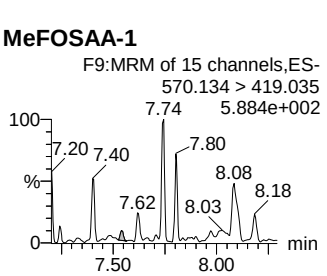


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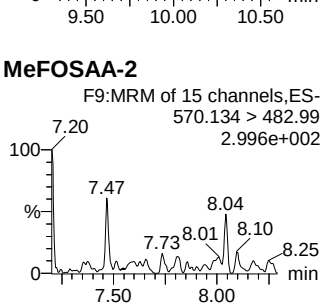


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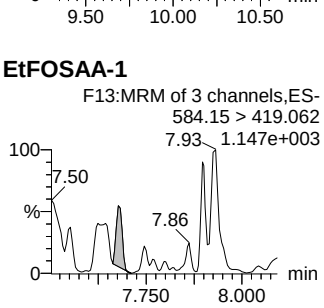


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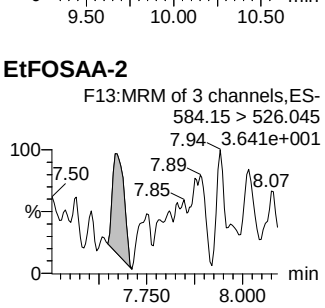


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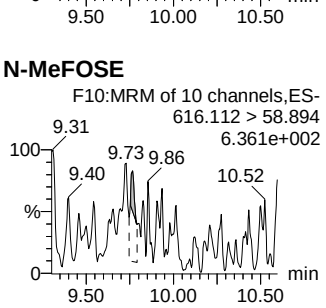


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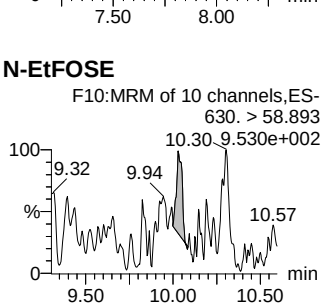


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**Quantify Sample Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

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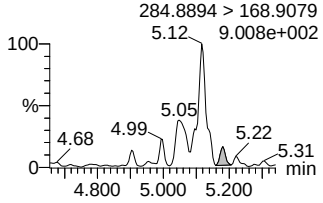
**ID: WG67438-102,,BLK, Name: FC9W_130S25, Description: 1,WG67438,2/4000uL, Date: 31-Mar-2019, Time: 01:56:13**

**HFPO-DA-1**

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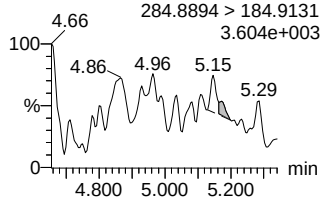


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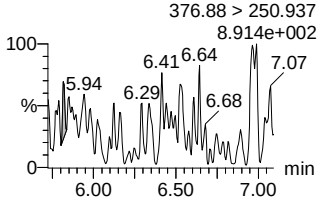


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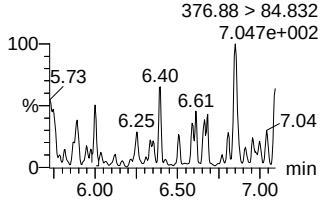


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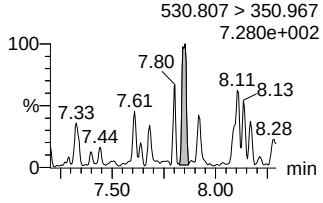


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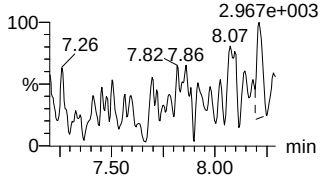


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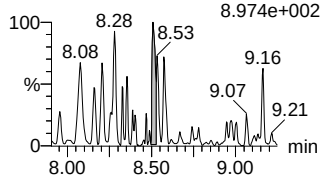
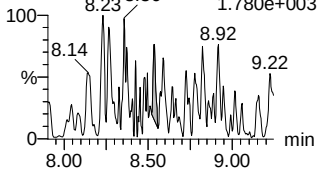
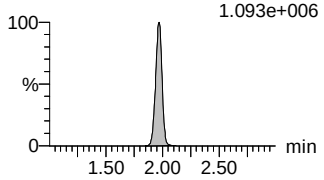


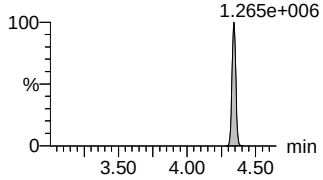

**11Cl-PF3OUdS-2**



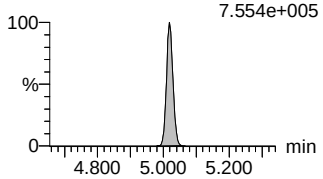

**13C4-PFBA**



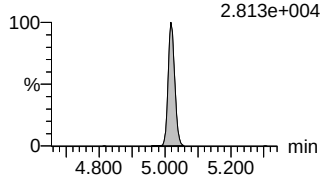

**13C5-PFPeA**



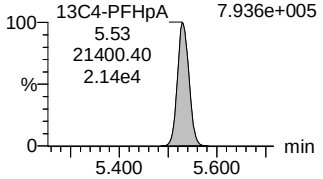

**13C5-PFHxA-1**



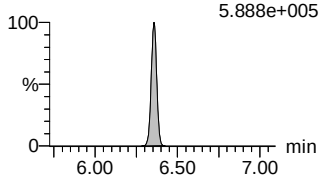

**13C5-PFHxA-2**



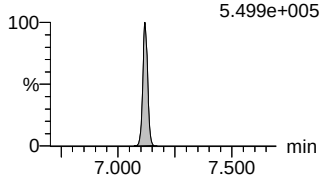

**13C4-PFHpA**



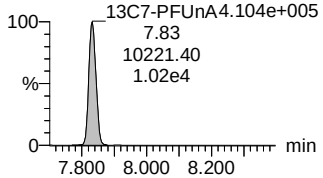

**13C8-PFOA**



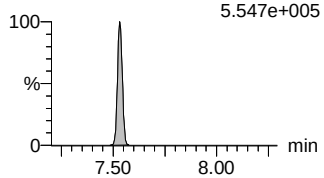

**13C9-PFNA**



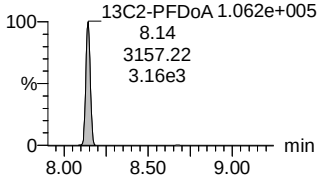

**13C7-PFUnA**



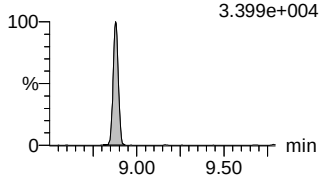

**13C6-PFDA**



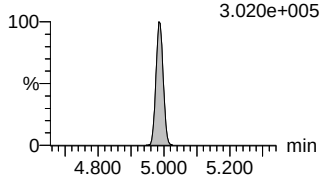

**13C2-PFDoA**




**13C2-PFTeDA**




**13C3-PFBS-1**



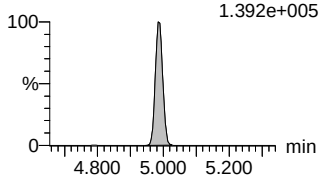

PVed by WANGG 13-Apr-19, SVed by AP 16-Apr-19. NOTE: Units = ng/L for BLK and FIeld Samples.

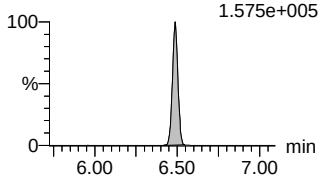
**Quantify Sample Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

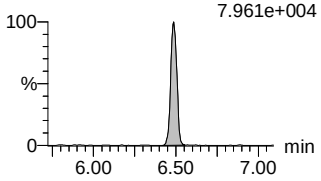
Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_130-b.qld

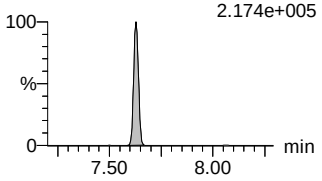
Last Altered: Tuesday, April 16, 2019 12:33:52 Pacific Daylight Time
Printed: Tuesday, April 16, 2019 12:41:58 Pacific Daylight Time

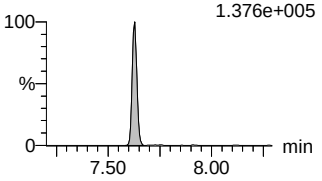
**ID: WG67438-102,,BLK, Name: FC9W_130S25, Description: 1,WG67438,2/4000uL, Date: 31-Mar-2019, Time: 01:56:13**

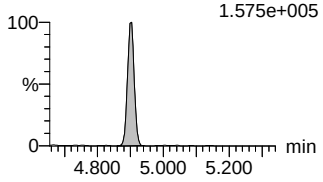
**13C3-PFBS-2**
F3:MRM of 18 channels,ES-
302.056 > 98.875
1.392e+005


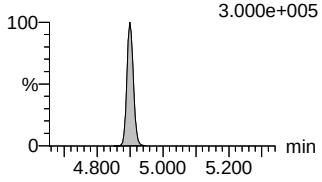

**13C3-PFHxS-1**
F5:MRM of 12 channels,ES-
402.114 > 79.858
1.575e+005


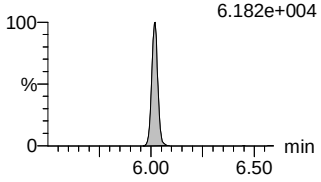

**13C3-PFHxS-2**
F5:MRM of 12 channels,ES-
402.114 > 98.801
7.961e+004


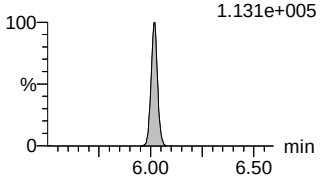

**13C8-PFOS-1**
F9:MRM of 15 channels,ES-
507.124 > 79.858
2.174e+005


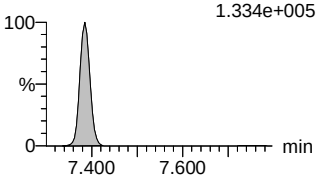

**13C8-PFOS-2**
F9:MRM of 15 channels,ES-
507.124 > 98.867
1.376e+005


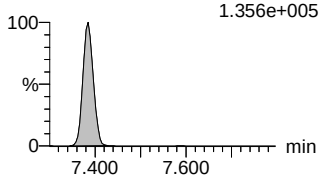

**13C2-4:2 FTS-1**
F3:MRM of 18 channels,ES-
329.084 > 80.9
1.575e+005


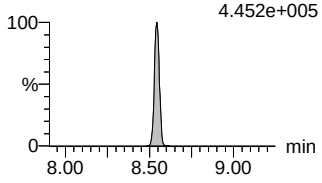

**13C2-4:2 FTS-2**
F3:MRM of 18 channels,ES-
329.084 > 309.024
3.000e+005


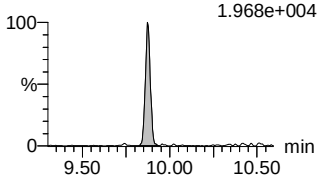

**13C2-6:2 FTS-1**
F6:MRM of 4 channels,ES-
429.078 > 80.900
6.182e+004


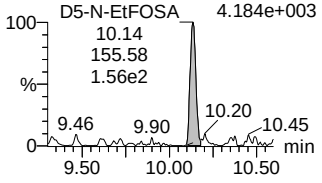

**13C2-6:2 FTS-2**
F6:MRM of 4 channels,ES-
429.078 > 409.031
1.131e+005


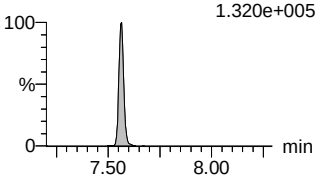

**13C2-8:2 FTS-1**
F11:MRM of 4 channels,ES-
529.1351 > 80.900
1.334e+005


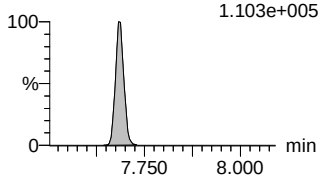

**13C2-8:2 FTS-2**
F11:MRM of 4 channels,ES-
529.135 > 509.003
1.356e+005


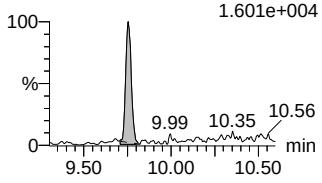

**13C8-PFOSA**
F8:MRM of 12 channels,ES-
506.14 > 77.841
4.452e+005


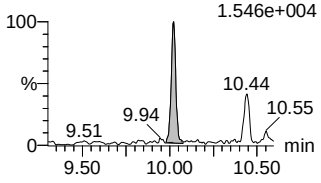

**D3-N-MeFOSA**
F10:MRM of 10 channels,ES-
514.956 > 218.974
1.968e+004


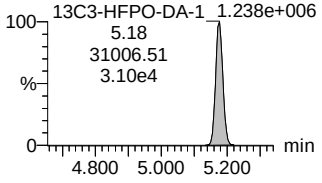

**D5-N-EtFOSA**
F10:MRM of 10 channels,ES-
531.112 > 218.984
4.184e+003


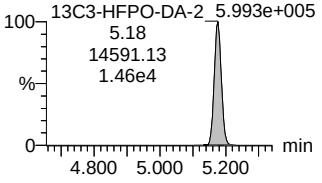

**D3-MeFOSAA**
F9:MRM of 15 channels,ES-
573.153 > 418.99
1.320e+005



**D5-EtFOSAA**
F13:MRM of 3 channels,ES-
589.245 > 418.971
1.103e+005



**D7-N-MeFOSE**
F10:MRM of 10 channels,ES-
623.156 > 58.896
1.601e+004



**D9-N-EtFOSE**
F10:MRM of 10 channels,ES-
639.184 > 58.897
1.546e+004



**13C3-HFPO-DA-1**
F3:MRM of 18 channels,ES-
286.8631 > 168.8861



**13C3-HFPO-DA-2**
F3:MRM of 18 channels,ES-
286.8631 > 184.8888



PVed by WANGG 13-Apr-19, SVed by AP 16-Apr-19. NOTE: Units = ng/L for BLK and FIeld Samples.

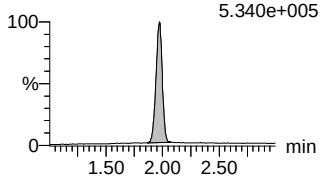
**Quantify Sample Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_130-b.qld

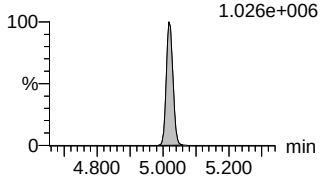
Last Altered: Tuesday, April 16, 2019 12:33:52 Pacific Daylight Time
Printed: Tuesday, April 16, 2019 12:41:58 Pacific Daylight Time

**ID: WG67438-102,,BLK, Name: FC9W_130S25, Description: 1,WG67438,2/4000uL, Date: 31-Mar-2019, Time: 01:56:13**

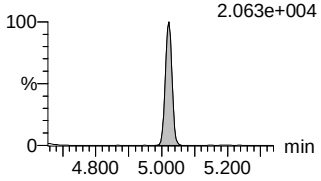
**13C3-PFBA**



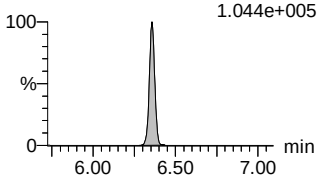

**13C2-PFHxA-1**



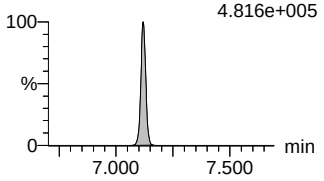

**13C2-PFHxA-2**



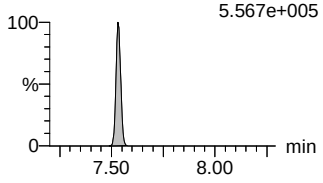

**13C4-PFOA**



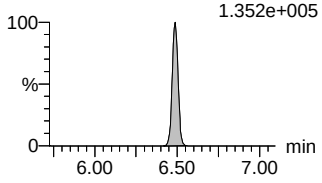

**13C5-PFNA**



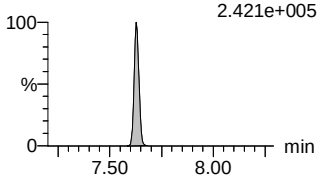

**13C2-PFDA**



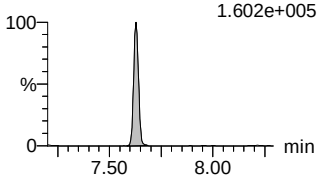

**18O2-PFHxS**




**13C4-PFOS-1**




**13C4-PFOS-2**




PVed by WANGG 13-Apr-19, SVed by AP 16-Apr-19. NOTE: Units = ng/L for BLK and FIeld Samples.

**Quantify Sample Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_130-b.qld

Last Altered: Tuesday, April 16, 2019 12:33:52 Pacific Daylight Time
Printed: Tuesday, April 16, 2019 12:41:58 Pacific Daylight Time

**ID: WG67438-102,,BLK, Name: FC9W_130S25, Description: 1,WG67438,2/4000uL, Date: 31-Mar-2019, Time: 01:56:13**

| # | Name | IS# | Trace | RT | Area | IS Area | Std. Conc | Conc. | LOD | %Rec | S/N | Noise | Peak Height | IS Height | Sample size | F2 | Flags |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | PFBA | 64 | 212.763 > 168.903 | 1.98 | 686 | 70669 | | 2.969 | | | 28 | 375 | 10431 | 1091503 | 0.100 | 0.0 | MM |
| 2 | PFPeA-1 | 65 | 262.951 > 218.996 | 4.34 | 90 | 39026 | | | | | 9 | 307 | 2787 | 1262813 | 0.100 | 0.0 | MMI |
| 3 | PFPeA-2 | 65 | 262.951 > 68.925 | 4.37 | 3 | 39026 | | 5.119 | 4.6636 | | 3 | 33 | 102 | 1262813 | 0.100 | 0.0 | MM |
| 4 | PFHxA-1 | 66 | 313.012 > 269.017 | 5.02 | 83 | 17333 | | | | | 7 | 772 | 5043 | 754362 | 0.100 | 0.0 | MMI |
| 5 | PFHxA-2 | 66 | 313.012 > 118.918 | 5.02 | 14 | 17333 | | 0.723 | 1.4465 | | 1 | 391 | 585 | 754362 | 0.100 | 0.0 | MM |
| 6 | PFHpA-1 | 68 | 363.073 > 319.025 | 5.52 | 53 | 21400 | | | | | 3 | 751 | 2037 | 792797 | 0.100 | 0.0 | MMI |
| 7 | PFHpA-2 | 68 | 363.073 > 168.962 | 5.54 | 11 | 21400 | | | | | 14 | 70 | 1020 | 792797 | 0.100 | 0.0 | MMI |
| 8 | PFOA-1 | 69 | 413.006 > 369.03 | 6.37 | 64 | 22492 | | | | | 1 | 3978 | 3583 | 588048 | 0.100 | 0.0 | MMI |
| 9 | PFOA-2 | 69 | 413.006 > 168.963 | 6.36 | 34 | 22492 | | | | | 5 | 227 | 1093 | 588048 | 0.100 | 0.0 | MMI |
| 10 | PFNA-1 | 70 | 463.002 > 418.97 | 7.12 | 401 | 13394 | | 0.653 | | | 11 | 1529 | 17383 | 549105 | 0.100 | 0.0 | MM |
| 11 | PFNA-2 | 70 | 463.002 > 218.968 | 7.12 | 109 | 13394 | | 1.477 | | | 69 | 71 | 4928 | 549105 | 0.100 | 0.0 | MM |
| 12 | PFDA-1 | 72 | 512.935 > 469.021 | 7.53 | 32 | 14565 | | | | | 1 | 1630 | 1911 | 554056 | 0.100 | 0.0 | MMI |
| 13 | PFDA-2 | 72 | 512.935 > 218.972 | 7.53 | 30 | 14565 | | 0.181 | | | 53 | 24 | 1306 | 554056 | 0.100 | 0.0 | dd |
| 14 | PFUnA-1 | 71 | 563.124 > 519.003 | 7.84 | 106 | 10221 | | 0.286 | 0.4027 | | 4 | 1611 | 5639 | 410168 | 0.100 | 0.0 | MM |
| 15 | PFUnA-2 | 71 | 563.124 > 269.051 | 7.83 | 23 | 10221 | | 0.131 | | | 72 | 16 | 1142 | 410168 | 0.100 | 0.0 | bd |
| 16 | PFDoA-1 | 73 | 613.057 > 569.045 | 8.14 | 28 | 3157 | | | | | 1 | 1556 | 1095 | 106143 | 0.100 | 0.0 | MMI |
| 17 | PFDoA-2 | 73 | 613.057 > 318.996 | 8.13 | 0 | 3157 | | | | | 0 | 12 | 4 | 106143 | 0.100 | 0.0 | MMI |
| 18 | PFTrDA-1 | 74 | 663.053 > 619.023 | 8.48 | 34 | 1142 | | | | | 2 | 1904 | 4208 | 33938 | 0.100 | 0.0 | MMI |
| 19 | PFTrDA-2 | 74 | 663.053 > 168.949 | 8.49 | 10 | 1142 | | 1.095 | 0.1318 | | 15 | 69 | 1051 | 33938 | 0.100 | 0.0 | db |
| 20 | PFTeDA-1 | 74 | 713.05 > 669. | 8.86 | 3 | 1142 | | | | | 0 | 1186 | 382 | 33938 | 0.100 | 0.0 | MMI |
| 21 | PFTeDA-2 | 74 | 713.05 > 168.94 | 8.88 | 1 | 1142 | | | | | 3 | 25 | 77 | 33938 | 0.100 | 0.0 | MMI |
| 22 | PFBS-1 | 75 | 298.663 > 79.865 | 4.98 | 5 | 7574 | | 0.066 | 0.0295 | | 11 | 24 | 274 | 301843 | 0.100 | 0.0 | MM |
| 23 | PFBS-2 | 76 | 298.663 > 98.811 | 4.97 | 15 | 3570 | | | | | 4 | 161 | 674 | 139073 | 0.100 | 0.0 | bdI |
| 24 | PFPeS-1 | 77 | 349.107 > 79.857 | 5.53 | 0 | 5926 | | | | | 1 | 17 | 25 | 157198 | 0.100 | 0.0 | MMI |
| 25 | PFPeS-2 | 78 | 349.107 > 98.871 | 5.63 | 10 | 3370 | | | | | 2 | 388 | 875 | 79497 | 0.100 | 0.0 | MMI |
| 26 | PFHxS-1 | 77 | 398.721 > 79.92 | 6.49 | 19 | 5926 | | 1.397 | 1.1540 | | 39 | 14 | 544 | 157198 | 0.100 | 0.0 | bb |
| 27 | PFHxS-2 | 78 | 398.721 > 98.863 | 6.48 | 29 | 3370 | | | | | 3 | 314 | 914 | 79497 | 0.100 | 0.0 | ddI |
| 28 | PFHpS-1 | 79 | 449.036 > 79.857 | 7.23 | 0 | 5673 | | | | | 1 | 18 | 15 | 217125 | 0.100 | 0.0 | MMI |
| 29 | PFHpS-2 | 80 | 449.036 > 98.8 | 7.29 | 2 | 3554 | | 0.125 | 0.2237 | | 2 | 64 | 107 | 137543 | 0.100 | 0.0 | bd |
| 30 | PFOS-1 | 79 | 498.906 > 79.856 | | | 5673 | | | | | | 54 | | 217125 | 0.100 | 0.0 | MM-I |
| 31 | PFOS-2 | 80 | 498.906 > 98.801 | 7.65 | 4 | 3554 | | | | | 1 | 216 | 241 | 137543 | 0.100 | 0.0 | MMI |
| 32 | PFNS-1 | 79 | 548.775 > 79.858 | 7.94 | 0 | 5673 | | | | | 1 | 21 | 16 | 217125 | 0.100 | 0.0 | MMI |
| 33 | PFNS-2 | 80 | 548.775 > 98.801 | 7.95 | 9 | 3554 | | | | | 9 | 44 | 378 | 137543 | 0.100 | 0.0 | MMI |
| 34 | PFDS-1 | 79 | 599.027 > 79.92 | 8.30 | 0 | 5673 | | | | | 1 | 19 | 25 | 217125 | 0.100 | 0.0 | MMI |
| 35 | PFDS-2 | 80 | 599.027 > 98.8 | 8.22 | 10 | 3554 | | 1.281 | 1.0874 | | 6 | 50 | 317 | 137543 | 0.100 | 0.0 | MM |

PVed by WANGG 13-Apr-19, SVed by AP 16-Apr-19. NOTE: Units = ng/L for BLK and FIeld Samples.

**Quantify Sample Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_130-b.qld

Last Altered: Tuesday, April 16, 2019 12:33:52 Pacific Daylight Time
Printed: Tuesday, April 16, 2019 12:41:58 Pacific Daylight Time

**ID: WG67438-102,,BLK, Name: FC9W_130S25, Description: 1,WG67438,2/4000uL, Date: 31-Mar-2019, Time: 01:56:13**

| # | Name | IS# | Trace | RT | Area | IS Area | Std. Conc | Conc. | LOD | %Rec | S/N | Noise | Peak Height | IS Height | Sample size | F2 | Flags |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 36 | PFDoS-1 | 79 | 699.084 > 79.856 | | | 5673 | | | | | | 9 | | 217125 | 0.100 | 0.0 | MM-I |
| 37 | PFDoS-2 | 80 | 699.084 > 98.8 | 9.08 | 1 | 3554 | | | | | 1 | 68 | 63 | 137543 | 0.100 | 0.0 | MMI |
| 38 | 4:2 FTS-1 | 81 | 327.077 > 307.017 | 4.90 | 6 | 3641 | | | | | 21 | 13 | 268 | 157107 | 0.100 | 0.0 | MMI |
| 39 | 4:2 FTS-2 | 81 | 327.077 > 80.85 | 4.89 | 1 | 3641 | | 0.632 | 1.3415 | | 0 | 178 | 52 | 157107 | 0.100 | 0.0 | MM |
| 40 | 6:2 FTS-1 | 83 | 427.071 > 407.024 | 6.02 | 46 | 2070 | | | | | 50 | 26 | 1300 | 61724 | 0.100 | 0.0 | MMI |
| 41 | 6:2 FTS-2 | 83 | 427.071 > 80.9 | 6.02 | 29 | 2070 | | 2.778 | 0.7657 | | 16 | 54 | 881 | 61724 | 0.100 | 0.0 | bb |
| 42 | 8:2 FTS-1 | 85 | 527.065 > 506.997 | 7.39 | 0 | 3348 | | | | | 0 | 45 | 7 | 133206 | 0.100 | 0.0 | MMI |
| 43 | 8:2 FTS-2 | 85 | 527.065 > 80.75 | | | 3348 | | | | | | 22 | | 133206 | 0.100 | 0.0 | MM-I |
| 44 | PFOSA-1 | 87 | 498.113 > 77.902 | 8.55 | 36 | 15220 | | 1.055 | 0.8144 | | 66 | 19 | 1282 | 445182 | 0.100 | 0.0 | bb |
| 45 | PFOSA-2 | 87 | 498.113 > 477.993 | 8.54 | 2 | 15220 | | 19.477 | 19.2879 | | 9 | 14 | 126 | 445182 | 0.100 | 0.0 | dd |
| 46 | N-MeFOSA-1 | 88 | 511.937 > 218.985 | 9.87 | 9 | 626 | | 0.993 | | | 15 | 25 | 383 | 19604 | 0.100 | 0.0 | dd |
| 47 | N-MeFOSA-2 | 88 | 511.937 > 168.955 | 9.85 | 1 | 626 | | | | | 0 | 164 | 67 | 19604 | 0.100 | 0.0 | ddI |
| 48 | N-EtFOSA-1 | 89 | 526.017 > 218.977 | 10.14 | 2 | 156 | | | | | 3 | 31 | 90 | 4170 | 0.100 | 0.0 | MMI |
| 49 | N-EtFOSA-2 | 89 | 526.017 > 168.95 | 10.14 | 3 | 156 | | 0.846 | 3.2205 | | 3 | 86 | 245 | 4170 | 0.100 | 0.0 | MM |
| 50 | MeFOSAA-1 | 90 | 570.134 > 419.035 | 7.54 | 1 | 3572 | | | | | 2 | 24 | 47 | 132022 | 0.100 | 0.0 | MMI |
| 51 | MeFOSAA-2 | 90 | 570.134 > 482.99 | 7.55 | 0 | 3572 | | | | | 0 | 16 | 3 | 132022 | 0.100 | 0.0 | MMI |
| 52 | EtFOSAA-1 | 91 | 584.15 > 419.062 | 7.68 | 10 | 2780 | | 1.551 | 2.2934 | | 2 | 237 | 568 | 110167 | 0.100 | 0.0 | MM |
| 53 | EtFOSAA-2 | 91 | 584.15 > 526.045 | 7.67 | 1 | 2780 | | 1.269 | 1.2019 | | 6 | 5 | 29 | 110167 | 0.100 | 0.0 | MM |
| 54 | N-MeFOSE | 92 | 616.112 > 58.894 | 9.77 | 4 | 597 | | 3.813 | 35.4090 | | 1 | 189 | 207 | 15864 | 0.100 | 0.0 | MM |
| 55 | N-EtFOSE | 93 | 630. > 58.893 | 10.03 | 23 | 455 | | 38.130 | 31.7854 | | 3 | 221 | 634 | 15179 | 0.100 | 0.0 | MM |
| 56 | HFPO-DA-1 | 94 | 284.8894 > 168.... | 5.18 | 3 | 31007 | | | | | 3 | 46 | 136 | 1236685 | 0.100 | 0.0 | MMI |
| 57 | HFPO-DA-2 | 95 | 284.8894 > 184.... | 5.17 | 8 | 14591 | | | | | 1 | 696 | 411 | 597336 | 0.100 | 0.0 | MMI |
| 58 | ADONA-1 | 94 | 376.88 > 250.937 | 5.82 | 6 | 31007 | | | | | 2 | 252 | 411 | 1236685 | 0.100 | 0.0 | MMI |
| 59 | ADONA-2 | 95 | 376.88 > 84.832 | | | 14591 | | | 5.3124 | | | 137 | | 597336 | 0.100 | 0.0 | MM- |
| 60 | 9Cl-PF3ONS-1 | 94 | 530.807 > 350.967 | 7.85 | 17 | 31007 | | | | | 8 | 88 | 712 | 1236685 | 0.100 | 0.0 | ddI |
| 61 | 9Cl-PF3ONS-2 | 95 | 532.804 > 352.947 | | | 14591 | | | | | | 713 | | 597336 | 0.100 | 0.0 | MM-I |
| 62 | 11Cl-PF3OUdS-1 | 94 | 630.865 > 450.902 | 8.51 | 18 | 31007 | | | | | 5 | 189 | 889 | 1236685 | 0.100 | 0.0 | ddI |
| 63 | 11Cl-PF3OUdS-2 | 95 | 632.868 > 452.91 | 8.54 | 19 | 14591 | | 0.169 | 0.5867 | | 2 | 496 | 1095 | 597336 | 0.100 | 0.0 | MM |
| 64 | 13C4-PFBA | 96 | 216.776 > 171.928 | 1.97 | 70669 | 33276 | 40.000 | 414.900 | 0.0908 | 103.7 | 134... | 81 | 1091503 | 521951 | 0.100 | 0.0 | bb |
| 65 | 13C5-PFPeA | 97 | 268.16 > 223.035 | 4.34 | 39026 | 23989 | 20.000 | 200.527 | 0.0413 | 100.3 | 110... | 114 | 1262813 | 1024635 | 0.100 | 0.0 | bb |
| 66 | 13C5-PFHxA-1 | 97 | 318.029 > 272.993 | 5.02 | 17333 | 23989 | 10.000 | 102.615 | 0.0220 | 102.6 | 142... | 53 | 754362 | 1024635 | 0.100 | 0.0 | bb |
| 67 | 13C5-PFHxA-2 | 97 | 318.029 > 120.341 | 5.02 | 650 | 23989 | 10.000 | 113.375 | 0.1803 | 113.4 | 1907 | 15 | 28085 | 1024635 | 0.100 | 0.0 | bb |
| 68 | 13C4-PFHpA | 99 | 367.086 > 322.004 | 5.53 | 21400 | 3893 | 10.000 | 101.083 | 0.0082 | 101.1 | 509... | 16 | 792797 | 104310 | 0.100 | 0.0 | bb |
| 69 | 13C8-PFOA | 99 | 421.096 > 376.022 | 6.36 | 22492 | 3893 | 10.000 | 92.464 | 0.0344 | 92.5 | 7860 | 75 | 588048 | 104310 | 0.100 | 0.0 | bb |
| 70 | 13C9-PFNA | 100 | 472.096 > 427.014 | 7.12 | 13394 | 11858 | 5.000 | 52.008 | 0.0699 | 104.0 | 2255 | 244 | 549105 | 481170 | 0.100 | 0.0 | bb |

PVed by WANGG 13-Apr-19, SVed by AP 16-Apr-19. NOTE: Units = ng/L for BLK and FIeld Samples.

**Quantify Sample Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_130-b.qld

Last Altered: Tuesday, April 16, 2019 12:33:52 Pacific Daylight Time
Printed: Tuesday, April 16, 2019 12:41:58 Pacific Daylight Time

**ID: WG67438-102,,BLK, Name: FC9W_130S25, Description: 1,WG67438,2/4000uL, Date: 31-Mar-2019, Time: 01:56:13**

| # | Name | IS# | Trace | RT | Area | IS Area | Std. Conc | Conc. | LOD | %Rec | S/N | Noise | Peak Height | IS Height | Sample size | F2 | Flags |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 71 | 13C7-PFUnA | 101 | 570.019 > 525.05 | 7.83 | 10221 | 14398 | 5.000 | 31.746 | 0.0154 | 63.5 | 6405 | 64 | 410168 | 556271 | 0.100 | 0.0 | bb |
| 72 | 13C6-PFDA | 101 | 519.147 > 474.058 | 7.53 | 14565 | 14398 | 5.000 | 53.758 | 0.0092 | 107.5 | 173... | 32 | 554056 | 556271 | 0.100 | 0.0 | bb |
| 73 | 13C2-PFDoA | 101 | 615.127 > 570.013 | 8.14 | 3157 | 14398 | 5.000 | 13.738 | 0.0037 | 27.5 | 9809 | 11 | 106143 | 556271 | 0.100 | 0.0 | bb |
| 74 | 13C2-PFTeDA | 101 | 715.057 > 670.026 | 8.88 | 1142 | 14398 | 5.000 | 5.067 | 0.0052 | 10.1 | 2263 | 15 | 33938 | 556271 | 0.100 | 0.0 | bb |
| 75 | 13C3-PFBS-1 | 102 | 302.056 > 79.865 | 4.98 | 7574 | 5469 | 10.000 | 115.069 | 0.0328 | 115.1 | 169... | 18 | 301843 | 135043 | 0.100 | 0.0 | bb |
| 76 | 13C3-PFBS-2 | 102 | 302.056 > 98.875 | 4.98 | 3570 | 5469 | 10.000 | 112.202 | 0.0662 | 112.2 | 8026 | 17 | 139073 | 135043 | 0.100 | 0.0 | bb |
| 77 | 13C3-PFHxS-1 | 102 | 402.114 > 79.858 | 6.49 | 5926 | 5469 | 10.000 | 104.467 | 0.0923 | 104.5 | 3647 | 43 | 157198 | 135043 | 0.100 | 0.0 | bb |
| 78 | 13C3-PFHxS-2 | 102 | 402.114 > 98.801 | 6.49 | 3370 | 5469 | 10.000 | 106.641 | 0.3616 | 106.6 | 845 | 94 | 79497 | 135043 | 0.100 | 0.0 | bb |
| 79 | 13C8-PFOS-1 | 103 | 507.124 > 79.858 | 7.63 | 5673 | 6361 | 10.000 | 112.656 | 0.1375 | 112.7 | 2474 | 88 | 217125 | 241748 | 0.100 | 0.0 | bb |
| 80 | 13C8-PFOS-2 | 104 | 507.124 > 98.867 | 7.63 | 3554 | 4202 | 10.000 | 107.803 | 0.4659 | 107.8 | 706 | 195 | 137543 | 159947 | 0.100 | 0.0 | bb |
| 81 | 13C2-4:2 FTS-1 | 102 | 329.084 > 80.9 | 4.90 | 3641 | 5469 | 20.000 | 187.418 | 1.5529 | 93.7 | 633 | 248 | 157107 | 135043 | 0.100 | 0.0 | bb |
| 82 | 13C2-4:2 FTS-2 | 102 | 329.084 > 309.024 | 4.90 | 6678 | 5469 | 20.000 | 147.309 | 0.0259 | 73.7 | 310... | 10 | 299735 | 135043 | 0.100 | 0.0 | bb |
| 83 | 13C2-6:2 FTS-1 | 102 | 429.078 > 80.900 | 6.02 | 2070 | 5469 | 20.000 | 131.895 | 0.0828 | 65.9 | 5769 | 11 | 61724 | 135043 | 0.100 | 0.0 | bb |
| 84 | 13C2-6:2 FTS-2 | 102 | 429.078 > 409.031 | 6.02 | 4042 | 5469 | 20.000 | 112.488 | 0.0609 | 56.2 | 6272 | 18 | 112985 | 135043 | 0.100 | 0.0 | bb |
| 85 | 13C2-8:2 FTS-1 | 102 | 529.1351 > 80.900 | 7.38 | 3348 | 5469 | 20.000 | 142.806 | 0.2661 | 71.4 | 2594 | 51 | 133206 | 135043 | 0.100 | 0.0 | bb |
| 86 | 13C2-8:2 FTS-2 | 102 | 529.135 > 509.003 | 7.38 | 3522 | 5469 | 20.000 | 111.686 | 0.0525 | 55.8 | 9926 | 14 | 135353 | 135043 | 0.100 | 0.0 | bb |
| 87 | 13C8-PFOSA | 103 | 506.14 > 77.841 | 8.54 | 15220 | 6361 | 10.000 | 191.159 | 0.0171 | 191.2 | 257... | 17 | 445182 | 241748 | 0.100 | 0.0 | bb |
| 88 | D3-N-MeFOSA | 103 | 514.956 > 218.974 | 9.87 | 626 | 6361 | 10.000 | 15.240 | 0.3511 | 15.2 | 107 | 183 | 19604 | 241748 | 0.100 | 0.0 | bb |
| 89 | D5-N-EtFOSA | 103 | 531.112 > 218.984 | 10.14 | 156 | 6361 | 10.000 | 4.483 | 0.2808 | 4.5 | 34 | 123 | 4170 | 241748 | 0.100 | 0.0 | MM |
| 90 | D3-MeFOSAA | 103 | 573.153 > 418.99 | 7.56 | 3572 | 6361 | 20.000 | 80.784 | 0.1119 | 40.4 | 2106 | 63 | 132022 | 241748 | 0.100 | 0.0 | bb |
| 91 | D5-EtFOSAA | 103 | 589.245 > 418.971 | 7.68 | 2780 | 6361 | 20.000 | 75.233 | 0.0204 | 37.6 | 115... | 10 | 110167 | 241748 | 0.100 | 0.0 | bb |
| 92 | D7-N-MeFOSE | 103 | 623.156 > 58.896 | 9.76 | 597 | 6361 | 100.000 | 31.432 | 1.1520 | 3.1 | 57 | 277 | 15864 | 241748 | 0.100 | 0.0 | MM |
| 93 | D9-N-EtFOSE | 103 | 639.184 > 58.897 | 10.02 | 455 | 6361 | 100.000 | 23.120 | 1.1068 | 2.3 | 55 | 276 | 15179 | 241748 | 0.100 | 0.0 | MM |
| 94 | 13C3-HFPO-DA-1 | 97 | 286.8631 > 168.... | 5.18 | 31007 | 23989 | 40.000 | 399.741 | 0.0764 | 99.9 | 146... | 84 | 1236685 | 1024635 | 0.100 | 0.0 | bb |
| 95 | 13C3-HFPO-DA-2 | 97 | 286.8631 > 184.... | 5.18 | 14591 | 23989 | 40.000 | 384.043 | 0.2409 | 96.0 | 4584 | 130 | 597336 | 1024635 | 0.100 | 0.0 | MM |
| 96 | 13C3-PFBA | | 216.029 > 171.97 | 1.97 | 33276 | | 20.000 | 237.724 | 0.8429 | 118.9 | 846 | 617 | 521951 | | 0.100 | 0.0 | bb |
| 97 | 13C2-PFHxA-1 | | 315.083 > 269.984 | 5.02 | 23989 | | 10.000 | 134.371 | 0.0295 | 134.4 | 136... | 75 | 1024635 | | 0.100 | 0.0 | bb |
| 98 | 13C2-PFHxA-2 | | 315.083 > 119.359 | 5.02 | 490 | | 10.000 | 91.003 | 0.1471 | 91.0 | 1856 | 11 | 20608 | | 0.100 | 0.0 | bb |
| 99 | 13C4-PFOA | | 417.083 > 171.95 | 6.36 | 3893 | | 10.000 | 129.592 | 0.2320 | 129.6 | 1675 | 62 | 104310 | | 0.100 | 0.0 | bb |
| 1... | 13C5-PFNA | | 468.019 > 423.008 | 7.12 | 11858 | | 5.000 | 58.129 | 0.6512 | 116.3 | 268 | 1797 | 481170 | | 0.100 | 0.0 | bb |
| 1... | 13C2-PFDA | | 515.134 > 470.05 | 7.53 | 14398 | | 5.000 | 63.296 | 0.0165 | 126.6 | 114... | 48 | 556271 | | 0.100 | 0.0 | bb |
| 1... | 18O2-PFHxS | | 402.984 > 83.895 | 6.49 | 5469 | | 10.000 | 139.231 | 0.0334 | 139.2 | 125... | 11 | 135043 | | 0.100 | 0.0 | bb |
| 1... | 13C4-PFOS-1 | | 502.791 > 79.856 | 7.63 | 6361 | | 10.000 | 130.744 | 0.1615 | 130.7 | 2429 | 100 | 241748 | | 0.100 | 0.0 | bb |
| 1... | 13C4-PFOS-2 | | 502.791 > 98.864 | 7.63 | 4202 | | 10.000 | 134.576 | 0.5562 | 134.6 | 726 | 220 | 159947 | | 0.100 | 0.0 | bb |

PVed by WANGG 13-Apr-19, SVed by AP 16-Apr-19. NOTE: Units = ng/L for BLK and FIeld Samples.

**Quantify Sample Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

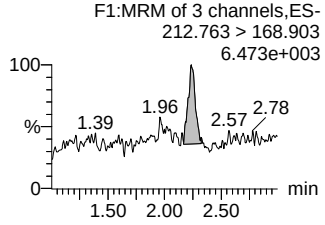
Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_144-b.qld

Last Altered: Tuesday, April 16, 2019 14:59:53 Pacific Daylight Time
Printed: Monday, April 22, 2019 08:57:18 Pacific Daylight Time

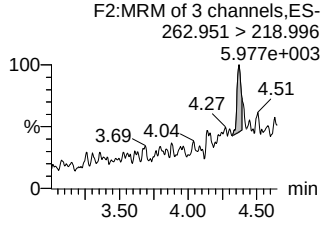
**Method: G:\Masslynx\Master Methods\MassLynx SCN 909\UPLC\FC_110_UPLC_06.mdb 10 Mar 2019 18:18:03**
**Calibration: G:\Masslynx\Inst_W\PFC.PRO\Curve\FC9W_097-a1.cdb 12 Mar 2019 11:26:10**

**ID: WG67663-101,i,BLK, Name: FC9W_144S18, Description: 1,WG67663,2/4000uL, Date: 08-Apr-2019, Time: 17:52:22**

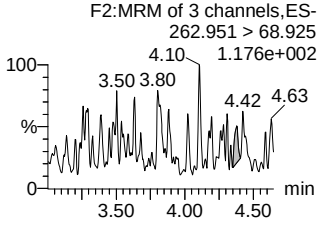
**PFBA**



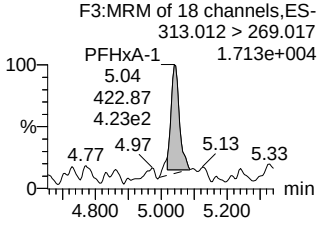

**PFPeA-1**



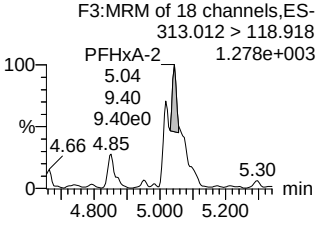

**PFPeA-2**



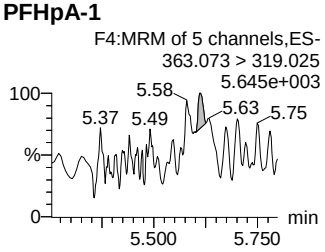

**PFHxA-1**



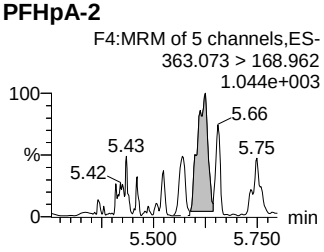

**PFHxA-2**



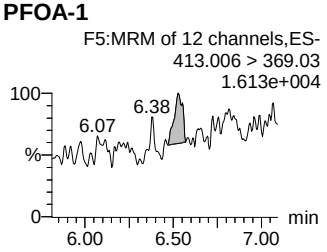

**PFHpA-1**




**PFHpA-2**




**PFOA-1**

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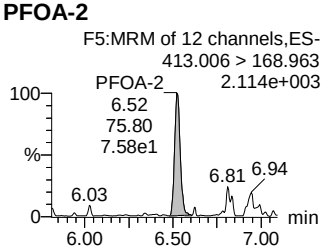


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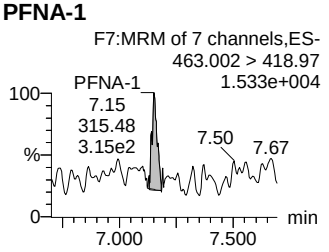


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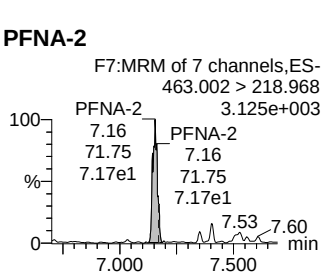


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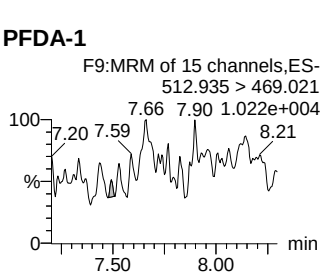


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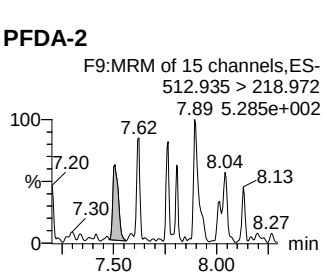


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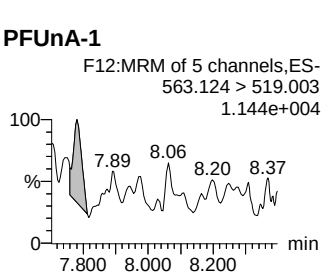


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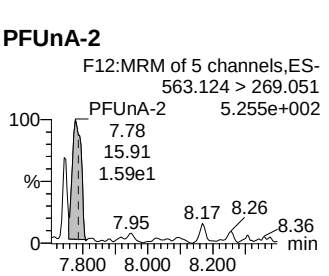


PVed by WANGG 16-Apr-19, SVed by AP 22-Apr-19. NOTE: Units = ng/L for BLK and Field Samples.

**Quantify Sample Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_144-b.qld

Last Altered: Tuesday, April 16, 2019 14:59:53 Pacific Daylight Time
Printed: Monday, April 22, 2019 08:57:18 Pacific Daylight Time

**ID: WG67663-101,i,BLK, Name: FC9W_144S18, Description: 1,WG67663,2/4000uL, Date: 08-Apr-2019, Time: 17:52:22**

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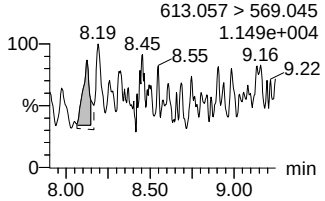


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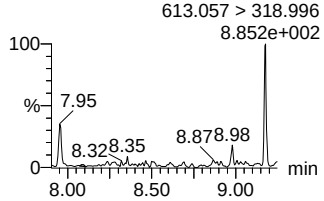


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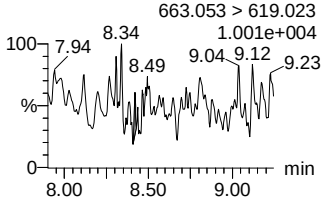


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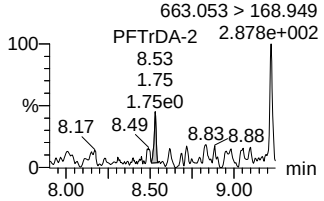


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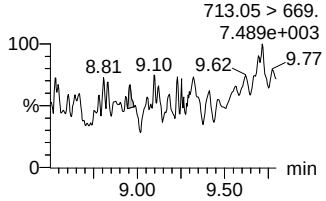


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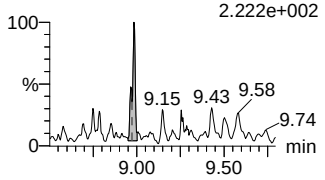


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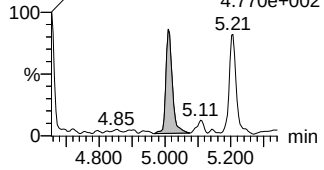


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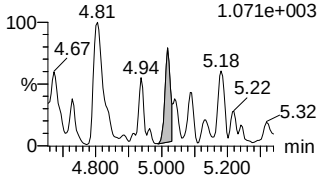


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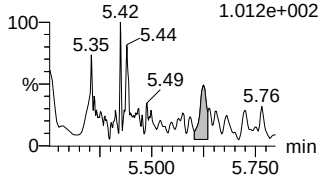


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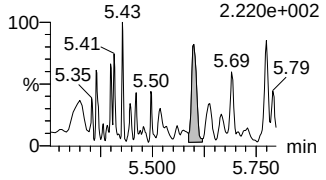


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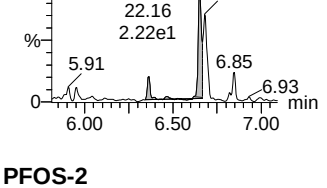


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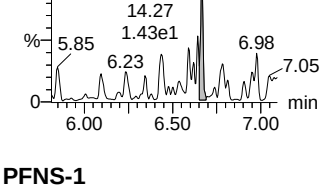


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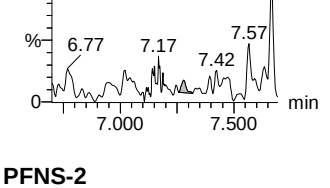


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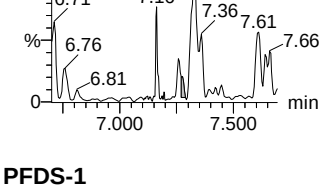


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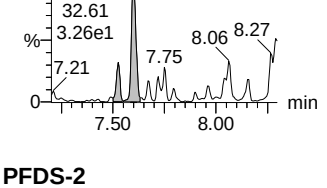


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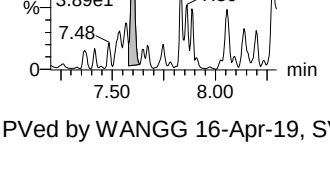


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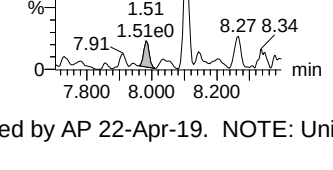


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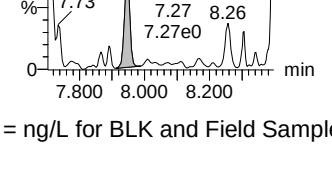


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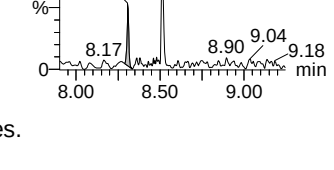


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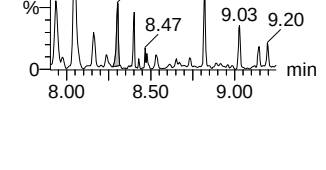


PVed by WANGG 16-Apr-19, SVed by AP 22-Apr-19. NOTE: Units = ng/L for BLK and Field Samples.

**Quantify Sample Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_144-b.qld

Last Altered: Tuesday, April 16, 2019 14:59:53 Pacific Daylight Time
Printed: Monday, April 22, 2019 08:57:18 Pacific Daylight Time

**ID: WG67663-101,i,BLK, Name: FC9W_144S18, Description: 1,WG67663,2/4000uL, Date: 08-Apr-2019, Time: 17:52:22**

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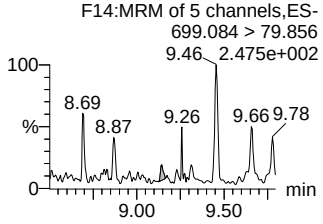


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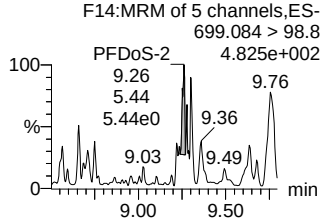


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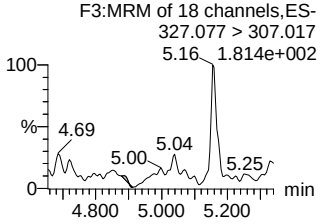


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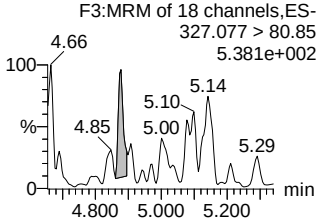


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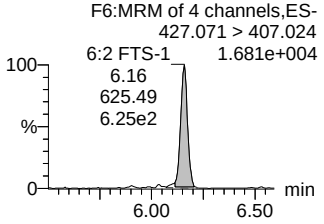


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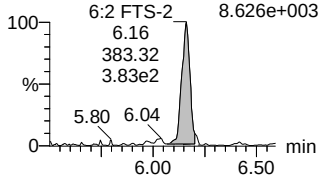


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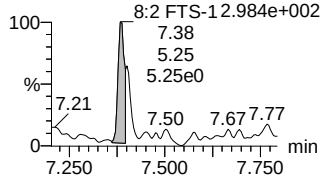


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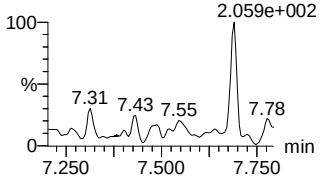


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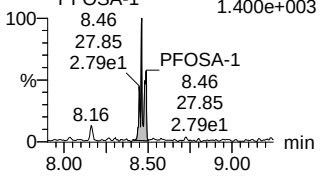


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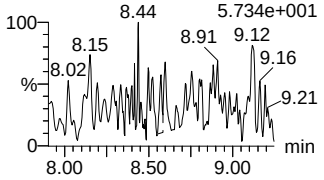
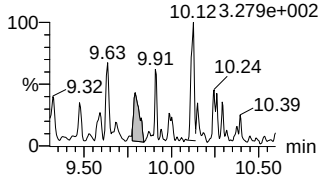



**N-MeFOSA-1**

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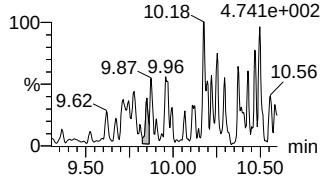


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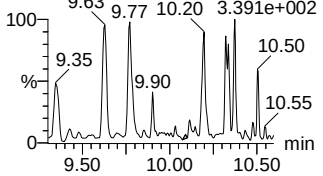


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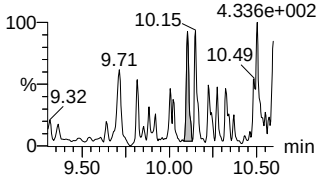


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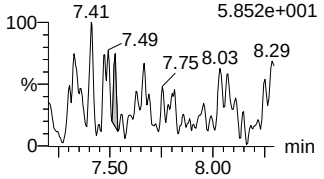


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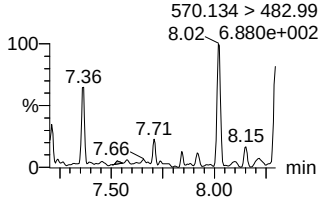


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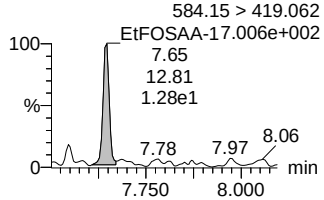


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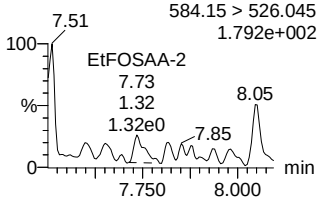


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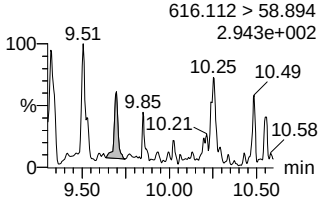


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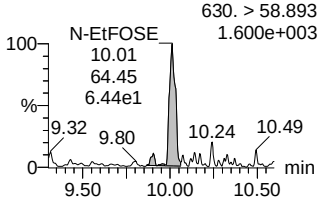


PVed by WANGG 16-Apr-19, SVed by AP 22-Apr-19. NOTE: Units = ng/L for BLK and Field Samples.

**Quantify Sample Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_144-b.qld

Last Altered: Tuesday, April 16, 2019 14:59:53 Pacific Daylight Time
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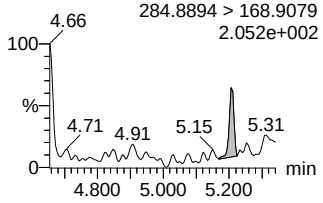
**ID: WG67663-101,i,BLK, Name: FC9W_144S18, Description: 1,WG67663,2/4000uL, Date: 08-Apr-2019, Time: 17:52:22**

**HFPO-DA-1**

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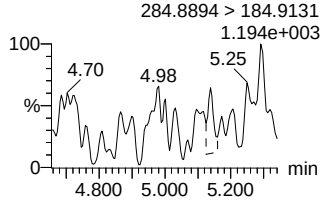
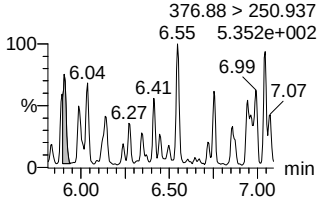



**ADONA-1**

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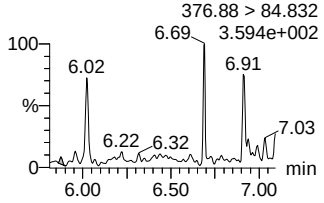
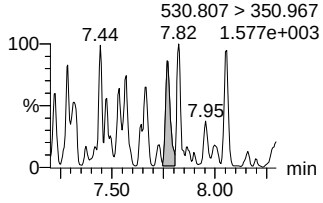
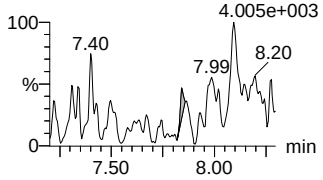


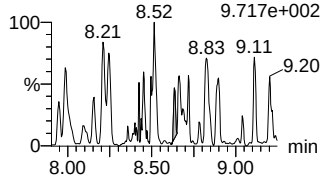

**9Cl-PF3ONS-1**




**9Cl-PF3ONS-2**




**11Cl-PF3OUdS-1**

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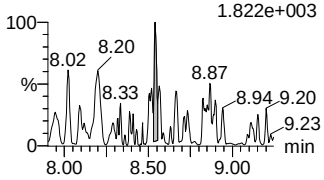
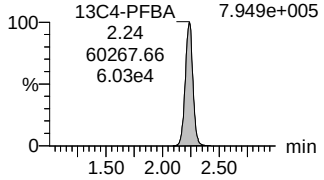
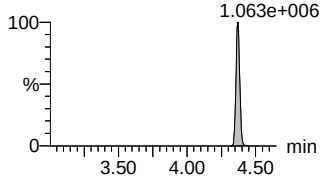



**13C4-PFBA**




**13C5-PFPeA**

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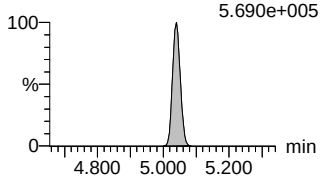


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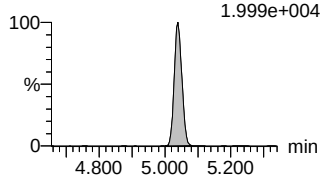


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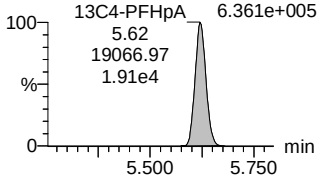
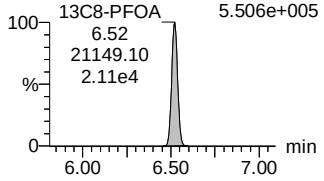
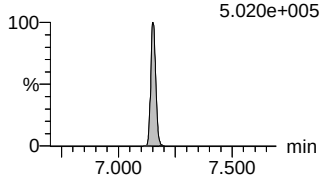


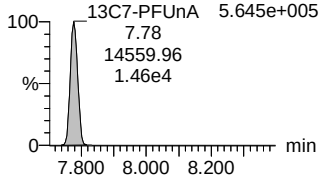

**13C8-PFOA**




**13C9-PFNA**




**13C7-PFUnA**

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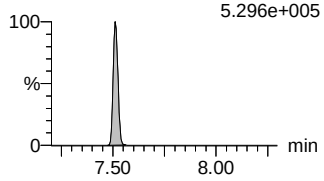
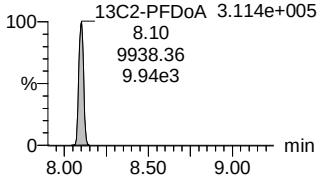
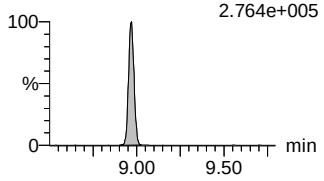


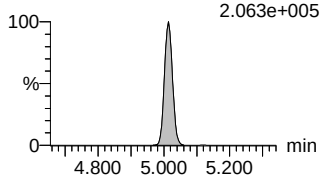

**13C2-PFDoA**




**13C2-PFTeDA**




**13C3-PFBS-1**



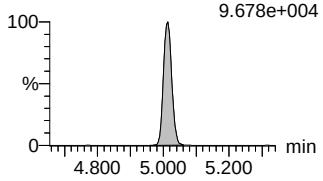

PVed by WANGG 16-Apr-19, SVed by AP 22-Apr-19. NOTE: Units = ng/L for BLK and Field Samples.

**Quantify Sample Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_144-b.qld

Last Altered: Tuesday, April 16, 2019 14:59:53 Pacific Daylight Time
Printed: Monday, April 22, 2019 08:57:18 Pacific Daylight Time

**ID: WG67663-101,i,BLK, Name: FC9W_144S18, Description: 1,WG67663,2/4000uL, Date: 08-Apr-2019, Time: 17:52:22**

**13C3-PFBS-2**
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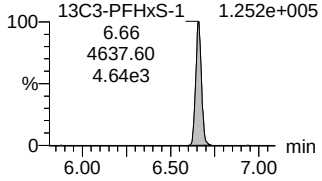


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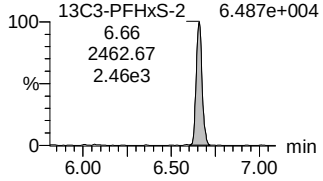
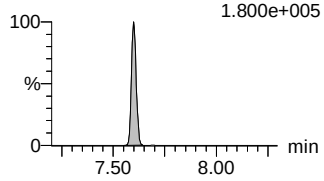



**13C8-PFOS-1**
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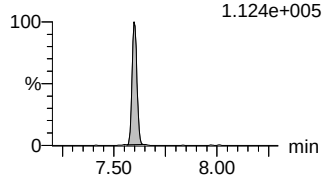


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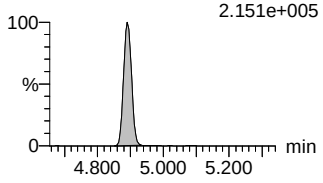


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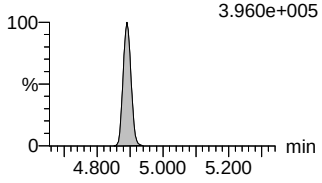
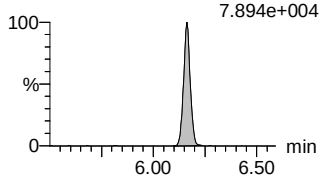



**13C2-6:2 FTS-1**
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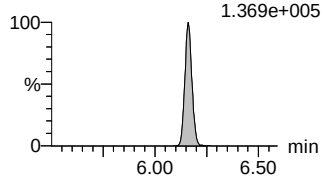


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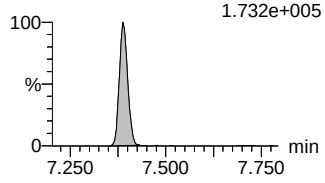


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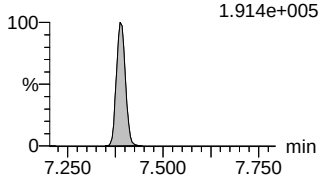


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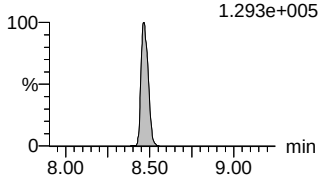
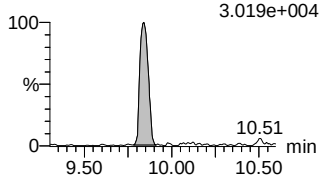
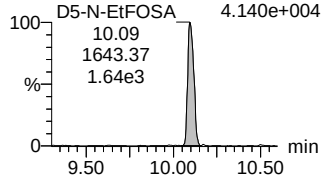



**D3-N-MeFOSA**



**D5-N-EtFOSA**
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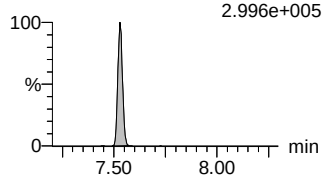


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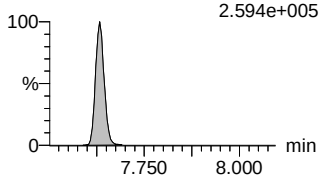
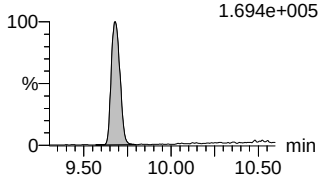
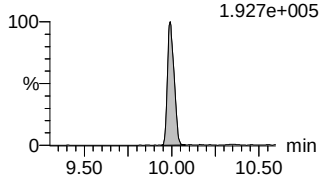



**D7-N-MeFOSE**



**D9-N-EtFOSE**
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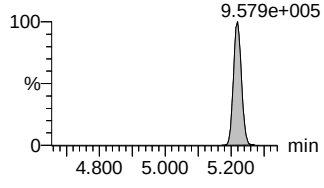


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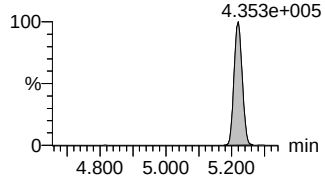



PVed by WANGG 16-Apr-19, SVed by AP 22-Apr-19. NOTE: Units = ng/L for BLK and Field Samples.

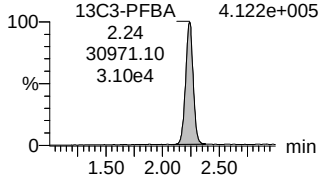
**Quantify Sample Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_144-b.qld

Last Altered: Tuesday, April 16, 2019 14:59:53 Pacific Daylight Time
Printed: Monday, April 22, 2019 08:57:18 Pacific Daylight Time

**ID: WG67663-101,i,BLK, Name: FC9W_144S18, Description: 1,WG67663,2/4000uL, Date: 08-Apr-2019, Time: 17:52:22**

**13C3-PFBA**

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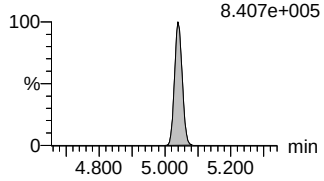


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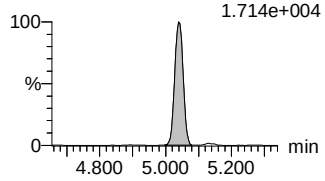
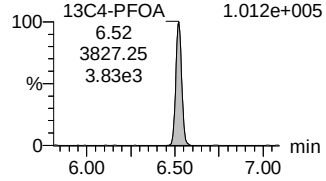



**13C4-PFOA**

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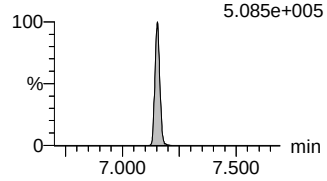
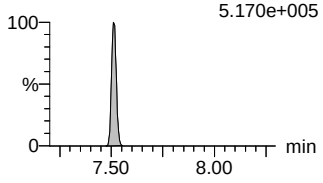
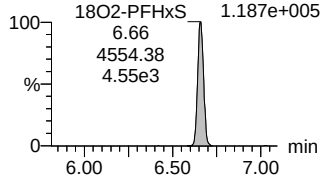


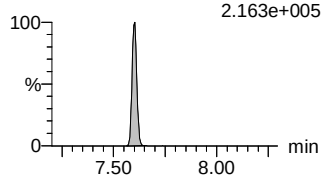

**13C2-PFDA**




**18O2-PFHxS**




**13C4-PFOS-1**

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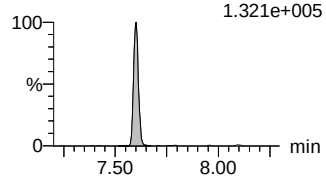



PVed by WANGG 16-Apr-19, SVed by AP 22-Apr-19. NOTE: Units = ng/L for BLK and Field Samples.

**Quantify Sample Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_144-b.qld

Last Altered: Tuesday, April 16, 2019 14:59:53 Pacific Daylight Time
Printed: Monday, April 22, 2019 08:57:18 Pacific Daylight Time

**ID: WG67663-101,i,BLK, Name: FC9W_144S18, Description: 1,WG67663,2/4000uL, Date: 08-Apr-2019, Time: 17:52:22**

| # | Name | IS# | Trace | RT | Area | IS Area | Std. Conc | Conc. | LOD | %Rec | S/N | Noise | Peak Height | IS Height | Sample size | F2 | Flags |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | PFBA | 64 | 212.763 > 168.903 | 2.24 | 304 | 60268 | | 1.488 | | | 12 | 345 | 4141 | 793741 | 0.050 | 0.0 | MM |
| 2 | PFPeA-1 | 65 | 262.951 > 218.996 | 4.37 | 101 | 32730 | | | | | 9 | 357 | 3227 | 1062023 | 0.050 | 0.0 | MMI |
| 3 | PFPeA-2 | 65 | 262.951 > 68.925 | 4.38 | 1 | 32730 | | 3.811 | 7.0023 | | 2 | 21 | 35 | 1062023 | 0.050 | 0.0 | MM |
| 4 | PFHxA-1 | 66 | 313.012 > 269.017 | 5.04 | 423 | 15293 | | 4.227 | | | 10 | 1493 | 14532 | 568456 | 0.050 | 0.0 | MM |
| 5 | PFHxA-2 | 66 | 313.012 > 118.918 | 5.04 | 9 | 15293 | | 1.129 | 2.1188 | | 3 | 216 | 689 | 568456 | 0.050 | 0.0 | MM |
| 6 | PFHpA-1 | 68 | 363.073 > 319.025 | 5.61 | 21 | 19067 | | | | | 2 | 827 | 1593 | 635156 | 0.050 | 0.0 | MMI |
| 7 | PFHpA-2 | 68 | 363.073 > 168.962 | 5.63 | 29 | 19067 | | 0.644 | 0.4896 | | 4 | 270 | 998 | 635156 | 0.050 | 0.0 | MM |
| 8 | PFOA-1 | 69 | 413.006 > 369.03 | 6.53 | 360 | 21149 | | 0.345 | | | 4 | 1585 | 6554 | 549916 | 0.050 | 0.0 | MM |
| 9 | PFOA-2 | 69 | 413.006 > 168.963 | 6.52 | 76 | 21149 | | | | | 28 | 74 | 2090 | 549916 | 0.050 | 0.0 | MMI |
| 10 | PFNA-1 | 70 | 463.002 > 418.97 | 7.15 | 315 | 12704 | | 0.766 | | | 8 | 1503 | 11995 | 502569 | 0.050 | 0.0 | MM |
| 11 | PFNA-2 | 70 | 463.002 > 218.968 | 7.16 | 72 | 12704 | | 1.941 | 0.0643 | | 18 | 171 | 3112 | 502569 | 0.050 | 0.0 | MM |
| 12 | PFDA-1 | 72 | 512.935 > 469.021 | 7.49 | 21 | 13955 | | | | | 1 | 1266 | 1428 | 528913 | 0.050 | 0.0 | MMI |
| 13 | PFDA-2 | 72 | 512.935 > 218.972 | 7.51 | 10 | 13955 | | | | | 3 | 116 | 322 | 528913 | 0.050 | 0.0 | MMI |
| 14 | PFUnA-1 | 71 | 563.124 > 519.003 | 7.78 | 227 | 14560 | | 1.418 | | | 7 | 1047 | 7676 | 563387 | 0.050 | 0.0 | db |
| 15 | PFUnA-2 | 71 | 563.124 > 269.051 | 7.78 | 16 | 14560 | | | | | 33 | 15 | 509 | 563387 | 0.050 | 0.0 | MMI |
| 16 | PFDoA-1 | 73 | 613.057 > 569.045 | 8.13 | 255 | 9938 | | | | | 3 | 2048 | 6017 | 311170 | 0.050 | 0.0 | MMI |
| 17 | PFDoA-2 | 73 | 613.057 > 318.996 | 8.09 | 0 | 9938 | | | | | 1 | 16 | 12 | 311170 | 0.050 | 0.0 | MMI |
| 18 | PFTrDA-1 | 74 | 663.053 > 619.023 | 8.42 | 31 | 9779 | | | | | 2 | 1951 | 3489 | 276093 | 0.050 | 0.0 | MMI |
| 19 | PFTrDA-2 | 74 | 663.053 > 168.949 | 8.53 | 2 | 9779 | | | | | 9 | 13 | 119 | 276093 | 0.050 | 0.0 | dbI |
| 20 | PFTeDA-1 | 74 | 713.05 > 669. | 8.96 | 24 | 9779 | | | | | 1 | 1084 | 1405 | 276093 | 0.050 | 0.0 | MMI |
| 21 | PFTeDA-2 | 74 | 713.05 > 168.94 | 8.98 | 4 | 9779 | | | | | 25 | 8 | 213 | 276093 | 0.050 | 0.0 | MMI |
| 22 | PFBS-1 | 75 | 298.663 > 79.865 | 5.01 | 9 | 5848 | | 0.290 | 0.1771 | | 6 | 63 | 403 | 206241 | 0.050 | 0.0 | MM |
| 23 | PFBS-2 | 76 | 298.663 > 98.811 | 5.02 | 15 | 2809 | | 0.002 | | | 7 | 119 | 818 | 96610 | 0.050 | 0.0 | MM |
| 24 | PFPeS-1 | 77 | 349.107 > 79.857 | 5.63 | 1 | 4638 | | | | | 2 | 24 | 45 | 125122 | 0.050 | 0.0 | ddI |
| 25 | PFPeS-2 | 78 | 349.107 > 98.871 | 5.60 | 2 | 2463 | | | | | 5 | 36 | 176 | 64730 | 0.050 | 0.0 | ddI |
| 26 | PFHxS-1 | 77 | 398.721 > 79.92 | 6.65 | 22 | 4638 | | 3.033 | 2.6065 | | 11 | 89 | 969 | 125122 | 0.050 | 0.0 | MM |
| 27 | PFHxS-2 | 78 | 398.721 > 98.863 | 6.67 | 14 | 2463 | | | | | 9 | 101 | 871 | 64730 | 0.050 | 0.0 | ddI |
| 28 | PFHpS-1 | 79 | 449.036 > 79.857 | 7.28 | 0 | 4711 | | | | | 1 | 14 | 17 | 179775 | 0.050 | 0.0 | MMI |
| 29 | PFHpS-2 | 80 | 449.036 > 98.8 | 7.28 | 1 | 2991 | | 0.243 | 0.9687 | | 1 | 143 | 114 | 111799 | 0.050 | 0.0 | db |
| 30 | PFOS-1 | 79 | 498.906 > 79.856 | 7.60 | 33 | 4711 | | | | | 14 | 74 | 1038 | 179775 | 0.050 | 0.0 | MMI |
| 31 | PFOS-2 | 80 | 498.906 > 98.801 | 7.60 | 39 | 2991 | | 0.828 | | | 8 | 208 | 1664 | 111799 | 0.050 | 0.0 | MM |
| 32 | PFNS-1 | 79 | 548.775 > 79.858 | 7.98 | 2 | 4711 | | | | | 4 | 18 | 76 | 179775 | 0.050 | 0.0 | MMI |
| 33 | PFNS-2 | 80 | 548.775 > 98.801 | 7.94 | 7 | 2991 | | | | | 5 | 68 | 360 | 111799 | 0.050 | 0.0 | MMI |
| 34 | PFDS-1 | 79 | 599.027 > 79.92 | 8.31 | 2 | 4711 | | | | | 12 | 17 | 212 | 179775 | 0.050 | 0.0 | MMI |
| 35 | PFDS-2 | 80 | 599.027 > 98.8 | 8.30 | 6 | 2991 | | 2.413 | 2.2659 | | 8 | 55 | 453 | 111799 | 0.050 | 0.0 | MM |

PVed by WANGG 16-Apr-19, SVed by AP 22-Apr-19. NOTE: Units = ng/L for BLK and Field Samples.

**Quantify Sample Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_144-b.qld

Last Altered: Tuesday, April 16, 2019 14:59:53 Pacific Daylight Time
Printed: Monday, April 22, 2019 08:57:18 Pacific Daylight Time

**ID: WG67663-101,i,BLK, Name: FC9W_144S18, Description: 1,WG67663,2/4000uL, Date: 08-Apr-2019, Time: 17:52:22**

| # | Name | IS# | Trace | RT | Area | IS Area | Std. Conc | Conc. | LOD | %Rec | S/N | Noise | Peak Height | IS Height | Sample size | F2 | Flags |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 36 | PFDoS-1 | 79 | 699.084 > 79.856 | 9.14 | 1 | 4711 | | | | | 1 | 32 | 31 | 179775 | 0.050 | 0.0 | MMI |
| 37 | PFDoS-2 | 80 | 699.084 > 98.8 | 9.26 | 5 | 2991 | | | | | 7 | 49 | 351 | 111799 | 0.050 | 0.0 | MMI |
| 38 | 4:2 FTS-1 | 81 | 327.077 > 307.017 | 4.89 | 0 | 5907 | | | | | 0 | 22 | 4 | 214746 | 0.050 | 0.0 | MMI |
| 39 | 4:2 FTS-2 | 81 | 327.077 > 80.85 | 4.88 | 8 | 5907 | | 1.798 | 2.0279 | | 3 | 137 | 468 | 214746 | 0.050 | 0.0 | MM |
| 40 | 6:2 FTS-1 | 83 | 427.071 > 407.024 | 6.16 | 625 | 2865 | | 41.885 | | | 193 | 86 | 16574 | 78847 | 0.050 | 0.0 | MM |
| 41 | 6:2 FTS-2 | 83 | 427.071 > 80.9 | 6.16 | 383 | 2865 | | 47.421 | 3.7088 | | 37 | 232 | 8503 | 78847 | 0.050 | 0.0 | MM |
| 42 | 8:2 FTS-1 | 85 | 527.065 > 506.997 | 7.38 | 5 | 4310 | | | | | 26 | 11 | 292 | 172888 | 0.050 | 0.0 | ddI |
| 43 | 8:2 FTS-2 | 85 | 527.065 > 80.75 | 7.38 | 0 | 4310 | | | | | 0 | 18 | 2 | 172888 | 0.050 | 0.0 | MMI |
| 44 | PFOSA-1 | 87 | 498.113 > 77.902 | 8.46 | 28 | 6357 | | 2.534 | 1.7371 | | 50 | 28 | 1387 | 129317 | 0.050 | 0.0 | MM |
| 45 | PFOSA-2 | 87 | 498.113 > 477.993 | | | 6357 | | | 41.0546 | | | 15 | | 129317 | 0.050 | 0.0 | MM- |
| 46 | N-MeFOSA-1 | 88 | 511.937 > 218.985 | 9.79 | 5 | 1664 | | | | | 5 | 26 | 129 | 29934 | 0.050 | 0.0 | MMI |
| 47 | N-MeFOSA-2 | 88 | 511.937 > 168.955 | 9.85 | 3 | 1664 | | | | | 1 | 187 | 176 | 29934 | 0.050 | 0.0 | ddI |
| 48 | N-EtFOSA-1 | 89 | 526.017 > 218.977 | 10.09 | 0 | 1643 | | | | | 0 | 41 | 11 | 41347 | 0.050 | 0.0 | MMI |
| 49 | N-EtFOSA-2 | 89 | 526.017 > 168.95 | 10.10 | 7 | 1643 | | | | | 7 | 56 | 382 | 41347 | 0.050 | 0.0 | bdI |
| 50 | MeFOSAA-1 | 90 | 570.134 > 419.035 | 7.53 | 1 | 7739 | | | | | 2 | 16 | 34 | 299064 | 0.050 | 0.0 | MMI |
| 51 | MeFOSAA-2 | 90 | 570.134 > 482.99 | 7.53 | 0 | 7739 | | | | | 0 | 179 | 17 | 299064 | 0.050 | 0.0 | MMI |
| 52 | EtFOSAA-1 | 91 | 584.15 > 419.062 | 7.65 | 13 | 6741 | | 2.221 | 1.9137 | | 6 | 113 | 686 | 259198 | 0.050 | 0.0 | bd |
| 53 | EtFOSAA-2 | 91 | 584.15 > 526.045 | | | 6741 | | | 2.4328 | | | 16 | | 259198 | 0.050 | 0.0 | MM- |
| 54 | N-MeFOSE | 92 | 616.112 > 58.894 | 9.70 | 4 | 9736 | | | | | 5 | 31 | 159 | 168803 | 0.050 | 0.0 | MMI |
| 55 | N-EtFOSE | 93 | 630. > 58.893 | 10.01 | 64 | 8348 | | 6.784 | | | 17 | 90 | 1578 | 192520 | 0.050 | 0.0 | MM |
| 56 | HFPO-DA-1 | 94 | 284.8894 > 168.... | 5.21 | 2 | 26608 | | | | | 8 | 14 | 115 | 957142 | 0.050 | 0.0 | dbI |
| 57 | HFPO-DA-2 | 95 | 284.8894 > 184.... | | | 12298 | | | | | | 468 | | 434829 | 0.050 | 0.0 | MM-I |
| 58 | ADONA-1 | 94 | 376.88 > 250.937 | 5.91 | 8 | 26608 | | | | | 3 | 140 | 387 | 957142 | 0.050 | 0.0 | ddI |
| 59 | ADONA-2 | 95 | 376.88 > 84.832 | 5.88 | 0 | 12298 | | 10.514 | 10.5310 | | 1 | 19 | 20 | 434829 | 0.050 | 0.0 | MM |
| 60 | 9Cl-PF3ONS-1 | 94 | 530.807 > 350.967 | 7.77 | 36 | 26608 | | | | | 5 | 289 | 1336 | 957142 | 0.050 | 0.0 | ddI |
| 61 | 9Cl-PF3ONS-2 | 95 | 532.804 > 352.947 | 7.84 | 16 | 12298 | | | | | 1 | 864 | 1017 | 434829 | 0.050 | 0.0 | MMI |
| 62 | 11Cl-PF3OUdS-1 | 94 | 630.865 > 450.902 | 8.63 | 5 | 26608 | | | | | 2 | 218 | 397 | 957142 | 0.050 | 0.0 | MMI |
| 63 | 11Cl-PF3OUdS-2 | 95 | 632.868 > 452.91 | 8.54 | 28 | 12298 | | 1.040 | 0.7316 | | 7 | 267 | 1756 | 434829 | 0.050 | 0.0 | dd |
| 64 | 13C4-PFBA | 96 | 216.776 > 171.928 | 2.24 | 60268 | 30971 | 40.000 | 760.333 | 0.1701 | 95.0 | 133... | 59 | 793741 | 408925 | 0.050 | 0.0 | bb |
| 65 | 13C5-PFPeA | 97 | 268.16 > 223.035 | 4.37 | 32730 | 22326 | 20.000 | 361.406 | 0.1035 | 90.4 | 9036 | 118 | 1062023 | 839704 | 0.050 | 0.0 | bb |
| 66 | 13C5-PFHxA-1 | 97 | 318.029 > 272.993 | 5.04 | 15293 | 22326 | 10.000 | 194.557 | 0.1227 | 97.3 | 4702 | 121 | 568456 | 839704 | 0.050 | 0.0 | bb |
| 67 | 13C5-PFHxA-2 | 97 | 318.029 > 120.341 | 5.04 | 530 | 22326 | 10.000 | 198.342 | 0.4147 | 99.2 | 1437 | 14 | 19945 | 839704 | 0.050 | 0.0 | bb |
| 68 | 13C4-PFHpA | 99 | 367.086 > 322.004 | 5.62 | 19067 | 3827 | 10.000 | 183.238 | 0.0451 | 91.6 | 153... | 41 | 635156 | 101138 | 0.050 | 0.0 | bb |
| 69 | 13C8-PFOA | 99 | 421.096 > 376.022 | 6.52 | 21149 | 3827 | 10.000 | 176.892 | 0.0308 | 88.4 | 169... | 32 | 549916 | 101138 | 0.050 | 0.0 | bb |
| 70 | 13C9-PFNA | 100 | 472.096 > 427.014 | 7.15 | 12704 | 12333 | 5.000 | 94.858 | 0.1582 | 94.9 | 1726 | 291 | 502569 | 508361 | 0.050 | 0.0 | MM |

PVed by WANGG 16-Apr-19, SVed by AP 22-Apr-19. NOTE: Units = ng/L for BLK and Field Samples.

**Quantify Sample Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_144-b.qld

Last Altered: Tuesday, April 16, 2019 14:59:53 Pacific Daylight Time
Printed: Monday, April 22, 2019 08:57:18 Pacific Daylight Time

**ID: WG67663-101,i,BLK, Name: FC9W_144S18, Description: 1,WG67663,2/4000uL, Date: 08-Apr-2019, Time: 17:52:22**

| # | Name | IS# | Trace | RT | Area | IS Area | Std. Conc | Conc. | LOD | %Rec | S/N | Noise | Peak Height | IS Height | Sample size | F2 | Flags |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 71 | 13C7-PFUnA | 101 | 570.019 > 525.05 | 7.78 | 14560 | 13684 | 5.000 | 95.157 | 0.0378 | 95.2 | 7734 | 73 | 563387 | 516574 | 0.050 | 0.0 | bb |
| 72 | 13C6-PFDA | 101 | 519.147 > 474.058 | 7.51 | 13955 | 13684 | 5.000 | 108.388 | 0.0104 | 108.4 | 312... | 17 | 528913 | 516574 | 0.050 | 0.0 | bb |
| 73 | 13C2-PFDoA | 101 | 615.127 > 570.013 | 8.10 | 9938 | 13684 | 5.000 | 90.998 | 0.0216 | 91.0 | 104... | 30 | 311170 | 516574 | 0.050 | 0.0 | bb |
| 74 | 13C2-PFTeDA | 101 | 715.057 > 670.026 | 8.97 | 9779 | 13684 | 5.000 | 91.262 | 0.0820 | 91.3 | 2498 | 111 | 276093 | 516574 | 0.050 | 0.0 | bb |
| 75 | 13C3-PFBS-1 | 102 | 302.056 > 79.865 | 5.01 | 5848 | 4554 | 10.000 | 213.362 | 0.0930 | 106.7 | 9314 | 22 | 206241 | 118679 | 0.050 | 0.0 | bb |
| 76 | 13C3-PFBS-2 | 102 | 302.056 > 98.875 | 5.01 | 2809 | 4554 | 10.000 | 212.036 | 0.1390 | 106.0 | 6039 | 16 | 96610 | 118679 | 0.050 | 0.0 | bb |
| 77 | 13C3-PFHxS-1 | 102 | 402.114 > 79.858 | 6.66 | 4638 | 4554 | 10.000 | 196.352 | 0.0854 | 98.2 | 7142 | 18 | 125122 | 118679 | 0.050 | 0.0 | bb |
| 78 | 13C3-PFHxS-2 | 102 | 402.114 > 98.801 | 6.66 | 2463 | 4554 | 10.000 | 187.162 | 1.4989 | 93.6 | 378 | 171 | 64730 | 118679 | 0.050 | 0.0 | bb |
| 79 | 13C8-PFOS-1 | 103 | 507.124 > 79.858 | 7.60 | 4711 | 5598 | 10.000 | 212.600 | 0.0655 | 106.3 | 9625 | 19 | 179775 | 216009 | 0.050 | 0.0 | bb |
| 80 | 13C8-PFOS-2 | 104 | 507.124 > 98.867 | 7.60 | 2991 | 3519 | 10.000 | 216.721 | 0.4446 | 108.4 | 1457 | 77 | 111799 | 132048 | 0.050 | 0.0 | bb |
| 81 | 13C2-4:2 FTS-1 | 102 | 329.084 > 80.9 | 4.89 | 5907 | 4554 | 20.000 | 730.396 | 2.8755 | 182.6 | 1063 | 202 | 214746 | 118679 | 0.050 | 0.0 | bb |
| 82 | 13C2-4:2 FTS-2 | 102 | 329.084 > 309.024 | 4.89 | 10867 | 4554 | 20.000 | 575.735 | 0.0781 | 143.9 | 308... | 13 | 395645 | 118679 | 0.050 | 0.0 | bb |
| 83 | 13C2-6:2 FTS-1 | 102 | 429.078 > 80.900 | 6.16 | 2865 | 4554 | 20.000 | 438.489 | 0.6487 | 109.6 | 2142 | 37 | 78847 | 118679 | 0.050 | 0.0 | bb |
| 84 | 13C2-6:2 FTS-2 | 102 | 429.078 > 409.031 | 6.16 | 5254 | 4554 | 20.000 | 351.176 | 0.1868 | 87.8 | 5634 | 24 | 136751 | 118679 | 0.050 | 0.0 | bb |
| 85 | 13C2-8:2 FTS-1 | 102 | 529.1351 > 80.900 | 7.39 | 4310 | 4554 | 20.000 | 441.489 | 1.2945 | 110.4 | 1575 | 110 | 172888 | 118679 | 0.050 | 0.0 | bb |
| 86 | 13C2-8:2 FTS-2 | 102 | 529.135 > 509.003 | 7.39 | 5149 | 4554 | 20.000 | 392.142 | 0.0495 | 98.0 | 338... | 6 | 191179 | 118679 | 0.050 | 0.0 | bb |
| 87 | 13C8-PFOSA | 103 | 506.14 > 77.841 | 8.46 | 6357 | 5598 | 10.000 | 181.448 | 1.7511 | 90.7 | 164 | 789 | 129317 | 216009 | 0.050 | 0.0 | bb |
| 88 | D3-N-MeFOSA | 103 | 514.956 > 218.974 | 9.84 | 1664 | 5598 | 10.000 | 92.020 | 1.4064 | 46.0 | 91 | 327 | 29934 | 216009 | 0.050 | 0.0 | bb |
| 89 | D5-N-EtFOSA | 103 | 531.112 > 218.984 | 10.09 | 1643 | 5598 | 10.000 | 107.610 | 0.6865 | 53.8 | 307 | 135 | 41347 | 216009 | 0.050 | 0.0 | bb |
| 90 | D3-MeFOSAA | 103 | 573.153 > 418.99 | 7.53 | 7739 | 5598 | 20.000 | 397.780 | 0.2998 | 99.4 | 3987 | 75 | 299064 | 216009 | 0.050 | 0.0 | bb |
| 91 | D5-EtFOSAA | 103 | 589.245 > 418.971 | 7.63 | 6741 | 5598 | 20.000 | 414.652 | 0.3188 | 103.7 | 3888 | 67 | 259198 | 216009 | 0.050 | 0.0 | bb |
| 92 | D7-N-MeFOSE | 103 | 623.156 > 58.896 | 9.68 | 9736 | 5598 | 100.000 | 1165.735 | 10.3346 | 58.3 | 152 | 1110 | 168803 | 216009 | 0.050 | 0.0 | bb |
| 93 | D9-N-EtFOSE | 103 | 639.184 > 58.897 | 9.99 | 8348 | 5598 | 100.000 | 965.067 | 1.9270 | 48.3 | 898 | 214 | 192520 | 216009 | 0.050 | 0.0 | bb |
| 94 | 13C3-HFPO-DA-1 | 97 | 286.8631 > 168.... | 5.22 | 26608 | 22326 | 40.000 | 737.166 | 0.1111 | 92.1 | 190... | 50 | 957142 | 839704 | 0.050 | 0.0 | bb |
| 95 | 13C3-HFPO-DA-2 | 97 | 286.8631 > 184.... | 5.22 | 12298 | 22326 | 40.000 | 695.568 | 0.3758 | 86.9 | 5221 | 83 | 434829 | 839704 | 0.050 | 0.0 | bb |
| 96 | 13C3-PFBA | | 216.029 > 171.97 | 2.24 | 30971 | | 20.000 | 442.516 | 1.0767 | 110.6 | 1233 | 332 | 408925 | | 0.050 | 0.0 | bb |
| 97 | 13C2-PFHxA-1 | | 315.083 > 269.984 | 5.04 | 22326 | | 10.000 | 250.113 | 0.0129 | 125.1 | 579... | 14 | 839704 | | 0.050 | 0.0 | bb |
| 98 | 13C2-PFHxA-2 | | 315.083 > 119.359 | 5.04 | 504 | | 10.000 | 186.975 | 0.5007 | 93.5 | 1120 | 15 | 17099 | | 0.050 | 0.0 | bb |
| 99 | 13C4-PFOA | | 417.083 > 171.95 | 6.52 | 3827 | | 10.000 | 254.777 | 0.2003 | 127.4 | 3816 | 27 | 101138 | | 0.050 | 0.0 | bb |
| 1... | 13C5-PFNA | | 468.019 > 423.008 | 7.15 | 12333 | | 5.000 | 120.921 | 0.1815 | 120.9 | 1999 | 254 | 508361 | | 0.050 | 0.0 | bb |
| 1... | 13C2-PFDA | | 515.134 > 470.05 | 7.51 | 13684 | | 5.000 | 120.318 | 0.0185 | 120.3 | 194... | 27 | 516574 | | 0.050 | 0.0 | bb |
| 1... | 18O2-PFHxS | | 402.984 > 83.895 | 6.66 | 4554 | | 10.000 | 231.890 | 0.0793 | 115.9 | 8776 | 14 | 118679 | | 0.050 | 0.0 | bb |
| 1... | 13C4-PFOS-1 | | 502.791 > 79.856 | 7.60 | 5598 | | 10.000 | 230.126 | 0.2245 | 115.1 | 3075 | 70 | 216009 | | 0.050 | 0.0 | bb |
| 1... | 13C4-PFOS-2 | | 502.791 > 98.864 | 7.60 | 3519 | | 10.000 | 225.383 | 0.5569 | 112.7 | 1214 | 109 | 132048 | | 0.050 | 0.0 | bb |

PVed by WANGG 16-Apr-19, SVed by AP 22-Apr-19. NOTE: Units = ng/L for BLK and Field Samples.

**Quantify Sample Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

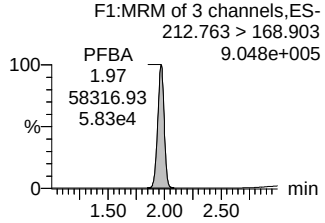
Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_130-b.qld

Last Altered: Tuesday, April 16, 2019 12:33:52 Pacific Daylight Time
Printed: Tuesday, April 16, 2019 12:40:22 Pacific Daylight Time

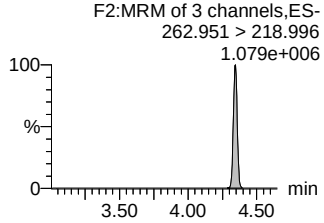
**Method: G:\Masslynx\Master Methods\MassLynx SCN 909\UPLC\FC_110_UPLC_06.mdb 10 Mar 2019 18:18:03**
**Calibration: G:\Masslynx\Inst_W\PFC.PRO\Curve\FC9W_097-a1.cdb 12 Mar 2019 11:26:10**

**ID: WG67438-103,,SPM, Name: FC9W_130S21, Description: 1,WG67438,2/4000uL, Date: 31-Mar-2019, Time: 01:02:28**

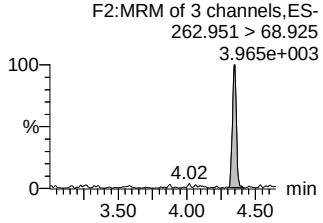
**PFBA**



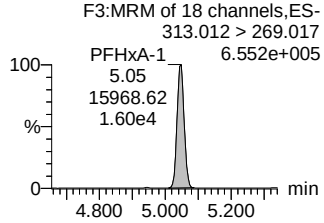

**PFPeA-1**




**PFPeA-2**




**PFHxA-1**

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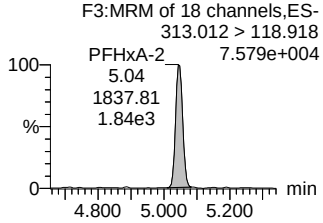
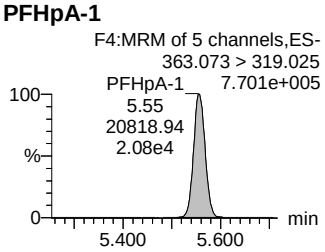
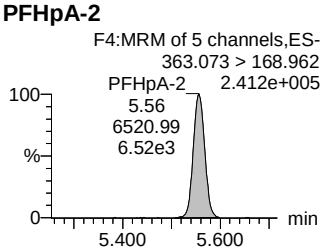



**PFHpA-1**




**PFHpA-2**

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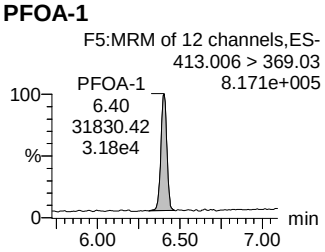


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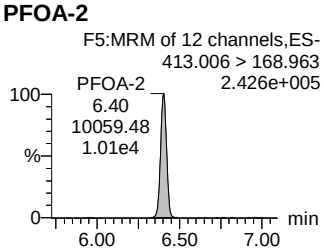


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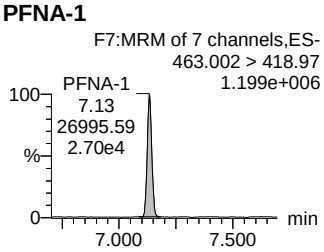


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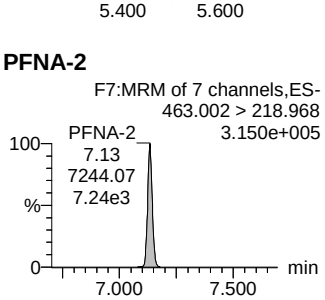


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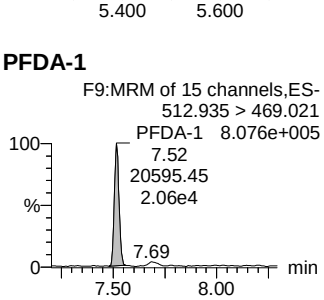


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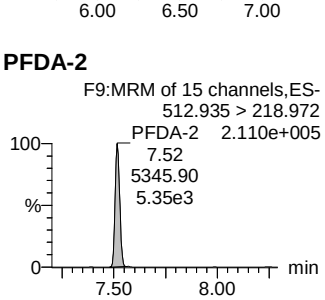


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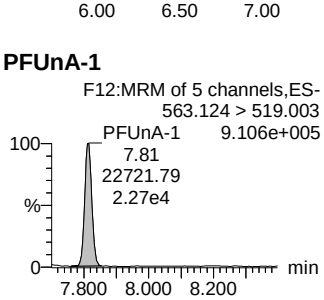


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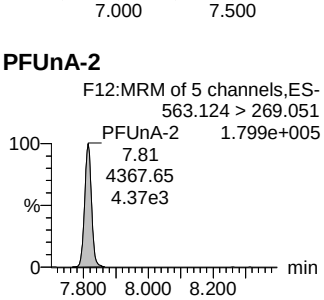



PVed by WANGG 13-Apr-19, SVed by AP 16-Apr-19. NOTE: Units = ng/L for BLK and FIeld Samples.

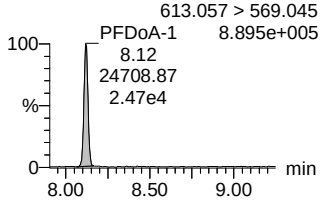
**Quantify Sample Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_130-b.qld

Last Altered: Tuesday, April 16, 2019 12:33:52 Pacific Daylight Time
Printed: Tuesday, April 16, 2019 12:40:22 Pacific Daylight Time

**ID: WG67438-103,,SPM, Name: FC9W_130S21, Description: 1,WG67438,2/4000uL, Date: 31-Mar-2019, Time: 01:02:28**

**PFDoA-1**

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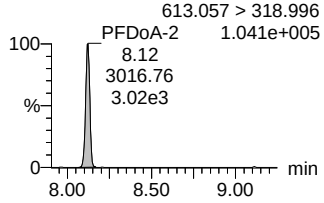


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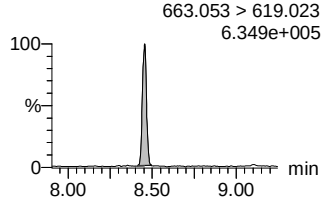


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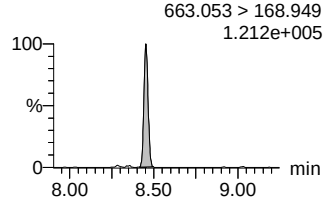


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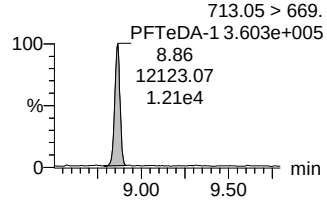


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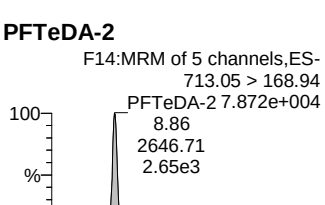


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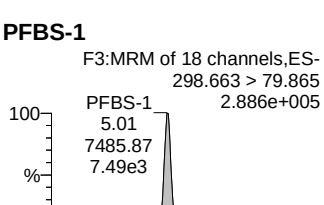


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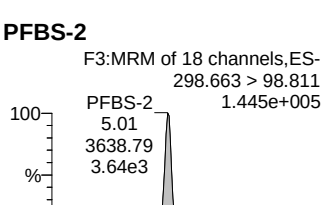


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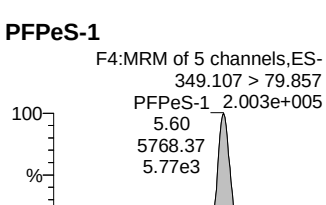


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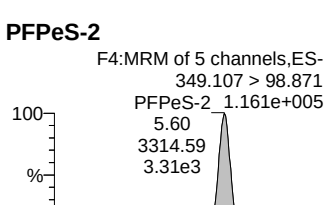


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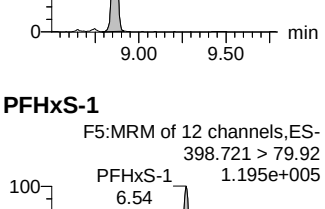


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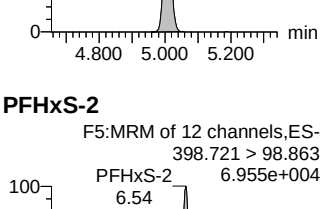


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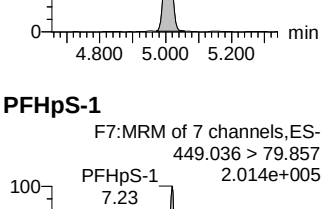


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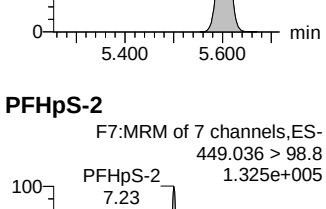


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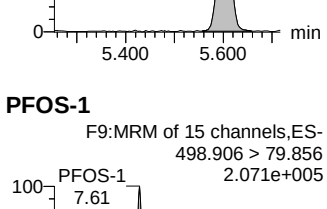


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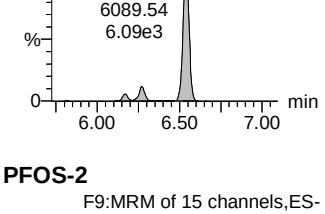


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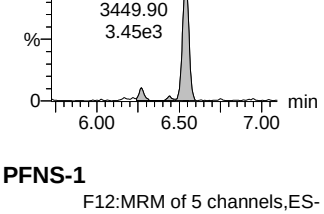


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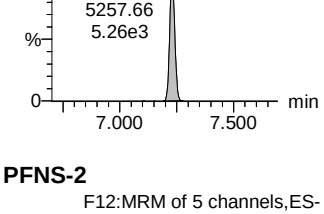


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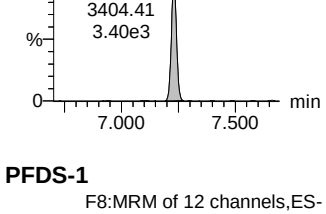


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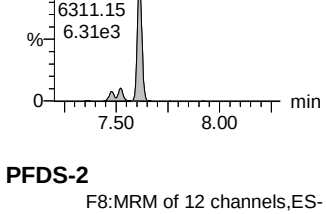


PVed by WANGG 13-Apr-19, SVed by AP 16-Apr-19. NOTE: Units = ng/L for BLK and FIeld Samples.

**Quantify Sample Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_130-b.qld

Last Altered: Tuesday, April 16, 2019 12:33:52 Pacific Daylight Time
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**ID: WG67438-103,,SPM, Name: FC9W_130S21, Description: 1,WG67438,2/4000uL, Date: 31-Mar-2019, Time: 01:02:28**

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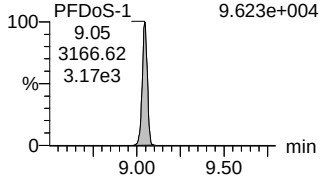


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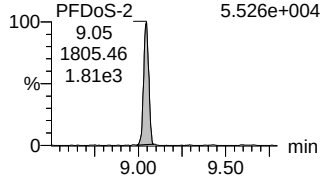


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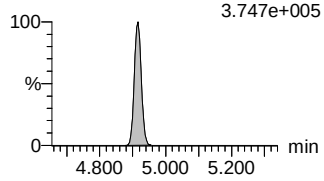


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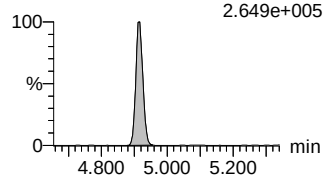


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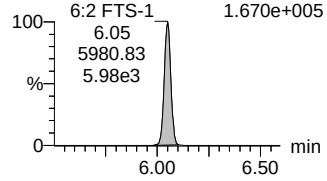


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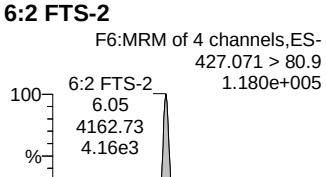


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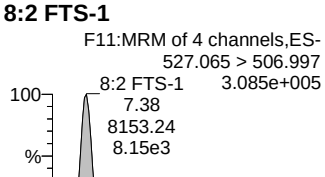


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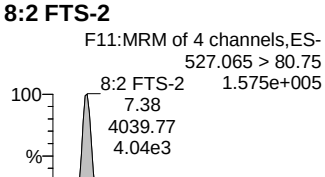


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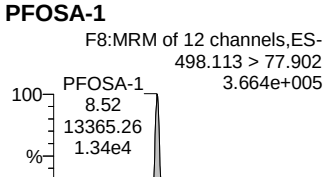


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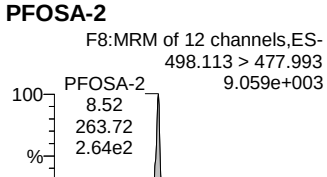


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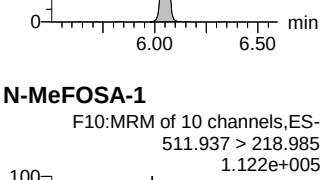


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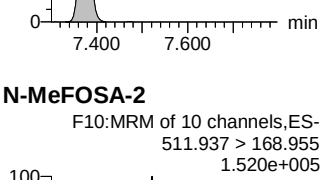


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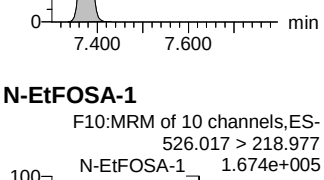


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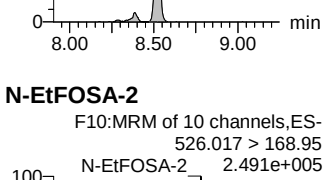


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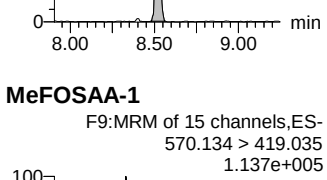


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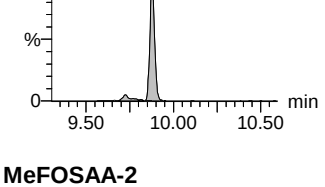


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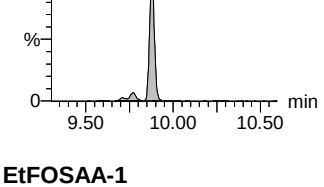


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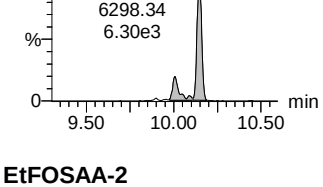


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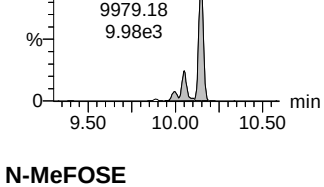


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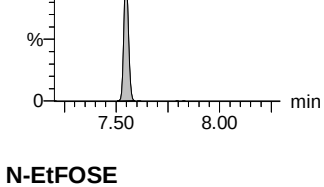


PVed by WANGG 13-Apr-19, SVed by AP 16-Apr-19. NOTE: Units = ng/L for BLK and FIeld Samples.

**Quantify Sample Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_130-b.qld

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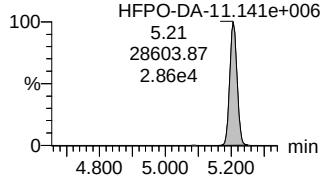
**ID: WG67438-103,,SPM, Name: FC9W_130S21, Description: 1,WG67438,2/4000uL, Date: 31-Mar-2019, Time: 01:02:28**

**HFPO-DA-1**

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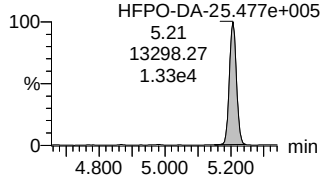
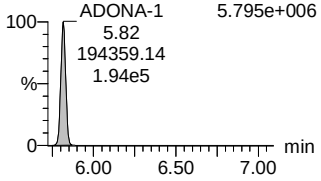
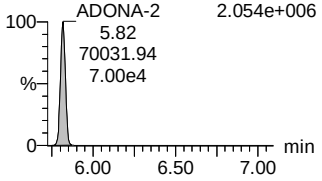


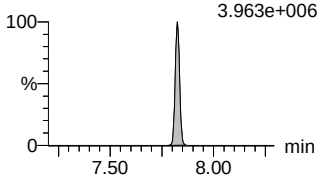

**ADONA-1**



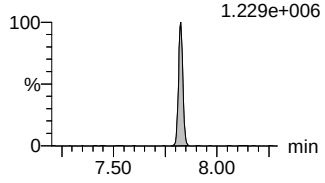

**ADONA-2**



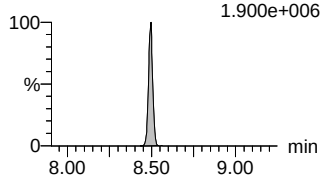

**9Cl-PF3ONS-1**



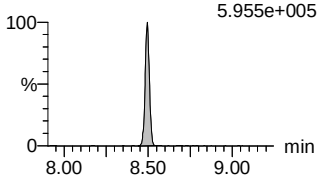

**9Cl-PF3ONS-2**



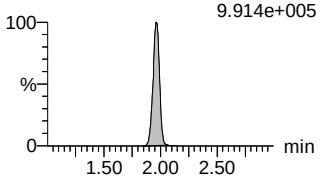

**11Cl-PF3OUdS-1**



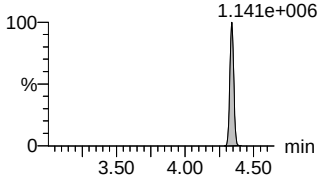

**11Cl-PF3OUdS-2**



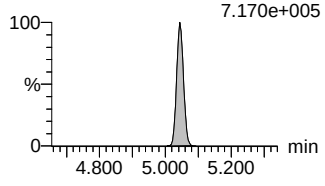

**13C4-PFBA**



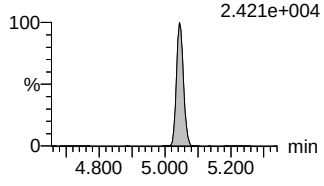

**13C5-PFPeA**



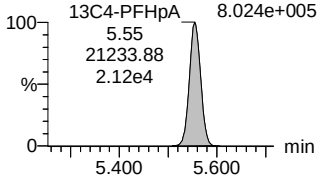

**13C5-PFHxA-1**



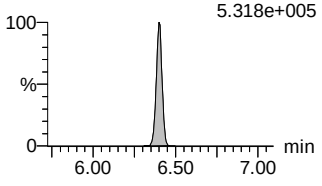

**13C5-PFHxA-2**



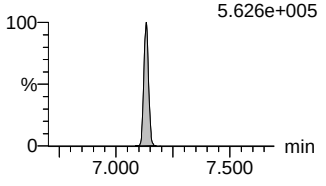

**13C4-PFHpA**



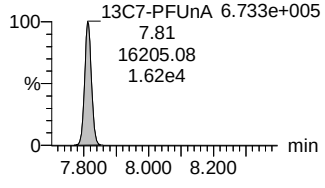

**13C8-PFOA**



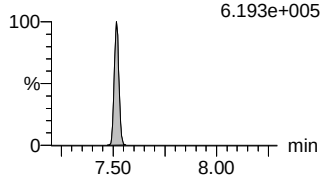

**13C9-PFNA**



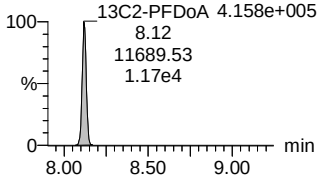

**13C7-PFUnA**



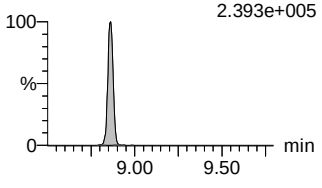

**13C6-PFDA**



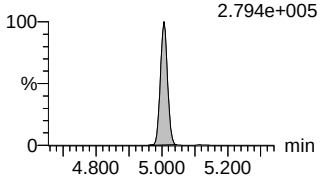

**13C2-PFDoA**




**13C2-PFTeDA**




**13C3-PFBS-1**




PVed by WANGG 13-Apr-19, SVed by AP 16-Apr-19. NOTE: Units = ng/L for BLK and FIeld Samples.

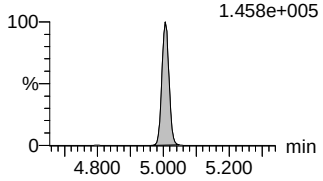
**Quantify Sample Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_130-b.qld

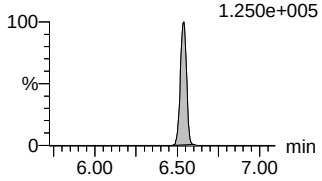
Last Altered: Tuesday, April 16, 2019 12:33:52 Pacific Daylight Time
Printed: Tuesday, April 16, 2019 12:40:22 Pacific Daylight Time

**ID: WG67438-103,,SPM, Name: FC9W_130S21, Description: 1,WG67438,2/4000uL, Date: 31-Mar-2019, Time: 01:02:28**

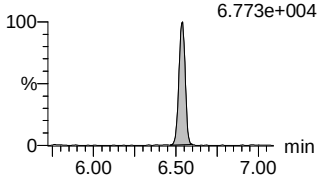
**13C3-PFBS-2**
F3:MRM of 18 channels,ES-
302.056 > 98.875
1.458e+005



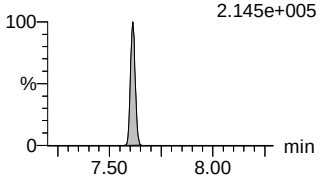

**13C3-PFHxS-1**
F5:MRM of 12 channels,ES-
402.114 > 79.858
1.250e+005



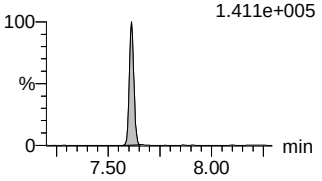

**13C3-PFHxS-2**
F5:MRM of 12 channels,ES-
402.114 > 98.801
6.773e+004



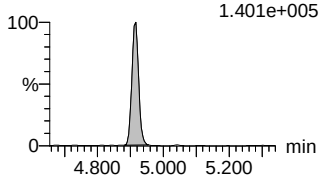

**13C8-PFOS-1**
F9:MRM of 15 channels,ES-
507.124 > 79.858
2.145e+005



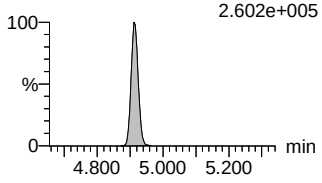

**13C8-PFOS-2**
F9:MRM of 15 channels,ES-
507.124 > 98.867
1.411e+005



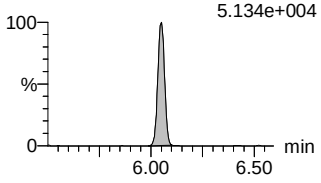

**13C2-4:2 FTS-1**
F3:MRM of 18 channels,ES-
329.084 > 80.9
1.401e+005



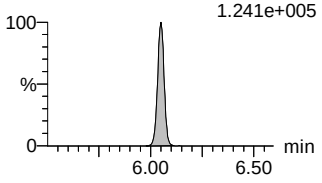

**13C2-4:2 FTS-2**
F3:MRM of 18 channels,ES-
329.084 > 309.024
2.602e+005



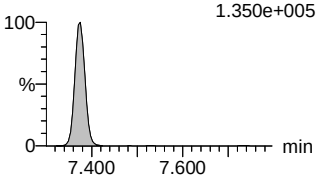

**13C2-6:2 FTS-1**
F6:MRM of 4 channels,ES-
429.078 > 80.900
5.134e+004



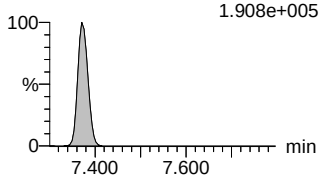

**13C2-6:2 FTS-2**
F6:MRM of 4 channels,ES-
429.078 > 409.031
1.241e+005



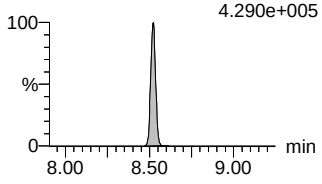

**13C2-8:2 FTS-1**
F11:MRM of 4 channels,ES-
529.1351 > 80.900
1.350e+005



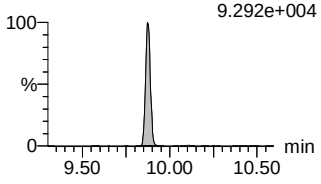

**13C2-8:2 FTS-2**
F11:MRM of 4 channels,ES-
529.135 > 509.003
1.908e+005



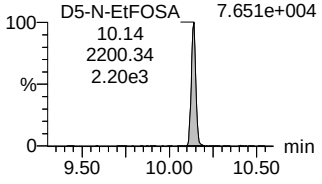

**13C8-PFOSA**
F8:MRM of 12 channels,ES-
506.14 > 77.841
4.290e+005



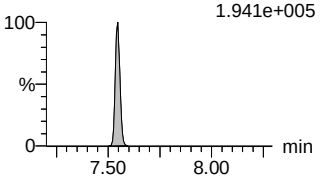

**D3-N-MeFOSA**
F10:MRM of 10 channels,ES-
514.956 > 218.974
9.292e+004



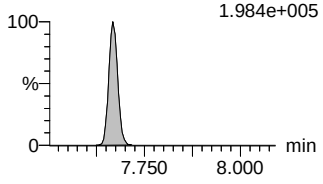

**D5-N-EtFOSA**
F10:MRM of 10 channels,ES-
531.112 > 218.984
7.651e+004



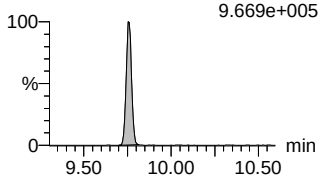

**D3-MeFOSAA**
F9:MRM of 15 channels,ES-
573.153 > 418.99
1.941e+005



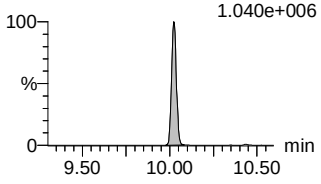

**D5-EtFOSAA**
F13:MRM of 3 channels,ES-
589.245 > 418.971
1.984e+005



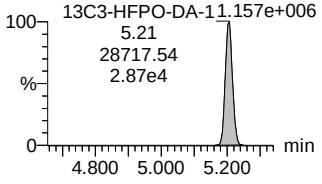

**D7-N-MeFOSE**
F10:MRM of 10 channels,ES-
623.156 > 58.896
9.669e+005



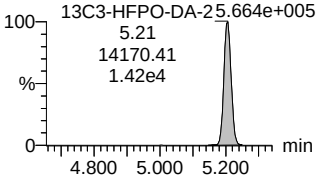

**D9-N-EtFOSE**
F10:MRM of 10 channels,ES-
639.184 > 58.897
1.040e+006




**13C3-HFPO-DA-1**
F3:MRM of 18 channels,ES-
286.8631 > 168.8861
1.157e+006




**13C3-HFPO-DA-2**
F3:MRM of 18 channels,ES-
286.8631 > 184.8888
5.664e+005




PVed by WANGG 13-Apr-19, SVed by AP 16-Apr-19. NOTE: Units = ng/L for BLK and FIeld Samples.

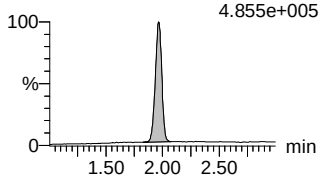
**Quantify Sample Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_130-b.qld

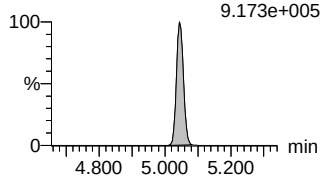
Last Altered: Tuesday, April 16, 2019 12:33:52 Pacific Daylight Time
Printed: Tuesday, April 16, 2019 12:40:22 Pacific Daylight Time

**ID: WG67438-103,,SPM, Name: FC9W_130S21, Description: 1,WG67438,2/4000uL, Date: 31-Mar-2019, Time: 01:02:28**

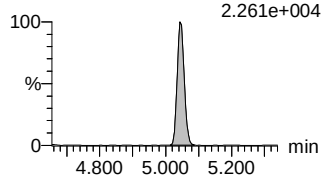
**13C3-PFBA**



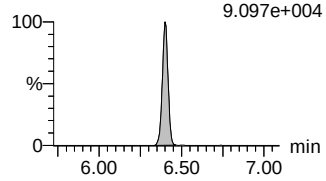

**13C2-PFHxA-1**



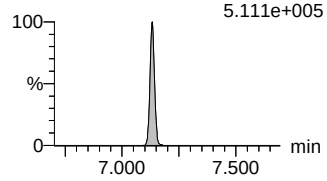

**13C2-PFHxA-2**



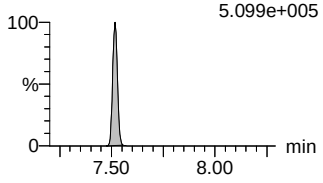

**13C4-PFOA**



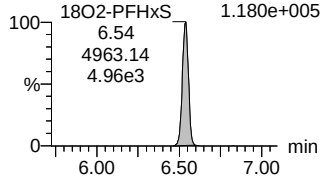

**13C5-PFNA**



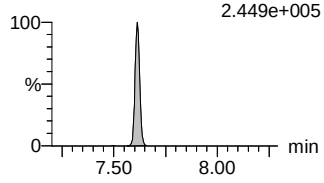

**13C2-PFDA**



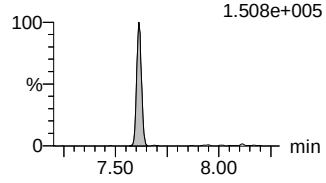

**18O2-PFHxS**




**13C4-PFOS-1**




**13C4-PFOS-2**




PVed by WANGG 13-Apr-19, SVed by AP 16-Apr-19. NOTE: Units = ng/L for BLK and FIeld Samples.

**Quantify Sample Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_130-b.qld

Last Altered: Tuesday, April 16, 2019 12:33:52 Pacific Daylight Time
Printed: Tuesday, April 16, 2019 12:40:22 Pacific Daylight Time

**ID: WG67438-103,,SPM, Name: FC9W_130S21, Description: 1,WG67438,2/4000uL, Date: 31-Mar-2019, Time: 01:02:28**

| # | Name | IS# | Trace | RT | Area | IS Area | Std. Conc | Conc. | LOD | %Rec | S/N | Noise | Peak Height | IS Height | Sample size | F2 | Flags |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | PFBA | 64 | 212.763 > 168.903 | 1.97 | 58317 | 65062 | 41.000 | 42.612 | | 103.9 | 2357 | 382 | 901177 | 989495 | 1.000 | 0.0 | bb |
| 2 | PFPeA-1 | 65 | 262.951 > 218.996 | 4.34 | 34425 | 35982 | 20.430 | 19.546 | | 95.7 | 2905 | 370 | 1074242 | 1139497 | 1.000 | 0.0 | bb |
| 3 | PFPeA-2 | 65 | 262.951 > 68.925 | 4.35 | 129 | 35982 | 20.430 | 21.966 | 0.3947 | 107.5 | 155 | 25 | 3932 | 1139497 | 1.000 | 0.0 | bb |
| 4 | PFHxA-1 | 66 | 313.012 > 269.017 | 5.05 | 15969 | 16976 | 10.250 | 10.242 | | 99.9 | 939 | 694 | 651737 | 715728 | 1.000 | 0.0 | bb |
| 5 | PFHxA-2 | 66 | 313.012 > 118.918 | 5.04 | 1838 | 16976 | 10.250 | 10.161 | 0.1269 | 99.1 | 231 | 326 | 75124 | 715728 | 1.000 | 0.0 | bb |
| 6 | PFHpA-1 | 68 | 363.073 > 319.025 | 5.55 | 20819 | 21234 | 10.250 | 10.939 | | 106.7 | 1165 | 659 | 768063 | 801277 | 1.000 | 0.0 | bb |
| 7 | PFHpA-2 | 68 | 363.073 > 168.962 | 5.56 | 6521 | 21234 | 10.250 | 10.629 | | 103.7 | 3425 | 70 | 240996 | 801277 | 1.000 | 0.0 | bb |
| 8 | PFOA-1 | 69 | 413.006 > 369.03 | 6.40 | 31830 | 21290 | 10.250 | 10.576 | 0.0216 | 103.2 | 247 | 3118 | 770115 | 530849 | 1.000 | 0.0 | bb |
| 9 | PFOA-2 | 69 | 413.006 > 168.963 | 6.40 | 10059 | 21290 | 10.250 | 11.207 | | 109.3 | 1154 | 210 | 242190 | 530849 | 1.000 | 0.0 | bb |
| 10 | PFNA-1 | 70 | 463.002 > 418.97 | 7.13 | 26996 | 13406 | 10.000 | 10.611 | 0.0466 | 106.1 | 241 | 4946 | 1191216 | 562233 | 1.000 | 0.0 | bb |
| 11 | PFNA-2 | 70 | 463.002 > 218.968 | 7.13 | 7244 | 13406 | 10.000 | 10.937 | | 109.4 | 4908 | 64 | 314950 | 562233 | 1.000 | 0.0 | bb |
| 12 | PFDA-1 | 72 | 512.935 > 469.021 | 7.52 | 20595 | 15978 | 10.000 | 8.495 | | 84.9 | 400 | 1999 | 799519 | 618769 | 1.000 | 0.0 | bb |
| 13 | PFDA-2 | 72 | 512.935 > 218.972 | 7.52 | 5346 | 15978 | 10.000 | 8.930 | | 89.3 | 8503 | 25 | 210650 | 618769 | 1.000 | 0.0 | bb |
| 14 | PFUnA-1 | 71 | 563.124 > 519.003 | 7.81 | 22722 | 16205 | 10.000 | 11.142 | | 111.4 | 604 | 1495 | 903573 | 672221 | 1.000 | 0.0 | bb |
| 15 | PFUnA-2 | 71 | 563.124 > 269.051 | 7.81 | 4368 | 16205 | 10.000 | 11.936 | | 119.4 | 1641 | 110 | 179727 | 672221 | 1.000 | 0.0 | bb |
| 16 | PFDoA-1 | 73 | 613.057 > 569.045 | 8.12 | 24709 | 11690 | 10.000 | 10.407 | | 104.1 | 542 | 1629 | 882884 | 415416 | 1.000 | 0.0 | bb |
| 17 | PFDoA-2 | 73 | 613.057 > 318.996 | 8.12 | 3017 | 11690 | 10.000 | 10.544 | | 105.4 | 5340 | 19 | 104059 | 415416 | 1.000 | 0.0 | bb |
| 18 | PFTrDA-1 | 74 | 663.053 > 619.023 | 8.46 | 17139 | 8425 | 10.000 | 12.815 | | 128.1 | 349 | 1783 | 622780 | 239240 | 1.000 | 0.0 | MM |
| 19 | PFTrDA-2 | 74 | 663.053 > 168.949 | 8.45 | 3356 | 8425 | 10.000 | 13.937 | | 139.4 | 2302 | 52 | 120547 | 239240 | 1.000 | 0.0 | MM |
| 20 | PFTeDA-1 | 74 | 713.05 > 669. | 8.86 | 12123 | 8425 | 10.000 | 11.150 | | 111.5 | 295 | 1204 | 355062 | 239240 | 1.000 | 0.0 | bb |
| 21 | PFTeDA-2 | 74 | 713.05 > 168.94 | 8.86 | 2647 | 8425 | 10.000 | 11.538 | | 115.4 | 1125 | 70 | 78495 | 239240 | 1.000 | 0.0 | bb |
| 22 | PFBS-1 | 75 | 298.663 > 79.865 | 5.01 | 7486 | 7087 | 10.250 | 9.209 | 0.0062 | 89.8 | 5102 | 57 | 288244 | 278786 | 1.000 | 0.0 | bb |
| 23 | PFBS-2 | 76 | 298.663 > 98.811 | 5.01 | 3639 | 3669 | 10.250 | 8.340 | | 81.4 | 723 | 199 | 143854 | 145520 | 1.000 | 0.0 | bb |
| 24 | PFPeS-1 | 77 | 349.107 > 79.857 | 5.60 | 5768 | 5370 | 9.500 | 11.296 | | 118.9 | 208... | 10 | 200218 | 124484 | 1.000 | 0.0 | bb |
| 25 | PFPeS-2 | 78 | 349.107 > 98.871 | 5.60 | 3315 | 2973 | 9.500 | 11.283 | 0.0340 | 118.8 | 246 | 469 | 115469 | 67427 | 1.000 | 0.0 | bb |
| 26 | PFHxS-1 | 77 | 398.721 > 79.92 | 6.54 | 6090 | 5370 | 10.250 | 9.228 | 0.1208 | 90.0 | 3074 | 39 | 119216 | 124484 | 1.000 | 0.0 | MM |
| 27 | PFHxS-2 | 78 | 398.721 > 98.863 | 6.54 | 3450 | 2973 | 10.250 | 9.270 | 0.0207 | 90.4 | 268 | 259 | 69346 | 67427 | 1.000 | 0.0 | MM |
| 28 | PFHpS-1 | 79 | 449.036 > 79.857 | 7.23 | 5258 | 5669 | 9.500 | 9.824 | | 103.4 | 2096 | 96 | 201244 | 214239 | 1.000 | 0.0 | bb |
| 29 | PFHpS-2 | 80 | 449.036 > 98.8 | 7.23 | 3404 | 3576 | 9.500 | 10.119 | 0.0305 | 106.5 | 1308 | 101 | 132392 | 140773 | 1.000 | 0.0 | bb |
| 30 | PFOS-1 | 79 | 498.906 > 79.856 | 7.61 | 6311 | 5669 | 10.250 | 9.767 | | 95.3 | 2461 | 84 | 207074 | 214239 | 1.000 | 0.0 | MM |
| 31 | PFOS-2 | 80 | 498.906 > 98.801 | 7.61 | 3264 | 3576 | 10.250 | 9.616 | | 93.8 | 393 | 287 | 112757 | 140773 | 1.000 | 0.0 | MM |
| 32 | PFNS-1 | 79 | 548.775 > 79.858 | 7.92 | 6367 | 5669 | 9.500 | 10.021 | | 105.5 | 132... | 17 | 224655 | 214239 | 1.000 | 0.0 | bb |
| 33 | PFNS-2 | 80 | 548.775 > 98.801 | 7.92 | 3733 | 3576 | 9.500 | 9.881 | | 104.0 | 3880 | 34 | 133581 | 140773 | 1.000 | 0.0 | bb |
| 34 | PFDS-1 | 79 | 599.027 > 79.92 | 8.25 | 5250 | 5669 | 10.250 | 10.199 | | 99.5 | 8546 | 22 | 186160 | 214239 | 1.000 | 0.0 | bb |
| 35 | PFDS-2 | 80 | 599.027 > 98.8 | 8.25 | 2861 | 3576 | 10.250 | 9.531 | 0.1677 | 93.0 | 338 | 286 | 96523 | 140773 | 1.000 | 0.0 | bb |

PVed by WANGG 13-Apr-19, SVed by AP 16-Apr-19. NOTE: Units = ng/L for BLK and FIeld Samples.

**Quantify Sample Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_130-b.qld

Last Altered: Tuesday, April 16, 2019 12:33:52 Pacific Daylight Time
Printed: Tuesday, April 16, 2019 12:40:22 Pacific Daylight Time

**ID: WG67438-103,,SPM, Name: FC9W_130S21, Description: 1,WG67438,2/4000uL, Date: 31-Mar-2019, Time: 01:02:28**

| # | Name | IS# | Trace | RT | Area | IS Area | Std. Conc | Conc. | LOD | %Rec | S/N | Noise | Peak Height | IS Height | Sample size | F2 | Flags |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 36 | PFDoS-1 | 79 | 699.084 > 79.856 | 9.05 | 3167 | 5669 | 9.500 | 7.349 | | 77.4 | 5465 | 18 | 96064 | 214239 | 1.000 | 0.0 | bb |
| 37 | PFDoS-2 | 80 | 699.084 > 98.8 | 9.05 | 1805 | 3576 | 9.500 | 6.723 | | 70.8 | 602 | 91 | 54945 | 140773 | 1.000 | 0.0 | bb |
| 38 | 4:2 FTS-1 | 81 | 327.077 > 307.017 | 4.92 | 9080 | 3261 | 40.000 | 37.981 | | 95.0 | 117... | 32 | 374325 | 139421 | 1.000 | 0.0 | bb |
| 39 | 4:2 FTS-2 | 81 | 327.077 > 80.85 | 4.92 | 6464 | 3261 | 40.000 | 43.735 | 0.1693 | 109.3 | 1140 | 232 | 264465 | 139421 | 1.000 | 0.0 | bb |
| 40 | 6:2 FTS-1 | 83 | 427.071 > 407.024 | 6.05 | 5981 | 1907 | 36.000 | 33.751 | | 93.8 | 185... | 9 | 166488 | 51217 | 1.000 | 0.0 | bb |
| 41 | 6:2 FTS-2 | 83 | 427.071 > 80.9 | 6.05 | 4163 | 1907 | 36.000 | 38.209 | 0.0839 | 106.1 | 2270 | 52 | 117827 | 51217 | 1.000 | 0.0 | bb |
| 42 | 8:2 FTS-1 | 85 | 527.065 > 506.997 | 7.38 | 8153 | 3425 | 40.000 | 43.907 | | 109.8 | 2231 | 138 | 308361 | 134903 | 1.000 | 0.0 | bb |
| 43 | 8:2 FTS-2 | 85 | 527.065 > 80.75 | 7.38 | 4040 | 3425 | 40.000 | 44.970 | | 112.4 | 214... | 7 | 157253 | 134903 | 1.000 | 0.0 | bb |
| 44 | PFOSA-1 | 87 | 498.113 > 77.902 | 8.52 | 13365 | 14352 | 10.250 | 9.990 | 0.1099 | 97.5 | 916 | 400 | 366765 | 428414 | 1.000 | 0.0 | MM |
| 45 | PFOSA-2 | 87 | 498.113 > 477.993 | 8.52 | 264 | 14352 | 10.250 | 11.191 | 2.0364 | 109.2 | 207 | 44 | 9022 | 428414 | 1.000 | 0.0 | bb |
| 46 | N-MeFOSA-1 | 88 | 511.937 > 218.985 | 9.88 | 3671 | 2878 | 11.500 | 13.784 | | 119.9 | 2090 | 54 | 112122 | 92728 | 1.000 | 0.0 | MM |
| 47 | N-MeFOSA-2 | 88 | 511.937 > 168.955 | 9.88 | 5271 | 2878 | 11.500 | 13.388 | | 116.4 | 460 | 329 | 151343 | 92728 | 1.000 | 0.0 | MM |
| 48 | N-EtFOSA-1 | 89 | 526.017 > 218.977 | 10.15 | 6298 | 2200 | 25.000 | 24.529 | | 98.1 | 722 | 230 | 166115 | 76419 | 1.000 | 0.0 | MM |
| 49 | N-EtFOSA-2 | 89 | 526.017 > 168.95 | 10.15 | 9979 | 2200 | 25.000 | 26.491 | | 106.0 | 2245 | 110 | 248113 | 76419 | 1.000 | 0.0 | MM |
| 50 | MeFOSAA-1 | 90 | 570.134 > 419.035 | 7.55 | 2919 | 5012 | 10.000 | 12.178 | | 121.8 | 105... | 11 | 113564 | 193963 | 1.000 | 0.0 | bb |
| 51 | MeFOSAA-2 | 90 | 570.134 > 482.99 | 7.55 | 1149 | 5012 | 10.000 | 10.487 | | 104.9 | 1585 | 26 | 41104 | 193963 | 1.000 | 0.0 | bb |
| 52 | EtFOSAA-1 | 91 | 584.15 > 419.062 | 7.67 | 2263 | 5287 | 10.000 | 11.182 | 0.2149 | 111.8 | 229 | 390 | 89162 | 198198 | 1.000 | 0.0 | bb |
| 53 | EtFOSAA-2 | 91 | 584.15 > 526.045 | 7.67 | 2034 | 5287 | 10.000 | 10.871 | 0.1242 | 108.7 | 4141 | 18 | 75001 | 198198 | 1.000 | 0.0 | bb |
| 54 | N-MeFOSE | 92 | 616.112 > 58.894 | 9.78 | 33491 | 33900 | 102.000 | 105.541 | | 103.5 | 3904 | 217 | 846575 | 964788 | 1.000 | 0.0 | MM |
| 55 | N-EtFOSE | 93 | 630. > 58.893 | 10.04 | 33802 | 32329 | 76.500 | 82.431 | | 107.8 | 3519 | 213 | 749947 | 1037892 | 1.000 | 0.0 | MM |
| 56 | HFPO-DA-1 | 94 | 284.8894 > 168.... | 5.21 | 28604 | 28718 | 40.000 | 44.386 | | 111.0 | 294... | 39 | 1140002 | 1155263 | 1.000 | 0.0 | bb |
| 57 | HFPO-DA-2 | 95 | 284.8894 > 184.... | 5.21 | 13298 | 14170 | 40.000 | 40.695 | 0.1814 | 101.7 | 538 | 1013 | 544797 | 565947 | 1.000 | 0.0 | bb |
| 58 | ADONA-1 | 94 | 376.88 > 250.937 | 5.82 | 194359 | 28718 | 40.000 | 43.728 | | 109.3 | 189... | 305 | 5785939 | 1155263 | 1.000 | 0.0 | bb |
| 59 | ADONA-2 | 95 | 376.88 > 84.832 | 5.82 | 70032 | 14170 | 40.000 | 41.947 | 0.5296 | 104.9 | 222... | 92 | 2049638 | 565947 | 1.000 | 0.0 | bb |
| 60 | 9Cl-PF3ONS-1 | 94 | 530.807 > 350.967 | 7.82 | 94950 | 28718 | 40.000 | 54.301 | | 135.8 | 109... | 361 | 3957641 | 1155263 | 1.000 | 0.0 | bb |
| 61 | 9Cl-PF3ONS-2 | 95 | 532.804 > 352.947 | 7.82 | 29392 | 14170 | 40.000 | 52.189 | | 130.5 | 2012 | 610 | 1227156 | 565947 | 1.000 | 0.0 | bb |
| 62 | 11Cl-PF3OUdS-1 | 94 | 630.865 > 450.902 | 8.50 | 53002 | 28718 | 40.000 | 43.665 | | 109.2 | 9566 | 198 | 1897534 | 1155263 | 1.000 | 0.0 | bb |
| 63 | 11Cl-PF3OUdS-2 | 95 | 632.868 > 452.91 | 8.49 | 16862 | 14170 | 40.000 | 40.756 | 0.0492 | 101.9 | 1423 | 418 | 594467 | 565947 | 1.000 | 0.0 | bb |
| 64 | 13C4-PFBA | 96 | 216.776 > 171.928 | 1.96 | 65062 | 31001 | 40.000 | 41.002 | 0.0177 | 102.5 | 6924 | 143 | 989495 | 472074 | 1.000 | 0.0 | bb |
| 65 | 13C5-PFPeA | 97 | 268.16 > 223.035 | 4.34 | 35982 | 22168 | 20.000 | 20.008 | 0.0033 | 100.0 | 137... | 83 | 1139497 | 915620 | 1.000 | 0.0 | bb |
| 66 | 13C5-PFHxA-1 | 97 | 318.029 > 272.993 | 5.04 | 16976 | 22168 | 10.000 | 10.876 | 0.0042 | 108.8 | 7879 | 91 | 715728 | 915620 | 1.000 | 0.0 | bb |
| 67 | 13C5-PFHxA-2 | 97 | 318.029 > 120.341 | 5.04 | 585 | 22168 | 10.000 | 11.041 | 0.0230 | 110.4 | 1439 | 17 | 24187 | 915620 | 1.000 | 0.0 | bb |
| 68 | 13C4-PFHpA | 99 | 367.086 > 322.004 | 5.55 | 21234 | 3569 | 10.000 | 10.943 | 0.0022 | 109.4 | 225... | 35 | 801277 | 90846 | 1.000 | 0.0 | bb |
| 69 | 13C8-PFOA | 99 | 421.096 > 376.022 | 6.40 | 21290 | 3569 | 10.000 | 9.549 | 0.0066 | 95.5 | 4241 | 125 | 530849 | 90846 | 1.000 | 0.0 | bb |
| 70 | 13C9-PFNA | 100 | 472.096 > 427.014 | 7.13 | 13406 | 11550 | 5.000 | 5.344 | 0.0054 | 106.9 | 2821 | 199 | 562233 | 510806 | 1.000 | 0.0 | bb |

PVed by WANGG 13-Apr-19, SVed by AP 16-Apr-19. NOTE: Units = ng/L for BLK and FIeld Samples.

**Quantify Sample Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_130-b.qld

Last Altered: Tuesday, April 16, 2019 12:33:52 Pacific Daylight Time
Printed: Tuesday, April 16, 2019 12:40:22 Pacific Daylight Time

**ID: WG67438-103,,SPM, Name: FC9W_130S21, Description: 1,WG67438,2/4000uL, Date: 31-Mar-2019, Time: 01:02:28**

| # | Name | IS# | Trace | RT | Area | IS Area | Std. Conc | Conc. | LOD | %Rec | S/N | Noise | Peak Height | IS Height | Sample size | F2 | Flags |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 71 | 13C7-PFUnA | 101 | 570.019 > 525.05 | 7.81 | 16205 | 13426 | 5.000 | 5.398 | 0.0012 | 108.0 | 149... | 45 | 672221 | 508903 | 1.000 | 0.0 | bb |
| 72 | 13C6-PFDA | 101 | 519.147 > 474.058 | 7.52 | 15978 | 13426 | 5.000 | 6.324 | 0.0006 | 126.5 | 341... | 18 | 618769 | 508903 | 1.000 | 0.0 | bb |
| 73 | 13C2-PFDoA | 101 | 615.127 > 570.013 | 8.12 | 11690 | 13426 | 5.000 | 5.455 | 0.0009 | 109.1 | 165... | 25 | 415416 | 508903 | 1.000 | 0.0 | bb |
| 74 | 13C2-PFTeDA | 101 | 715.057 > 670.026 | 8.86 | 8425 | 13426 | 5.000 | 4.007 | 0.0022 | 80.1 | 4123 | 58 | 239240 | 508903 | 1.000 | 0.0 | MM |
| 75 | 13C3-PFBS-1 | 102 | 302.056 > 79.865 | 5.01 | 7087 | 4963 | 10.000 | 11.865 | 0.0033 | 118.6 | 181... | 15 | 278786 | 117617 | 1.000 | 0.0 | bb |
| 76 | 13C3-PFBS-2 | 102 | 302.056 > 98.875 | 5.01 | 3669 | 4963 | 10.000 | 12.705 | 0.0097 | 127.1 | 6581 | 22 | 145520 | 117617 | 1.000 | 0.0 | bb |
| 77 | 13C3-PFHxS-1 | 102 | 402.114 > 79.858 | 6.54 | 5370 | 4963 | 10.000 | 10.432 | 0.0116 | 104.3 | 2639 | 47 | 124484 | 117617 | 1.000 | 0.0 | bb |
| 78 | 13C3-PFHxS-2 | 102 | 402.114 > 98.801 | 6.54 | 2973 | 4963 | 10.000 | 10.367 | 0.0645 | 103.7 | 462 | 146 | 67427 | 117617 | 1.000 | 0.0 | bb |
| 79 | 13C8-PFOS-1 | 103 | 507.124 > 79.858 | 7.61 | 5669 | 6326 | 10.000 | 11.319 | 0.0032 | 113.2 | 104... | 21 | 214239 | 244687 | 1.000 | 0.0 | bb |
| 80 | 13C8-PFOS-2 | 104 | 507.124 > 98.867 | 7.61 | 3576 | 3995 | 10.000 | 11.410 | 0.0884 | 114.1 | 404 | 348 | 140773 | 150680 | 1.000 | 0.0 | bb |
| 81 | 13C2-4:2 FTS-1 | 102 | 329.084 > 80.9 | 4.92 | 3261 | 4963 | 20.000 | 18.498 | 0.1544 | 92.5 | 648 | 215 | 139421 | 117617 | 1.000 | 0.0 | bb |
| 82 | 13C2-4:2 FTS-2 | 102 | 329.084 > 309.024 | 4.91 | 6353 | 4963 | 20.000 | 15.444 | 0.0058 | 77.2 | 136... | 19 | 259886 | 117617 | 1.000 | 0.0 | bb |
| 83 | 13C2-6:2 FTS-1 | 102 | 429.078 > 80.900 | 6.05 | 1907 | 4963 | 20.000 | 13.393 | 0.0349 | 67.0 | 1306 | 39 | 51217 | 117617 | 1.000 | 0.0 | bb |
| 84 | 13C2-6:2 FTS-2 | 102 | 429.078 > 409.031 | 6.05 | 4406 | 4963 | 20.000 | 13.511 | 0.0065 | 67.6 | 7360 | 17 | 123935 | 117617 | 1.000 | 0.0 | bb |
| 85 | 13C2-8:2 FTS-1 | 102 | 529.1351 > 80.900 | 7.38 | 3425 | 4963 | 20.000 | 16.097 | 0.0201 | 80.5 | 3989 | 34 | 134903 | 117617 | 1.000 | 0.0 | bb |
| 86 | 13C2-8:2 FTS-2 | 102 | 529.135 > 509.003 | 7.37 | 4852 | 4963 | 20.000 | 16.955 | 0.0068 | 84.8 | 123... | 15 | 190678 | 117617 | 1.000 | 0.0 | bb |
| 87 | 13C8-PFOSA | 103 | 506.14 > 77.841 | 8.52 | 14352 | 6326 | 10.000 | 18.125 | 0.0150 | 181.3 | 2798 | 153 | 428414 | 244687 | 1.000 | 0.0 | bb |
| 88 | D3-N-MeFOSA | 103 | 514.956 > 218.974 | 9.87 | 2878 | 6326 | 10.000 | 7.040 | 0.0261 | 70.4 | 675 | 137 | 92728 | 244687 | 1.000 | 0.0 | bb |
| 89 | D5-N-EtFOSA | 103 | 531.112 > 218.984 | 10.14 | 2200 | 6326 | 10.000 | 6.375 | 0.0280 | 63.8 | 613 | 125 | 76419 | 244687 | 1.000 | 0.0 | bb |
| 90 | D3-MeFOSAA | 103 | 573.153 > 418.99 | 7.55 | 5012 | 6326 | 20.000 | 11.398 | 0.0050 | 57.0 | 6789 | 29 | 193963 | 244687 | 1.000 | 0.0 | bb |
| 91 | D5-EtFOSAA | 103 | 589.245 > 418.971 | 7.67 | 5287 | 6326 | 20.000 | 14.389 | 0.0116 | 71.9 | 3606 | 55 | 198198 | 244687 | 1.000 | 0.0 | bb |
| 92 | D7-N-MeFOSE | 103 | 623.156 > 58.896 | 9.76 | 33900 | 6326 | 100.000 | 179.596 | 0.1508 | 179.6 | 2629 | 367 | 964788 | 244687 | 1.000 | 0.0 | bb |
| 93 | D9-N-EtFOSE | 103 | 639.184 > 58.897 | 10.02 | 32329 | 6326 | 100.000 | 165.356 | 0.1147 | 165.4 | 3590 | 289 | 1037892 | 244687 | 1.000 | 0.0 | bb |
| 94 | 13C3-HFPO-DA-1 | 97 | 286.8631 > 168.... | 5.21 | 28718 | 22168 | 40.000 | 40.065 | 0.0082 | 100.2 | 143... | 81 | 1155263 | 915620 | 1.000 | 0.0 | bb |
| 95 | 13C3-HFPO-DA-2 | 97 | 286.8631 > 184.... | 5.21 | 14170 | 22168 | 40.000 | 40.362 | 0.0247 | 100.9 | 4737 | 119 | 565947 | 915620 | 1.000 | 0.0 | bb |
| 96 | 13C3-PFBA | | 216.029 > 171.97 | 1.96 | 31001 | | 20.000 | 22.147 | 0.1049 | 110.7 | 633 | 746 | 472074 | | 1.000 | 0.0 | bb |
| 97 | 13C2-PFHxA-1 | | 315.083 > 269.984 | 5.04 | 22168 | | 10.000 | 12.417 | 0.0007 | 124.2 | 512... | 18 | 915620 | | 1.000 | 0.0 | bb |
| 98 | 13C2-PFHxA-2 | | 315.083 > 119.359 | 5.04 | 550 | | 10.000 | 10.204 | 0.0406 | 102.0 | 755 | 30 | 22565 | | 1.000 | 0.0 | bb |
| 99 | 13C4-PFOA | | 417.083 > 171.95 | 6.40 | 3569 | | 10.000 | 11.878 | 0.0102 | 118.8 | 3497 | 26 | 90846 | | 1.000 | 0.0 | bb |
| 1... | 13C5-PFNA | | 468.019 > 423.008 | 7.13 | 11550 | | 5.000 | 5.662 | 0.0228 | 113.2 | 744 | 686 | 510806 | | 1.000 | 0.0 | bb |
| 1... | 13C2-PFDA | | 515.134 > 470.05 | 7.52 | 13426 | | 5.000 | 5.902 | 0.0006 | 118.0 | 281... | 18 | 508903 | | 1.000 | 0.0 | bb |
| 1... | 18O2-PFHxS | | 402.984 > 83.895 | 6.54 | 4963 | | 10.000 | 12.635 | 0.0052 | 126.4 | 7285 | 16 | 117617 | | 1.000 | 0.0 | bb |
| 1... | 13C4-PFOS-1 | | 502.791 > 79.856 | 7.61 | 6326 | | 10.000 | 13.003 | 0.0031 | 130.0 | 126... | 19 | 244687 | | 1.000 | 0.0 | bb |
| 1... | 13C4-PFOS-2 | | 502.791 > 98.864 | 7.61 | 3995 | | 10.000 | 12.793 | 0.0491 | 127.9 | 781 | 193 | 150680 | | 1.000 | 0.0 | bb |

PVed by WANGG 13-Apr-19, SVed by AP 16-Apr-19. NOTE: Units = ng/L for BLK and FIeld Samples.

**Quantify Sample Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

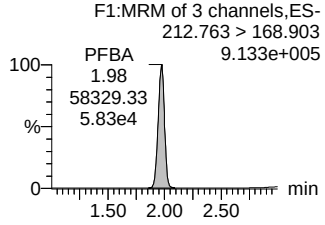
Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_130-b.qld

Last Altered: Tuesday, April 16, 2019 12:33:52 Pacific Daylight Time
Printed: Tuesday, April 16, 2019 12:41:00 Pacific Daylight Time

**Method: G:\Masslynx\Master Methods\MassLynx SCN 909\UPLC\FC_110_UPLC_06.mdb 10 Mar 2019 18:18:03**
**Calibration: G:\Masslynx\Inst_W\PFC.PRO\Curve\FC9W_097-a1.cdb 12 Mar 2019 11:26:10**

**ID: WG67438-104,,SPM, Name: FC9W_130S22, Description: 1,WG67438,2/4000uL, Date: 31-Mar-2019, Time: 01:15:56**

**PFBA**

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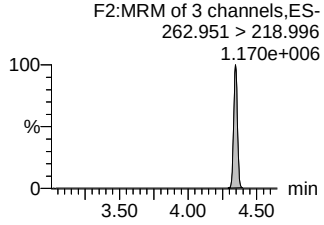


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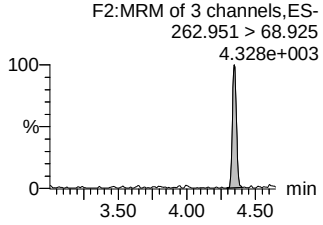


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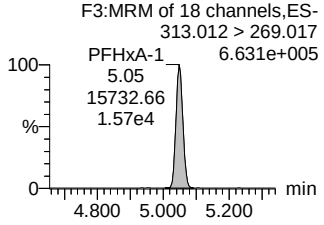


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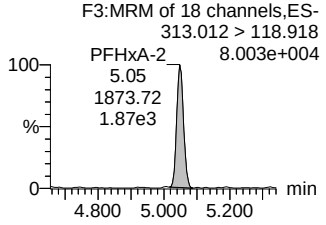


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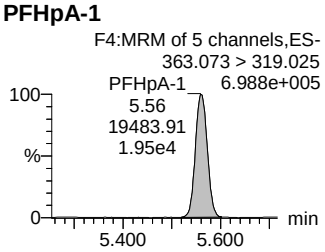


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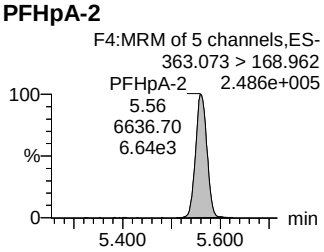


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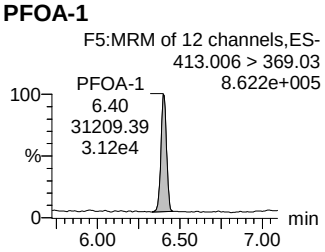


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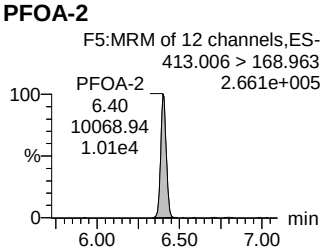


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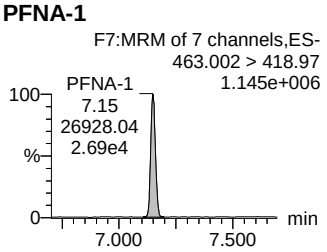


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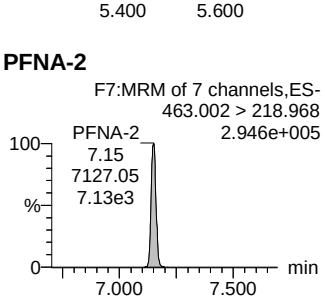


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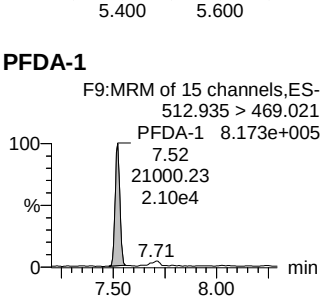


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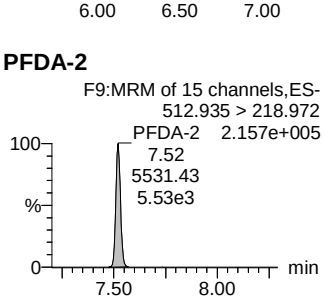


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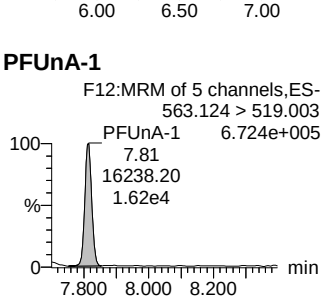


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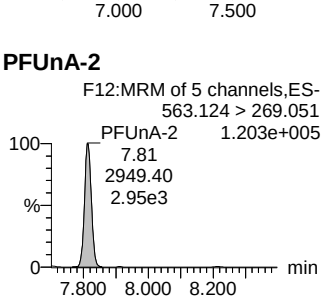


PVed by WANGG 13-Apr-19, SVed by AP 16-Apr-19. NOTE: Units = ng/L for BLK and FIeld Samples.

**Quantify Sample Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_130-b.qld

Last Altered: Tuesday, April 16, 2019 12:33:52 Pacific Daylight Time
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**ID: WG67438-104,,SPM, Name: FC9W_130S22, Description: 1,WG67438,2/4000uL, Date: 31-Mar-2019, Time: 01:15:56**

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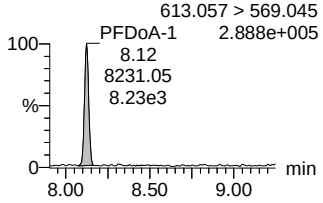


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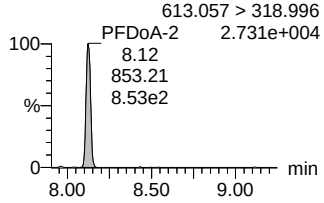


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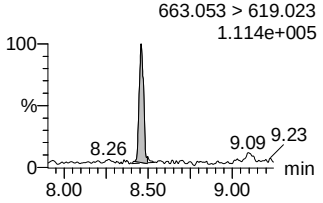


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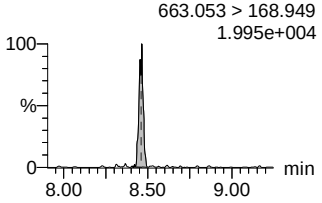


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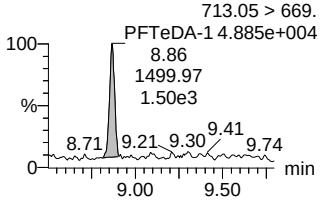


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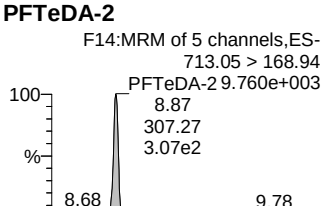


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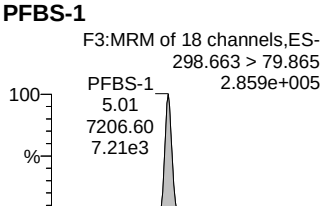


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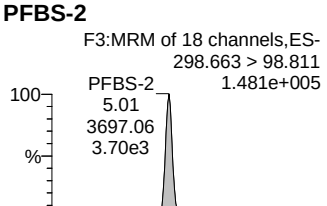


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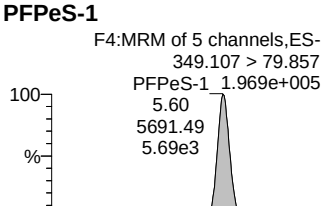


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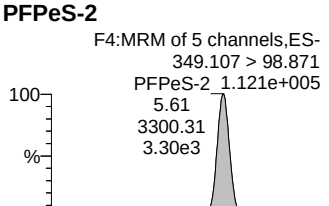


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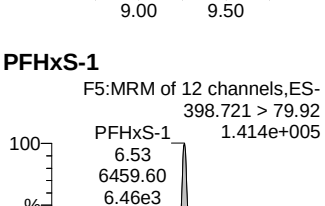


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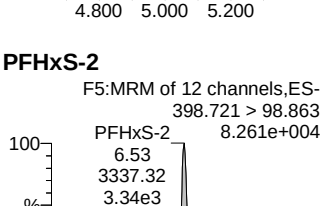


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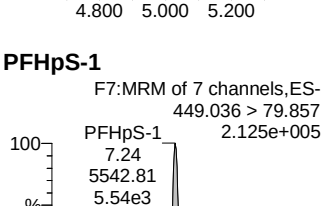


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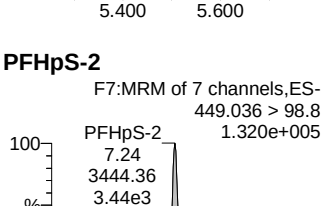


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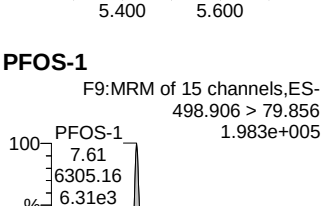


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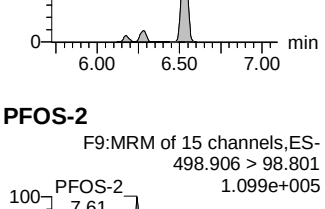


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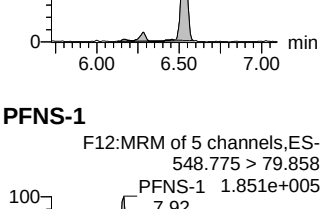


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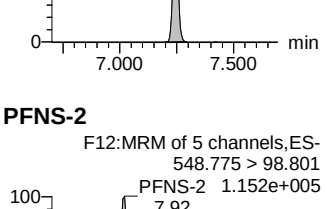


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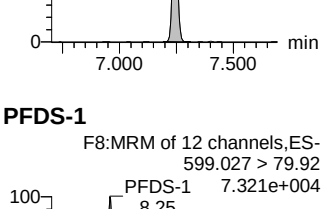


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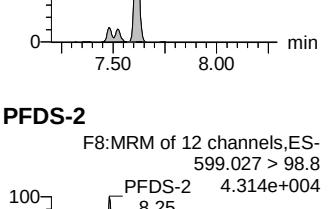


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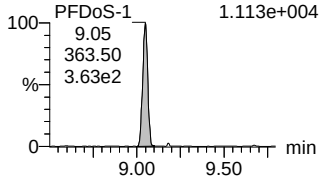


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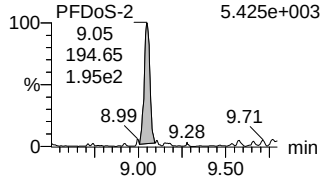


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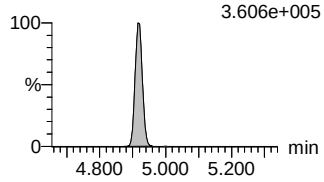


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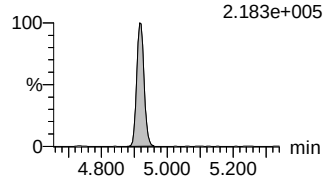


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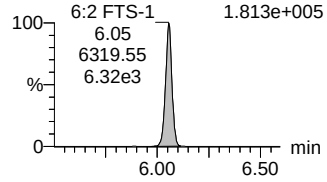


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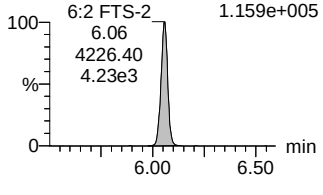


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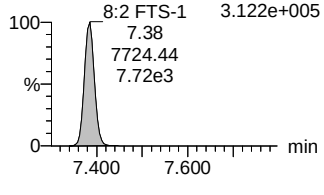


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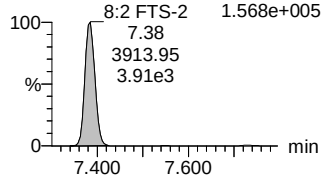


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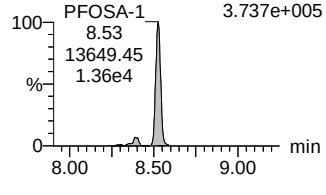


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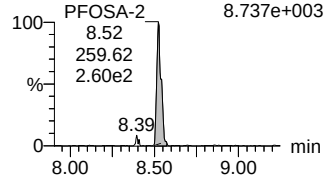


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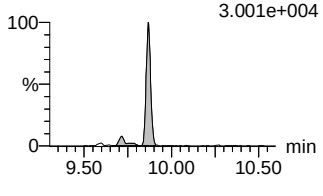


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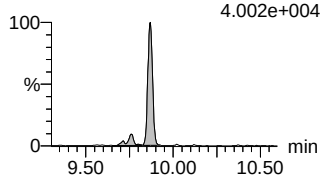


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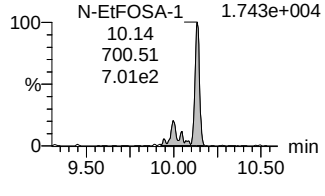
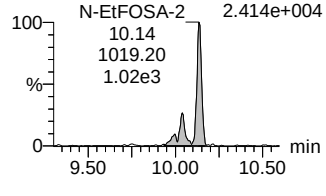
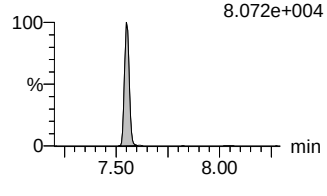


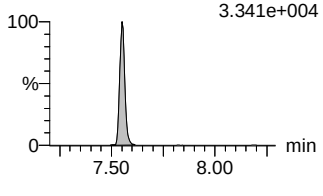

**N-EtFOSA-2**



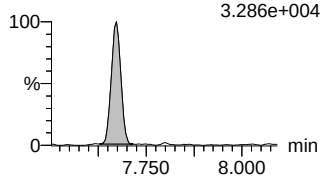

**MeFOSAA-1**



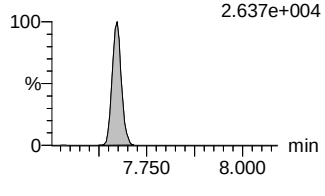

**MeFOSAA-2**



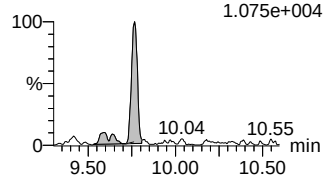

**EtFOSAA-1**



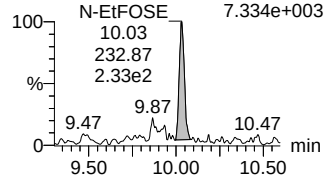

**EtFOSAA-2**




**N-MeFOSE**




**N-EtFOSE**




PVed by WANGG 13-Apr-19, SVed by AP 16-Apr-19. NOTE: Units = ng/L for BLK and FIeld Samples.

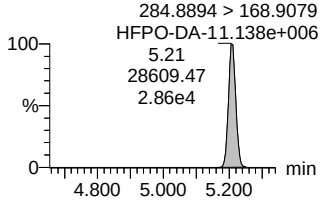
**Quantify Sample Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_130-b.qld

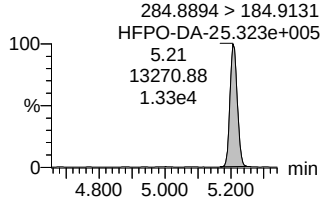
Last Altered: Tuesday, April 16, 2019 12:33:52 Pacific Daylight Time
Printed: Tuesday, April 16, 2019 12:41:00 Pacific Daylight Time

**ID: WG67438-104,,SPM, Name: FC9W_130S22, Description: 1,WG67438,2/4000uL, Date: 31-Mar-2019, Time: 01:15:56**

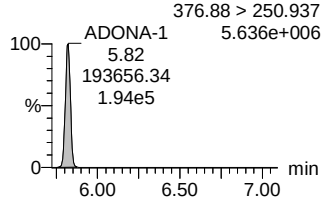
**HFPO-DA-1**




**HFPO-DA-2**




**ADONA-1**

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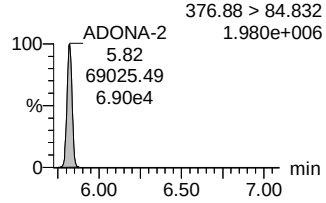
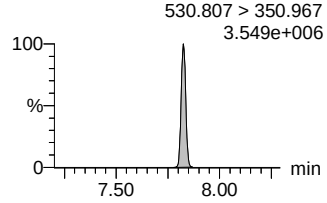
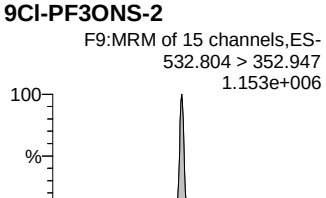


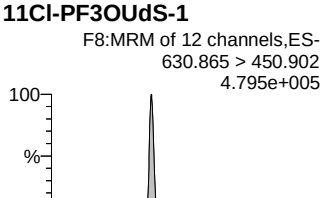

**9Cl-PF3ONS-1**



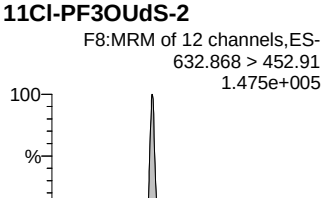

**9Cl-PF3ONS-2**



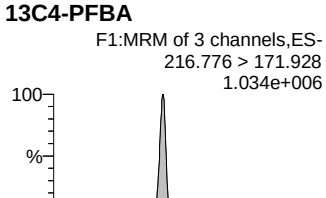

**11Cl-PF3OUdS-1**



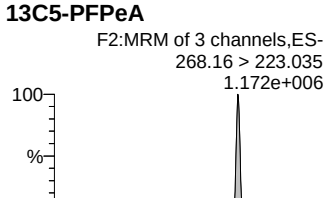

**11Cl-PF3OUdS-2**



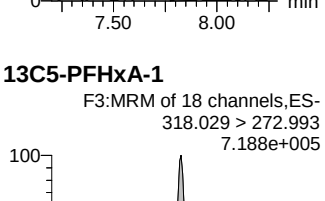

**13C4-PFBA**



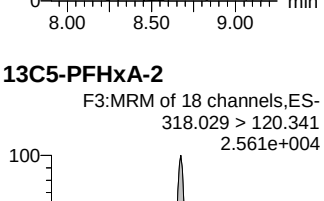

**13C5-PFPeA**



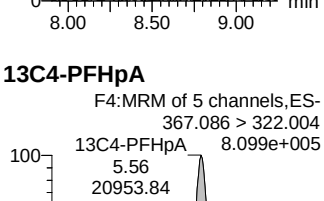

**13C5-PFHxA-1**



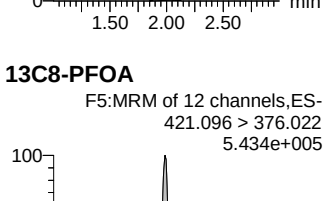

**13C5-PFHxA-2**



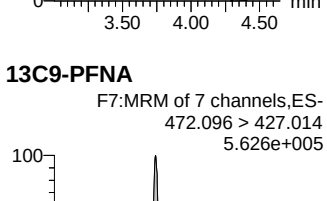

**13C4-PFHpA**



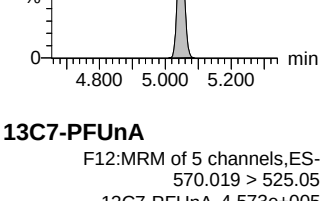

**13C8-PFOA**



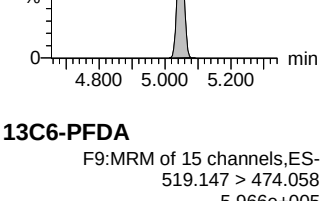

**13C9-PFNA**



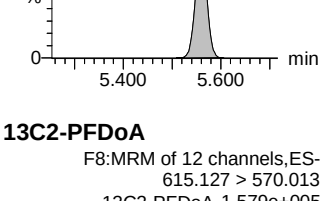

**13C7-PFUnA**



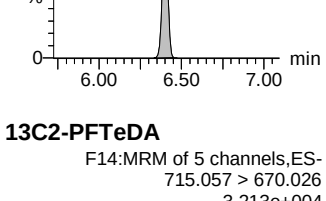

**13C6-PFDA**



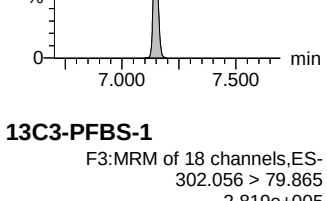

**13C2-PFDoA**




**13C2-PFTeDA**




**13C3-PFBS-1**




PVed by WANGG 13-Apr-19, SVed by AP 16-Apr-19. NOTE: Units = ng/L for BLK and FIeld Samples.

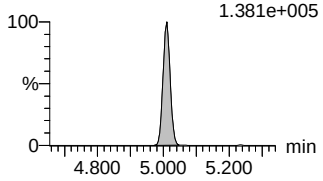
**Quantify Sample Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_130-b.qld

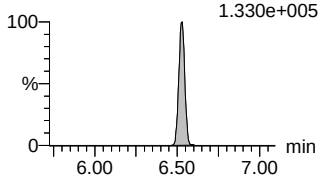
Last Altered: Tuesday, April 16, 2019 12:33:52 Pacific Daylight Time
Printed: Tuesday, April 16, 2019 12:41:00 Pacific Daylight Time

**ID: WG67438-104,,SPM, Name: FC9W_130S22, Description: 1,WG67438,2/4000uL, Date: 31-Mar-2019, Time: 01:15:56**

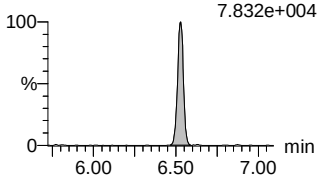
**13C3-PFBS-2**
F3:MRM of 18 channels,ES-
302.056 > 98.875
1.381e+005



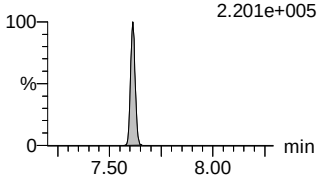

**13C3-PFHxS-1**
F5:MRM of 12 channels,ES-
402.114 > 79.858
1.330e+005



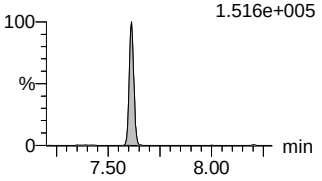

**13C3-PFHxS-2**
F5:MRM of 12 channels,ES-
402.114 > 98.801
7.832e+004



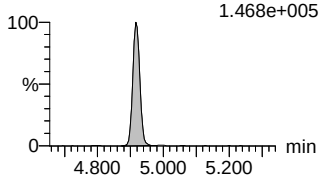

**13C8-PFOS-1**
F9:MRM of 15 channels,ES-
507.124 > 79.858
2.201e+005



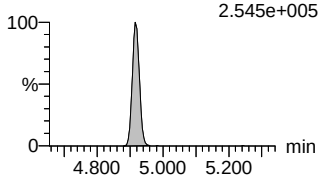

**13C8-PFOS-2**
F9:MRM of 15 channels,ES-
507.124 > 98.867
1.516e+005



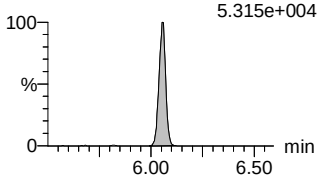

**13C2-4:2 FTS-1**
F3:MRM of 18 channels,ES-
329.084 > 80.9
1.468e+005



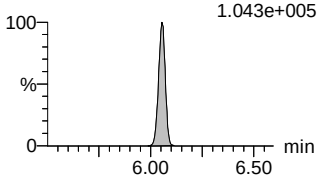

**13C2-4:2 FTS-2**
F3:MRM of 18 channels,ES-
329.084 > 309.024
2.545e+005



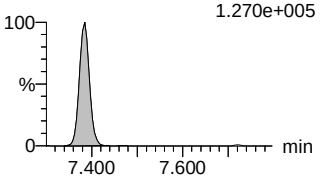

**13C2-6:2 FTS-1**
F6:MRM of 4 channels,ES-
429.078 > 80.900
5.315e+004



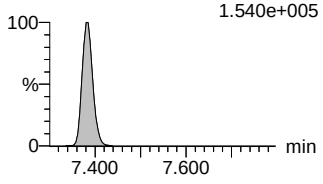

**13C2-6:2 FTS-2**
F6:MRM of 4 channels,ES-
429.078 > 409.031
1.043e+005



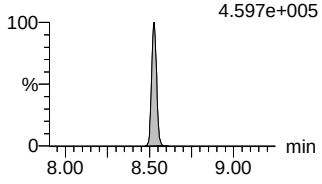

**13C2-8:2 FTS-1**
F11:MRM of 4 channels,ES-
529.1351 > 80.900
1.270e+005



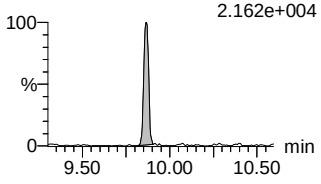

**13C2-8:2 FTS-2**
F11:MRM of 4 channels,ES-
529.135 > 509.003
1.540e+005



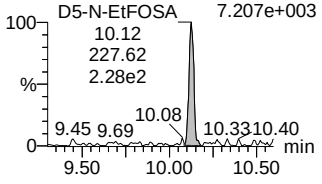

**13C8-PFOSA**
F8:MRM of 12 channels,ES-
506.14 > 77.841
4.597e+005



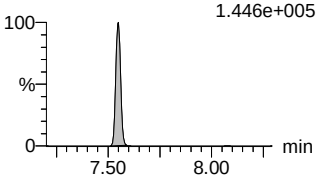

**D3-N-MeFOSA**
F10:MRM of 10 channels,ES-
514.956 > 218.974
2.162e+004



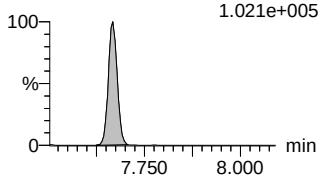

**D5-N-EtFOSA**
F10:MRM of 10 channels,ES-
531.112 > 218.984
7.207e+003



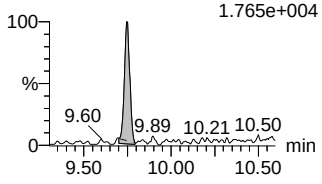

**D3-MeFOSAA**
F9:MRM of 15 channels,ES-
573.153 > 418.99
1.446e+005



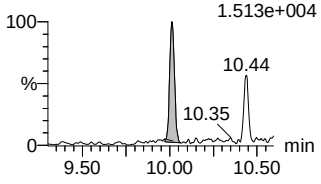

**D5-EtFOSAA**
F13:MRM of 3 channels,ES-
589.245 > 418.971
1.021e+005



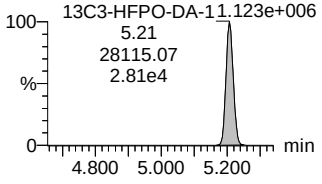

**D7-N-MeFOSE**
F10:MRM of 10 channels,ES-
623.156 > 58.896
1.765e+004



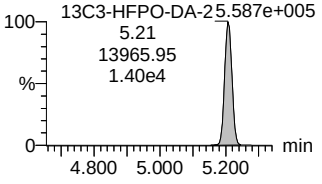

**D9-N-EtFOSE**
F10:MRM of 10 channels,ES-
639.184 > 58.897
1.513e+004




**13C3-HFPO-DA-1**
F3:MRM of 18 channels,ES-
286.8631 > 168.8861
1.123e+006




**13C3-HFPO-DA-2**
F3:MRM of 18 channels,ES-
286.8631 > 184.8888
5.587e+005




PVed by WANGG 13-Apr-19, SVed by AP 16-Apr-19. NOTE: Units = ng/L for BLK and FIeld Samples.

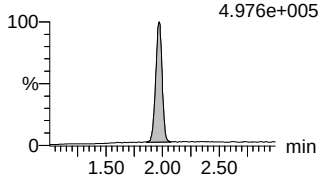
**Quantify Sample Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_130-b.qld

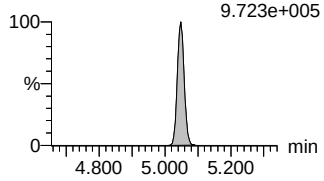
Last Altered: Tuesday, April 16, 2019 12:33:52 Pacific Daylight Time
Printed: Tuesday, April 16, 2019 12:41:00 Pacific Daylight Time

**ID: WG67438-104,,SPM, Name: FC9W_130S22, Description: 1,WG67438,2/4000uL, Date: 31-Mar-2019, Time: 01:15:56**

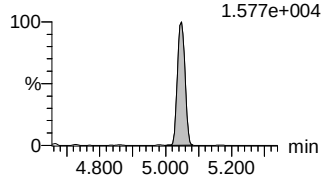
**13C3-PFBA**



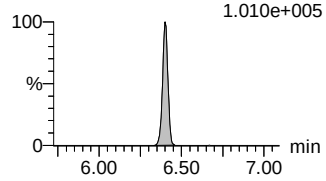

**13C2-PFHxA-1**



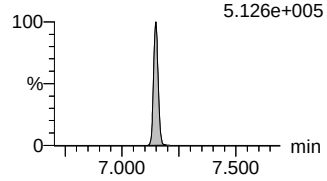

**13C2-PFHxA-2**



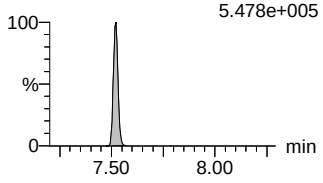

**13C4-PFOA**



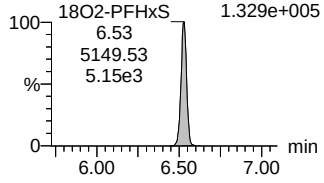

**13C5-PFNA**



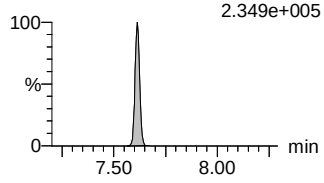

**13C2-PFDA**



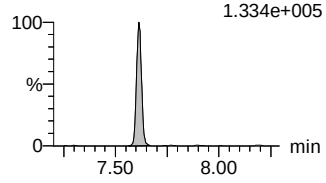

**18O2-PFHxS**




**13C4-PFOS-1**




**13C4-PFOS-2**




PVed by WANGG 13-Apr-19, SVed by AP 16-Apr-19. NOTE: Units = ng/L for BLK and FIeld Samples.

**Quantify Sample Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_130-b.qld

Last Altered: Tuesday, April 16, 2019 12:33:52 Pacific Daylight Time
Printed: Tuesday, April 16, 2019 12:41:00 Pacific Daylight Time

**ID: WG67438-104,,SPM, Name: FC9W_130S22, Description: 1,WG67438,2/4000uL, Date: 31-Mar-2019, Time: 01:15:56**

| # | Name | IS# | Trace | RT | Area | IS Area | Std. Conc | Conc. | LOD | %Rec | S/N | Noise | Peak Height | IS Height | Sample size | F2 | Flags |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | PFBA | 64 | 212.763 > 168.903 | 1.98 | 58329 | 65772 | 41.000 | 42.159 | | 102.8 | 2080 | 438 | 910137 | 1031675 | 1.000 | 0.0 | bb |
| 2 | PFPeA-1 | 65 | 262.951 > 218.996 | 4.34 | 35945 | 36335 | 20.430 | 20.216 | | 99.0 | 3180 | 366 | 1165092 | 1170523 | 1.000 | 0.0 | bb |
| 3 | PFPeA-2 | 65 | 262.951 > 68.925 | 4.34 | 143 | 36335 | 20.430 | 24.161 | 0.4784 | 118.3 | 137 | 31 | 4300 | 1170523 | 1.000 | 0.0 | bb |
| 4 | PFHxA-1 | 66 | 313.012 > 269.017 | 5.05 | 15733 | 17181 | 10.250 | 9.968 | | 97.2 | 924 | 716 | 661138 | 718294 | 1.000 | 0.0 | bb |
| 5 | PFHxA-2 | 66 | 313.012 > 118.918 | 5.05 | 1874 | 17181 | 10.250 | 10.236 | 0.1598 | 99.9 | 193 | 411 | 79447 | 718294 | 1.000 | 0.0 | bb |
| 6 | PFHpA-1 | 68 | 363.073 > 319.025 | 5.56 | 19484 | 20954 | 10.250 | 10.371 | | 101.2 | 797 | 873 | 695754 | 809170 | 1.000 | 0.0 | bb |
| 7 | PFHpA-2 | 68 | 363.073 > 168.962 | 5.56 | 6637 | 20954 | 10.250 | 10.963 | 0.0065 | 107.0 | 1218 | 204 | 248377 | 809170 | 1.000 | 0.0 | bb |
| 8 | PFOA-1 | 69 | 413.006 > 369.03 | 6.40 | 31209 | 21354 | 10.250 | 10.336 | 0.0378 | 100.8 | 228 | 3592 | 818411 | 541893 | 1.000 | 0.0 | bb |
| 9 | PFOA-2 | 69 | 413.006 > 168.963 | 6.40 | 10069 | 21354 | 10.250 | 11.184 | | 109.1 | 4174 | 64 | 265727 | 541893 | 1.000 | 0.0 | bb |
| 10 | PFNA-1 | 70 | 463.002 > 418.97 | 7.15 | 26928 | 13168 | 10.000 | 10.777 | 0.0071 | 107.8 | 320 | 3556 | 1139240 | 562546 | 1.000 | 0.0 | bb |
| 11 | PFNA-2 | 70 | 463.002 > 218.968 | 7.15 | 7127 | 13168 | 10.000 | 10.955 | 0.1309 | 109.6 | 215 | 1372 | 294468 | 562546 | 1.000 | 0.0 | bb |
| 12 | PFDA-1 | 72 | 512.935 > 469.021 | 7.52 | 21000 | 15288 | 10.000 | 9.063 | | 90.6 | 613 | 1320 | 809371 | 595205 | 1.000 | 0.0 | bb |
| 13 | PFDA-2 | 72 | 512.935 > 218.972 | 7.52 | 5531 | 15288 | 10.000 | 9.659 | | 96.6 | 9806 | 22 | 215448 | 595205 | 1.000 | 0.0 | bb |
| 14 | PFUnA-1 | 71 | 563.124 > 519.003 | 7.81 | 16238 | 11155 | 10.000 | 11.569 | 0.0043 | 115.7 | 602 | 1108 | 666983 | 456853 | 1.000 | 0.0 | bb |
| 15 | PFUnA-2 | 71 | 563.124 > 269.051 | 7.81 | 2949 | 11155 | 10.000 | 11.707 | | 117.1 | 8579 | 14 | 120190 | 456853 | 1.000 | 0.0 | bb |
| 16 | PFDoA-1 | 73 | 613.057 > 569.045 | 8.12 | 8231 | 4307 | 10.000 | 9.393 | | 93.9 | 205 | 1383 | 284002 | 157723 | 1.000 | 0.0 | bb |
| 17 | PFDoA-2 | 73 | 613.057 > 318.996 | 8.12 | 853 | 4307 | 10.000 | 8.080 | | 80.8 | 417 | 65 | 27287 | 157723 | 1.000 | 0.0 | bb |
| 18 | PFTrDA-1 | 74 | 663.053 > 619.023 | 8.46 | 3149 | 1043 | 10.000 | 19.131 | 1.0185 | 191.3 | 51 | 2090 | 106726 | 32197 | 1.000 | 0.0 | MM |
| 19 | PFTrDA-2 | 74 | 663.053 > 168.949 | 8.46 | 537 | 1043 | 10.000 | 18.085 | 0.1983 | 180.9 | 165 | 121 | 19923 | 32197 | 1.000 | 0.0 | MM |
| 20 | PFTeDA-1 | 74 | 713.05 > 669. | 8.86 | 1500 | 1043 | 10.000 | 11.145 | 0.5156 | 111.5 | 42 | 1055 | 44748 | 32197 | 1.000 | 0.0 | MM |
| 21 | PFTeDA-2 | 74 | 713.05 > 168.94 | 8.87 | 307 | 1043 | 10.000 | 10.810 | 0.3193 | 108.1 | 67 | 145 | 9705 | 32197 | 1.000 | 0.0 | MM |
| 22 | PFBS-1 | 75 | 298.663 > 79.865 | 5.01 | 7207 | 7206 | 10.250 | 8.720 | 0.0130 | 85.1 | 2189 | 130 | 285518 | 281518 | 1.000 | 0.0 | bb |
| 23 | PFBS-2 | 76 | 298.663 > 98.811 | 5.01 | 3697 | 3498 | 10.250 | 8.890 | | 86.7 | 954 | 155 | 147841 | 137840 | 1.000 | 0.0 | bb |
| 24 | PFPeS-1 | 77 | 349.107 > 79.857 | 5.60 | 5691 | 5530 | 9.500 | 10.821 | | 113.9 | 5642 | 35 | 196709 | 132869 | 1.000 | 0.0 | bb |
| 25 | PFPeS-2 | 78 | 349.107 > 98.871 | 5.61 | 3300 | 3180 | 9.500 | 10.491 | | 110.4 | 323 | 343 | 110949 | 78163 | 1.000 | 0.0 | bb |
| 26 | PFHxS-1 | 77 | 398.721 > 79.92 | 6.53 | 6460 | 5530 | 10.250 | 9.503 | 0.1247 | 92.7 | 2238 | 63 | 141251 | 132869 | 1.000 | 0.0 | MM |
| 27 | PFHxS-2 | 78 | 398.721 > 98.863 | 6.53 | 3337 | 3180 | 10.250 | 8.376 | 0.0534 | 81.7 | 201 | 406 | 81729 | 78163 | 1.000 | 0.0 | MM |
| 28 | PFHpS-1 | 79 | 449.036 > 79.857 | 7.24 | 5543 | 5646 | 9.500 | 10.405 | | 109.5 | 4421 | 48 | 212400 | 219914 | 1.000 | 0.0 | bb |
| 29 | PFHpS-2 | 80 | 449.036 > 98.8 | 7.24 | 3444 | 3911 | 9.500 | 9.360 | 0.0363 | 98.5 | 966 | 136 | 131795 | 151630 | 1.000 | 0.0 | bb |
| 30 | PFOS-1 | 79 | 498.906 > 79.856 | 7.61 | 6305 | 5646 | 10.250 | 9.798 | | 95.6 | 2344 | 84 | 197919 | 219914 | 1.000 | 0.0 | MM |
| 31 | PFOS-2 | 80 | 498.906 > 98.801 | 7.61 | 3186 | 3911 | 10.250 | 8.571 | | 83.6 | 415 | 264 | 109797 | 151630 | 1.000 | 0.0 | MM |
| 32 | PFNS-1 | 79 | 548.775 > 79.858 | 7.92 | 5202 | 5646 | 9.500 | 8.190 | | 86.2 | 113... | 16 | 184969 | 219914 | 1.000 | 0.0 | bb |
| 33 | PFNS-2 | 80 | 548.775 > 98.801 | 7.92 | 3176 | 3911 | 9.500 | 7.677 | 0.0042 | 80.8 | 569 | 202 | 115084 | 151630 | 1.000 | 0.0 | bb |
| 34 | PFDS-1 | 79 | 599.027 > 79.92 | 8.25 | 2166 | 5646 | 10.250 | 4.201 | | 41.0 | 3004 | 24 | 73349 | 219914 | 1.000 | 0.0 | MM |
| 35 | PFDS-2 | 80 | 599.027 > 98.8 | 8.25 | 1323 | 3911 | 10.250 | 4.083 | 0.1119 | 39.8 | 627 | 69 | 43193 | 151630 | 1.000 | 0.0 | MM |

PVed by WANGG 13-Apr-19, SVed by AP 16-Apr-19. NOTE: Units = ng/L for BLK and FIeld Samples.

**Quantify Sample Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_130-b.qld

Last Altered: Tuesday, April 16, 2019 12:33:52 Pacific Daylight Time
Printed: Tuesday, April 16, 2019 12:41:00 Pacific Daylight Time

**ID: WG67438-104,,SPM, Name: FC9W_130S22, Description: 1,WG67438,2/4000uL, Date: 31-Mar-2019, Time: 01:15:56**

| # | Name | IS# | Trace | RT | Area | IS Area | Std. Conc | Conc. | LOD | %Rec | S/N | Noise | Peak Height | IS Height | Sample size | F2 | Flags |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 36 | PFDoS-1 | 79 | 699.084 > 79.856 | 9.05 | 363 | 5646 | 9.500 | 0.784 | | 8.2 | 843 | 13 | 11114 | 219914 | 1.000 | 0.0 | bb |
| 37 | PFDoS-2 | 80 | 699.084 > 98.8 | 9.05 | 195 | 3911 | 9.500 | 0.627 | | 6.6 | 80 | 66 | 5298 | 151630 | 1.000 | 0.0 | MM |
| 38 | 4:2 FTS-1 | 81 | 327.077 > 307.017 | 4.92 | 9085 | 3559 | 40.000 | 34.801 | | 87.0 | 402... | 9 | 360230 | 146525 | 1.000 | 0.0 | bb |
| 39 | 4:2 FTS-2 | 81 | 327.077 > 80.85 | 4.92 | 5551 | 3559 | 40.000 | 34.417 | 0.1752 | 86.0 | 849 | 257 | 218023 | 146525 | 1.000 | 0.0 | bb |
| 40 | 6:2 FTS-1 | 83 | 427.071 > 407.024 | 6.05 | 6320 | 1942 | 36.000 | 35.031 | | 97.3 | 9264 | 20 | 181057 | 53062 | 1.000 | 0.0 | bb |
| 41 | 6:2 FTS-2 | 83 | 427.071 > 80.9 | 6.06 | 4226 | 1942 | 36.000 | 38.096 | 0.0369 | 105.8 | 188... | 6 | 115746 | 53062 | 1.000 | 0.0 | bb |
| 42 | 8:2 FTS-1 | 85 | 527.065 > 506.997 | 7.38 | 7724 | 3159 | 40.000 | 45.113 | | 112.8 | 5002 | 62 | 311722 | 126850 | 1.000 | 0.0 | bb |
| 43 | 8:2 FTS-2 | 85 | 527.065 > 80.75 | 7.38 | 3914 | 3159 | 40.000 | 47.253 | | 118.1 | 6822 | 23 | 156598 | 126850 | 1.000 | 0.0 | bb |
| 44 | PFOSA-1 | 87 | 498.113 > 77.902 | 8.53 | 13649 | 15481 | 10.250 | 9.463 | 0.0867 | 92.3 | 3935 | 95 | 373226 | 458611 | 1.000 | 0.0 | MM |
| 45 | PFOSA-2 | 87 | 498.113 > 477.993 | 8.52 | 260 | 15481 | 10.250 | 10.378 | 2.5108 | 101.2 | 46 | 190 | 8728 | 458611 | 1.000 | 0.0 | MM |
| 46 | N-MeFOSA-1 | 88 | 511.937 > 218.985 | 9.87 | 975 | 680 | 11.500 | 15.489 | 0.0445 | 134.7 | 416 | 72 | 29906 | 21443 | 1.000 | 0.0 | MM |
| 47 | N-MeFOSA-2 | 88 | 511.937 > 168.955 | 9.87 | 1378 | 680 | 11.500 | 14.821 | 0.0111 | 128.9 | 369 | 108 | 39781 | 21443 | 1.000 | 0.0 | MM |
| 48 | N-EtFOSA-1 | 89 | 526.017 > 218.977 | 10.14 | 701 | 228 | 25.000 | 26.385 | 0.0085 | 105.5 | 348 | 50 | 17389 | 7207 | 1.000 | 0.0 | MM |
| 49 | N-EtFOSA-2 | 89 | 526.017 > 168.95 | 10.14 | 1019 | 228 | 25.000 | 26.154 | 0.3213 | 104.6 | 163 | 148 | 24039 | 7207 | 1.000 | 0.0 | MM |
| 50 | MeFOSAA-1 | 90 | 570.134 > 419.035 | 7.55 | 2106 | 3871 | 10.000 | 11.370 | 0.0206 | 113.7 | 754 | 107 | 80548 | 144092 | 1.000 | 0.0 | bb |
| 51 | MeFOSAA-2 | 90 | 570.134 > 482.99 | 7.55 | 928 | 3871 | 10.000 | 10.976 | | 109.8 | 849 | 39 | 33365 | 144092 | 1.000 | 0.0 | bb |
| 52 | EtFOSAA-1 | 91 | 584.15 > 419.062 | 7.67 | 926 | 2702 | 10.000 | 8.968 | 0.2030 | 89.7 | 176 | 185 | 32507 | 101913 | 1.000 | 0.0 | bb |
| 53 | EtFOSAA-2 | 91 | 584.15 > 526.045 | 7.67 | 722 | 2702 | 10.000 | 7.584 | 0.1239 | 75.8 | 2955 | 9 | 26353 | 101913 | 1.000 | 0.0 | bb |
| 54 | N-MeFOSE | 92 | 616.112 > 58.894 | 9.77 | 491 | 632 | 102.000 | 82.984 | 3.8894 | 81.4 | 47 | 226 | 10601 | 17429 | 1.000 | 0.0 | MM |
| 55 | N-EtFOSE | 93 | 630. > 58.893 | 10.03 | 233 | 466 | 76.500 | 39.217 | 2.3991 | 51.3 | 42 | 166 | 7003 | 14767 | 1.000 | 0.0 | bb |
| 56 | HFPO-DA-1 | 94 | 284.8894 > 168.... | 5.21 | 28609 | 28115 | 40.000 | 45.358 | | 113.4 | 251... | 45 | 1136778 | 1121280 | 1.000 | 0.0 | bb |
| 57 | HFPO-DA-2 | 95 | 284.8894 > 184.... | 5.21 | 13271 | 13966 | 40.000 | 41.206 | 0.1037 | 103.0 | 794 | 666 | 529293 | 557731 | 1.000 | 0.0 | bb |
| 58 | ADONA-1 | 94 | 376.88 > 250.937 | 5.82 | 193656 | 28115 | 40.000 | 44.513 | | 111.3 | 246... | 228 | 5626658 | 1121280 | 1.000 | 0.0 | bb |
| 59 | ADONA-2 | 95 | 376.88 > 84.832 | 5.82 | 69025 | 13966 | 40.000 | 41.949 | 0.5320 | 104.9 | 135... | 146 | 1977560 | 557731 | 1.000 | 0.0 | bb |
| 60 | 9Cl-PF3ONS-1 | 94 | 530.807 > 350.967 | 7.82 | 88816 | 28115 | 40.000 | 51.840 | | 129.6 | 125... | 283 | 3546083 | 1121280 | 1.000 | 0.0 | bb |
| 61 | 9Cl-PF3ONS-2 | 95 | 532.804 > 352.947 | 7.82 | 28470 | 13966 | 40.000 | 51.281 | | 128.2 | 2321 | 496 | 1150920 | 557731 | 1.000 | 0.0 | bb |
| 62 | 11Cl-PF3OUdS-1 | 94 | 630.865 > 450.902 | 8.50 | 14317 | 28115 | 40.000 | 11.763 | | 29.4 | 2881 | 166 | 478314 | 1121280 | 1.000 | 0.0 | bb |
| 63 | 11Cl-PF3OUdS-2 | 95 | 632.868 > 452.91 | 8.50 | 4515 | 13966 | 40.000 | 11.053 | 0.0791 | 27.6 | 256 | 574 | 147078 | 557731 | 1.000 | 0.0 | bb |
| 64 | 13C4-PFBA | 96 | 216.776 > 171.928 | 1.97 | 65772 | 31557 | 40.000 | 40.718 | 0.0139 | 101.8 | 8994 | 115 | 1031675 | 484357 | 1.000 | 0.0 | bb |
| 65 | 13C5-PFPeA | 97 | 268.16 > 223.035 | 4.34 | 36335 | 23079 | 20.000 | 19.406 | 0.0041 | 97.0 | 109... | 107 | 1170523 | 971435 | 1.000 | 0.0 | bb |
| 66 | 13C5-PFHxA-1 | 97 | 318.029 > 272.993 | 5.05 | 17181 | 23079 | 10.000 | 10.572 | 0.0025 | 105.7 | 128... | 56 | 718294 | 971435 | 1.000 | 0.0 | bb |
| 67 | 13C5-PFHxA-2 | 97 | 318.029 > 120.341 | 5.05 | 607 | 23079 | 10.000 | 10.996 | 0.0148 | 110.0 | 2234 | 11 | 25568 | 971435 | 1.000 | 0.0 | bb |
| 68 | 13C4-PFHpA | 99 | 367.086 > 322.004 | 5.56 | 20954 | 3726 | 10.000 | 10.342 | 0.0053 | 103.4 | 8308 | 97 | 809170 | 100875 | 1.000 | 0.0 | bb |
| 69 | 13C8-PFOA | 99 | 421.096 > 376.022 | 6.40 | 21354 | 3726 | 10.000 | 9.173 | 0.0040 | 91.7 | 6440 | 84 | 541893 | 100875 | 1.000 | 0.0 | bb |
| 70 | 13C9-PFNA | 100 | 472.096 > 427.014 | 7.15 | 13168 | 11731 | 5.000 | 5.169 | 0.0024 | 103.4 | 6342 | 89 | 562546 | 512058 | 1.000 | 0.0 | bb |

PVed by WANGG 13-Apr-19, SVed by AP 16-Apr-19. NOTE: Units = ng/L for BLK and FIeld Samples.

**Quantify Sample Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_130-b.qld

Last Altered: Tuesday, April 16, 2019 12:33:52 Pacific Daylight Time
Printed: Tuesday, April 16, 2019 12:41:00 Pacific Daylight Time

**ID: WG67438-104,,SPM, Name: FC9W_130S22, Description: 1,WG67438,2/4000uL, Date: 31-Mar-2019, Time: 01:15:56**

| # | Name | IS# | Trace | RT | Area | IS Area | Std. Conc | Conc. | LOD | %Rec | S/N | Noise | Peak Height | IS Height | Sample size | F2 | Flags |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 71 | 13C7-PFUnA | 101 | 570.019 > 525.05 | 7.81 | 11155 | 14078 | 5.000 | 3.543 | 0.0035 | 70.9 | 3232 | 141 | 456853 | 547198 | 1.000 | 0.0 | bb |
| 72 | 13C6-PFDA | 101 | 519.147 > 474.058 | 7.52 | 15288 | 14078 | 5.000 | 5.771 | 0.0003 | 115.4 | 543... | 11 | 595205 | 547198 | 1.000 | 0.0 | bb |
| 73 | 13C2-PFDoA | 101 | 615.127 > 570.013 | 8.12 | 4307 | 14078 | 5.000 | 1.917 | 0.0006 | 38.3 | 9411 | 17 | 157723 | 547198 | 1.000 | 0.0 | bb |
| 74 | 13C2-PFTeDA | 101 | 715.057 > 670.026 | 8.86 | 1043 | 14078 | 5.000 | 0.473 | 0.0023 | 9.5 | 481 | 67 | 32197 | 547198 | 1.000 | 0.0 | MM |
| 75 | 13C3-PFBS-1 | 102 | 302.056 > 79.865 | 5.01 | 7206 | 5150 | 10.000 | 11.627 | 0.0535 | 116.3 | 988 | 285 | 281518 | 132775 | 1.000 | 0.0 | bb |
| 76 | 13C3-PFBS-2 | 102 | 302.056 > 98.875 | 5.01 | 3498 | 5150 | 10.000 | 11.676 | 0.0115 | 116.8 | 4657 | 30 | 137840 | 132775 | 1.000 | 0.0 | bb |
| 77 | 13C3-PFHxS-1 | 102 | 402.114 > 79.858 | 6.53 | 5530 | 5150 | 10.000 | 10.353 | 0.0169 | 103.5 | 1714 | 78 | 132869 | 132775 | 1.000 | 0.0 | bb |
| 78 | 13C3-PFHxS-2 | 102 | 402.114 > 98.801 | 6.53 | 3180 | 5150 | 10.000 | 10.688 | 0.0447 | 106.9 | 684 | 114 | 78163 | 132775 | 1.000 | 0.0 | bb |
| 79 | 13C8-PFOS-1 | 103 | 507.124 > 79.858 | 7.61 | 5646 | 6024 | 10.000 | 11.838 | 0.0024 | 118.4 | 147... | 15 | 219914 | 234664 | 1.000 | 0.0 | bb |
| 80 | 13C8-PFOS-2 | 104 | 507.124 > 98.867 | 7.61 | 3911 | 3688 | 10.000 | 13.519 | 0.0326 | 135.2 | 1333 | 114 | 151630 | 133316 | 1.000 | 0.0 | MM |
| 81 | 13C2-4:2 FTS-1 | 102 | 329.084 > 80.9 | 4.92 | 3559 | 5150 | 20.000 | 19.461 | 0.1277 | 97.3 | 730 | 201 | 146525 | 132775 | 1.000 | 0.0 | bb |
| 82 | 13C2-4:2 FTS-2 | 102 | 329.084 > 309.024 | 4.92 | 6241 | 5150 | 20.000 | 14.622 | 0.0189 | 73.1 | 3668 | 69 | 254314 | 132775 | 1.000 | 0.0 | bb |
| 83 | 13C2-6:2 FTS-1 | 102 | 429.078 > 80.900 | 6.05 | 1942 | 5150 | 20.000 | 13.145 | 0.0143 | 65.7 | 2921 | 18 | 53062 | 132775 | 1.000 | 0.0 | bb |
| 84 | 13C2-6:2 FTS-2 | 102 | 429.078 > 409.031 | 6.05 | 3839 | 5150 | 20.000 | 11.348 | 0.0025 | 56.7 | 146... | 7 | 104188 | 132775 | 1.000 | 0.0 | bb |
| 85 | 13C2-8:2 FTS-1 | 102 | 529.1351 > 80.900 | 7.38 | 3159 | 5150 | 20.000 | 14.308 | 0.1707 | 71.5 | 392 | 324 | 126850 | 132775 | 1.000 | 0.0 | bb |
| 86 | 13C2-8:2 FTS-2 | 102 | 529.135 > 509.003 | 7.38 | 4122 | 5150 | 20.000 | 13.882 | 0.0066 | 69.4 | 9145 | 17 | 153938 | 132775 | 1.000 | 0.0 | bb |
| 87 | 13C8-PFOSA | 103 | 506.14 > 77.841 | 8.53 | 15481 | 6024 | 10.000 | 20.532 | 0.0077 | 205.3 | 6108 | 75 | 458611 | 234664 | 1.000 | 0.0 | bb |
| 88 | D3-N-MeFOSA | 103 | 514.956 > 218.974 | 9.87 | 680 | 6024 | 10.000 | 1.748 | 0.0283 | 17.5 | 150 | 143 | 21443 | 234664 | 1.000 | 0.0 | bb |
| 89 | D5-N-EtFOSA | 103 | 531.112 > 218.984 | 10.12 | 228 | 6024 | 10.000 | 0.693 | 0.0294 | 6.9 | 57 | 125 | 7207 | 234664 | 1.000 | 0.0 | MM |
| 90 | D3-MeFOSAA | 103 | 573.153 > 418.99 | 7.55 | 3871 | 6024 | 20.000 | 9.246 | 0.0028 | 46.2 | 9393 | 15 | 144092 | 234664 | 1.000 | 0.0 | bb |
| 91 | D5-EtFOSAA | 103 | 589.245 > 418.971 | 7.67 | 2702 | 6024 | 20.000 | 7.723 | 0.0029 | 38.6 | 7706 | 13 | 101913 | 234664 | 1.000 | 0.0 | bb |
| 92 | D7-N-MeFOSE | 103 | 623.156 > 58.896 | 9.74 | 632 | 6024 | 100.000 | 3.517 | 0.1559 | 3.5 | 48 | 364 | 17429 | 234664 | 1.000 | 0.0 | MM |
| 93 | D9-N-EtFOSE | 103 | 639.184 > 58.897 | 10.01 | 466 | 6024 | 100.000 | 2.506 | 0.1219 | 2.5 | 50 | 295 | 14767 | 234664 | 1.000 | 0.0 | MM |
| 94 | 13C3-HFPO-DA-1 | 97 | 286.8631 > 168.... | 5.21 | 28115 | 23079 | 40.000 | 37.675 | 0.0031 | 94.2 | 350... | 32 | 1121280 | 971435 | 1.000 | 0.0 | bb |
| 95 | 13C3-HFPO-DA-2 | 97 | 286.8631 > 184.... | 5.21 | 13966 | 23079 | 40.000 | 38.208 | 0.0368 | 95.5 | 2956 | 189 | 557731 | 971435 | 1.000 | 0.0 | bb |
| 96 | 13C3-PFBA | | 216.029 > 171.97 | 1.97 | 31557 | | 20.000 | 22.545 | 0.1516 | 112.7 | 446 | 1086 | 484357 | | 1.000 | 0.0 | bb |
| 97 | 13C2-PFHxA-1 | | 315.083 > 269.984 | 5.05 | 23079 | | 10.000 | 12.927 | 0.0110 | 129.3 | 3521 | 276 | 971435 | | 1.000 | 0.0 | bb |
| 98 | 13C2-PFHxA-2 | | 315.083 > 119.359 | 5.05 | 416 | | 10.000 | 7.726 | 0.0221 | 77.3 | 1051 | 15 | 15750 | | 1.000 | 0.0 | bb |
| 99 | 13C4-PFOA | | 417.083 > 171.95 | 6.40 | 3726 | | 10.000 | 12.402 | 0.0023 | 124.0 | 161... | 6 | 100875 | | 1.000 | 0.0 | bb |
| 1... | 13C5-PFNA | | 468.019 > 423.008 | 7.15 | 11731 | | 5.000 | 5.751 | 0.0018 | 115.0 | 9435 | 54 | 512058 | | 1.000 | 0.0 | bb |
| 1... | 13C2-PFDA | | 515.134 > 470.05 | 7.52 | 14078 | | 5.000 | 6.189 | 0.0005 | 123.8 | 341... | 16 | 547198 | | 1.000 | 0.0 | bb |
| 1... | 18O2-PFHxS | | 402.984 > 83.895 | 6.53 | 5150 | | 10.000 | 13.110 | 0.0068 | 131.1 | 5785 | 23 | 132775 | | 1.000 | 0.0 | bb |
| 1... | 13C4-PFOS-1 | | 502.791 > 79.856 | 7.61 | 6024 | | 10.000 | 12.382 | 0.0020 | 123.8 | 184... | 13 | 234664 | | 1.000 | 0.0 | bb |
| 1... | 13C4-PFOS-2 | | 502.791 > 98.864 | 7.61 | 3688 | | 10.000 | 11.811 | 0.0167 | 118.1 | 2125 | 63 | 133316 | | 1.000 | 0.0 | bb |

PVed by WANGG 13-Apr-19, SVed by AP 16-Apr-19. NOTE: Units = ng/L for BLK and FIeld Samples.

**Quantify Sample Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

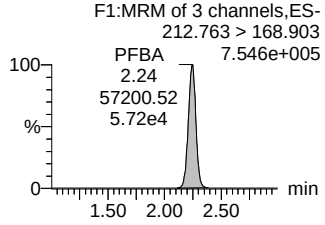
Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_144-b.qld

Last Altered: Tuesday, April 16, 2019 14:59:53 Pacific Daylight Time
Printed: Monday, April 22, 2019 08:56:31 Pacific Daylight Time

**Method: G:\Masslynx\Master Methods\MassLynx SCN 909\UPLC\FC_110_UPLC_06.mdb 10 Mar 2019 18:18:03**
**Calibration: G:\Masslynx\Inst_W\PFC.PRO\Curve\FC9W_097-a1.cdb 12 Mar 2019 11:26:10**

**ID: WG67663-102,i,SPM, Name: FC9W_144S16, Description: 1,WG67663,2/4000uL, Date: 08-Apr-2019, Time: 17:25:18**

**PFBA**

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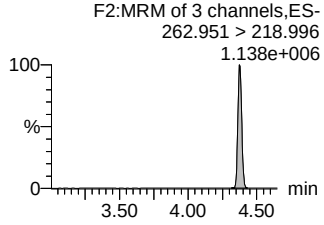


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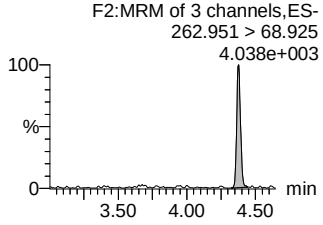


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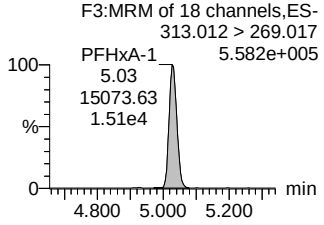


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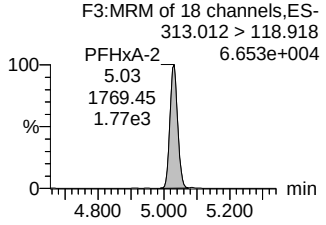


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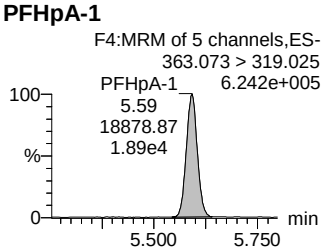


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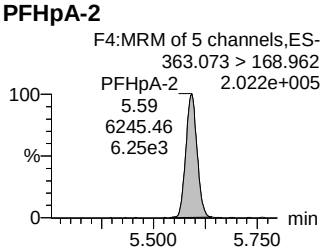


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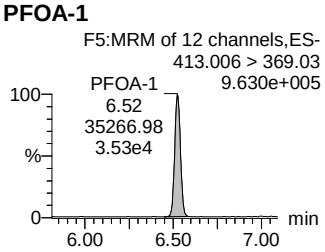


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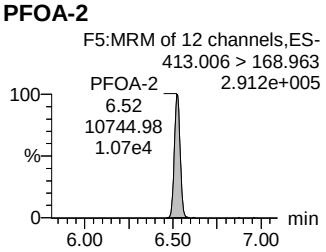


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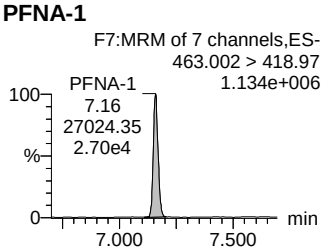


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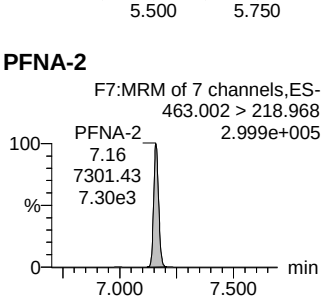


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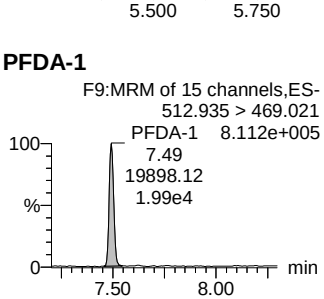


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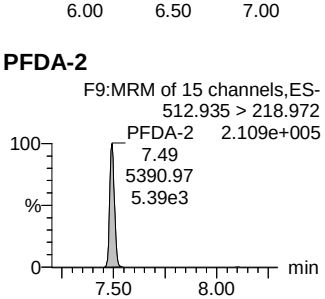


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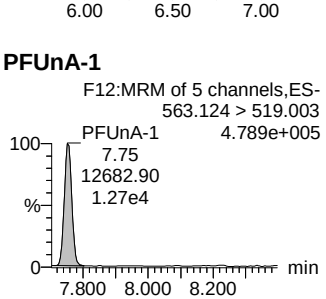


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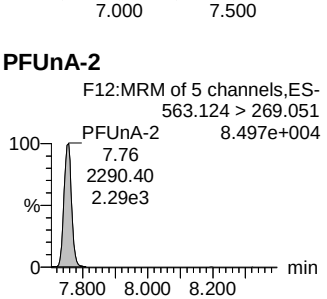


PVed by WANGG 16-Apr-19, SVed by AP 22-Apr-19. NOTE: Units = ng/L for BLK and Field Samples.

**Quantify Sample Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_144-b.qld

Last Altered: Tuesday, April 16, 2019 14:59:53 Pacific Daylight Time
Printed: Monday, April 22, 2019 08:56:31 Pacific Daylight Time

**ID: WG67663-102,i,SPM, Name: FC9W_144S16, Description: 1,WG67663,2/4000uL, Date: 08-Apr-2019, Time: 17:25:18**

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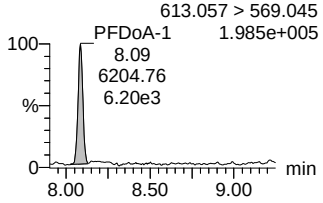


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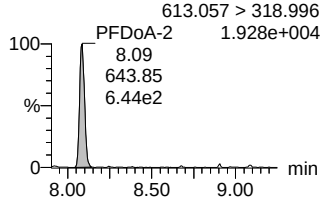


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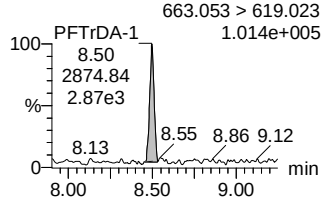


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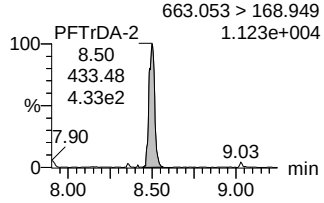


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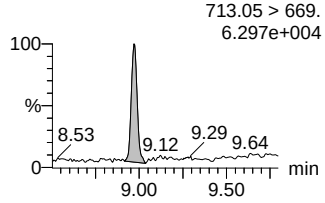


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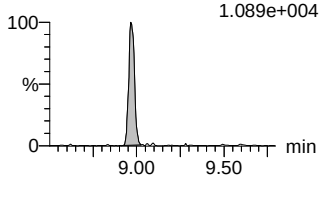


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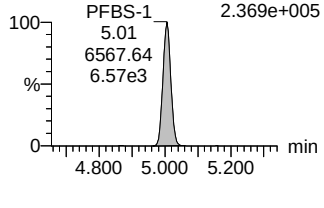


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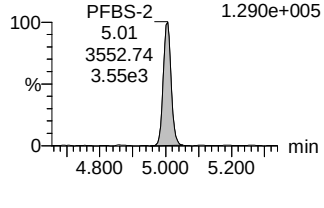


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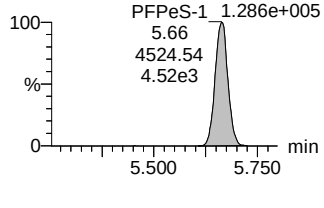


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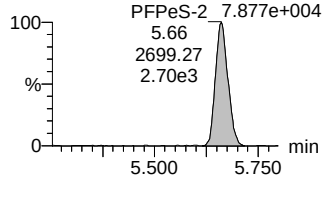


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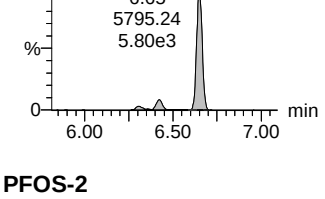


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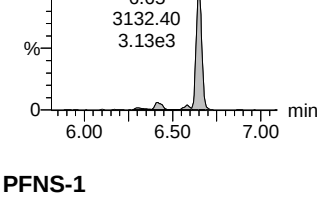


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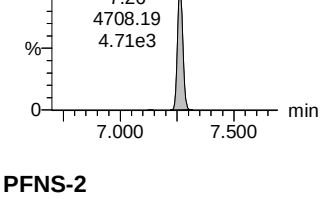


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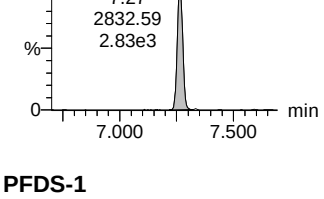


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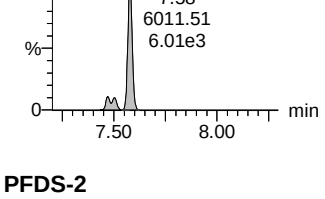


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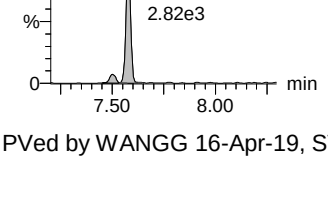


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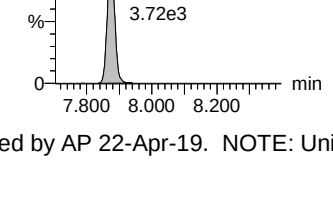


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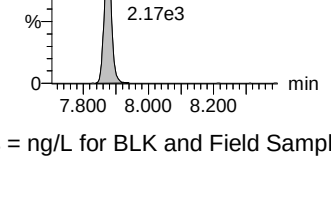


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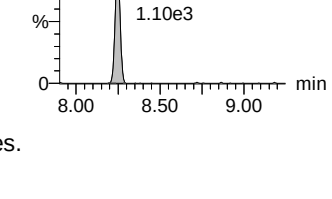


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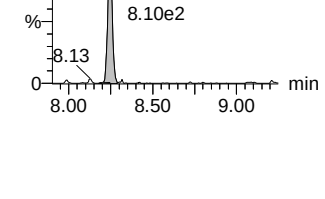



PVed by WANGG 16-Apr-19, SVed by AP 22-Apr-19. NOTE: Units = ng/L for BLK and Field Samples.

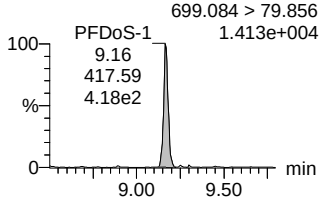
**Quantify Sample Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_144-b.qld

Last Altered: Tuesday, April 16, 2019 14:59:53 Pacific Daylight Time
Printed: Monday, April 22, 2019 08:56:31 Pacific Daylight Time

**ID: WG67663-102,i,SPM, Name: FC9W_144S16, Description: 1,WG67663,2/4000uL, Date: 08-Apr-2019, Time: 17:25:18**

**PFDoS-1**

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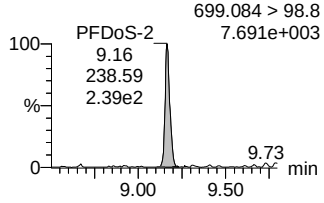
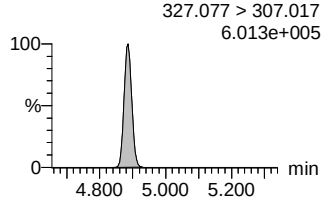



**4:2 FTS-1**

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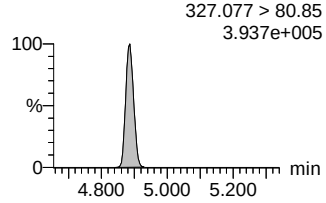
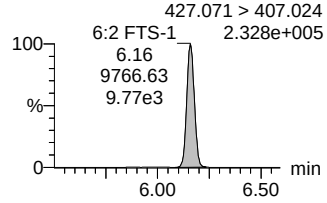
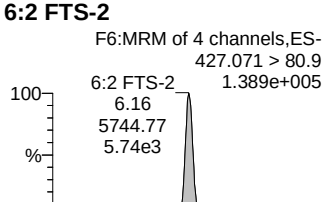


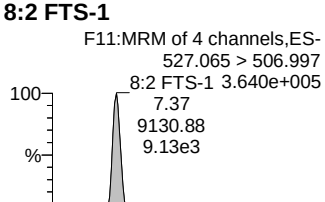

**6:2 FTS-1**



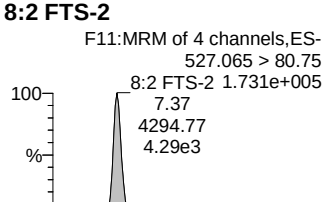

**6:2 FTS-2**




**8:2 FTS-1**




**8:2 FTS-2**

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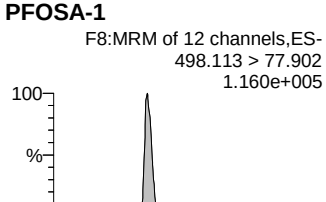


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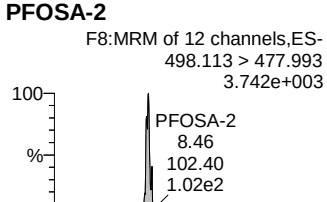


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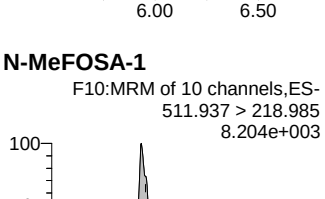


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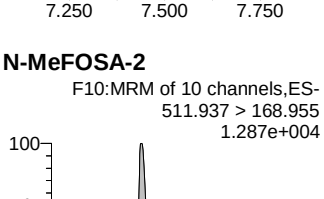


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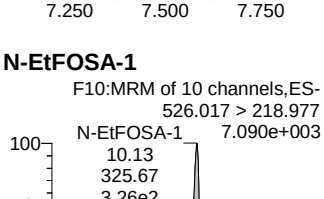


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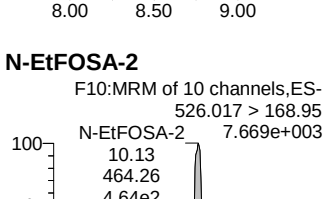


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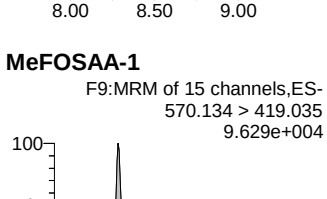


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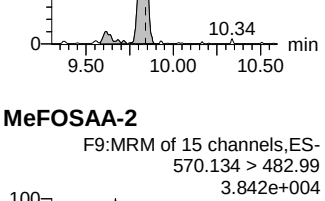


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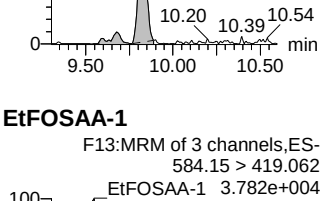


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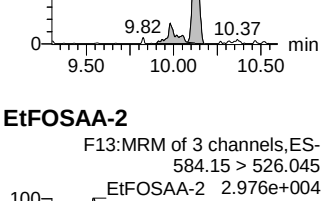


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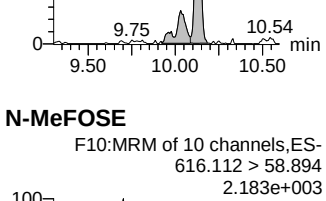


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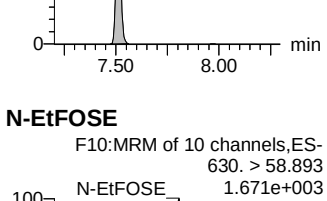



PVed by WANGG 16-Apr-19, SVed by AP 22-Apr-19. NOTE: Units = ng/L for BLK and Field Samples.

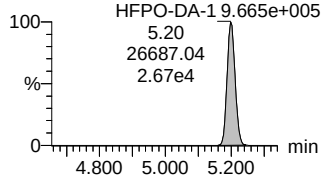
**Quantify Sample Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_144-b.qld

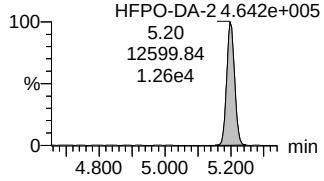
Last Altered: Tuesday, April 16, 2019 14:59:53 Pacific Daylight Time
Printed: Monday, April 22, 2019 08:56:31 Pacific Daylight Time

**ID: WG67663-102,i,SPM, Name: FC9W_144S16, Description: 1,WG67663,2/4000uL, Date: 08-Apr-2019, Time: 17:25:18**

**HFPO-DA-1**




**HFPO-DA-2**

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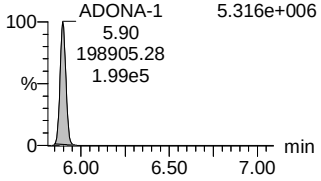


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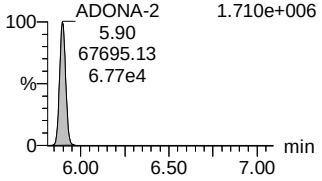
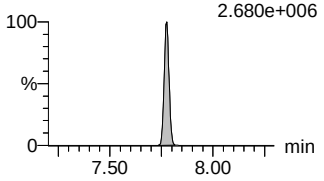
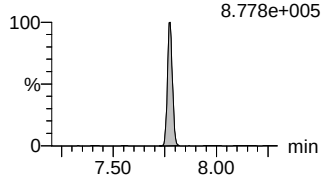



**9Cl-PF3ONS-1**




**9Cl-PF3ONS-2**

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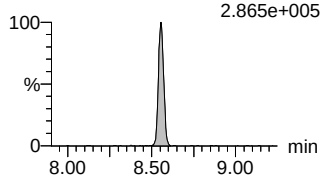


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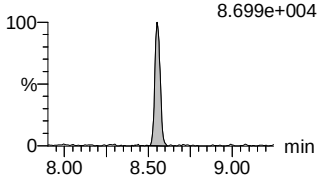


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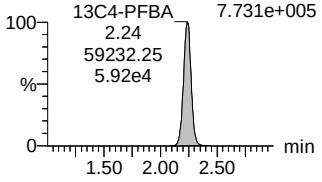
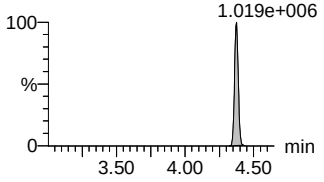
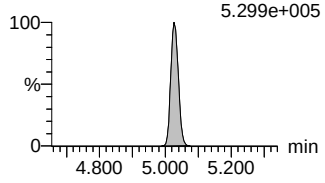



**13C5-PFPeA**




**13C5-PFHxA-1**

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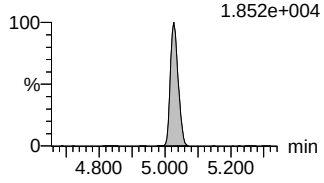


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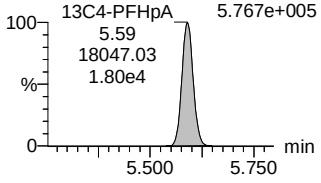
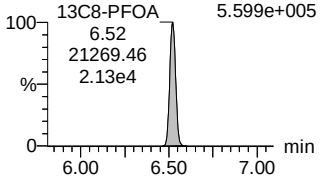



**13C8-PFOA**

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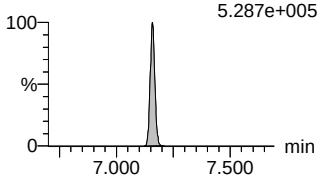
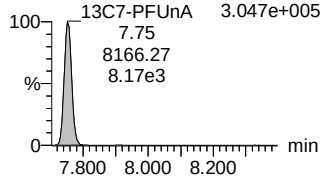
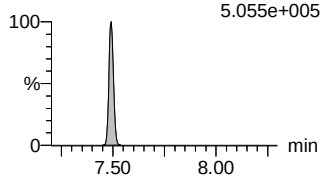


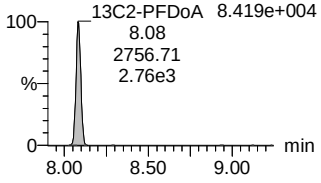

**13C7-PFUnA**



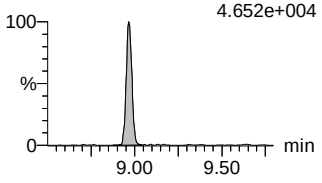

**13C6-PFDA**



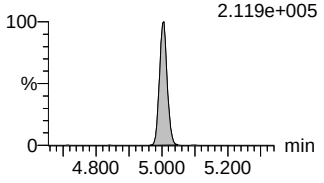

**13C2-PFDoA**




**13C2-PFTeDA**




**13C3-PFBS-1**




PVed by WANGG 16-Apr-19, SVed by AP 22-Apr-19. NOTE: Units = ng/L for BLK and Field Samples.

**Quantify Sample Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_144-b.qld

Last Altered: Tuesday, April 16, 2019 14:59:53 Pacific Daylight Time
Printed: Monday, April 22, 2019 08:56:31 Pacific Daylight Time

**ID: WG67663-102,i,SPM, Name: FC9W_144S16, Description: 1,WG67663,2/4000uL, Date: 08-Apr-2019, Time: 17:25:18**

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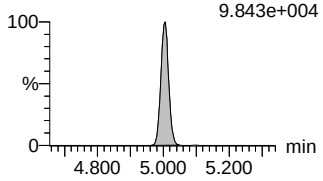


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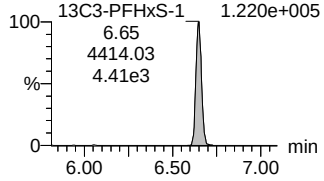


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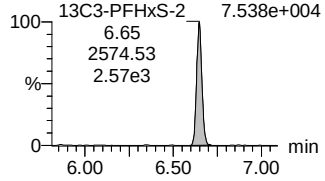


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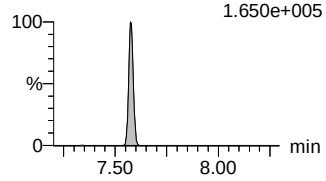


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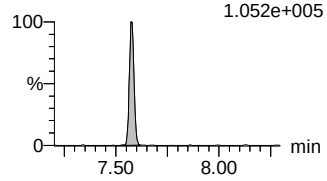
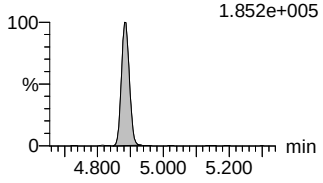
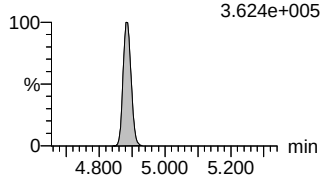
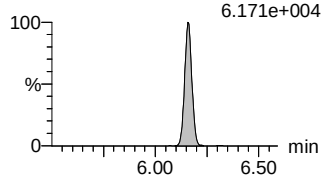
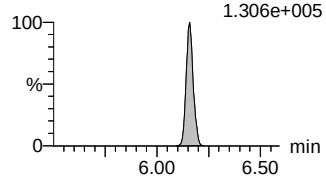
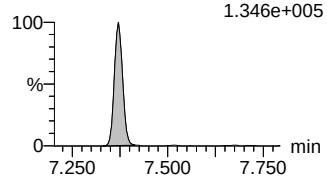



**13C2-4:2 FTS-1**



**13C2-4:2 FTS-2**



**13C2-6:2 FTS-1**



**13C2-6:2 FTS-2**



**13C2-8:2 FTS-1**
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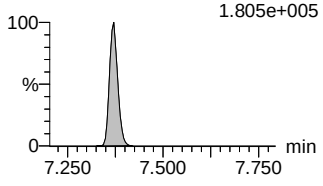
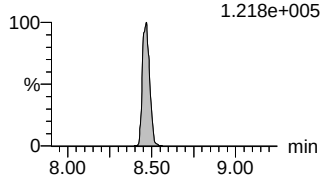
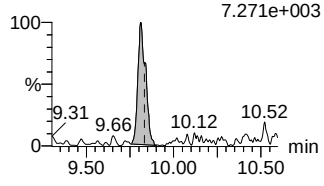
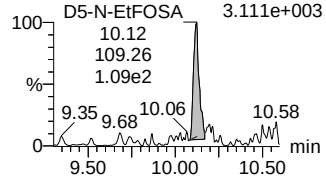



**13C8-PFOSA**



**D3-N-MeFOSA**



**D5-N-EtFOSA**
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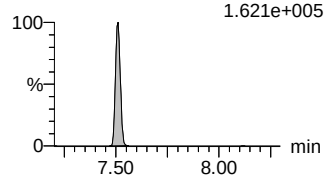
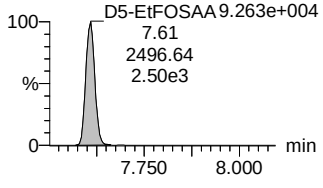
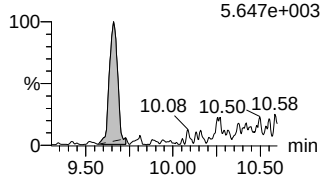



**D5-EtFOSAA**



**D7-N-MeFOSE**
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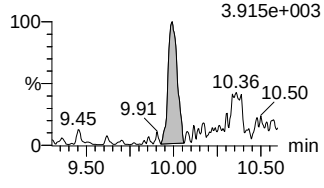
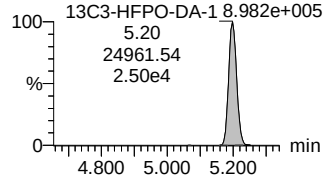



**13C3-HFPO-DA-1**
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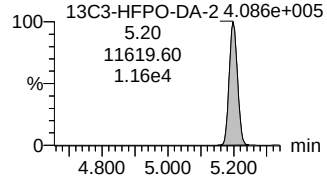



PVed by WANGG 16-Apr-19, SVed by AP 22-Apr-19. NOTE: Units = ng/L for BLK and Field Samples.

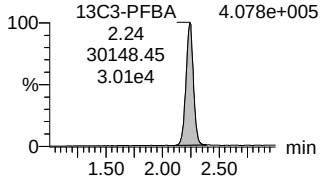
**Quantify Sample Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_144-b.qld

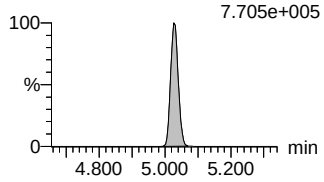
Last Altered: Tuesday, April 16, 2019 14:59:53 Pacific Daylight Time
Printed: Monday, April 22, 2019 08:56:31 Pacific Daylight Time

**ID: WG67663-102,i,SPM, Name: FC9W_144S16, Description: 1,WG67663,2/4000uL, Date: 08-Apr-2019, Time: 17:25:18**

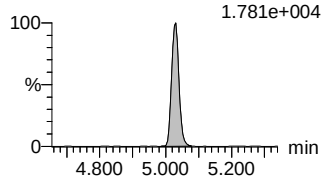
**13C3-PFBA**



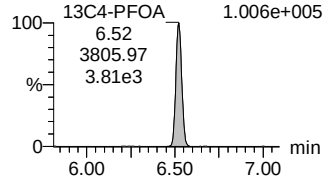

**13C2-PFHxA-1**



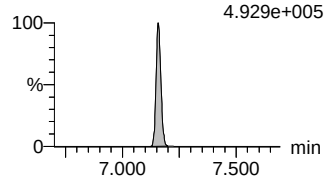

**13C2-PFHxA-2**



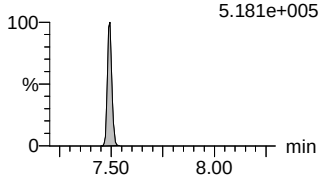

**13C4-PFOA**



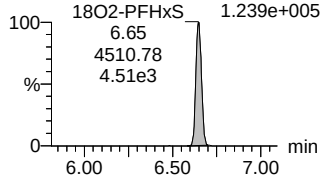

**13C5-PFNA**



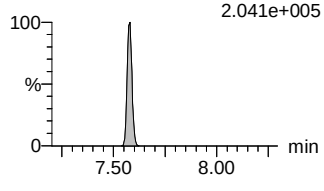

**13C2-PFDA**



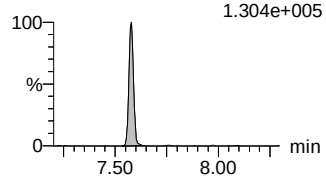

**18O2-PFHxS**




**13C4-PFOS-1**




**13C4-PFOS-2**




PVed by WANGG 16-Apr-19, SVed by AP 22-Apr-19. NOTE: Units = ng/L for BLK and Field Samples.

**Quantify Sample Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_144-b.qld

Last Altered: Tuesday, April 16, 2019 14:59:53 Pacific Daylight Time
Printed: Monday, April 22, 2019 08:56:31 Pacific Daylight Time

**ID: WG67663-102,i,SPM, Name: FC9W_144S16, Description: 1,WG67663,2/4000uL, Date: 08-Apr-2019, Time: 17:25:18**

| # | Name | IS# | Trace | RT | Area | IS Area | Std. Conc | Conc. | LOD | %Rec | S/N | Noise | Peak Height | IS Height | Sample size | F2 | Flags |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | PFBA | 64 | 212.763 > 168.903 | 2.24 | 57201 | 59232 | 41.000 | 45.923 | | 112.0 | 2263 | 332 | 750698 | 771756 | 1.000 | 0.0 | bb |
| 2 | PFPeA-1 | 65 | 262.951 > 218.996 | 4.37 | 35389 | 31172 | 20.430 | 23.226 | | 113.7 | 2861 | 396 | 1134038 | 1016928 | 1.000 | 0.0 | bb |
| 3 | PFPeA-2 | 65 | 262.951 > 68.925 | 4.38 | 127 | 31172 | 20.430 | 24.977 | 0.4348 | 122.3 | 162 | 25 | 4008 | 1016928 | 1.000 | 0.0 | bb |
| 4 | PFHxA-1 | 66 | 313.012 > 269.017 | 5.03 | 15074 | 14126 | 10.250 | 11.631 | | 113.5 | 739 | 753 | 556016 | 529554 | 1.000 | 0.0 | bb |
| 5 | PFHxA-2 | 66 | 313.012 > 118.918 | 5.03 | 1769 | 14126 | 10.250 | 11.757 | 0.0109 | 114.7 | 2910 | 23 | 66344 | 529554 | 1.000 | 0.0 | bb |
| 6 | PFHpA-1 | 68 | 363.073 > 319.025 | 5.59 | 18879 | 18047 | 10.250 | 11.676 | | 113.9 | 706 | 879 | 620847 | 576252 | 1.000 | 0.0 | bb |
| 7 | PFHpA-2 | 68 | 363.073 > 168.962 | 5.59 | 6245 | 18047 | 10.250 | 11.980 | | 116.9 | 1905 | 106 | 201764 | 576252 | 1.000 | 0.0 | bb |
| 8 | PFOA-1 | 69 | 413.006 > 369.03 | 6.52 | 35267 | 21269 | 10.250 | 11.740 | | 114.5 | 514 | 1854 | 953073 | 559093 | 1.000 | 0.0 | bb |
| 9 | PFOA-2 | 69 | 413.006 > 168.963 | 6.52 | 10745 | 21269 | 10.250 | 11.989 | | 117.0 | 4573 | 64 | 290772 | 559093 | 1.000 | 0.0 | bb |
| 10 | PFNA-1 | 70 | 463.002 > 418.97 | 7.16 | 27024 | 12222 | 10.000 | 11.661 | | 116.6 | 872 | 1295 | 1129125 | 528221 | 1.000 | 0.0 | bb |
| 11 | PFNA-2 | 70 | 463.002 > 218.968 | 7.16 | 7301 | 12222 | 10.000 | 12.094 | 0.0027 | 120.9 | 1715 | 175 | 299722 | 528221 | 1.000 | 0.0 | bb |
| 12 | PFDA-1 | 72 | 512.935 > 469.021 | 7.49 | 19898 | 12623 | 10.000 | 10.425 | | 104.3 | 629 | 1281 | 805097 | 505071 | 1.000 | 0.0 | bb |
| 13 | PFDA-2 | 72 | 512.935 > 218.972 | 7.49 | 5391 | 12623 | 10.000 | 11.409 | | 114.1 | 4592 | 46 | 210732 | 505071 | 1.000 | 0.0 | bb |
| 14 | PFUnA-1 | 71 | 563.124 > 519.003 | 7.75 | 12683 | 8166 | 10.000 | 12.347 | 0.0987 | 123.5 | 245 | 1939 | 474119 | 304532 | 1.000 | 0.0 | bb |
| 15 | PFUnA-2 | 71 | 563.124 > 269.051 | 7.76 | 2290 | 8166 | 10.000 | 12.424 | | 124.2 | 3463 | 24 | 84811 | 304532 | 1.000 | 0.0 | bb |
| 16 | PFDoA-1 | 73 | 613.057 > 569.045 | 8.09 | 6205 | 2757 | 10.000 | 11.092 | 0.1293 | 110.9 | 116 | 1661 | 193006 | 84356 | 1.000 | 0.0 | MM |
| 17 | PFDoA-2 | 73 | 613.057 > 318.996 | 8.09 | 644 | 2757 | 10.000 | 9.537 | 0.0314 | 95.4 | 316 | 61 | 19260 | 84356 | 1.000 | 0.0 | bb |
| 18 | PFTrDA-1 | 74 | 663.053 > 619.023 | 8.50 | 2875 | 1711 | 10.000 | 10.544 | 0.3131 | 105.4 | 74 | 1313 | 96902 | 46483 | 1.000 | 0.0 | MM |
| 19 | PFTrDA-2 | 74 | 663.053 > 168.949 | 8.50 | 433 | 1711 | 10.000 | 8.790 | 0.0161 | 87.9 | 118 | 95 | 11216 | 46483 | 1.000 | 0.0 | bb |
| 20 | PFTeDA-1 | 74 | 713.05 > 669. | 8.97 | 2300 | 1711 | 10.000 | 10.401 | 0.0520 | 104.0 | 97 | 617 | 60156 | 46483 | 1.000 | 0.0 | bb |
| 21 | PFTeDA-2 | 74 | 713.05 > 168.94 | 8.97 | 407 | 1711 | 10.000 | 8.696 | | 87.0 | 211 | 51 | 10848 | 46483 | 1.000 | 0.0 | bb |
| 22 | PFBS-1 | 75 | 298.663 > 79.865 | 5.01 | 6568 | 5806 | 10.250 | 9.862 | 0.0140 | 96.2 | 2234 | 106 | 236520 | 211615 | 1.000 | 0.0 | bb |
| 23 | PFBS-2 | 76 | 298.663 > 98.811 | 5.01 | 3553 | 2708 | 10.250 | 11.046 | | 107.8 | 759 | 170 | 128740 | 98332 | 1.000 | 0.0 | bb |
| 24 | PFPeS-1 | 77 | 349.107 > 79.857 | 5.66 | 4525 | 4414 | 9.500 | 10.776 | | 113.4 | 1811 | 71 | 128490 | 121899 | 1.000 | 0.0 | bb |
| 25 | PFPeS-2 | 78 | 349.107 > 98.871 | 5.66 | 2699 | 2575 | 9.500 | 10.600 | | 111.6 | 668 | 118 | 78725 | 75314 | 1.000 | 0.0 | bb |
| 26 | PFHxS-1 | 77 | 398.721 > 79.92 | 6.65 | 5795 | 4414 | 10.250 | 10.666 | 0.1220 | 104.1 | 3319 | 44 | 146225 | 121899 | 1.000 | 0.0 | MM |
| 27 | PFHxS-2 | 78 | 398.721 > 98.863 | 6.65 | 3132 | 2575 | 10.250 | 9.723 | | 94.9 | 398 | 192 | 76339 | 75314 | 1.000 | 0.0 | MM |
| 28 | PFHpS-1 | 79 | 449.036 > 79.857 | 7.26 | 4708 | 4220 | 9.500 | 11.839 | | 124.6 | 6569 | 27 | 177539 | 164906 | 1.000 | 0.0 | bb |
| 29 | PFHpS-2 | 80 | 449.036 > 98.8 | 7.27 | 2833 | 2709 | 9.500 | 11.114 | 0.0569 | 117.0 | 636 | 163 | 103402 | 105075 | 1.000 | 0.0 | bb |
| 30 | PFOS-1 | 79 | 498.906 > 79.856 | 7.58 | 6012 | 4220 | 10.250 | 12.527 | | 122.2 | 4527 | 44 | 199901 | 164906 | 1.000 | 0.0 | MM |
| 31 | PFOS-2 | 80 | 498.906 > 98.801 | 7.58 | 2824 | 2709 | 10.250 | 10.995 | | 107.3 | 399 | 247 | 98635 | 105075 | 1.000 | 0.0 | MM |
| 32 | PFNS-1 | 79 | 548.775 > 79.858 | 7.87 | 3721 | 4220 | 9.500 | 7.831 | | 82.4 | 3890 | 37 | 142033 | 164906 | 1.000 | 0.0 | bb |
| 33 | PFNS-2 | 80 | 548.775 > 98.801 | 7.88 | 2172 | 2709 | 9.500 | 7.581 | | 79.8 | 2985 | 27 | 80763 | 105075 | 1.000 | 0.0 | bb |
| 34 | PFDS-1 | 79 | 599.027 > 79.92 | 8.25 | 1104 | 4220 | 10.250 | 2.852 | | 27.8 | 1952 | 17 | 32424 | 164906 | 1.000 | 0.0 | MM |
| 35 | PFDS-2 | 80 | 599.027 > 98.8 | 8.24 | 810 | 2709 | 10.250 | 3.621 | 0.1145 | 35.3 | 453 | 55 | 25140 | 105075 | 1.000 | 0.0 | MM |

PVed by WANGG 16-Apr-19, SVed by AP 22-Apr-19. NOTE: Units = ng/L for BLK and Field Samples.

**Quantify Sample Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_144-b.qld

Last Altered: Tuesday, April 16, 2019 14:59:53 Pacific Daylight Time
Printed: Monday, April 22, 2019 08:56:31 Pacific Daylight Time

**ID: WG67663-102,i,SPM, Name: FC9W_144S16, Description: 1,WG67663,2/4000uL, Date: 08-Apr-2019, Time: 17:25:18**

| # | Name | IS# | Trace | RT | Area | IS Area | Std. Conc | Conc. | LOD | %Rec | S/N | Noise | Peak Height | IS Height | Sample size | F2 | Flags |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 36 | PFDoS-1 | 79 | 699.084 > 79.856 | 9.16 | 418 | 4220 | 9.500 | 1.243 | | 13.1 | 447 | 32 | 14144 | 164906 | 1.000 | 0.0 | MM |
| 37 | PFDoS-2 | 80 | 699.084 > 98.8 | 9.16 | 239 | 2709 | 9.500 | 1.140 | | 12.0 | 91 | 85 | 7673 | 105075 | 1.000 | 0.0 | MM |
| 38 | 4:2 FTS-1 | 81 | 327.077 > 307.017 | 4.89 | 15982 | 5083 | 40.000 | 42.905 | | 107.3 | 600... | 10 | 600790 | 184822 | 1.000 | 0.0 | bb |
| 39 | 4:2 FTS-2 | 81 | 327.077 > 80.85 | 4.89 | 10809 | 5083 | 40.000 | 46.913 | 0.1048 | 117.3 | 3094 | 127 | 393370 | 184822 | 1.000 | 0.0 | bb |
| 40 | 6:2 FTS-1 | 83 | 427.071 > 407.024 | 6.16 | 9767 | 2446 | 36.000 | 43.055 | | 119.6 | 2260 | 103 | 232502 | 61678 | 1.000 | 0.0 | bb |
| 41 | 6:2 FTS-2 | 83 | 427.071 > 80.9 | 6.16 | 5745 | 2446 | 36.000 | 41.118 | 0.1368 | 114.2 | 1111 | 125 | 138429 | 61678 | 1.000 | 0.0 | bb |
| 42 | 8:2 FTS-1 | 85 | 527.065 > 506.997 | 7.37 | 9131 | 3371 | 40.000 | 49.999 | | 125.0 | 376... | 10 | 363534 | 134288 | 1.000 | 0.0 | MM |
| 43 | 8:2 FTS-2 | 85 | 527.065 > 80.75 | 7.37 | 4295 | 3371 | 40.000 | 48.594 | | 121.5 | 1223 | 141 | 172824 | 134288 | 1.000 | 0.0 | bb |
| 44 | PFOSA-1 | 87 | 498.113 > 77.902 | 8.46 | 6053 | 6035 | 10.250 | 10.754 | 0.1460 | 104.9 | 461 | 251 | 115928 | 121823 | 1.000 | 0.0 | MM |
| 45 | PFOSA-2 | 87 | 498.113 > 477.993 | 8.46 | 102 | 6035 | 10.250 | 10.477 | 2.3941 | 102.2 | 91 | 41 | 3731 | 121823 | 1.000 | 0.0 | MM |
| 46 | N-MeFOSA-1 | 88 | 511.937 > 218.985 | 9.82 | 495 | 365 | 11.500 | 14.667 | 0.4180 | 127.5 | 77 | 106 | 8189 | 7174 | 1.000 | 0.0 | MM |
| 47 | N-MeFOSA-2 | 88 | 511.937 > 168.955 | 9.82 | 761 | 365 | 11.500 | 15.259 | 0.3954 | 132.7 | 81 | 161 | 12953 | 7174 | 1.000 | 0.0 | MM |
| 48 | N-EtFOSA-1 | 89 | 526.017 > 218.977 | 10.13 | 326 | 109 | 25.000 | 25.548 | 0.1649 | 102.2 | 185 | 38 | 7069 | 2951 | 1.000 | 0.0 | MM |
| 49 | N-EtFOSA-2 | 89 | 526.017 > 168.95 | 10.13 | 464 | 109 | 25.000 | 24.816 | 0.7617 | 99.3 | 57 | 134 | 7611 | 2951 | 1.000 | 0.0 | MM |
| 50 | MeFOSAA-1 | 90 | 570.134 > 419.035 | 7.51 | 2586 | 4374 | 10.000 | 12.360 | | 123.6 | 4004 | 24 | 96199 | 161993 | 1.000 | 0.0 | bb |
| 51 | MeFOSAA-2 | 90 | 570.134 > 482.99 | 7.51 | 1045 | 4374 | 10.000 | 10.936 | | 109.4 | 594 | 65 | 38336 | 161993 | 1.000 | 0.0 | bb |
| 52 | EtFOSAA-1 | 91 | 584.15 > 419.062 | 7.61 | 1031 | 2497 | 10.000 | 10.793 | 0.0711 | 107.9 | 3372 | 11 | 37771 | 92570 | 1.000 | 0.0 | bb |
| 53 | EtFOSAA-2 | 91 | 584.15 > 526.045 | 7.61 | 798 | 2497 | 10.000 | 9.053 | 0.1648 | 90.5 | 557 | 53 | 29713 | 92570 | 1.000 | 0.0 | bb |
| 54 | N-MeFOSE | 92 | 616.112 > 58.894 | 9.70 | 168 | 307 | 102.000 | 58.274 | 6.6719 | 57.1 | 18 | 121 | 2164 | 5603 | 1.000 | 0.0 | MM |
| 55 | N-EtFOSE | 93 | 630. > 58.893 | 10.02 | 107 | 234 | 76.500 | 35.825 | 7.3151 | 46.8 | 13 | 123 | 1646 | 3858 | 1.000 | 0.0 | MM |
| 56 | HFPO-DA-1 | 94 | 284.8894 > 168.... | 5.20 | 26687 | 24962 | 40.000 | 47.684 | | 119.2 | 208... | 46 | 965638 | 898284 | 1.000 | 0.0 | bb |
| 57 | HFPO-DA-2 | 95 | 284.8894 > 184.... | 5.20 | 12600 | 11620 | 40.000 | 47.030 | 0.0293 | 117.6 | 1822 | 254 | 463424 | 408059 | 1.000 | 0.0 | bb |
| 58 | ADONA-1 | 94 | 376.88 > 250.937 | 5.90 | 198905 | 24962 | 40.000 | 51.584 | | 129.0 | 117... | 447 | 5270273 | 898284 | 1.000 | 0.0 | MM |
| 59 | ADONA-2 | 95 | 376.88 > 84.832 | 5.90 | 67695 | 11620 | 40.000 | 49.354 | 0.5298 | 123.4 | 240... | 71 | 1708432 | 408059 | 1.000 | 0.0 | bb |
| 60 | 9Cl-PF3ONS-1 | 94 | 530.807 > 350.967 | 7.78 | 72122 | 24962 | 40.000 | 47.338 | | 118.3 | 8600 | 311 | 2674827 | 898284 | 1.000 | 0.0 | bb |
| 61 | 9Cl-PF3ONS-2 | 95 | 532.804 > 352.947 | 7.78 | 24170 | 11620 | 40.000 | 52.341 | | 130.9 | 1522 | 576 | 876788 | 408059 | 1.000 | 0.0 | bb |
| 62 | 11Cl-PF3OUdS-1 | 94 | 630.865 > 450.902 | 8.56 | 10253 | 24962 | 40.000 | 9.412 | | 23.5 | 1081 | 265 | 286288 | 898284 | 1.000 | 0.0 | bb |
| 63 | 11Cl-PF3OUdS-2 | 95 | 632.868 > 452.91 | 8.55 | 3126 | 11620 | 40.000 | 9.193 | 0.0753 | 23.0 | 215 | 405 | 86854 | 408059 | 1.000 | 0.0 | bb |
| 64 | 13C4-PFBA | 96 | 216.776 > 171.928 | 2.24 | 59232 | 30148 | 40.000 | 38.383 | 0.0131 | 96.0 | 8568 | 90 | 771756 | 404164 | 1.000 | 0.0 | bb |
| 65 | 13C5-PFPeA | 97 | 268.16 > 223.035 | 4.37 | 31172 | 20424 | 20.000 | 18.813 | 0.0068 | 94.1 | 7143 | 142 | 1016928 | 769276 | 1.000 | 0.0 | bb |
| 66 | 13C5-PFHxA-1 | 97 | 318.029 > 272.993 | 5.03 | 14126 | 20424 | 10.000 | 9.823 | 0.0017 | 98.2 | 174... | 30 | 529554 | 769276 | 1.000 | 0.0 | bb |
| 67 | 13C5-PFHxA-2 | 97 | 318.029 > 120.341 | 5.03 | 503 | 20424 | 10.000 | 10.288 | 0.0114 | 102.9 | 2638 | 7 | 18491 | 769276 | 1.000 | 0.0 | bb |
| 68 | 13C4-PFHpA | 99 | 367.086 > 322.004 | 5.59 | 18047 | 3806 | 10.000 | 8.720 | 0.0037 | 87.2 | 8473 | 68 | 576252 | 100507 | 1.000 | 0.0 | bb |
| 69 | 13C8-PFOA | 99 | 421.096 > 376.022 | 6.52 | 21269 | 3806 | 10.000 | 8.945 | 0.0007 | 89.4 | 378... | 15 | 559093 | 100507 | 1.000 | 0.0 | bb |
| 70 | 13C9-PFNA | 100 | 472.096 > 427.014 | 7.16 | 12222 | 11766 | 5.000 | 4.783 | 0.0009 | 95.7 | 157... | 34 | 528221 | 492391 | 1.000 | 0.0 | bb |

PVed by WANGG 16-Apr-19, SVed by AP 22-Apr-19. NOTE: Units = ng/L for BLK and Field Samples.

**Quantify Sample Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_144-b.qld

Last Altered: Tuesday, April 16, 2019 14:59:53 Pacific Daylight Time
Printed: Monday, April 22, 2019 08:56:31 Pacific Daylight Time

**ID: WG67663-102,i,SPM, Name: FC9W_144S16, Description: 1,WG67663,2/4000uL, Date: 08-Apr-2019, Time: 17:25:18**

| # | Name | IS# | Trace | RT | Area | IS Area | Std. Conc | Conc. | LOD | %Rec | S/N | Noise | Peak Height | IS Height | Sample size | F2 | Flags |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 71 | 13C7-PFUnA | 101 | 570.019 > 525.05 | 7.75 | 8166 | 12749 | 5.000 | 2.864 | 0.0008 | 57.3 | 105... | 29 | 304532 | 517502 | 1.000 | 0.0 | MM |
| 72 | 13C6-PFDA | 101 | 519.147 > 474.058 | 7.49 | 12623 | 12749 | 5.000 | 5.262 | 0.0023 | 105.2 | 6706 | 75 | 505071 | 517502 | 1.000 | 0.0 | bb |
| 73 | 13C2-PFDoA | 101 | 615.127 > 570.013 | 8.08 | 2757 | 12749 | 5.000 | 1.355 | 0.0010 | 27.1 | 3111 | 27 | 84356 | 517502 | 1.000 | 0.0 | MM |
| 74 | 13C2-PFTeDA | 101 | 715.057 > 670.026 | 8.97 | 1711 | 12749 | 5.000 | 0.857 | 0.0037 | 17.1 | 462 | 101 | 46483 | 517502 | 1.000 | 0.0 | bb |
| 75 | 13C3-PFBS-1 | 102 | 302.056 > 79.865 | 5.01 | 5806 | 4511 | 10.000 | 10.695 | 0.0019 | 107.0 | 229... | 9 | 211615 | 123690 | 1.000 | 0.0 | bb |
| 76 | 13C3-PFBS-2 | 102 | 302.056 > 98.875 | 5.01 | 2708 | 4511 | 10.000 | 10.318 | 0.0064 | 103.2 | 6408 | 15 | 98332 | 123690 | 1.000 | 0.0 | bb |
| 77 | 13C3-PFHxS-1 | 102 | 402.114 > 79.858 | 6.65 | 4414 | 4511 | 10.000 | 9.435 | 0.0031 | 94.3 | 9248 | 13 | 121899 | 123690 | 1.000 | 0.0 | bb |
| 78 | 13C3-PFHxS-2 | 102 | 402.114 > 98.801 | 6.65 | 2575 | 4511 | 10.000 | 9.878 | 0.0311 | 98.8 | 1017 | 74 | 75314 | 123690 | 1.000 | 0.0 | bb |
| 79 | 13C8-PFOS-1 | 103 | 507.124 > 79.858 | 7.57 | 4220 | 5451 | 10.000 | 9.778 | 0.0034 | 97.8 | 9142 | 18 | 164906 | 203940 | 1.000 | 0.0 | bb |
| 80 | 13C8-PFOS-2 | 104 | 507.124 > 98.867 | 7.57 | 2709 | 3357 | 10.000 | 10.286 | 0.0121 | 102.9 | 2550 | 41 | 105075 | 130196 | 1.000 | 0.0 | bb |
| 81 | 13C2-4:2 FTS-1 | 102 | 329.084 > 80.9 | 4.88 | 5083 | 4511 | 20.000 | 31.726 | 0.0593 | 158.6 | 2128 | 87 | 184822 | 123690 | 1.000 | 0.0 | bb |
| 82 | 13C2-4:2 FTS-2 | 102 | 329.084 > 309.024 | 4.88 | 10067 | 4511 | 20.000 | 26.925 | 0.0108 | 134.6 | 9767 | 37 | 362067 | 123690 | 1.000 | 0.0 | bb |
| 83 | 13C2-6:2 FTS-1 | 102 | 429.078 > 80.900 | 6.16 | 2446 | 4511 | 20.000 | 18.897 | 0.0133 | 94.5 | 3906 | 16 | 61678 | 123690 | 1.000 | 0.0 | bb |
| 84 | 13C2-6:2 FTS-2 | 102 | 429.078 > 409.031 | 6.16 | 5029 | 4511 | 20.000 | 16.970 | 0.0067 | 84.9 | 7217 | 18 | 130448 | 123690 | 1.000 | 0.0 | bb |
| 85 | 13C2-8:2 FTS-1 | 102 | 529.1351 > 80.900 | 7.37 | 3371 | 4511 | 20.000 | 17.430 | 0.2364 | 87.2 | 321 | 418 | 134288 | 123690 | 1.000 | 0.0 | bb |
| 86 | 13C2-8:2 FTS-2 | 102 | 529.135 > 509.003 | 7.37 | 4528 | 4511 | 20.000 | 17.409 | 0.0040 | 87.0 | 188... | 10 | 180333 | 123690 | 1.000 | 0.0 | bb |
| 87 | 13C8-PFOSA | 103 | 506.14 > 77.841 | 8.47 | 6035 | 5451 | 10.000 | 8.846 | 0.0769 | 88.5 | 186 | 655 | 121823 | 203940 | 1.000 | 0.0 | bb |
| 88 | D3-N-MeFOSA | 103 | 514.956 > 218.974 | 9.81 | 365 | 5451 | 10.000 | 1.036 | 0.0492 | 10.4 | 33 | 216 | 7174 | 203940 | 1.000 | 0.0 | MM |
| 89 | D5-N-EtFOSA | 103 | 531.112 > 218.984 | 10.12 | 109 | 5451 | 10.000 | 0.367 | 0.0409 | 3.7 | 19 | 152 | 2951 | 203940 | 1.000 | 0.0 | MM |
| 90 | D3-MeFOSAA | 103 | 573.153 > 418.99 | 7.51 | 4374 | 5451 | 20.000 | 11.544 | 0.0030 | 57.7 | 114... | 14 | 161993 | 203940 | 1.000 | 0.0 | bb |
| 91 | D5-EtFOSAA | 103 | 589.245 > 418.971 | 7.61 | 2497 | 5451 | 20.000 | 7.886 | 0.0554 | 39.4 | 423 | 219 | 92570 | 203940 | 1.000 | 0.0 | bb |
| 92 | D7-N-MeFOSE | 103 | 623.156 > 58.896 | 9.66 | 307 | 5451 | 100.000 | 1.890 | 0.1769 | 1.9 | 16 | 359 | 5603 | 203940 | 1.000 | 0.0 | MM |
| 93 | D9-N-EtFOSE | 103 | 639.184 > 58.897 | 9.99 | 234 | 5451 | 100.000 | 1.391 | 0.0781 | 1.4 | 23 | 164 | 3858 | 203940 | 1.000 | 0.0 | bb |
| 94 | 13C3-HFPO-DA-1 | 97 | 286.8631 > 168.... | 5.20 | 24962 | 20424 | 40.000 | 37.799 | 0.0029 | 94.5 | 373... | 24 | 898284 | 769276 | 1.000 | 0.0 | MM |
| 95 | 13C3-HFPO-DA-2 | 97 | 286.8631 > 184.... | 5.20 | 11620 | 20424 | 40.000 | 35.922 | 0.0160 | 89.8 | 6291 | 65 | 408059 | 769276 | 1.000 | 0.0 | bb |
| 96 | 13C3-PFBA | | 216.029 > 171.97 | 2.24 | 30148 | | 20.000 | 21.538 | 0.0739 | 107.7 | 874 | 463 | 404164 | | 1.000 | 0.0 | bb |
| 97 | 13C2-PFHxA-1 | | 315.083 > 269.984 | 5.03 | 20424 | | 10.000 | 11.440 | 0.0005 | 114.4 | 628... | 12 | 769276 | | 1.000 | 0.0 | bb |
| 98 | 13C2-PFHxA-2 | | 315.083 > 119.359 | 5.03 | 459 | | 10.000 | 8.509 | 0.0165 | 85.1 | 1544 | 12 | 17782 | | 1.000 | 0.0 | bb |
| 99 | 13C4-PFOA | | 417.083 > 171.95 | 6.52 | 3806 | | 10.000 | 12.668 | 0.0220 | 126.7 | 1726 | 58 | 100507 | | 1.000 | 0.0 | bb |
| 1... | 13C5-PFNA | | 468.019 > 423.008 | 7.16 | 11766 | | 5.000 | 5.768 | 0.0007 | 115.4 | 246... | 20 | 492391 | | 1.000 | 0.0 | bb |
| 1... | 13C2-PFDA | | 515.134 > 470.05 | 7.49 | 12749 | | 5.000 | 5.605 | 0.0006 | 112.1 | 291... | 18 | 517502 | | 1.000 | 0.0 | bb |
| 1... | 18O2-PFHxS | | 402.984 > 83.895 | 6.65 | 4511 | | 10.000 | 11.483 | 0.0092 | 114.8 | 3746 | 33 | 123690 | | 1.000 | 0.0 | bb |
| 1... | 13C4-PFOS-1 | | 502.791 > 79.856 | 7.58 | 5451 | | 10.000 | 11.204 | 0.0054 | 112.0 | 6183 | 33 | 203940 | | 1.000 | 0.0 | bb |
| 1... | 13C4-PFOS-2 | | 502.791 > 98.864 | 7.58 | 3357 | | 10.000 | 10.749 | 0.1583 | 107.5 | 204 | 639 | 130196 | | 1.000 | 0.0 | bb |

PVed by WANGG 16-Apr-19, SVed by AP 22-Apr-19. NOTE: Units = ng/L for BLK and Field Samples.

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SZ 08-May-2019

| | File Name | Sample ID | File Text | Bottle | SignIn | SignOut | Inj VoL | EXP |
|---|---|---|---|---|---|---|---|---|
| 1 | FC9W_097S01 | MeOH,, MLA110 UPLC option | 1,,2uL | 1:8,A | ~~SZ~~ GW | SZ | 2.0 | GW |
| 2 | FC9W_097S02 | MeOH,, more Targets for EPA | 1,,2uL | 1:8,A | --- | --- | 2.0 | --- |
| 3 | FC9W_097S03 | MeOH,, A new format | 1,,2uL | 1:8,A | --- | --- | 2.0 | --- |
| 4 | FC9W_097S04 | MeOH,, MLA110-PFAS UPLC_02 | 1,,2uL | 1:8,A | --- | --- | 2.0 | --- |
| 5 | FC9W_097S05 | MeOH,, new MS Exp name | 1,,2uL | 1:8,A | --- | --- | 2.0 | --- |
| 6 | FC9W_097S06 | MeOH,, MLA 110 new version | 1,,2uL | 1:8,A | --- | --- | 2.0 | --- |
| 7 | FC9W_097S07 | MeOH,, quan method _05 | 1,,2uL | 1:8,A | --- | --- | 2.0 | --- |
| 8 | FC9W_097S08 | MeOH,, MLA110 column | 1,,2uL | 1:8,A | --- | --- | 2.0 | --- |
| 9 | FC9W_097S09 | MeOH,, 2ul Lin from B | 1,,2uL | 1:8,A | --- | --- | 2.0 | --- |
| 10 | FC9W_097S10 | MeOH,, 2ul DoD also | 1,,2uL | 1:8,A | --- | --- | 2.0 | --- |
| 11 | FC9W_097S11 | FC027A-CAL,, /01 | 1,,2uL | 2:1,A | --- | --- | 2.0 | --- |
| 12 | FC9W_097S12 | FC027B-CAL,, /01 | 1,,2uL | 2:1,B | --- | --- | 2.0 | --- |
| 13 | FC9W_097S13 | FC027C-CAL,, /01 | 1,,2uL | 2:1,C | --- | --- | 2.0 | --- |
| 14 | FC9W_097S14 | FC027D-CAL,, /01 | 1,,2uL | 2:1,D | --- | --- | 2.0 | --- |
| 15 | FC9W_097S15 | FC027E-CAL,, /01 | 1,,2uL | 2:1,E | --- | --- | 2.0 | --- |
| 16 | FC9W_097S16 | FC027F-CAL,, /01 | 1,,2uL | 2:1,F | --- | --- | 2.0 | --- |
| 17 | FC9W_097S17 | FC027G-CAL,, /01 | 1,,2uL | 2:2,A | --- | --- | 2.0 | --- |
| 18 | FC9W_097S18 | FC027H-CAL,, /01 | 1,,2uL | 2:2,B | --- | --- | 2.0 | --- |
| 19 | FC9W_097S19 | FC027(0)-CAL,, /01 | 1,,2uL | 2:8,B | --- | --- | 2.0 | --- |
| 20 | FC9W_097S20 | FC027C-CAL,, /01 | 1,,2uL | 2:1,C | --- | --- | 2.0 | --- |
| 21 | FC9W_097S21 | FC005A-SSV,,/01 | 1,,2uL | 2:2,C | --- | --- | 2.0 | --- |
| 22 | FC9W_097S22 | FC005A-SSV,,/01 | 1,,2uL | 2:2,C | --- | --- | 2.0 | --- |
| 23 | FC9W_097S23 | FC027E-CAL,, /01 | 1,,2uL | 2:1,E | --- | --- | 2.0 | --- |
| 24 | FC9W_097S24 | FC027E-CAL,, /01 | 1,,2uL | 2:1,E | --- | --- | 2.0 | --- |
| 25 | FC9W_097S25 | WG67366-105,,SAR | 1,WG67366,2/4000uL | 1:7,A | --- | --- | 2.0 | --- |
| 26 | FC9W_097S26 | WG67366-102,,SPM | 1,WG67366,2/4000uL | 1:7,B | --- | --- | 2.0 | --- |
| 27 | FC9W_097S27 | FC027(0)-CAL,, /01 | 1,,2uL | 2:8,B | --- | --- | 2.0 | --- |
| 28 | FC9W_097S28 | WG67366-101,,BLK | 1,WG67366,2/4000uL | 1:7,C | --- | --- | 2.0 | --- |
| 29 | FC9W_097S29 | L30719-1,, | 1,WG67366,2/4000uL | 1:7,D | --- | --- | 2.0 | --- |
| 30 | FC9W_097S30 | WG67366-103,,MS | 1,WG67366,2/4000uL | 1:7,E | --- | --- | 2.0 | --- |
| 31 | FC9W_097S31 | WG67366-104,,MSD | 1,WG67366,2/4000uL | 1:7,F | --- | --- | 2.0 | --- |
| 32 | FC9W_097S32 | FC027E-CAL,, /01 | 1,,2uL | 2:1,E | --- | --- | 2.0 | --- |
| 33 | FC9W_097S33 | FC027E-CAL,, /01 | 1,,2uL | 2:1,E | --- | --- | 2.0 | --- |
| 34 | FC9W_097S34 | WG67217-105,i2,SAR | 1,WG67217,2/4000uL | 1:1,C | --- | --- | 2.0 | --- |
| 35 | FC9W_097S35 | WG67217-102,i2,SPM | 1,WG67217,2/4000uL | 1:1,D | --- | --- | 2.0 | --- |
| 36 | FC9W_097S36 | MeOH,, | 1,,2uL | 1:8,A | --- | --- | 2.0 | --- |
| 37 | FC9W_097S37 | WG67217-101,i2,BLK | 1,WG67217,2/4000uL | 1:1,E | --- | --- | 2.0 | --- |
| 38 | FC9W_097S38 | L30703-6,i2, | 1,WG67217,2/4000uL | 1:1,F | --- | --- | 2.0 | --- |
| 39 | FC9W_097S39 | L30703-30,i2, | 1,WG67217,2/4000uL | 1:2,A | --- | --- | 2.0 | --- |
| 40 | FC9W_097S40 | WG67217-103,i2,dup | 1,WG67217,2/4000uL | 1:2,B | --- | --- | 2.0 | --- |
| 41 | FC9W_097S41 | L30703-32,i2, | 1,WG67217,2/4000uL | 1:2,C | --- | --- | 2.0 | --- |
| 42 | FC9W_097S42 | WG67217-104,i2,MS | 1,WG67217,2/4000uL | 1:2,D | --- | --- | 2.0 | --- |
| 43 | FC9W_097S43 | FC027E-CAL,, /01 | 1,,2uL | 2:1,E | --- | --- | 2.0 | --- |
| 44 | FC9W_097S44 | FC027E-CAL,, /01 | 1,,2uL | 2:1,E | --- | --- | 2.0 | --- |
| 45 | FC9W_097S45 | WG67090-103,i,SAR | 1,WG67090,2/4000uL | 2:3,A | --- | --- | 2.0 | --- |
| 46 | FC9W_097S46 | WG67090-102,i,SPM | 1,WG67090,2/4000uL | 2:3,B | --- | --- | 2.0 | --- |
| 47 | FC9W_097S47 | MeOH,, | 1,,2uL | 2:8,A | --- | --- | 2.0 | --- |
| 48 | FC9W_097S48 | WG67090-101,i,BLK | 1,WG67090,2/4000uL | 2:3,C | --- | --- | 2.0 | --- |
| 49 | FC9W_097S49 | L30712-1,i, | 1,WG67090,2/4000uL | 2:3,D | --- | --- | 2.0 | --- |
| 50 | FC9W_097S50 | L30712-2,i, | 1,WG67090,2/4000uL | 2:3,E | --- | --- | 2.0 | --- |
| 51 | FC9W_097S51 | L30712-3,i, | 1,WG67090,2/4000uL | 2:3,F | --- | --- | 2.0 | --- |
| 52 | FC9W_097S52 | L30712-4,i, | 1,WG67090,2/4000uL | 2:4,A | --- | --- | 2.0 | --- |
| 53 | FC9W_097S53 | L30712-5,i, | 1,WG67090,2/4000uL | 2:4,B | --- | --- | 2.0 | --- |
| 54 | FC9W_097S54 | L30789-1,i, | 1,WG67090,2/4000uL | 2:4,C | --- | --- | 2.0 | --- |
| 55 | FC9W_097S55 | L30789-2,i, | 1,WG67090,2/4000uL | 2:4,D | --- | --- | 2.0 | --- |
| 56 | FC9W_097S56 | L30789-3,i, | 1,WG67090,2/4000uL | 2:4,E | --- | --- | 2.0 | --- |
| 57 | FC9W_097S57 | L30794-1,i, | 1,WG67090,2/4000uL | 2:4,F | --- | --- | 2.0 | --- |
| 58 | FC9W_097S58 | L30794-2,i, | 1,WG67090,2/4000uL | 2:5,A | --- | --- | 2.0 | --- |

4x Rec STD For Batch

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| | File Name | Sample ID | File Text | Bottle | SignIn | SignOut | Inj VoL | EXP |
|---|---|---|---|---|---|---|---|---|
| 59 | FC9W_097S59 | L30794-3,i, | 1,WG67090,2/4000uL | 2:5,B | GW | SZ | 2.0 | GW |
| 60 | FC9W_097S60 | L30794-4,i, | 1,WG67090,2/4000uL | 2:5,C | --- | --- | 2.0 | --- |
| 61 | FC9W_097S61 | L30794-6,i, | 1,WG67090,2/4000uL | 2:5,D | --- | --- | 2.0 | --- |
| 62 | FC9W_097S62 | L30794-8,i, | 1,WG67090,2/4000uL | 2:5,E | --- | --- | 2.0 | --- |
| 63 | FC9W_097S63 | FC027E-CAL,, /01 | 1,,2uL | 2:1,E | --- | --- | 2.0 | --- |
| 64 | FC9W_097S64 | FC027E-CAL,, /01 | 1,,2uL | 2:1,E | --- | --- | 2.0 | --- |

**Quantify Compound Summary Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_097-A1.qld

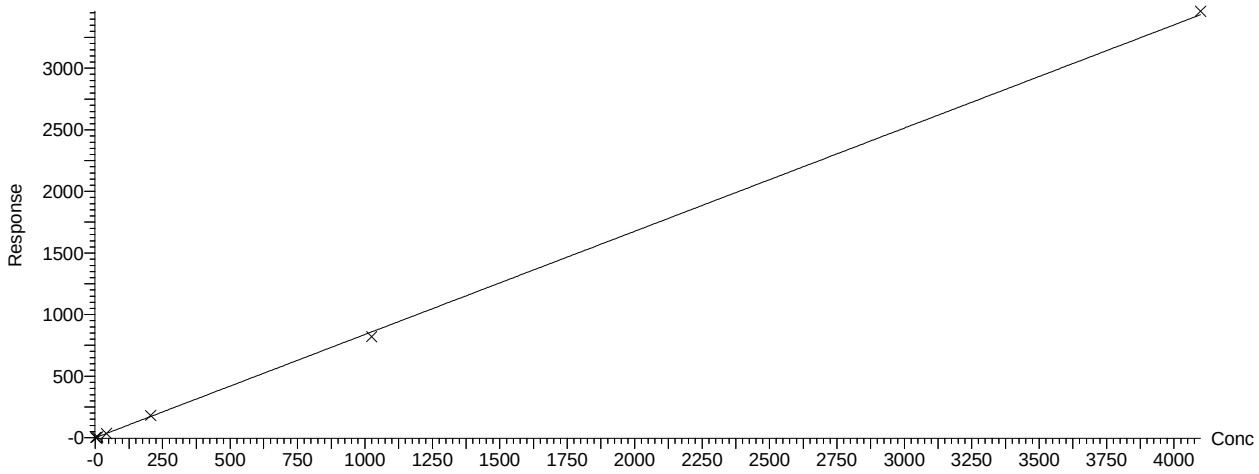
Last Altered: Tuesday, March 12, 2019 17:19:00 Pacific Daylight Time
Printed: Wednesday, March 13, 2019 09:12:29 Pacific Daylight Time

**Method: G:\Masslynx\Master Methods\MassLynx SCN 909\UPLC\FC_110_UPLC_06.mdb 10 Mar 2019 18:18:03**
**Calibration: 12 Mar 2019 11:26:10**

**Compound name: PFBA**

| # | ID | Name | Type | RT | Area | IS Area | Std. Conc | RRF | Conc. | %Rec | S/N | Acq.Date | Acq.Time | Flags |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2 | FC027B-CAL,, /01 | FC9W_097S12 | Standard | 2.11 | 2265 | 62795 | 1.640 | 0.880 | 1.556 | 94.9 | 70 | 08-Mar-19 | 16:13:44 | MM |
| 3 | FC027C-CAL,, /01 | FC9W_097S13 | Standard | 2.11 | 4740 | 66113 | 3.280 | 0.874 | 3.256 | 99.3 | 248 | 08-Mar-19 | 16:27:06 | bb |
| 4 | FC027D-CAL,, /01 | FC9W_097S14 | Standard | 2.09 | 11467 | 63038 | 8.200 | 0.887 | 8.516 | 103.9 | 429 | 08-Mar-19 | 16:40:24 | bb |
| 5 | FC027E-CAL,, /01 | FC9W_097S15 | Standard | 2.11 | 55707 | 64411 | 41.000 | 0.844 | 41.111 | 100.3 | 2288 | 08-Mar-19 | 16:53:43 | bb |
| 6 | FC027F-CAL,, /01 | FC9W_097S16 | Standard | 2.11 | 264082 | 58312 | 204.900 | 0.884 | 215.975 | 105.4 | 11642 | 08-Mar-19 | 18:12:07 | bb |
| 7 | FC027G-CAL,, /01 | FC9W_097S17 | Standard | 2.09 | 1071965 | 52264 | 1024.500 | 0.801 | 978.722 | 95.5 | 27943 | 08-Mar-19 | 18:25:24 | bb |
| 8 | FC027H-CAL,, /01 | FC9W_097S18 | Standard | 2.10 | 2896309 | 33449 | 4098.000 | 0.845 | 4132.3... | 100.8 | 46208 | 08-Mar-19 | 18:38:44 | MM |

Compound name: PFBA
Correlation coefficient: r = 0.999724, r^2 = 0.999447
Calibration curve: 0.83811 * x + 0.139385
Response type: Internal Std ( Ref 64 ), Area * ( IS Conc. / IS Area )
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None




PVed by GW, SVed by hh 13-Mar-19. NOTE: Unit=ng based on 4 mL extract

**Quantify Compound Summary Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

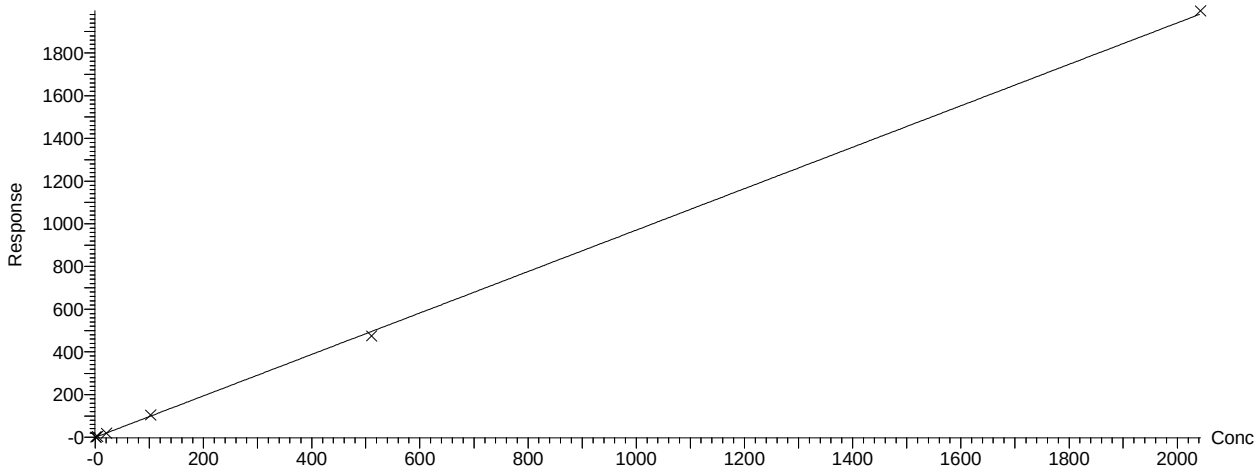
Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_097-A1.qld

Last Altered: Tuesday, March 12, 2019 17:19:00 Pacific Daylight Time
Printed: Wednesday, March 13, 2019 09:12:29 Pacific Daylight Time

**Compound name: PFPeA-1**

| # | ID | Name | Type | RT | Area | IS Area | Std. Conc | RRF | Conc. | %Rec | S/N | Acq.Date | Acq.Time | Flags |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2 | FC027B-CAL,, /01 | FC9W_097S12 | Standard | 4.34 | 1495 | 32851 | 0.820 | 1.110 | 0.764 | 93.2 | 160 | 08-Mar-19 | 16:13:44 | MM |
| 3 | FC027C-CAL,, /01 | FC9W_097S13 | Standard | 4.34 | 2972 | 34707 | 1.630 | 1.051 | 1.591 | 97.6 | 274 | 08-Mar-19 | 16:27:06 | MM |
| 4 | FC027D-CAL,, /01 | FC9W_097S14 | Standard | 4.34 | 7138 | 32474 | 4.090 | 1.075 | 4.357 | 106.5 | 925 | 08-Mar-19 | 16:40:24 | bb |
| 5 | FC027E-CAL,, /01 | FC9W_097S15 | Standard | 4.34 | 33966 | 33902 | 20.430 | 0.981 | 20.477 | 100.2 | 3246 | 08-Mar-19 | 16:53:43 | bb |
| 6 | FC027F-CAL,, /01 | FC9W_097S16 | Standard | 4.34 | 157750 | 30018 | 102.100 | 1.029 | 108.144 | 105.9 | 14041 | 08-Mar-19 | 18:12:07 | bb |
| 7 | FC027G-CAL,, /01 | FC9W_097S17 | Standard | 4.34 | 597923 | 25187 | 510.700 | 0.930 | 489.129 | 95.8 | 41960 | 08-Mar-19 | 18:25:24 | bb |
| 8 | FC027H-CAL,, /01 | FC9W_097S18 | Standard | 4.33 | 1612471 | 16146 | 2042.900 | 0.978 | 2058.2... | 100.7 | 142377 | 08-Mar-19 | 18:38:44 | MM |

Compound name: PFPeA-1
Correlation coefficient: r = 0.999736, r^2 = 0.999472
Calibration curve: 0.970326 * x + 0.168802
Response type: Internal Std ( Ref 65 ), Area * ( IS Conc. / IS Area )
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None




PVed by GW, SVed by hh 13-Mar-19. NOTE: Unit=ng based on 4 mL extract

**Quantify Compound Summary Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

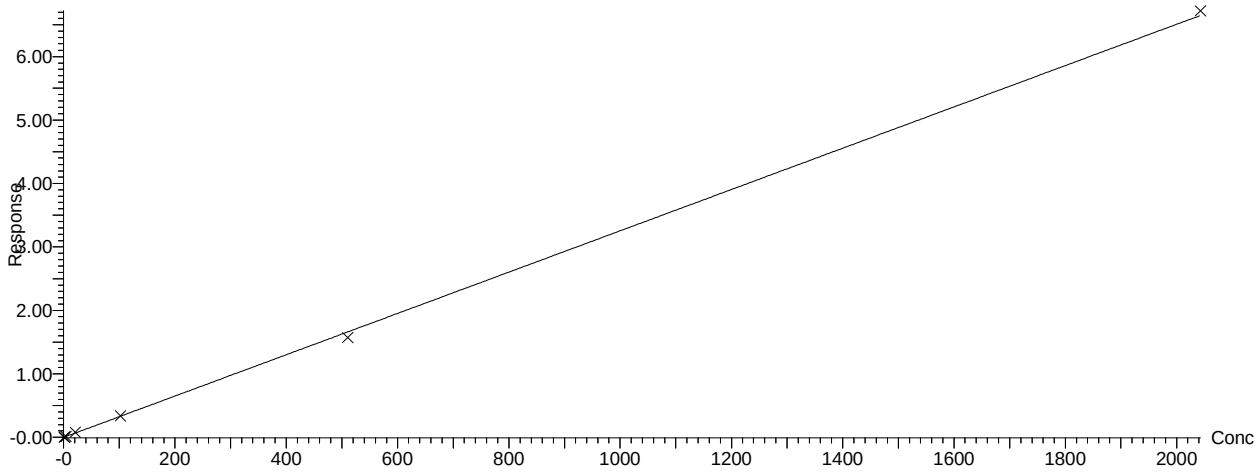
Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_097-A1.qld

Last Altered: Tuesday, March 12, 2019 17:19:00 Pacific Daylight Time
Printed: Wednesday, March 13, 2019 09:12:29 Pacific Daylight Time

**Compound name: PFPeA-2**

| # | ID | Name | Type | RT | Area | IS Area | Std. Conc | RRF | Conc. | %Rec | S/N | Acq.Date | Acq.Time | Flags |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2 | FC027B-CAL,, /01 | FC9W_097S12 | Standard | 4.36 | 3 | 32851 | 0.820 | 0.002 | 0.583 | 71.1 | 10 | 08-Mar-19 | 16:13:44 | MM |
| 3 | FC027C-CAL,, /01 | FC9W_097S13 | Standard | 4.34 | 11 | 34707 | 1.630 | 0.004 | 1.853 | 113.7 | 9 | 08-Mar-19 | 16:27:06 | MM |
| 4 | FC027D-CAL,, /01 | FC9W_097S14 | Standard | 4.34 | 22 | 32474 | 4.090 | 0.003 | 4.078 | 99.7 | 27 | 08-Mar-19 | 16:40:24 | MM |
| 5 | FC027E-CAL,, /01 | FC9W_097S15 | Standard | 4.34 | 133 | 33902 | 20.430 | 0.004 | 24.015 | 117.5 | 290 | 08-Mar-19 | 16:53:43 | bb |
| 6 | FC027F-CAL,, /01 | FC9W_097S16 | Standard | 4.34 | 511 | 30018 | 102.100 | 0.003 | 104.561 | 102.4 | 604 | 08-Mar-19 | 18:12:07 | bb |
| 7 | FC027G-CAL,, /01 | FC9W_097S17 | Standard | 4.34 | 1977 | 25187 | 510.700 | 0.003 | 482.388 | 94.5 | 3006 | 08-Mar-19 | 18:25:24 | MM |
| 8 | FC027H-CAL,, /01 | FC9W_097S18 | Standard | 4.33 | 5426 | 16146 | 2042.900 | 0.003 | 2065.1... | 101.1 | 7417 | 08-Mar-19 | 18:38:44 | MM |

Compound name: PFPeA-2
Correlation coefficient: r = 0.999512, r^2 = 0.999023
Calibration curve: 0.00325436 * x + 4.84235e-005
Response type: Internal Std ( Ref 65 ), Area * ( IS Conc. / IS Area )
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None




PVed by GW, SVed by hh 13-Mar-19. NOTE: Unit=ng based on 4 mL extract

**Quantify Compound Summary Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

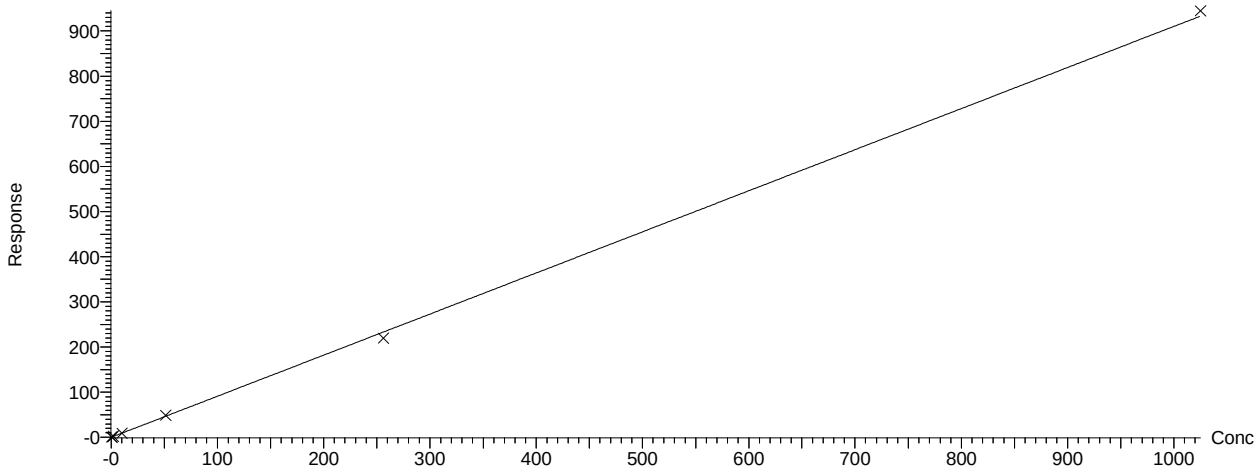
Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_097-A1.qld

Last Altered: Tuesday, March 12, 2019 17:19:00 Pacific Daylight Time
Printed: Wednesday, March 13, 2019 09:12:29 Pacific Daylight Time

**Compound name: PFHxA-1**

| # | ID | Name | Type | RT | Area | IS Area | Std. Conc | RRF | Conc. | %Rec | S/N | Acq.Date | Acq.Time | Flags |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2 | FC027B-CAL,, /01 | FC9W_097S12 | Standard | 4.92 | 612 | 14555 | 0.410 | 1.025 | 0.369 | 90.1 | 39 | 08-Mar-19 | 16:13:44 | MM |
| 3 | FC027C-CAL,, /01 | FC9W_097S13 | Standard | 4.92 | 1209 | 14702 | 0.820 | 1.003 | 0.811 | 98.9 | 58 | 08-Mar-19 | 16:27:06 | MM |
| 4 | FC027D-CAL,, /01 | FC9W_097S14 | Standard | 4.91 | 2886 | 13102 | 2.050 | 1.074 | 2.327 | 113.5 | 249 | 08-Mar-19 | 16:40:24 | bb |
| 5 | FC027E-CAL,, /01 | FC9W_097S15 | Standard | 4.91 | 12727 | 13787 | 10.250 | 0.901 | 10.050 | 98.0 | 547 | 08-Mar-19 | 16:53:43 | bb |
| 6 | FC027F-CAL,, /01 | FC9W_097S16 | Standard | 4.92 | 63473 | 13055 | 51.250 | 0.949 | 53.322 | 104.0 | 2837 | 08-Mar-19 | 18:12:07 | bb |
| 7 | FC027G-CAL,, /01 | FC9W_097S17 | Standard | 4.91 | 257638 | 11729 | 256.250 | 0.857 | 241.241 | 94.1 | 4550 | 08-Mar-19 | 18:25:24 | bb |
| 8 | FC027H-CAL,, /01 | FC9W_097S18 | Standard | 4.91 | 735044 | 7780 | 1025.000 | 0.922 | 1037.9... | 101.3 | 23828 | 08-Mar-19 | 18:38:44 | bb |

Compound name: PFHxA-1
Correlation coefficient: r = 0.999562, r^2 = 0.999123
Calibration curve: 0.910226 * x + 0.0841413
Response type: Internal Std ( Ref 66 ), Area * ( IS Conc. / IS Area )
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None




PVed by GW, SVed by hh 13-Mar-19. NOTE: Unit=ng based on 4 mL extract

**Quantify Compound Summary Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

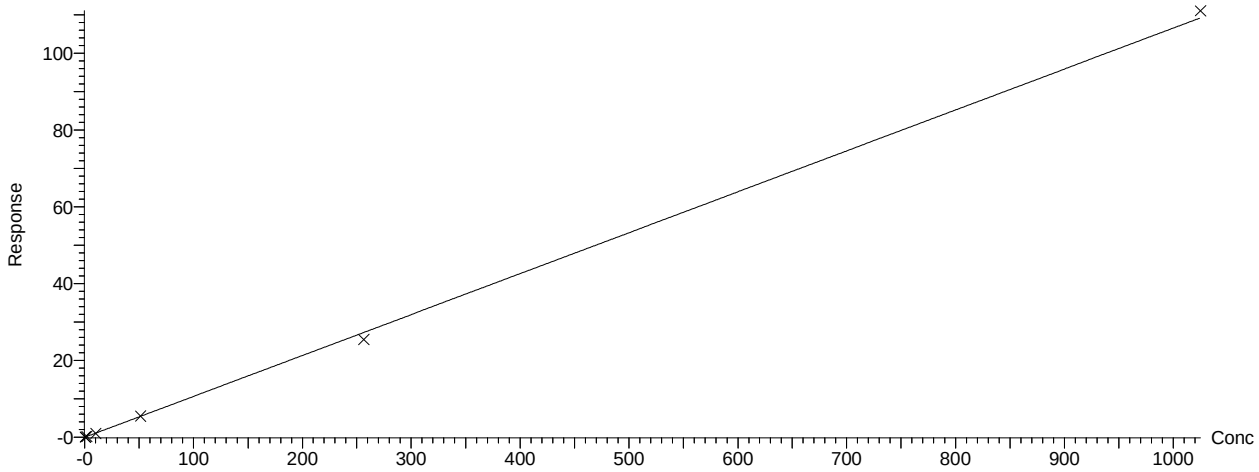
Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_097-A1.qld

Last Altered: Tuesday, March 12, 2019 17:19:00 Pacific Daylight Time
Printed: Wednesday, March 13, 2019 09:12:29 Pacific Daylight Time

**Compound name: PFHxA-2**

| # | ID | Name | Type | RT | Area | IS Area | Std. Conc | RRF | Conc. | %Rec | S/N | Acq.Date | Acq.Time | Flags |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2 | FC027B-CAL,, /01 | FC9W_097S12 | Standard | 4.93 | 54 | 14555 | 0.410 | 0.090 | 0.344 | 83.9 | 28 | 08-Mar-19 | 16:13:44 | MM |
| 3 | FC027C-CAL,, /01 | FC9W_097S13 | Standard | 4.92 | 148 | 14702 | 0.820 | 0.123 | 0.942 | 114.9 | 235 | 08-Mar-19 | 16:27:06 | bb |
| 4 | FC027D-CAL,, /01 | FC9W_097S14 | Standard | 4.91 | 319 | 13102 | 2.050 | 0.119 | 2.281 | 111.3 | 123 | 08-Mar-19 | 16:40:24 | bb |
| 5 | FC027E-CAL,, /01 | FC9W_097S15 | Standard | 4.91 | 1418 | 13787 | 10.250 | 0.100 | 9.652 | 94.2 | 548 | 08-Mar-19 | 16:53:43 | bb |
| 6 | FC027F-CAL,, /01 | FC9W_097S16 | Standard | 4.92 | 7189 | 13055 | 51.250 | 0.107 | 51.688 | 100.9 | 2451 | 08-Mar-19 | 18:12:07 | bb |
| 7 | FC027G-CAL,, /01 | FC9W_097S17 | Standard | 4.91 | 29845 | 11729 | 256.250 | 0.099 | 238.859 | 93.2 | 5273 | 08-Mar-19 | 18:25:24 | bb |
| 8 | FC027H-CAL,, /01 | FC9W_097S18 | Standard | 4.91 | 86383 | 7780 | 1025.000 | 0.108 | 1042.2... | 101.7 | 12715 | 08-Mar-19 | 18:38:44 | bb |

Compound name: PFHxA-2
Correlation coefficient: r = 0.999414, r^2 = 0.998829
Calibration curve: 0.106533 * x + 0.000133012
Response type: Internal Std ( Ref 66 ), Area * ( IS Conc. / IS Area )
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None




PVed by GW, SVed by hh 13-Mar-19. NOTE: Unit=ng based on 4 mL extract

**Quantify Compound Summary Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

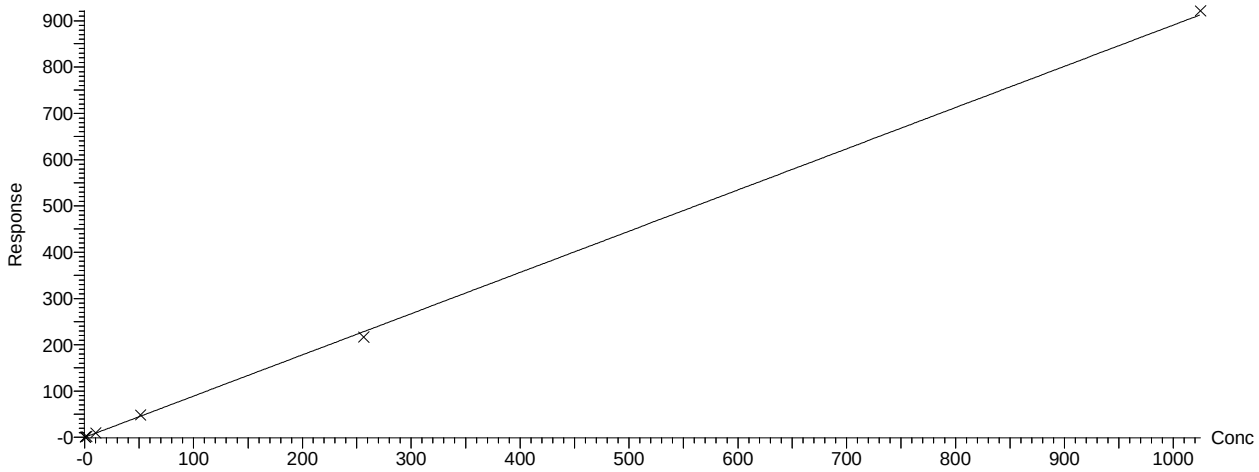
Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_097-A1.qld

Last Altered: Tuesday, March 12, 2019 17:19:00 Pacific Daylight Time
Printed: Wednesday, March 13, 2019 09:12:29 Pacific Daylight Time

**Compound name: PFHpA-1**

| # | ID | Name | Type | RT | Area | IS Area | Std. Conc | RRF | Conc. | %Rec | S/N | Acq.Date | Acq.Time | Flags |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2 | FC027B-CAL,, /01 | FC9W_097S12 | Standard | 5.52 | 710 | 17282 | 0.410 | 1.003 | 0.391 | 95.5 | 27 | 08-Mar-19 | 16:13:44 | MM |
| 3 | FC027C-CAL,, /01 | FC9W_097S13 | Standard | 5.52 | 1384 | 18389 | 0.820 | 0.918 | 0.775 | 94.5 | 62 | 08-Mar-19 | 16:27:06 | MM |
| 4 | FC027D-CAL,, /01 | FC9W_097S14 | Standard | 5.51 | 3415 | 17522 | 2.050 | 0.951 | 2.118 | 103.3 | 125 | 08-Mar-19 | 16:40:24 | bb |
| 5 | FC027E-CAL,, /01 | FC9W_097S15 | Standard | 5.51 | 16408 | 16966 | 10.250 | 0.944 | 10.789 | 105.3 | 704 | 08-Mar-19 | 16:53:43 | bb |
| 6 | FC027F-CAL,, /01 | FC9W_097S16 | Standard | 5.51 | 80796 | 16754 | 51.250 | 0.941 | 54.079 | 105.5 | 3385 | 08-Mar-19 | 18:12:07 | bb |
| 7 | FC027G-CAL,, /01 | FC9W_097S17 | Standard | 5.51 | 354499 | 16361 | 256.250 | 0.846 | 243.226 | 94.9 | 5206 | 08-Mar-19 | 18:25:24 | bb |
| 8 | FC027H-CAL,, /01 | FC9W_097S18 | Standard | 5.50 | 1027003 | 11145 | 1025.000 | 0.899 | 1034.6... | 100.9 | 23864 | 08-Mar-19 | 18:38:44 | bb |

Compound name: PFHpA-1
Correlation coefficient: r = 0.999647, r^2 = 0.999294
Calibration curve: 0.890582 * x + 0.0623879
Response type: Internal Std ( Ref 68 ), Area * ( IS Conc. / IS Area )
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None




PVed by GW, SVed by hh 13-Mar-19. NOTE: Unit=ng based on 4 mL extract

**Quantify Compound Summary Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

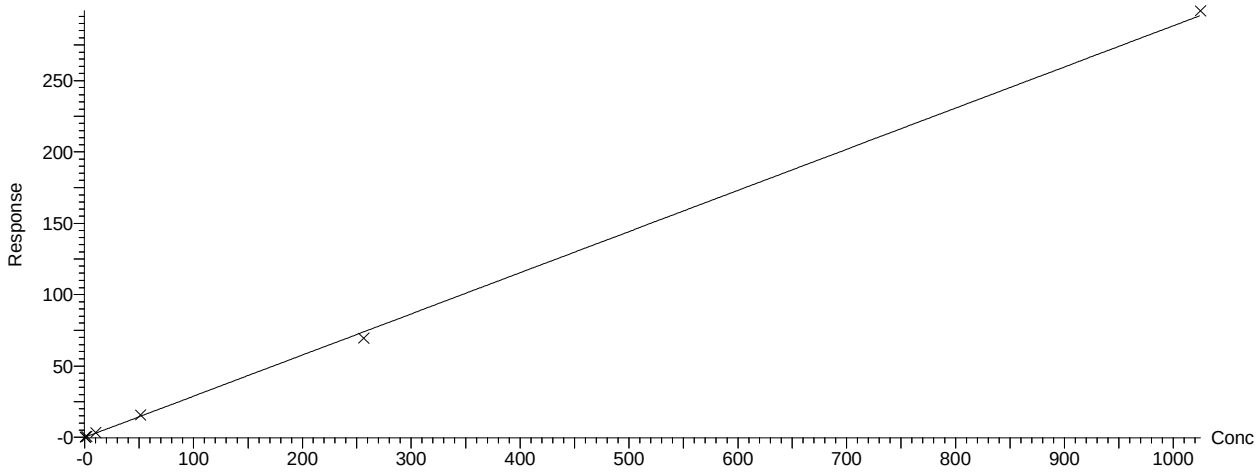
Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_097-A1.qld

Last Altered: Tuesday, March 12, 2019 17:19:00 Pacific Daylight Time
Printed: Wednesday, March 13, 2019 09:12:29 Pacific Daylight Time

**Compound name: PFHpA-2**

| # | ID | Name | Type | RT | Area | IS Area | Std. Conc | RRF | Conc. | %Rec | S/N | Acq.Date | Acq.Time | Flags |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2 | FC027B-CAL,, /01 | FC9W_097S12 | Standard | 5.52 | 196 | 17282 | 0.410 | 0.276 | 0.373 | 90.9 | 43 | 08-Mar-19 | 16:13:44 | bb |
| 3 | FC027C-CAL,, /01 | FC9W_097S13 | Standard | 5.51 | 440 | 18389 | 0.820 | 0.292 | 0.811 | 98.9 | 2336 | 08-Mar-19 | 16:27:06 | MM |
| 4 | FC027D-CAL,, /01 | FC9W_097S14 | Standard | 5.51 | 1050 | 17522 | 2.050 | 0.292 | 2.057 | 100.4 | 1673 | 08-Mar-19 | 16:40:24 | MM |
| 5 | FC027E-CAL,, /01 | FC9W_097S15 | Standard | 5.51 | 5488 | 16966 | 10.250 | 0.316 | 11.197 | 109.2 | 100 | 08-Mar-19 | 16:53:43 | bb |
| 6 | FC027F-CAL,, /01 | FC9W_097S16 | Standard | 5.52 | 26131 | 16754 | 51.250 | 0.304 | 54.063 | 105.5 | 14696 | 08-Mar-19 | 18:12:07 | bb |
| 7 | FC027G-CAL,, /01 | FC9W_097S17 | Standard | 5.51 | 113763 | 16361 | 256.250 | 0.271 | 241.093 | 94.1 | 11558 | 08-Mar-19 | 18:25:24 | bb |
| 8 | FC027H-CAL,, /01 | FC9W_097S18 | Standard | 5.50 | 333121 | 11145 | 1025.000 | 0.292 | 1036.4... | 101.1 | 13870 | 08-Mar-19 | 18:38:44 | bb |

Compound name: PFHpA-2
Correlation coefficient: r = 0.999525, r^2 = 0.999050
Calibration curve: 0.288387 * x + 0.00570069
Response type: Internal Std ( Ref 68 ), Area * ( IS Conc. / IS Area )
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None




PVed by GW, SVed by hh 13-Mar-19. NOTE: Unit=ng based on 4 mL extract

**Quantify Compound Summary Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

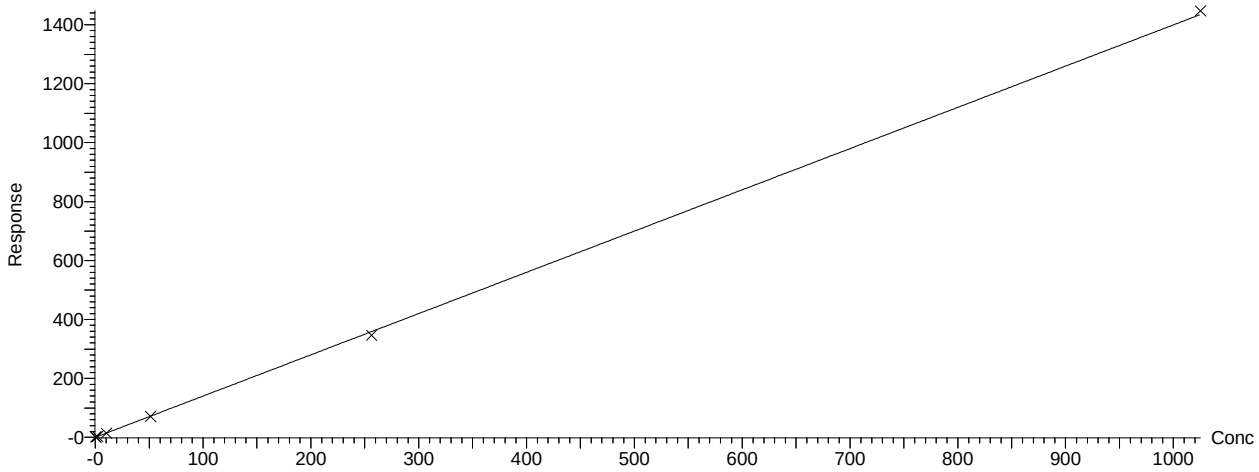
Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_097-A1.qld

Last Altered: Tuesday, March 12, 2019 17:19:00 Pacific Daylight Time
Printed: Wednesday, March 13, 2019 09:12:29 Pacific Daylight Time

**Compound name: PFOA-1**

| # | ID | Name | Type | RT | Area | IS Area | Std. Conc | RRF | Conc. | %Rec | S/N | Acq.Date | Acq.Time | Flags |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2 | FC027B-CAL,, /01 | FC9W_097S12 | Standard | 6.39 | 1351 | 20045 | 0.410 | 1.644 | 0.377 | 92.0 | 16 | 08-Mar-19 | 16:13:44 | MM |
| 3 | FC027C-CAL,, /01 | FC9W_097S13 | Standard | 6.40 | 2780 | 21343 | 0.820 | 1.589 | 0.826 | 100.8 | 22 | 08-Mar-19 | 16:27:06 | MM |
| 4 | FC027D-CAL,, /01 | FC9W_097S14 | Standard | 6.39 | 6403 | 19461 | 2.050 | 1.605 | 2.246 | 109.6 | 68 | 08-Mar-19 | 16:40:24 | MM |
| 5 | FC027E-CAL,, /01 | FC9W_097S15 | Standard | 6.38 | 29188 | 19962 | 10.250 | 1.427 | 10.341 | 100.9 | 270 | 08-Mar-19 | 16:53:43 | bb |
| 6 | FC027F-CAL,, /01 | FC9W_097S16 | Standard | 6.39 | 136186 | 19060 | 51.250 | 1.394 | 50.935 | 99.4 | 833 | 08-Mar-19 | 18:12:07 | bb |
| 7 | FC027G-CAL,, /01 | FC9W_097S17 | Standard | 6.38 | 625262 | 18051 | 256.250 | 1.352 | 247.340 | 96.5 | 4787 | 08-Mar-19 | 18:25:24 | bb |
| 8 | FC027H-CAL,, /01 | FC9W_097S18 | Standard | 6.38 | 1958249 | 13528 | 1025.000 | 1.412 | 1033.9... | 100.9 | 17593 | 08-Mar-19 | 18:38:44 | bb |

Compound name: PFOA-1
Correlation coefficient: r = 0.999846, r^2 = 0.999691
Calibration curve: 1.39989 * x + 0.1459
Response type: Internal Std ( Ref 69 ), Area * ( IS Conc. / IS Area )
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None




PVed by GW, SVed by hh 13-Mar-19. NOTE: Unit=ng based on 4 mL extract

**Quantify Compound Summary Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

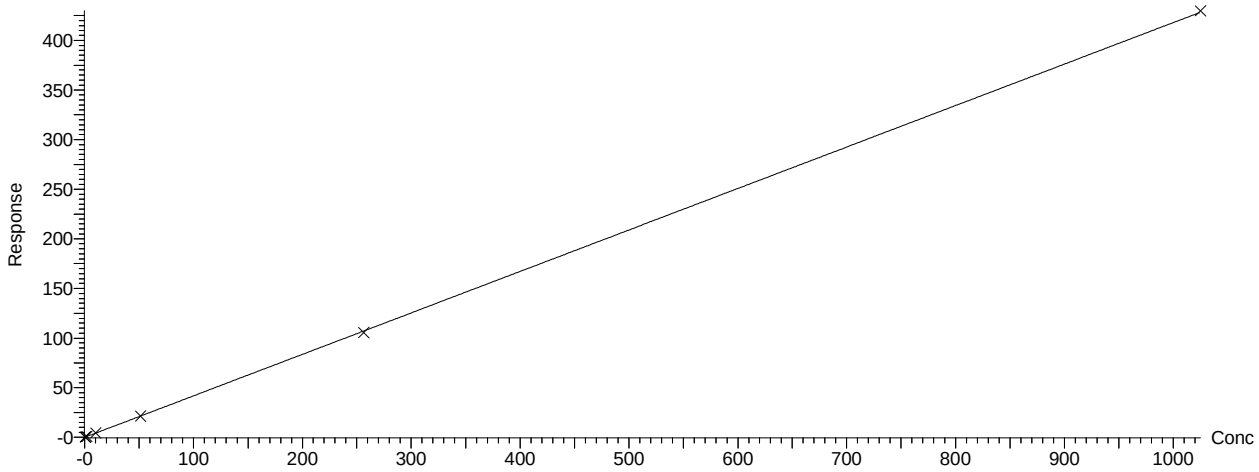
Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_097-A1.qld

Last Altered: Tuesday, March 12, 2019 17:19:00 Pacific Daylight Time
Printed: Wednesday, March 13, 2019 09:12:29 Pacific Daylight Time

**Compound name: PFOA-2**

| # | ID | Name | Type | RT | Area | IS Area | Std. Conc | RRF | Conc. | %Rec | S/N | Acq.Date | Acq.Time | Flags |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2 | FC027B-CAL,, /01 | FC9W_097S12 | Standard | 6.40 | 436 | 20045 | 0.410 | 0.531 | 0.421 | 102.6 | 410 | 08-Mar-19 | 16:13:44 | MM |
| 3 | FC027C-CAL,, /01 | FC9W_097S13 | Standard | 6.40 | 757 | 21343 | 0.820 | 0.432 | 0.749 | 91.3 | 242 | 08-Mar-19 | 16:27:06 | MM |
| 4 | FC027D-CAL,, /01 | FC9W_097S14 | Standard | 6.38 | 1828 | 19461 | 2.050 | 0.458 | 2.148 | 104.8 | 1741 | 08-Mar-19 | 16:40:24 | bb |
| 5 | FC027E-CAL,, /01 | FC9W_097S15 | Standard | 6.38 | 8862 | 19962 | 10.250 | 0.433 | 10.524 | 102.7 | 3596 | 08-Mar-19 | 16:53:43 | bb |
| 6 | FC027F-CAL,, /01 | FC9W_097S16 | Standard | 6.39 | 40814 | 19060 | 51.250 | 0.418 | 51.143 | 99.8 | 6051 | 08-Mar-19 | 18:12:07 | bb |
| 7 | FC027G-CAL,, /01 | FC9W_097S17 | Standard | 6.38 | 190587 | 18051 | 256.250 | 0.412 | 252.574 | 98.6 | 11384 | 08-Mar-19 | 18:25:24 | bb |
| 8 | FC027H-CAL,, /01 | FC9W_097S18 | Standard | 6.38 | 581435 | 13528 | 1025.000 | 0.419 | 1028.4... | 100.3 | 18919 | 08-Mar-19 | 18:38:44 | bb |

Compound name: PFOA-2
Correlation coefficient: r = 0.999969, r^2 = 0.999938
Calibration curve: 0.417871 * x + 0.0418049
Response type: Internal Std ( Ref 69 ), Area * ( IS Conc. / IS Area )
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None




PVed by GW, SVed by hh 13-Mar-19. NOTE: Unit=ng based on 4 mL extract

**Quantify Compound Summary Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

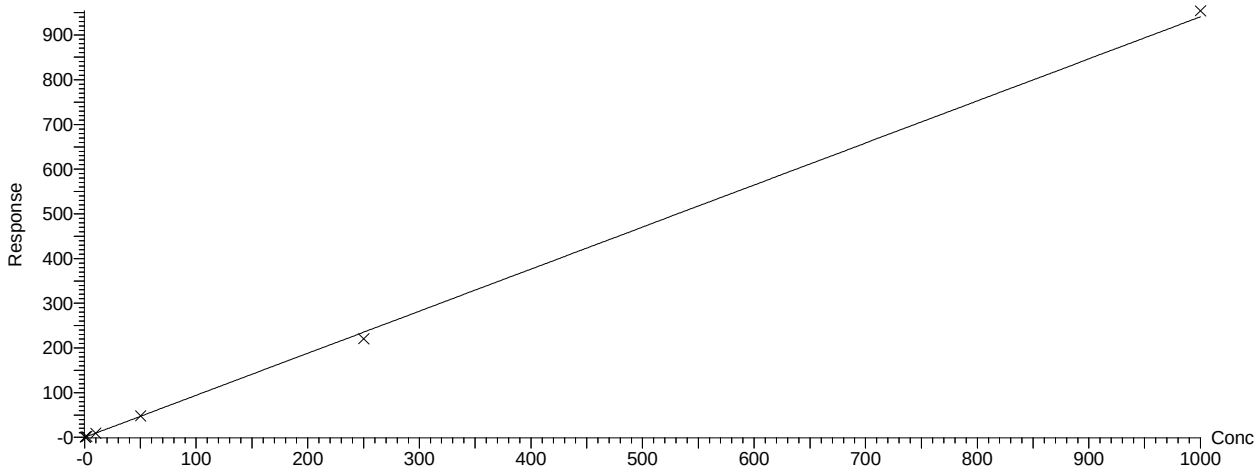
Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_097-A1.qld

Last Altered: Tuesday, March 12, 2019 17:19:00 Pacific Daylight Time
Printed: Wednesday, March 13, 2019 09:12:29 Pacific Daylight Time

**Compound name: PFNA-1**

| # | ID | Name | Type | RT | Area | IS Area | Std. Conc | RRF | Conc. | %Rec | S/N | Acq.Date | Acq.Time | Flags |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2 | FC027B-CAL,, /01 | FC9W_097S12 | Standard | 7.13 | 1059 | 11593 | 0.400 | 1.142 | 0.392 | 98.0 | 28 | 08-Mar-19 | 16:13:44 | MM |
| 3 | FC027C-CAL,, /01 | FC9W_097S13 | Standard | 7.14 | 1979 | 12221 | 0.800 | 1.012 | 0.767 | 95.9 | 43 | 08-Mar-19 | 16:27:06 | MM |
| 4 | FC027D-CAL,, /01 | FC9W_097S14 | Standard | 7.12 | 5075 | 12094 | 2.000 | 1.049 | 2.137 | 106.9 | 168 | 08-Mar-19 | 16:40:24 | MM |
| 5 | FC027E-CAL,, /01 | FC9W_097S15 | Standard | 7.12 | 23025 | 11941 | 10.000 | 0.964 | 10.157 | 101.6 | 783 | 08-Mar-19 | 16:53:43 | bb |
| 6 | FC027F-CAL,, /01 | FC9W_097S16 | Standard | 7.13 | 110947 | 11481 | 50.000 | 0.966 | 51.277 | 102.6 | 3039 | 08-Mar-19 | 18:12:07 | bb |
| 7 | FC027G-CAL,, /01 | FC9W_097S17 | Standard | 7.12 | 474330 | 10760 | 250.000 | 0.882 | 234.258 | 93.7 | 84 | 08-Mar-19 | 18:25:24 | bb |
| 8 | FC027H-CAL,, /01 | FC9W_097S18 | Standard | 7.12 | 1418445 | 7434 | 1000.000 | 0.954 | 1014.2... | 101.4 | 11574 | 08-Mar-19 | 18:38:44 | bb |

Compound name: PFNA-1
Correlation coefficient: r = 0.999524, r^2 = 0.999049
Calibration curve: 0.940555 * x + 0.0881251
Response type: Internal Std ( Ref 70 ), Area * ( IS Conc. / IS Area )
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None




PVed by GW, SVed by hh 13-Mar-19. NOTE: Unit=ng based on 4 mL extract

**Quantify Compound Summary Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

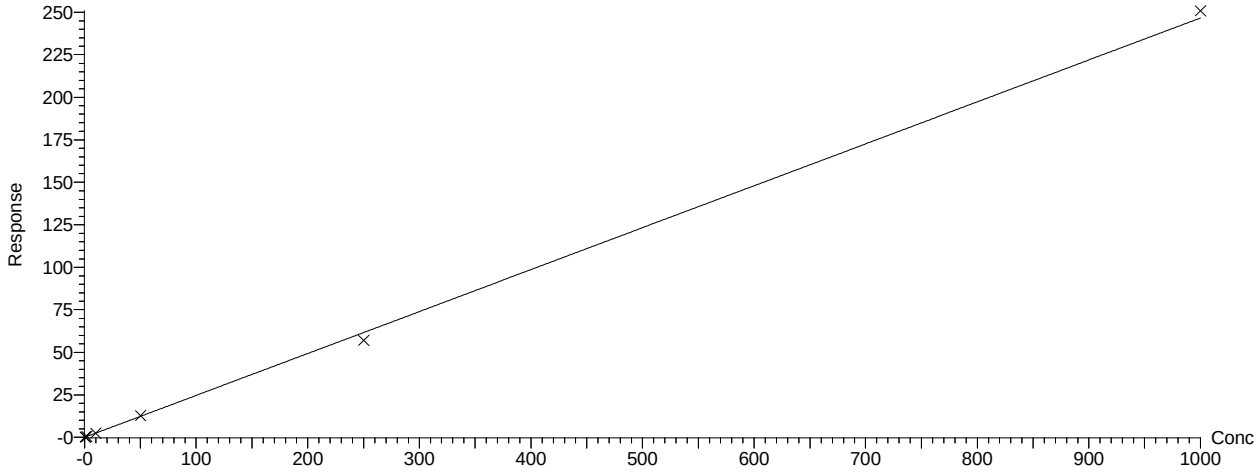
Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_097-A1.qld

Last Altered: Tuesday, March 12, 2019 17:19:00 Pacific Daylight Time
Printed: Wednesday, March 13, 2019 09:12:29 Pacific Daylight Time

**Compound name: PFNA-2**

| # | ID | Name | Type | RT | Area | IS Area | Std. Conc | RRF | Conc. | %Rec | S/N | Acq.Date | Acq.Time | Flags |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2 | FC027B-CAL,, /01 | FC9W_097S12 | Standard | 7.14 | 222 | 11593 | 0.400 | 0.240 | 0.371 | 92.8 | 24 | 08-Mar-19 | 16:13:44 | bb |
| 3 | FC027C-CAL,, /01 | FC9W_097S13 | Standard | 7.14 | 493 | 12221 | 0.800 | 0.252 | 0.801 | 100.2 | 98 | 08-Mar-19 | 16:27:06 | bb |
| 4 | FC027D-CAL,, /01 | FC9W_097S14 | Standard | 7.12 | 1303 | 12094 | 2.000 | 0.269 | 2.167 | 108.3 | 1009 | 08-Mar-19 | 16:40:24 | bb |
| 5 | FC027E-CAL,, /01 | FC9W_097S15 | Standard | 7.12 | 5982 | 11941 | 10.000 | 0.250 | 10.139 | 101.4 | 90 | 08-Mar-19 | 16:53:43 | bb |
| 6 | FC027F-CAL,, /01 | FC9W_097S16 | Standard | 7.13 | 29249 | 11481 | 50.000 | 0.255 | 51.631 | 103.3 | 2136 | 08-Mar-19 | 18:12:07 | bb |
| 7 | FC027G-CAL,, /01 | FC9W_097S17 | Standard | 7.12 | 122593 | 10760 | 250.000 | 0.228 | 230.973 | 92.4 | 11581 | 08-Mar-19 | 18:25:24 | bb |
| 8 | FC027H-CAL,, /01 | FC9W_097S18 | Standard | 7.12 | 372975 | 7434 | 1000.000 | 0.251 | 1017.1... | 101.7 | 13896 | 08-Mar-19 | 18:38:44 | bb |

Compound name: PFNA-2
Correlation coefficient: r = 0.999305, r^2 = 0.998610
Calibration curve: 0.246628 * x + 0.00430433
Response type: Internal Std ( Ref 70 ), Area * ( IS Conc. / IS Area )
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None




PVed by GW, SVed by hh 13-Mar-19. NOTE: Unit=ng based on 4 mL extract

**Quantify Compound Summary Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

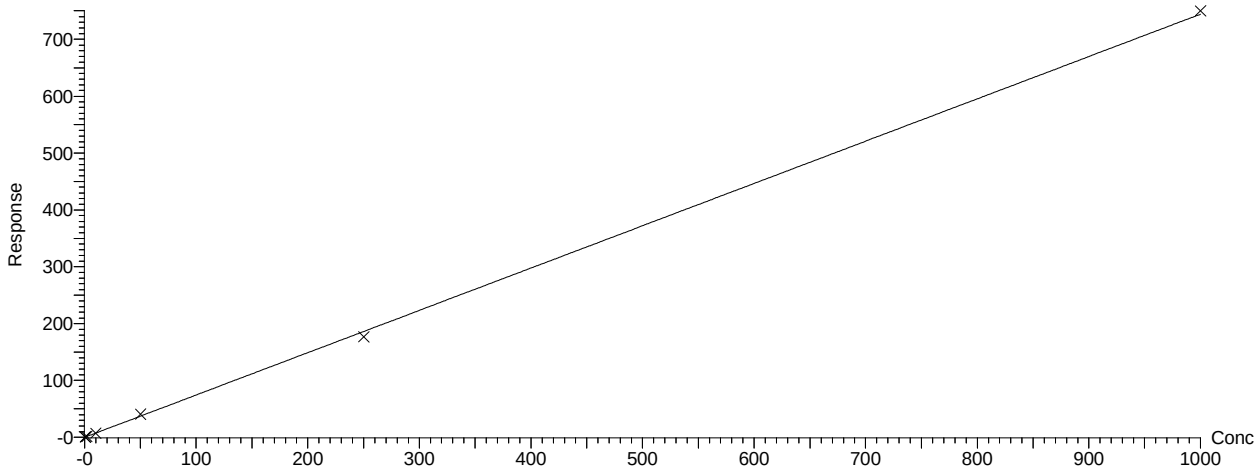
Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_097-A1.qld

Last Altered: Tuesday, March 12, 2019 17:19:00 Pacific Daylight Time
Printed: Wednesday, March 13, 2019 09:12:29 Pacific Daylight Time

**Compound name: PFDA-1**

| # | ID | Name | Type | RT | Area | IS Area | Std. Conc | RRF | Conc. | %Rec | S/N | Acq.Date | Acq.Time | Flags |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2 | FC027B-CAL,, /01 | FC9W_097S12 | Standard | 7.55 | 1012 | 11507 | 0.400 | 1.099 | 0.424 | 106.0 | 19 | 08-Mar-19 | 16:13:44 | MM |
| 3 | FC027C-CAL,, /01 | FC9W_097S13 | Standard | 7.54 | 1519 | 11437 | 0.800 | 0.830 | 0.726 | 90.7 | 24 | 08-Mar-19 | 16:27:06 | MM |
| 4 | FC027D-CAL,, /01 | FC9W_097S14 | Standard | 7.54 | 3757 | 11654 | 2.000 | 0.806 | 1.999 | 100.0 | 81 | 08-Mar-19 | 16:40:24 | bb |
| 5 | FC027E-CAL,, /01 | FC9W_097S15 | Standard | 7.53 | 16837 | 11338 | 10.000 | 0.742 | 9.811 | 98.1 | 484 | 08-Mar-19 | 16:53:43 | bb |
| 6 | FC027F-CAL,, /01 | FC9W_097S16 | Standard | 7.54 | 86299 | 10569 | 50.000 | 0.817 | 54.700 | 109.4 | 1412 | 08-Mar-19 | 18:12:07 | bb |
| 7 | FC027G-CAL,, /01 | FC9W_097S17 | Standard | 7.54 | 358905 | 10146 | 250.000 | 0.708 | 237.535 | 95.0 | 5509 | 08-Mar-19 | 18:25:24 | bb |
| 8 | FC027H-CAL,, /01 | FC9W_097S18 | Standard | 7.53 | 1049200 | 6993 | 1000.000 | 0.750 | 1008.0... | 100.8 | 6433 | 08-Mar-19 | 18:38:44 | bb |

Compound name: PFDA-1
Correlation coefficient: r = 0.999563, r^2 = 0.999126
Calibration curve: 0.744107 * x + 0.124181
Response type: Internal Std ( Ref 72 ), Area * ( IS Conc. / IS Area )
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None




PVed by GW, SVed by hh 13-Mar-19. NOTE: Unit=ng based on 4 mL extract

**Quantify Compound Summary Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

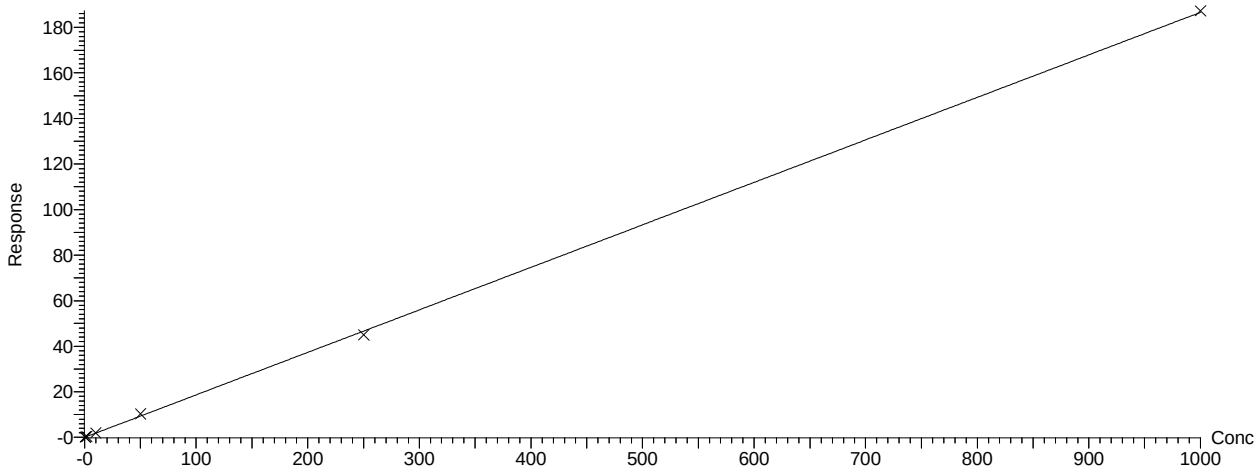
Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_097-A1.qld

Last Altered: Tuesday, March 12, 2019 17:19:00 Pacific Daylight Time
Printed: Wednesday, March 13, 2019 09:12:29 Pacific Daylight Time

**Compound name: PFDA-2**

| # | ID | Name | Type | RT | Area | IS Area | Std. Conc | RRF | Conc. | %Rec | S/N | Acq.Date | Acq.Time | Flags |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2 | FC027B-CAL,, /01 | FC9W_097S12 | Standard | 7.55 | 190 | 11507 | 0.400 | 0.206 | 0.405 | 101.3 | 944 | 08-Mar-19 | 16:13:44 | bb |
| 3 | FC027C-CAL,, /01 | FC9W_097S13 | Standard | 7.54 | 354 | 11437 | 0.800 | 0.193 | 0.792 | 99.0 | 925 | 08-Mar-19 | 16:27:06 | bb |
| 4 | FC027D-CAL,, /01 | FC9W_097S14 | Standard | 7.54 | 798 | 11654 | 2.000 | 0.171 | 1.799 | 89.9 | 2780 | 08-Mar-19 | 16:40:24 | MM |
| 5 | FC027E-CAL,, /01 | FC9W_097S15 | Standard | 7.53 | 4352 | 11338 | 10.000 | 0.192 | 10.250 | 102.5 | 6200 | 08-Mar-19 | 16:53:43 | bb |
| 6 | FC027F-CAL,, /01 | FC9W_097S16 | Standard | 7.54 | 21773 | 10569 | 50.000 | 0.206 | 55.173 | 110.3 | 6037 | 08-Mar-19 | 18:12:07 | bb |
| 7 | FC027G-CAL,, /01 | FC9W_097S17 | Standard | 7.54 | 91313 | 10146 | 250.000 | 0.180 | 241.166 | 96.5 | 4945 | 08-Mar-19 | 18:25:24 | bb |
| 8 | FC027H-CAL,, /01 | FC9W_097S18 | Standard | 7.53 | 261884 | 6993 | 1000.000 | 0.187 | 1003.6... | 100.4 | 9837 | 08-Mar-19 | 18:38:44 | bb |

Compound name: PFDA-2
Correlation coefficient: r = 0.999660, r^2 = 0.999319
Calibration curve: 0.186568 * x + 0.00690711
Response type: Internal Std ( Ref 72 ), Area * ( IS Conc. / IS Area )
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None




PVed by GW, SVed by hh 13-Mar-19. NOTE: Unit=ng based on 4 mL extract

**Quantify Compound Summary Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

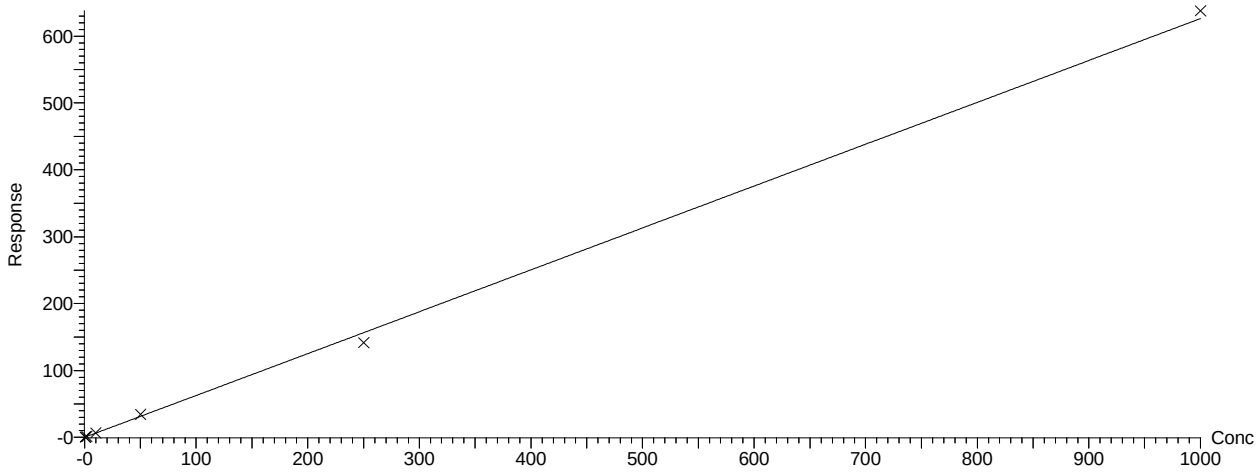
Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_097-A1.qld

Last Altered: Tuesday, March 12, 2019 17:19:00 Pacific Daylight Time
Printed: Wednesday, March 13, 2019 09:12:29 Pacific Daylight Time

**Compound name: PFUnA-1**

| # | ID | Name | Type | RT | Area | IS Area | Std. Conc | RRF | Conc. | %Rec | S/N | Acq.Date | Acq.Time | Flags |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2 | FC027B-CAL,, /01 | FC9W_097S12 | Standard | 7.84 | 708 | 13683 | 0.400 | 0.647 | 0.359 | 89.8 | 26 | 08-Mar-19 | 16:13:44 | MM |
| 3 | FC027C-CAL,, /01 | FC9W_097S13 | Standard | 7.84 | 1439 | 14122 | 0.800 | 0.637 | 0.760 | 95.0 | 36 | 08-Mar-19 | 16:27:06 | bb |
| 4 | FC027D-CAL,, /01 | FC9W_097S14 | Standard | 7.84 | 3762 | 13693 | 2.000 | 0.687 | 2.140 | 107.0 | 133 | 08-Mar-19 | 16:40:24 | bb |
| 5 | FC027E-CAL,, /01 | FC9W_097S15 | Standard | 7.83 | 16716 | 12466 | 10.000 | 0.670 | 10.653 | 106.5 | 511 | 08-Mar-19 | 16:53:43 | bb |
| 6 | FC027F-CAL,, /01 | FC9W_097S16 | Standard | 7.84 | 75429 | 11005 | 50.000 | 0.685 | 54.671 | 109.3 | 3534 | 08-Mar-19 | 18:12:07 | bb |
| 7 | FC027G-CAL,, /01 | FC9W_097S17 | Standard | 7.83 | 239325 | 8449 | 250.000 | 0.566 | 226.109 | 90.4 | 4131 | 08-Mar-19 | 18:25:24 | bb |
| 8 | FC027H-CAL,, /01 | FC9W_097S18 | Standard | 7.83 | 660552 | 5178 | 1000.000 | 0.638 | 1018.5... | 101.9 | 6851 | 08-Mar-19 | 18:38:44 | bb |

Compound name: PFUnA-1
Correlation coefficient: r = 0.998804, r^2 = 0.997609
Calibration curve: 0.626207 * x + 0.0336932
Response type: Internal Std ( Ref 71 ), Area * ( IS Conc. / IS Area )
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None




PVed by GW, SVed by hh 13-Mar-19. NOTE: Unit=ng based on 4 mL extract

**Quantify Compound Summary Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

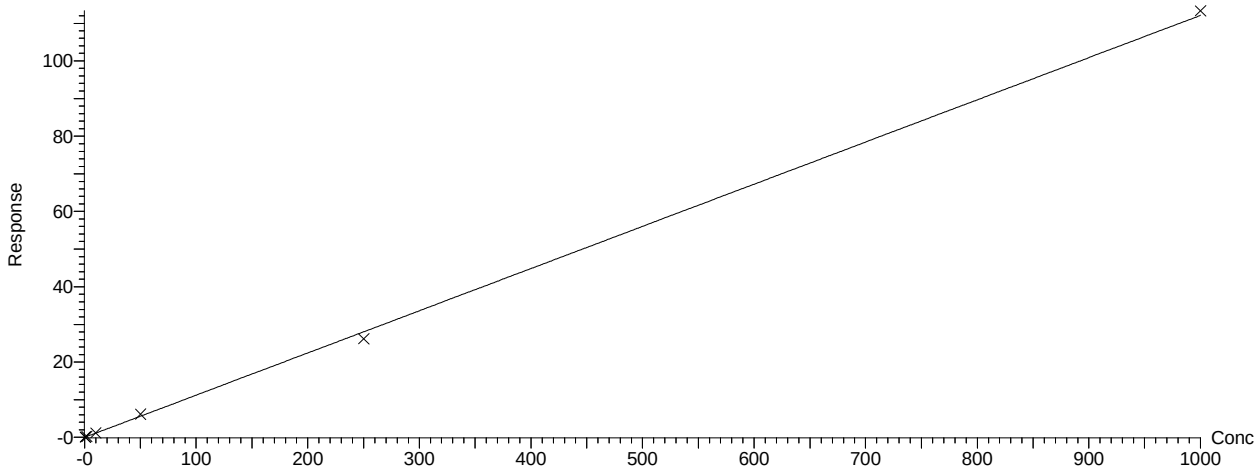
Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_097-A1.qld

Last Altered: Tuesday, March 12, 2019 17:19:00 Pacific Daylight Time
Printed: Wednesday, March 13, 2019 09:12:29 Pacific Daylight Time

**Compound name: PFUnA-2**

| # | ID | Name | Type | RT | Area | IS Area | Std. Conc | RRF | Conc. | %Rec | S/N | Acq.Date | Acq.Time | Flags |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2 | FC027B-CAL,, /01 | FC9W_097S12 | Standard | 7.84 | 133 | 13683 | 0.400 | 0.122 | 0.346 | 86.5 | 338 | 08-Mar-19 | 16:13:44 | bb |
| 3 | FC027C-CAL,, /01 | FC9W_097S13 | Standard | 7.84 | 295 | 14122 | 0.800 | 0.131 | 0.843 | 105.4 | 1903 | 08-Mar-19 | 16:27:06 | db |
| 4 | FC027D-CAL,, /01 | FC9W_097S14 | Standard | 7.84 | 645 | 13693 | 2.000 | 0.118 | 2.014 | 100.7 | 2190 | 08-Mar-19 | 16:40:24 | bb |
| 5 | FC027E-CAL,, /01 | FC9W_097S15 | Standard | 7.83 | 2897 | 12466 | 10.000 | 0.116 | 10.280 | 102.8 | 2366 | 08-Mar-19 | 16:53:43 | bb |
| 6 | FC027F-CAL,, /01 | FC9W_097S16 | Standard | 7.84 | 13587 | 11005 | 50.000 | 0.123 | 54.990 | 110.0 | 14801 | 08-Mar-19 | 18:12:07 | bb |
| 7 | FC027G-CAL,, /01 | FC9W_097S17 | Standard | 7.83 | 44300 | 8449 | 250.000 | 0.105 | 233.821 | 93.5 | 1308 | 08-Mar-19 | 18:25:24 | MM |
| 8 | FC027H-CAL,, /01 | FC9W_097S18 | Standard | 7.83 | 117343 | 5178 | 1000.000 | 0.113 | 1010.9... | 101.1 | 8814 | 08-Mar-19 | 18:38:44 | bb |

Compound name: PFUnA-2
Correlation coefficient: r = 0.999355, r^2 = 0.998710
Calibration curve: 0.112075 * x + 0.00994098
Response type: Internal Std ( Ref 71 ), Area * ( IS Conc. / IS Area )
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None




PVed by GW, SVed by hh 13-Mar-19. NOTE: Unit=ng based on 4 mL extract

**Quantify Compound Summary Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

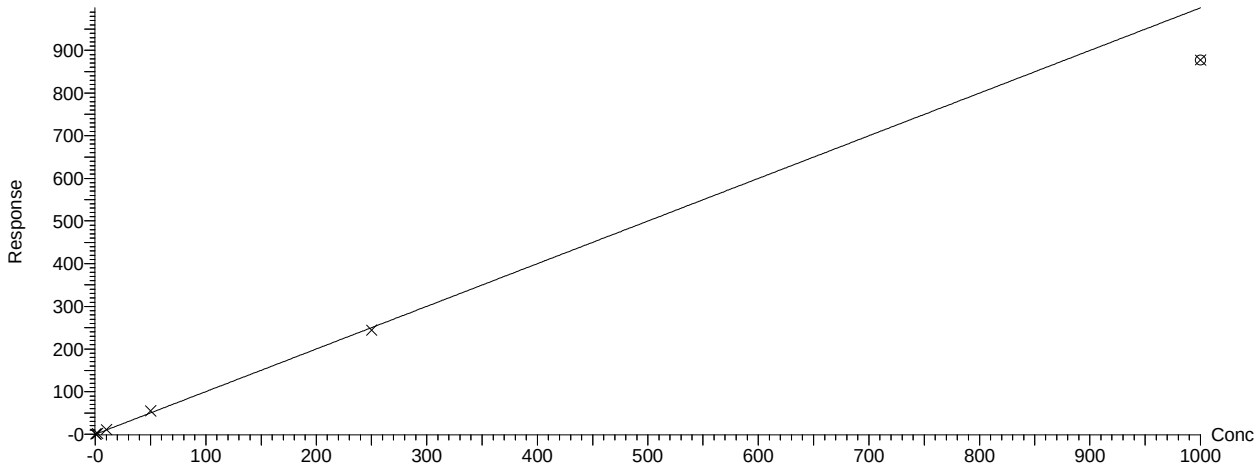
Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_097-A1.qld

Last Altered: Tuesday, March 12, 2019 17:19:00 Pacific Daylight Time
Printed: Wednesday, March 13, 2019 09:12:29 Pacific Daylight Time

**Compound name: PFDoA-1**

| # | ID | Name | Type | RT | Area | IS Area | Std. Conc | RRF | Conc. | %Rec | S/N | Acq.Date | Acq.Time | Flags |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2 | FC027B-CAL,, /01 | FC9W_097S12 | Standard | 8.19 | 919 | 9343 | 0.400 | 1.229 | 0.326 | 81.4 | 23 | 08-Mar-19 | 16:13:44 | MM |
| 3 | FC027C-CAL,, /01 | FC9W_097S13 | Standard | 8.18 | 1867 | 9688 | 0.800 | 1.205 | 0.798 | 99.7 | 57 | 08-Mar-19 | 16:27:06 | MM |
| 4 | FC027D-CAL,, /01 | FC9W_097S14 | Standard | 8.17 | 4004 | 9082 | 2.000 | 1.102 | 2.039 | 101.9 | 88 | 08-Mar-19 | 16:40:24 | bb |
| 5 | FC027E-CAL,, /01 | FC9W_097S15 | Standard | 8.17 | 20803 | 9389 | 10.000 | 1.108 | 10.917 | 109.2 | 329 | 08-Mar-19 | 16:53:43 | MM |
| 6 | FC027F-CAL,, /01 | FC9W_097S16 | Standard | 8.19 | 99245 | 8988 | 50.000 | 1.104 | 55.068 | 110.1 | 2070 | 08-Mar-19 | 18:12:07 | MM |
| 7 | FC027G-CAL,, /01 | FC9W_097S17 | Standard | 8.17 | 434105 | 8891 | 250.000 | 0.976 | 244.053 | 97.6 | 8165 | 08-Mar-19 | 18:25:24 | MM! |
| 8 | FC027H-CAL,, /01 | FC9W_097S18 | Standard | 8.17 | 1299910 | 7409 | 1000.000 | 0.877 | 877.392 | 87.7 | 15625 | 08-Mar-19 | 18:38:44 | MMX |

Compound name: PFDoA-1
Correlation coefficient: r = 0.998766, r^2 = 0.997534
Calibration curve: 0.999589 * x + 0.166175
Response type: Internal Std ( Ref 73 ), Area * ( IS Conc. / IS Area )
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None




PVed by GW, SVed by hh 13-Mar-19. NOTE: Unit=ng based on 4 mL extract

**Quantify Compound Summary Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

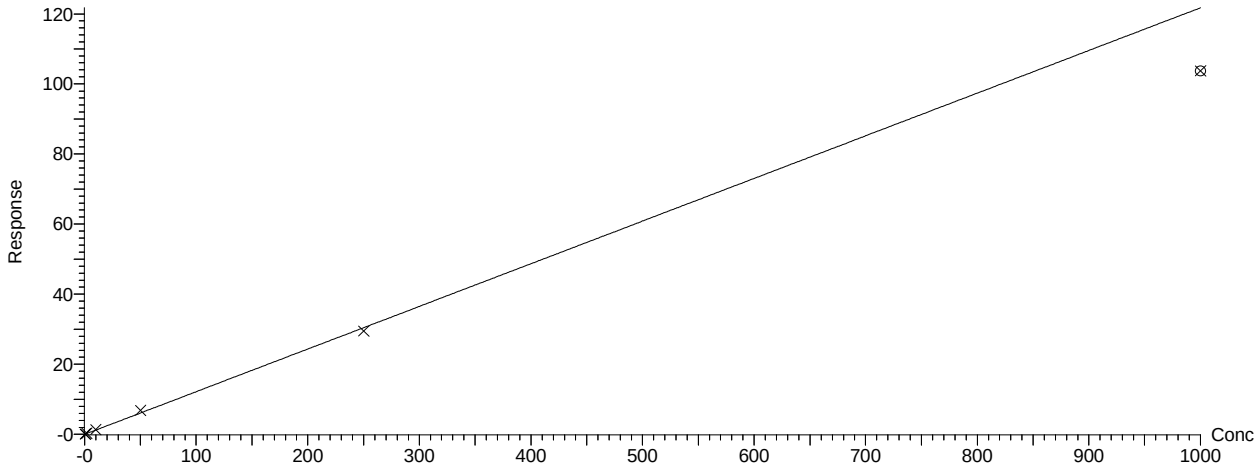
Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_097-A1.qld

Last Altered: Tuesday, March 12, 2019 17:19:00 Pacific Daylight Time
Printed: Wednesday, March 13, 2019 09:12:29 Pacific Daylight Time

**Compound name: PFDoA-2**

| # | ID | Name | Type | RT | Area | IS Area | Std. Conc | RRF | Conc. | %Rec | S/N | Acq.Date | Acq.Time | Flags |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2 | FC027B-CAL,, /01 | FC9W_097S12 | Standard | 8.19 | 82 | 9343 | 0.400 | 0.109 | 0.301 | 75.4 | 30 | 08-Mar-19 | 16:13:44 | MM |
| 3 | FC027C-CAL,, /01 | FC9W_097S13 | Standard | 8.18 | 179 | 9688 | 0.800 | 0.115 | 0.701 | 87.7 | 388 | 08-Mar-19 | 16:27:06 | MM |
| 4 | FC027D-CAL,, /01 | FC9W_097S14 | Standard | 8.17 | 514 | 9082 | 2.000 | 0.141 | 2.267 | 113.4 | 1138 | 08-Mar-19 | 16:40:24 | MM |
| 5 | FC027E-CAL,, /01 | FC9W_097S15 | Standard | 8.17 | 2619 | 9389 | 10.000 | 0.139 | 11.401 | 114.0 | 4272 | 08-Mar-19 | 16:53:43 | MM |
| 6 | FC027F-CAL,, /01 | FC9W_097S16 | Standard | 8.19 | 12343 | 8988 | 50.000 | 0.137 | 56.360 | 112.7 | 4633 | 08-Mar-19 | 18:12:07 | MM |
| 7 | FC027G-CAL,, /01 | FC9W_097S17 | Standard | 8.17 | 52426 | 8891 | 250.000 | 0.118 | 242.169 | 96.9 | 9308 | 08-Mar-19 | 18:25:24 | MM |
| 8 | FC027H-CAL,, /01 | FC9W_097S18 | Standard | 8.17 | 153678 | 7409 | 1000.000 | 0.104 | 851.986 | 85.2 | 8900 | 08-Mar-19 | 18:38:44 | bbX |

Compound name: PFDoA-2
Correlation coefficient: r = 0.997838, r^2 = 0.995681
Calibration curve: 0.121712 * x + 0.00699951
Response type: Internal Std ( Ref 73 ), Area * ( IS Conc. / IS Area )
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None




PVed by GW, SVed by hh 13-Mar-19. NOTE: Unit=ng based on 4 mL extract

**Quantify Compound Summary Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

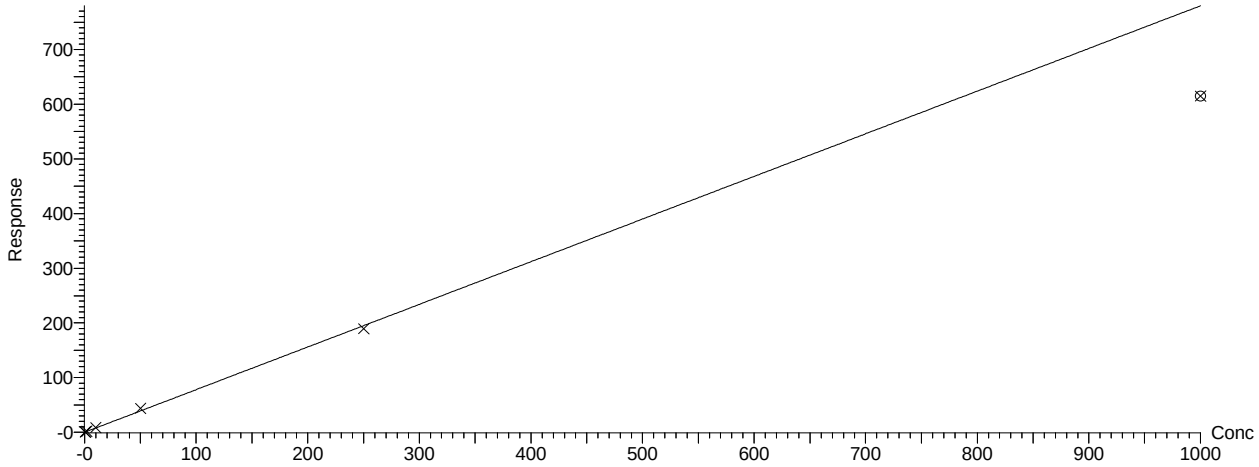
Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_097-A1.qld

Last Altered: Tuesday, March 12, 2019 17:19:00 Pacific Daylight Time
Printed: Wednesday, March 13, 2019 09:12:29 Pacific Daylight Time

**Compound name: PFTrDA-1**

| # | ID | Name | Type | RT | Area | IS Area | Std. Conc | RRF | Conc. | %Rec | S/N | Acq.Date | Acq.Time | Flags |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2 | FC027B-CAL,, /01 | FC9W_097S12 | Standard | 8.59 | 750 | 8610 | 0.400 | 1.089 | 0.328 | 82.0 | 19 | 08-Mar-19 | 16:13:44 | MM |
| 3 | FC027C-CAL,, /01 | FC9W_097S13 | Standard | 8.59 | 1407 | 9318 | 0.800 | 0.944 | 0.738 | 92.2 | 34 | 08-Mar-19 | 16:27:06 | MM |
| 4 | FC027D-CAL,, /01 | FC9W_097S14 | Standard | 8.59 | 3311 | 8735 | 2.000 | 0.948 | 2.200 | 110.0 | 111 | 08-Mar-19 | 16:40:24 | bb |
| 5 | FC027E-CAL,, /01 | FC9W_097S15 | Standard | 8.58 | 15598 | 9242 | 10.000 | 0.844 | 10.593 | 105.9 | 382 | 08-Mar-19 | 16:53:43 | MM |
| 6 | FC027F-CAL,, /01 | FC9W_097S16 | Standard | 8.60 | 80192 | 9100 | 50.000 | 0.881 | 56.276 | 112.6 | 1270 | 08-Mar-19 | 18:12:07 | MM |
| 7 | FC027G-CAL,, /01 | FC9W_097S17 | Standard | 8.58 | 333517 | 8791 | 250.000 | 0.759 | 243.065 | 97.2 | 131 | 08-Mar-19 | 18:25:24 | MM |
| 8 | FC027H-CAL,, /01 | FC9W_097S18 | Standard | 8.58 | 977170 | 7947 | 1000.000 | 0.615 | 788.296 | 78.8 | 8693 | 08-Mar-19 | 18:38:44 | bbX |

Compound name: PFTrDA-1
Correlation coefficient: r = 0.998278, r^2 = 0.996559
Calibration curve: 0.779722 * x + 0.179538
Response type: Internal Std ( Ref 74 ), Area * ( IS Conc. / IS Area )
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None




PVed by GW, SVed by hh 13-Mar-19. NOTE: Unit=ng based on 4 mL extract

**Quantify Compound Summary Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

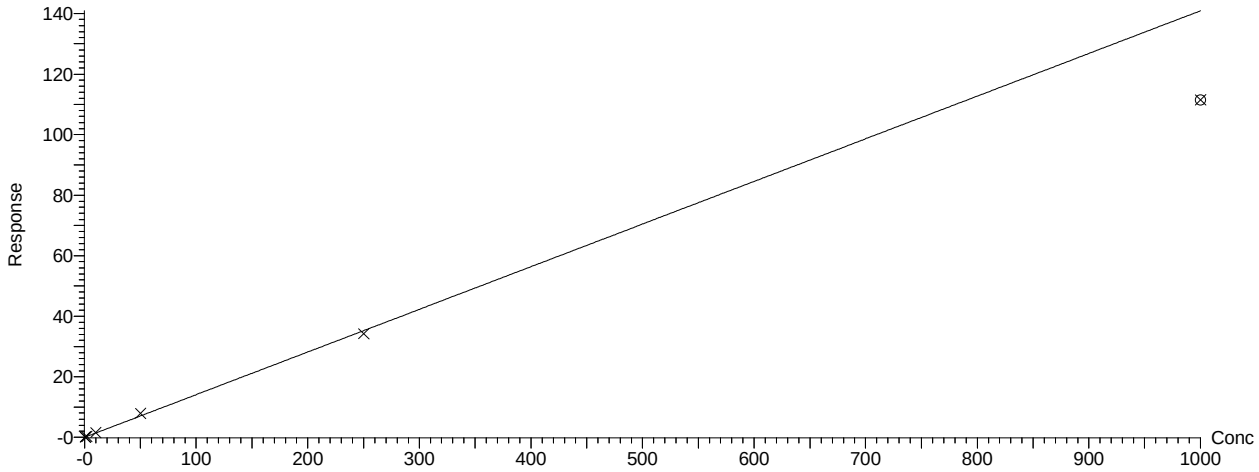
Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_097-A1.qld

Last Altered: Tuesday, March 12, 2019 17:19:00 Pacific Daylight Time
Printed: Wednesday, March 13, 2019 09:12:29 Pacific Daylight Time

**Compound name: PFTrDA-2**

| # | ID | Name | Type | RT | Area | IS Area | Std. Conc | RRF | Conc. | %Rec | S/N | Acq.Date | Acq.Time | Flags |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2 | FC027B-CAL,, /01 | FC9W_097S12 | Standard | 8.59 | 132 | 8610 | 0.400 | 0.192 | 0.343 | 85.7 | 16 | 08-Mar-19 | 16:13:44 | MM |
| 3 | FC027C-CAL,, /01 | FC9W_097S13 | Standard | 8.60 | 251 | 9318 | 0.800 | 0.169 | 0.756 | 94.5 | 76 | 08-Mar-19 | 16:27:06 | MM |
| 4 | FC027D-CAL,, /01 | FC9W_097S14 | Standard | 8.59 | 536 | 8735 | 2.000 | 0.154 | 1.978 | 98.9 | 439 | 08-Mar-19 | 16:40:24 | MM |
| 5 | FC027E-CAL,, /01 | FC9W_097S15 | Standard | 8.58 | 2944 | 9242 | 10.000 | 0.159 | 11.105 | 111.1 | 479 | 08-Mar-19 | 16:53:43 | MM |
| 6 | FC027F-CAL,, /01 | FC9W_097S16 | Standard | 8.60 | 14516 | 9100 | 50.000 | 0.160 | 56.413 | 112.8 | 890 | 08-Mar-19 | 18:12:07 | MM |
| 7 | FC027G-CAL,, /01 | FC9W_097S17 | Standard | 8.58 | 60137 | 8791 | 250.000 | 0.137 | 242.605 | 97.0 | 1184 | 08-Mar-19 | 18:25:24 | MM |
| 8 | FC027H-CAL,, /01 | FC9W_097S18 | Standard | 8.58 | 177158 | 7947 | 1000.000 | 0.111 | 791.047 | 79.1 | 259 | 08-Mar-19 | 18:38:44 | bbX |

Compound name: PFTrDA-2
Correlation coefficient: r = 0.998080, r^2 = 0.996164
Calibration curve: 0.140874 * x + 0.0284232
Response type: Internal Std ( Ref 74 ), Area * ( IS Conc. / IS Area )
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None




PVed by GW, SVed by hh 13-Mar-19. NOTE: Unit=ng based on 4 mL extract

**Quantify Compound Summary Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

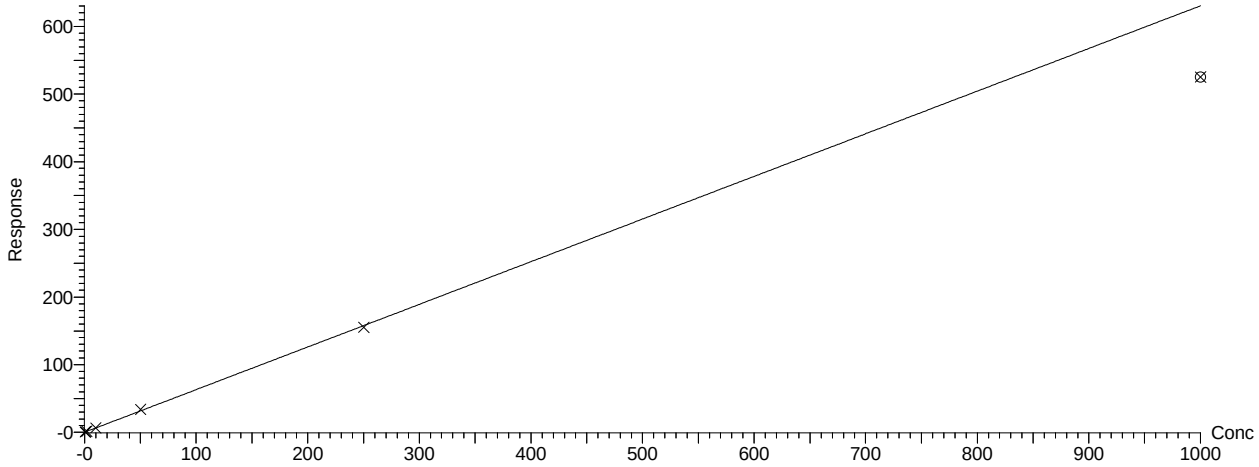
Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_097-A1.qld

Last Altered: Tuesday, March 12, 2019 17:19:00 Pacific Daylight Time
Printed: Wednesday, March 13, 2019 09:12:29 Pacific Daylight Time

**Compound name: PFTeDA-1**

| # | ID | Name | Type | RT | Area | IS Area | Std. Conc | RRF | Conc. | %Rec | S/N | Acq.Date | Acq.Time | Flags |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2 | FC027B-CAL,, /01 | FC9W_097S12 | Standard | 9.02 | 680 | 8610 | 0.400 | 0.988 | 0.363 | 90.7 | 23 | 08-Mar-19 | 16:13:44 | MM |
| 3 | FC027C-CAL,, /01 | FC9W_097S13 | Standard | 9.02 | 1182 | 9318 | 0.800 | 0.793 | 0.742 | 92.8 | 45 | 08-Mar-19 | 16:27:06 | MM |
| 4 | FC027D-CAL,, /01 | FC9W_097S14 | Standard | 9.01 | 2662 | 8735 | 2.000 | 0.762 | 2.153 | 107.7 | 129 | 08-Mar-19 | 16:40:24 | MM |
| 5 | FC027E-CAL,, /01 | FC9W_097S15 | Standard | 9.01 | 12322 | 9242 | 10.000 | 0.667 | 10.313 | 103.1 | 406 | 08-Mar-19 | 16:53:43 | MM |
| 6 | FC027F-CAL,, /01 | FC9W_097S16 | Standard | 9.03 | 61885 | 9100 | 50.000 | 0.680 | 53.678 | 107.4 | 1912 | 08-Mar-19 | 18:12:07 | bb |
| 7 | FC027G-CAL,, /01 | FC9W_097S17 | Standard | 9.01 | 272849 | 8791 | 250.000 | 0.621 | 245.951 | 98.4 | 6966 | 08-Mar-19 | 18:25:24 | MM |
| 8 | FC027H-CAL,, /01 | FC9W_097S18 | Standard | 9.01 | 835022 | 7947 | 1000.000 | 0.525 | 833.263 | 83.3 | 19744 | 08-Mar-19 | 18:38:44 | bbX |

Compound name: PFTeDA-1
Correlation coefficient: r = 0.999402, r^2 = 0.998803
Calibration curve: 0.630323 * x + 0.166482
Response type: Internal Std ( Ref 74 ), Area * ( IS Conc. / IS Area )
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None




PVed by GW, SVed by hh 13-Mar-19. NOTE: Unit=ng based on 4 mL extract

**Quantify Compound Summary Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

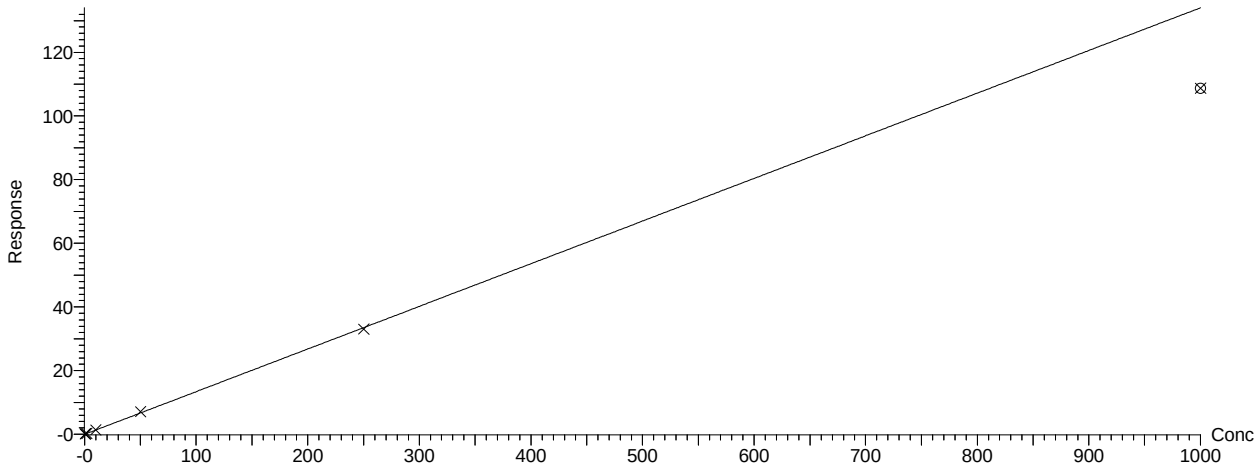
Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_097-A1.qld

Last Altered: Tuesday, March 12, 2019 17:19:00 Pacific Daylight Time
Printed: Wednesday, March 13, 2019 09:12:29 Pacific Daylight Time

**Compound name: PFTeDA-2**

| # | ID | Name | Type | RT | Area | IS Area | Std. Conc | RRF | Conc. | %Rec | S/N | Acq.Date | Acq.Time | Flags |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2 | FC027B-CAL,, /01 | FC9W_097S12 | Standard | 9.02 | 119 | 8610 | 0.400 | 0.173 | 0.331 | 82.8 | 265 | 08-Mar-19 | 16:13:44 | MM |
| 3 | FC027C-CAL,, /01 | FC9W_097S13 | Standard | 9.02 | 255 | 9318 | 0.800 | 0.171 | 0.837 | 104.6 | 359 | 08-Mar-19 | 16:27:06 | bb |
| 4 | FC027D-CAL,, /01 | FC9W_097S14 | Standard | 9.01 | 536 | 8735 | 2.000 | 0.153 | 2.103 | 105.1 | 891 | 08-Mar-19 | 16:40:24 | bb |
| 5 | FC027E-CAL,, /01 | FC9W_097S15 | Standard | 9.01 | 2585 | 9242 | 10.000 | 0.140 | 10.255 | 102.5 | 636 | 08-Mar-19 | 16:53:43 | bb |
| 6 | FC027F-CAL,, /01 | FC9W_097S16 | Standard | 9.03 | 13003 | 9100 | 50.000 | 0.143 | 53.139 | 106.3 | 2150 | 08-Mar-19 | 18:12:07 | bb |
| 7 | FC027G-CAL,, /01 | FC9W_097S17 | Standard | 9.01 | 58113 | 8791 | 250.000 | 0.132 | 246.536 | 98.6 | 8711 | 08-Mar-19 | 18:25:24 | MM |
| 8 | FC027H-CAL,, /01 | FC9W_097S18 | Standard | 9.01 | 172781 | 7947 | 1000.000 | 0.109 | 811.261 | 81.1 | 11138 | 08-Mar-19 | 18:38:44 | bbX |

Compound name: PFTeDA-2
Correlation coefficient: r = 0.999557, r^2 = 0.999114
Calibration curve: 0.133974 * x + 0.0249549
Response type: Internal Std ( Ref 74 ), Area * ( IS Conc. / IS Area )
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None




PVed by GW, SVed by hh 13-Mar-19. NOTE: Unit=ng based on 4 mL extract

**Quantify Compound Summary Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

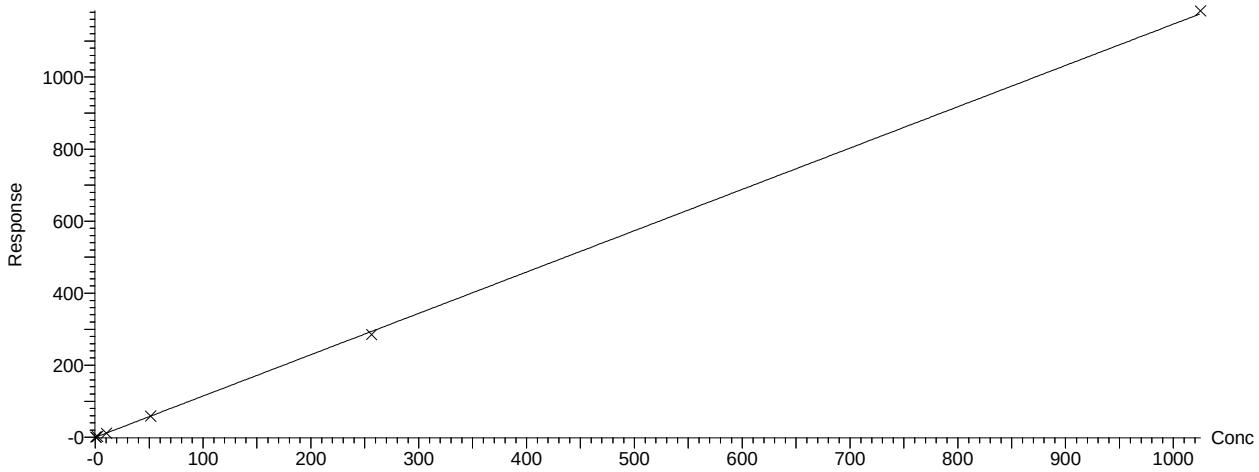
Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_097-A1.qld

Last Altered: Tuesday, March 12, 2019 17:19:00 Pacific Daylight Time
Printed: Wednesday, March 13, 2019 09:12:29 Pacific Daylight Time

**Compound name: PFBS-1**

| # | ID | Name | Type | RT | Area | IS Area | Std. Conc | RRF | Conc. | %Rec | S/N | Acq.Date | Acq.Time | Flags |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2 | FC027B-CAL,, /01 | FC9W_097S12 | Standard | 4.89 | 239 | 5106 | 0.410 | 1.142 | 0.409 | 99.8 | 428 | 08-Mar-19 | 16:13:44 | bb |
| 3 | FC027C-CAL,, /01 | FC9W_097S13 | Standard | 4.89 | 513 | 5503 | 0.820 | 1.137 | 0.814 | 99.2 | 32 | 08-Mar-19 | 16:27:06 | bb |
| 4 | FC027D-CAL,, /01 | FC9W_097S14 | Standard | 4.88 | 1240 | 5159 | 2.050 | 1.172 | 2.096 | 102.2 | 5616 | 08-Mar-19 | 16:40:24 | bb |
| 5 | FC027E-CAL,, /01 | FC9W_097S15 | Standard | 4.88 | 6396 | 5423 | 10.250 | 1.151 | 10.284 | 100.3 | 8372 | 08-Mar-19 | 16:53:43 | bb |
| 6 | FC027F-CAL,, /01 | FC9W_097S16 | Standard | 4.89 | 30677 | 5186 | 51.250 | 1.154 | 51.566 | 100.6 | 4370 | 08-Mar-19 | 18:12:07 | bb |
| 7 | FC027G-CAL,, /01 | FC9W_097S17 | Standard | 4.88 | 121994 | 4275 | 256.250 | 1.114 | 248.795 | 97.1 | 10765 | 08-Mar-19 | 18:25:24 | bb |
| 8 | FC027H-CAL,, /01 | FC9W_097S18 | Standard | 4.88 | 314636 | 2658 | 1025.000 | 1.155 | 1032.0... | 100.7 | 19135 | 08-Mar-19 | 18:38:44 | bb |

Compound name: PFBS-1
Correlation coefficient: r = 0.999899, r^2 = 0.999799
Calibration curve: 1.14704 * x + -0.00100658
Response type: Internal Std ( Ref 75 ), Area * ( IS Conc. / IS Area )
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None




PVed by GW, SVed by hh 13-Mar-19. NOTE: Unit=ng based on 4 mL extract

**Quantify Compound Summary Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

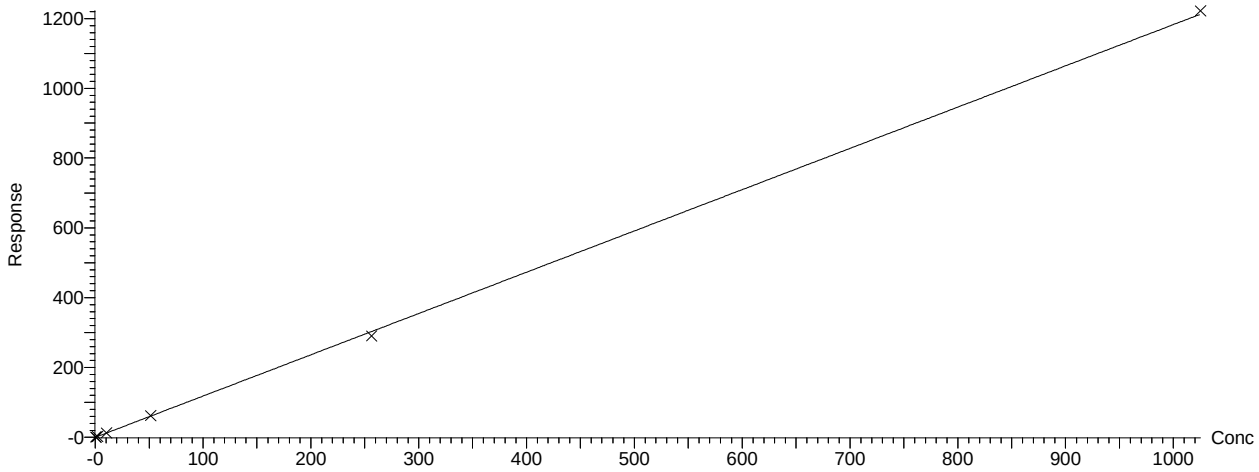
Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_097-A1.qld

Last Altered: Tuesday, March 12, 2019 17:19:00 Pacific Daylight Time
Printed: Wednesday, March 13, 2019 09:12:29 Pacific Daylight Time

**Compound name: PFBS-2**

| # | ID | Name | Type | RT | Area | IS Area | Std. Conc | RRF | Conc. | %Rec | S/N | Acq.Date | Acq.Time | Flags |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2 | FC027B-CAL,, /01 | FC9W_097S12 | Standard | 4.89 | 137 | 2626 | 0.410 | 1.269 | 0.395 | 96.3 | 63 | 08-Mar-19 | 16:13:44 | MM |
| 3 | FC027C-CAL,, /01 | FC9W_097S13 | Standard | 4.89 | 226 | 2520 | 0.820 | 1.092 | 0.712 | 86.9 | 222 | 08-Mar-19 | 16:27:06 | db |
| 4 | FC027D-CAL,, /01 | FC9W_097S14 | Standard | 4.88 | 680 | 2490 | 2.050 | 1.333 | 2.266 | 110.5 | 149 | 08-Mar-19 | 16:40:24 | bb |
| 5 | FC027E-CAL,, /01 | FC9W_097S15 | Standard | 4.88 | 3418 | 2629 | 10.250 | 1.269 | 10.949 | 106.8 | 604 | 08-Mar-19 | 16:53:43 | bb |
| 6 | FC027F-CAL,, /01 | FC9W_097S16 | Standard | 4.89 | 15239 | 2445 | 51.250 | 1.216 | 52.655 | 102.7 | 6312 | 08-Mar-19 | 18:12:07 | bb |
| 7 | FC027G-CAL,, /01 | FC9W_097S17 | Standard | 4.88 | 61530 | 2115 | 256.250 | 1.135 | 245.869 | 95.9 | 3105 | 08-Mar-19 | 18:25:24 | bb |
| 8 | FC027H-CAL,, /01 | FC9W_097S18 | Standard | 4.88 | 158117 | 1294 | 1025.000 | 1.192 | 1033.1... | 100.8 | 12127 | 08-Mar-19 | 18:38:44 | bb |

Compound name: PFBS-2
Correlation coefficient: r = 0.999772, r^2 = 0.999544
Calibration curve: 1.1828 * x + 0.0530592
Response type: Internal Std ( Ref 76 ), Area * ( IS Conc. / IS Area )
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None




PVed by GW, SVed by hh 13-Mar-19. NOTE: Unit=ng based on 4 mL extract

**Quantify Compound Summary Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

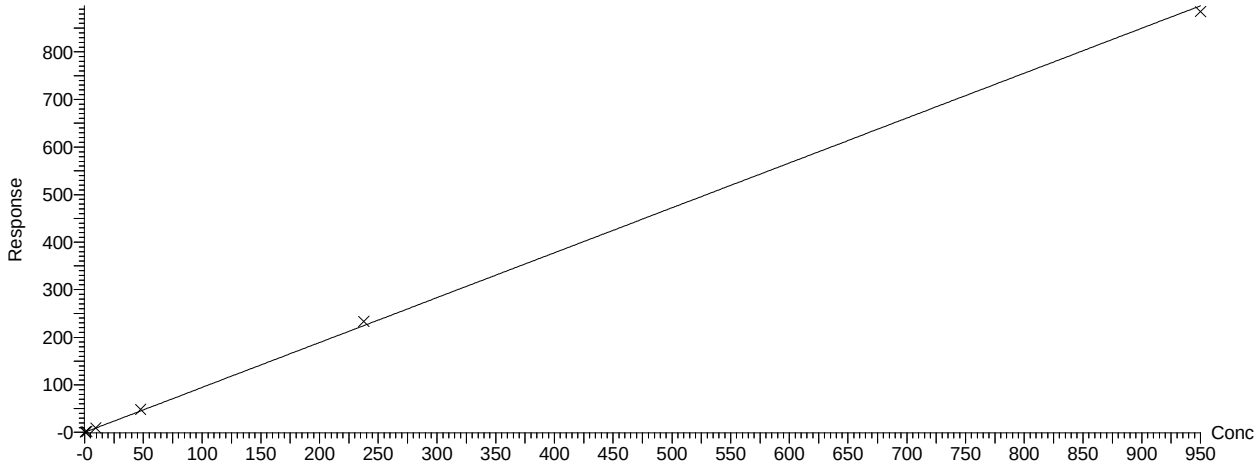
Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_097-A1.qld

Last Altered: Tuesday, March 12, 2019 17:19:00 Pacific Daylight Time
Printed: Wednesday, March 13, 2019 09:12:29 Pacific Daylight Time

**Compound name: PFPeS-1**

| # | ID | Name | Type | RT | Area | IS Area | Std. Conc | RRF | Conc. | %Rec | S/N | Acq.Date | Acq.Time | Flags |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2 | FC027B-CAL,, /01 | FC9W_097S12 | Standard | 5.57 | 172 | 4209 | 0.380 | 1.075 | 0.351 | 92.3 | 44 | 08-Mar-19 | 16:13:44 | MM |
| 3 | FC027C-CAL,, /01 | FC9W_097S13 | Standard | 5.57 | 322 | 4389 | 0.760 | 0.964 | 0.694 | 91.3 | 155 | 08-Mar-19 | 16:27:06 | bb |
| 4 | FC027D-CAL,, /01 | FC9W_097S14 | Standard | 5.56 | 853 | 4359 | 1.900 | 1.030 | 1.991 | 104.8 | 219 | 08-Mar-19 | 16:40:24 | bb |
| 5 | FC027E-CAL,, /01 | FC9W_097S15 | Standard | 5.56 | 4125 | 4457 | 9.500 | 0.974 | 9.722 | 102.3 | 51 | 08-Mar-19 | 16:53:43 | bb |
| 6 | FC027F-CAL,, /01 | FC9W_097S16 | Standard | 5.57 | 20399 | 4259 | 47.500 | 1.008 | 50.649 | 106.6 | 5327 | 08-Mar-19 | 18:12:07 | bb |
| 7 | FC027G-CAL,, /01 | FC9W_097S17 | Standard | 5.56 | 93246 | 3998 | 237.500 | 0.982 | 246.991 | 104.0 | 5677 | 08-Mar-19 | 18:25:24 | bb |
| 8 | FC027H-CAL,, /01 | FC9W_097S18 | Standard | 5.56 | 256379 | 2898 | 950.000 | 0.931 | 937.143 | 98.6 | 11176 | 08-Mar-19 | 18:38:44 | bb |

Compound name: PFPeS-1
Correlation coefficient: r = 0.999685, r^2 = 0.999370
Calibration curve: 0.944089 * x + 0.0772907
Response type: Internal Std ( Ref 77 ), Area * ( IS Conc. / IS Area )
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None




PVed by GW, SVed by hh 13-Mar-19. NOTE: Unit=ng based on 4 mL extract

**Quantify Compound Summary Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

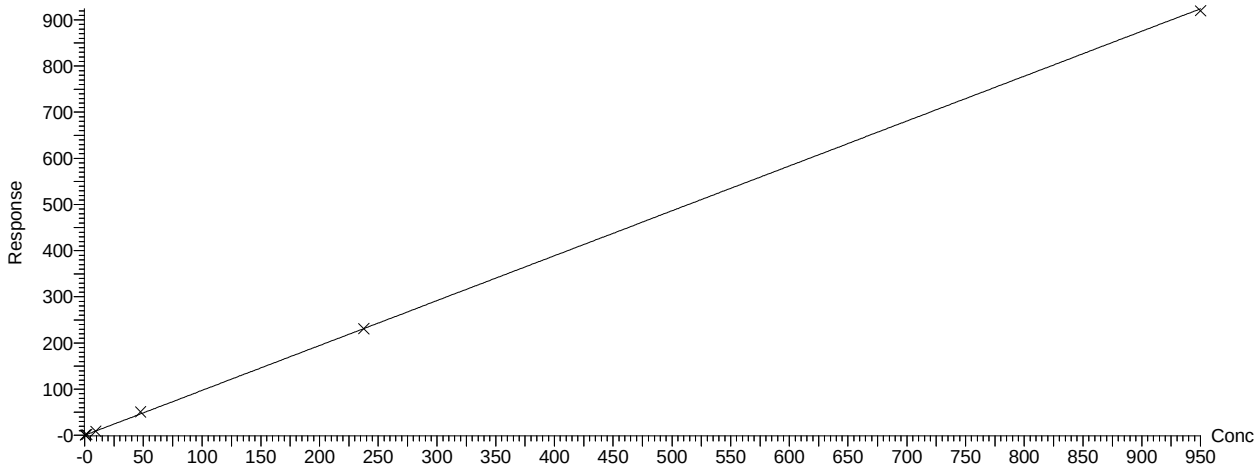
Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_097-A1.qld

Last Altered: Tuesday, March 12, 2019 17:19:00 Pacific Daylight Time
Printed: Wednesday, March 13, 2019 09:12:29 Pacific Daylight Time

**Compound name: PFPeS-2**

| # | ID | Name | Type | RT | Area | IS Area | Std. Conc | RRF | Conc. | %Rec | S/N | Acq.Date | Acq.Time | Flags |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2 | FC027B-CAL,, /01 | FC9W_097S12 | Standard | 5.56 | 128 | 2315 | 0.380 | 1.456 | 0.389 | 102.2 | 34 | 08-Mar-19 | 16:13:44 | MM |
| 3 | FC027C-CAL,, /01 | FC9W_097S13 | Standard | 5.57 | 198 | 2419 | 0.760 | 1.075 | 0.659 | 86.8 | 52 | 08-Mar-19 | 16:27:06 | MM |
| 4 | FC027D-CAL,, /01 | FC9W_097S14 | Standard | 5.56 | 500 | 2381 | 1.900 | 1.105 | 1.979 | 104.2 | 210 | 08-Mar-19 | 16:40:24 | bb |
| 5 | FC027E-CAL,, /01 | FC9W_097S15 | Standard | 5.56 | 2403 | 2603 | 9.500 | 0.972 | 9.312 | 98.0 | 413 | 08-Mar-19 | 16:53:43 | bb |
| 6 | FC027F-CAL,, /01 | FC9W_097S16 | Standard | 5.57 | 11770 | 2323 | 47.500 | 1.067 | 51.923 | 109.3 | 761 | 08-Mar-19 | 18:12:07 | bb |
| 7 | FC027G-CAL,, /01 | FC9W_097S17 | Standard | 5.56 | 53032 | 2295 | 237.500 | 0.973 | 237.383 | 100.0 | 14409 | 08-Mar-19 | 18:25:24 | bb |
| 8 | FC027H-CAL,, /01 | FC9W_097S18 | Standard | 5.55 | 146141 | 1588 | 950.000 | 0.969 | 945.895 | 99.6 | 10000 | 08-Mar-19 | 18:38:44 | MM |

Compound name: PFPeS-2
Correlation coefficient: r = 0.999818, r^2 = 0.999636
Calibration curve: 0.972527 * x + 0.175516
Response type: Internal Std ( Ref 78 ), Area * ( IS Conc. / IS Area )
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None




PVed by GW, SVed by hh 13-Mar-19. NOTE: Unit=ng based on 4 mL extract

**Quantify Compound Summary Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

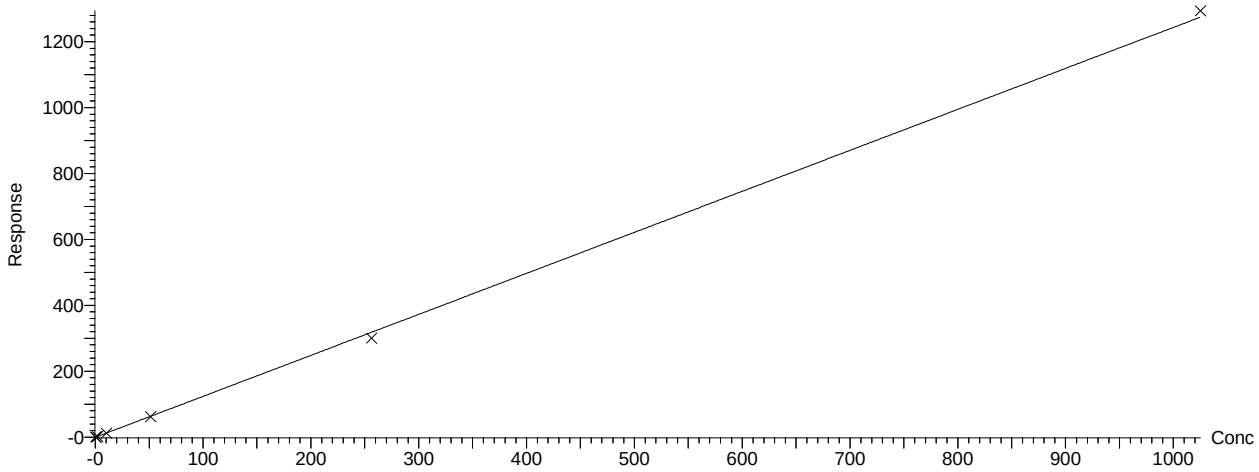
Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_097-A1.qld

Last Altered: Tuesday, March 12, 2019 17:19:00 Pacific Daylight Time
Printed: Wednesday, March 13, 2019 09:12:29 Pacific Daylight Time

**Compound name: PFHxS-1**

| # | ID | Name | Type | RT | Area | IS Area | Std. Conc | RRF | Conc. | %Rec | S/N | Acq.Date | Acq.Time | Flags |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2 | FC027B-CAL,, /01 | FC9W_097S12 | Standard | 6.53 | 190 | 4209 | 0.410 | 1.101 | 0.476 | 116.1 | 75 | 08-Mar-19 | 16:13:44 | MM |
| 3 | FC027C-CAL,, /01 | FC9W_097S13 | Standard | 6.52 | 351 | 4389 | 0.820 | 0.974 | 0.755 | 92.1 | 284 | 08-Mar-19 | 16:27:06 | MM |
| 4 | FC027D-CAL,, /01 | FC9W_097S14 | Standard | 6.51 | 1043 | 4359 | 2.050 | 1.168 | 2.037 | 99.4 | 58 | 08-Mar-19 | 16:40:24 | MM |
| 5 | FC027E-CAL,, /01 | FC9W_097S15 | Standard | 6.51 | 5487 | 4457 | 10.250 | 1.201 | 10.008 | 97.6 | 215 | 08-Mar-19 | 16:53:43 | MM |
| 6 | FC027F-CAL,, /01 | FC9W_097S16 | Standard | 6.52 | 26797 | 4259 | 51.250 | 1.228 | 50.686 | 98.9 | 4834 | 08-Mar-19 | 18:12:07 | MM |
| 7 | FC027G-CAL,, /01 | FC9W_097S17 | Standard | 6.51 | 120182 | 3998 | 256.250 | 1.173 | 241.768 | 94.3 | 10001 | 08-Mar-19 | 18:25:24 | MM |
| 8 | FC027H-CAL,, /01 | FC9W_097S18 | Standard | 6.51 | 374965 | 2898 | 1025.000 | 1.263 | 1040.2... | 101.5 | 12028 | 08-Mar-19 | 18:38:44 | MM |

Compound name: PFHxS-1
Correlation coefficient: r = 0.999598, r^2 = 0.999195
Calibration curve: 1.2441 * x + -0.140908
Response type: Internal Std ( Ref 77 ), Area * ( IS Conc. / IS Area )
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None




PVed by GW, SVed by hh 13-Mar-19. NOTE: Unit=ng based on 4 mL extract

**Quantify Compound Summary Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

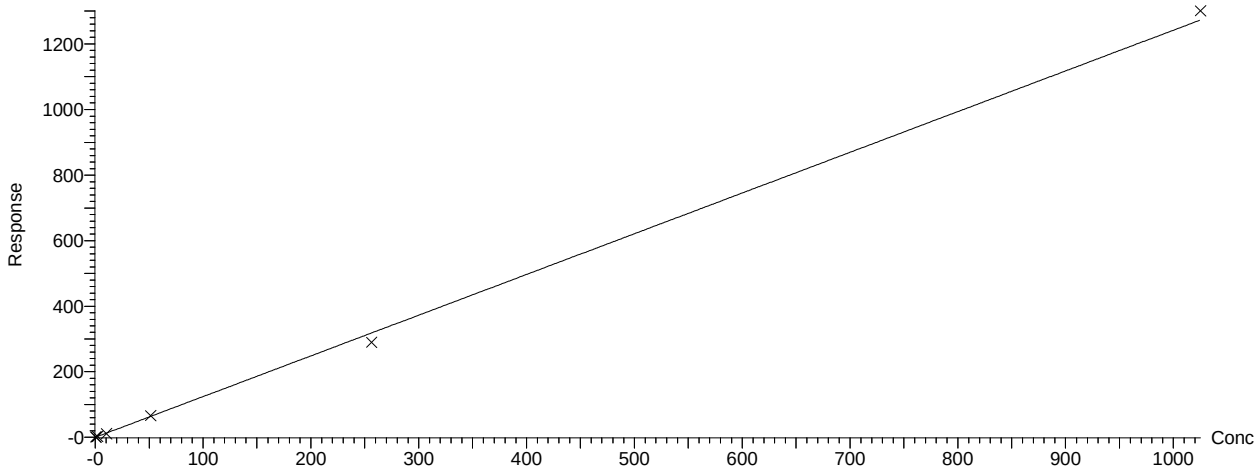
Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_097-A1.qld

Last Altered: Tuesday, March 12, 2019 17:19:00 Pacific Daylight Time
Printed: Wednesday, March 13, 2019 09:12:29 Pacific Daylight Time

**Compound name: PFHxS-2**

| # | ID | Name | Type | RT | Area | IS Area | Std. Conc | RRF | Conc. | %Rec | S/N | Acq.Date | Acq.Time | Flags |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2 | FC027B-CAL,, /01 | FC9W_097S12 | Standard | 6.52 | 139 | 2315 | 0.410 | 1.467 | 0.412 | 100.6 | 32 | 08-Mar-19 | 16:13:44 | MM |
| 3 | FC027C-CAL,, /01 | FC9W_097S13 | Standard | 6.52 | 294 | 2419 | 0.820 | 1.484 | 0.908 | 110.7 | 42 | 08-Mar-19 | 16:27:06 | MM |
| 4 | FC027D-CAL,, /01 | FC9W_097S14 | Standard | 6.51 | 646 | 2381 | 2.050 | 1.324 | 2.113 | 103.1 | 33 | 08-Mar-19 | 16:40:24 | MM |
| 5 | FC027E-CAL,, /01 | FC9W_097S15 | Standard | 6.51 | 2970 | 2603 | 10.250 | 1.113 | 9.115 | 88.9 | 382 | 08-Mar-19 | 16:53:43 | MM |
| 6 | FC027F-CAL,, /01 | FC9W_097S16 | Standard | 6.52 | 15340 | 2323 | 51.250 | 1.289 | 53.098 | 103.6 | 1452 | 08-Mar-19 | 18:12:07 | MM |
| 7 | FC027G-CAL,, /01 | FC9W_097S17 | Standard | 6.51 | 66420 | 2295 | 256.250 | 1.129 | 232.878 | 90.9 | 7290 | 08-Mar-19 | 18:25:24 | MM |
| 8 | FC027H-CAL,, /01 | FC9W_097S18 | Standard | 6.51 | 206684 | 1588 | 1025.000 | 1.270 | 1047.5... | 102.2 | 2938 | 08-Mar-19 | 18:38:44 | MM |

Compound name: PFHxS-2
Correlation coefficient: r = 0.998942, r^2 = 0.997884
Calibration curve: 1.24216 * x + 0.0893186
Response type: Internal Std ( Ref 78 ), Area * ( IS Conc. / IS Area )
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None




PVed by GW, SVed by hh 13-Mar-19. NOTE: Unit=ng based on 4 mL extract

**Quantify Compound Summary Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

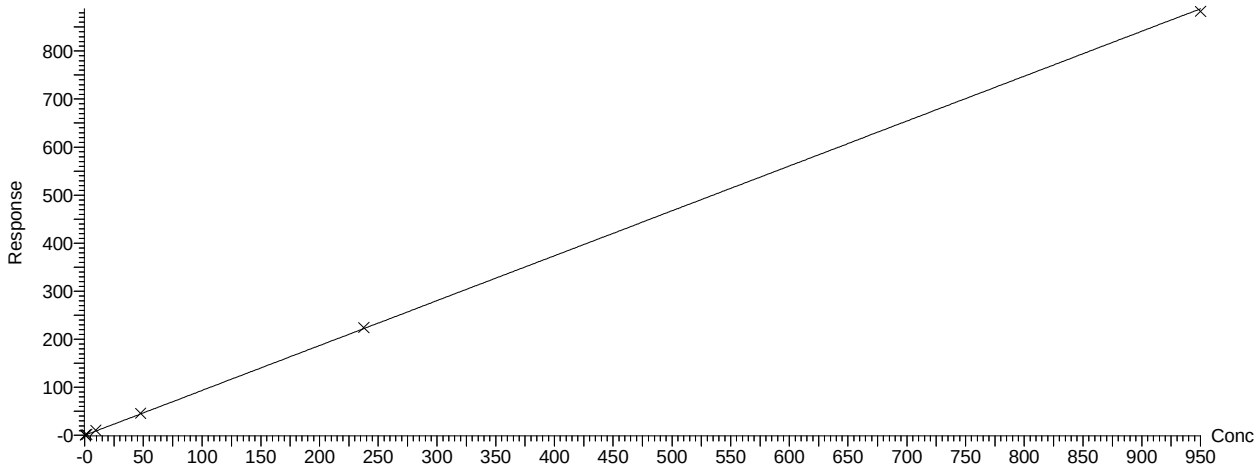
Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_097-A1.qld

Last Altered: Tuesday, March 12, 2019 17:19:00 Pacific Daylight Time
Printed: Wednesday, March 13, 2019 09:12:29 Pacific Daylight Time

**Compound name: PFHpS-1**

| # | ID | Name | Type | RT | Area | IS Area | Std. Conc | RRF | Conc. | %Rec | S/N | Acq.Date | Acq.Time | Flags |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2 | FC027B-CAL,, /01 | FC9W_097S12 | Standard | 7.24 | 152 | 4010 | 0.380 | 0.999 | 0.307 | 80.7 | 505 | 08-Mar-19 | 16:13:44 | MM |
| 3 | FC027C-CAL,, /01 | FC9W_097S13 | Standard | 7.24 | 334 | 4202 | 0.760 | 1.046 | 0.751 | 98.9 | 936 | 08-Mar-19 | 16:27:06 | bb |
| 4 | FC027D-CAL,, /01 | FC9W_097S14 | Standard | 7.23 | 815 | 4353 | 1.900 | 0.985 | 1.903 | 100.1 | 2142 | 08-Mar-19 | 16:40:24 | bb |
| 5 | FC027E-CAL,, /01 | FC9W_097S15 | Standard | 7.23 | 4097 | 3918 | 9.500 | 1.101 | 11.091 | 116.7 | 18916 | 08-Mar-19 | 16:53:43 | MM |
| 6 | FC027F-CAL,, /01 | FC9W_097S16 | Standard | 7.24 | 18624 | 4063 | 47.500 | 0.965 | 48.949 | 103.1 | 2729 | 08-Mar-19 | 18:12:07 | MM |
| 7 | FC027G-CAL,, /01 | FC9W_097S17 | Standard | 7.23 | 84117 | 3748 | 237.500 | 0.945 | 240.022 | 101.1 | 11195 | 08-Mar-19 | 18:25:24 | MM |
| 8 | FC027H-CAL,, /01 | FC9W_097S18 | Standard | 7.23 | 237774 | 2693 | 950.000 | 0.929 | 944.517 | 99.4 | 7735 | 08-Mar-19 | 18:38:44 | MM |

Compound name: PFHpS-1
Correlation coefficient: r = 0.999845, r^2 = 0.999690
Calibration curve: 0.934599 * x + 0.0929325
Response type: Internal Std ( Ref 79 ), Area * ( IS Conc. / IS Area )
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None




PVed by GW, SVed by hh 13-Mar-19. NOTE: Unit=ng based on 4 mL extract

**Quantify Compound Summary Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

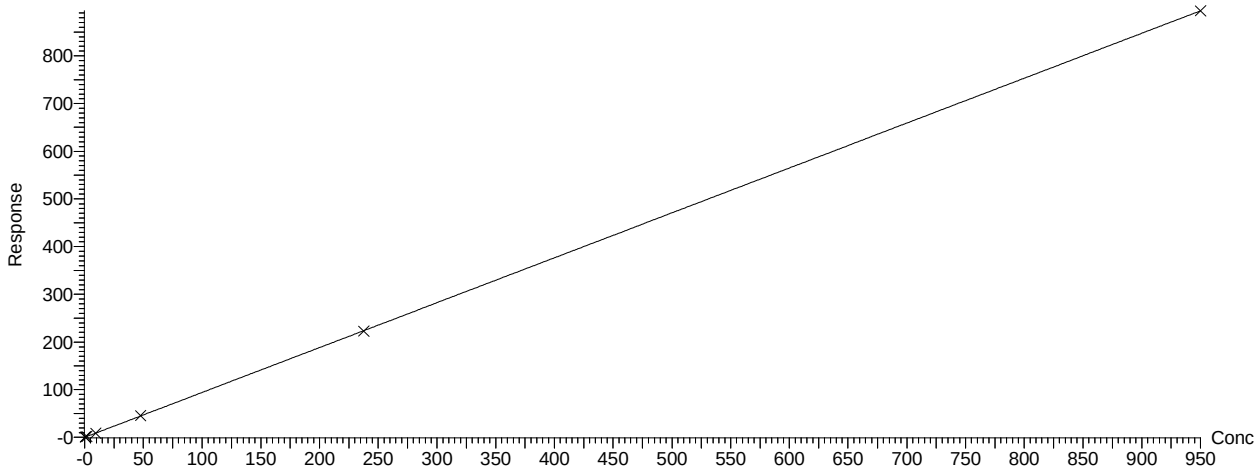
Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_097-A1.qld

Last Altered: Tuesday, March 12, 2019 17:19:00 Pacific Daylight Time
Printed: Wednesday, March 13, 2019 09:12:29 Pacific Daylight Time

**Compound name: PFHpS-2**

| # | ID | Name | Type | RT | Area | IS Area | Std. Conc | RRF | Conc. | %Rec | S/N | Acq.Date | Acq.Time | Flags |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2 | FC027B-CAL,, /01 | FC9W_097S12 | Standard | 7.25 | 88 | 2500 | 0.380 | 0.928 | 0.382 | 100.5 | 102 | 08-Mar-19 | 16:13:44 | db |
| 3 | FC027C-CAL,, /01 | FC9W_097S13 | Standard | 7.24 | 175 | 2542 | 0.760 | 0.904 | 0.737 | 97.0 | 305 | 08-Mar-19 | 16:27:06 | MM |
| 4 | FC027D-CAL,, /01 | FC9W_097S14 | Standard | 7.23 | 484 | 2672 | 1.900 | 0.953 | 1.932 | 101.7 | 184 | 08-Mar-19 | 16:40:24 | bb |
| 5 | FC027E-CAL,, /01 | FC9W_097S15 | Standard | 7.23 | 2404 | 2728 | 9.500 | 0.928 | 9.370 | 98.6 | 808 | 08-Mar-19 | 16:53:43 | bb |
| 6 | FC027F-CAL,, /01 | FC9W_097S16 | Standard | 7.24 | 11435 | 2490 | 47.500 | 0.967 | 48.776 | 102.7 | 2485 | 08-Mar-19 | 18:12:07 | bb |
| 7 | FC027G-CAL,, /01 | FC9W_097S17 | Standard | 7.23 | 52978 | 2381 | 237.500 | 0.937 | 236.280 | 99.5 | 2922 | 08-Mar-19 | 18:25:24 | bb |
| 8 | FC027H-CAL,, /01 | FC9W_097S18 | Standard | 7.23 | 144439 | 1615 | 950.000 | 0.942 | 950.063 | 100.0 | 6380 | 08-Mar-19 | 18:38:44 | bb |

Compound name: PFHpS-2
Correlation coefficient: r = 0.999982, r^2 = 0.999965
Calibration curve: 0.941575 * x + -0.00716369
Response type: Internal Std ( Ref 80 ), Area * ( IS Conc. / IS Area )
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None




PVed by GW, SVed by hh 13-Mar-19. NOTE: Unit=ng based on 4 mL extract

**Quantify Compound Summary Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

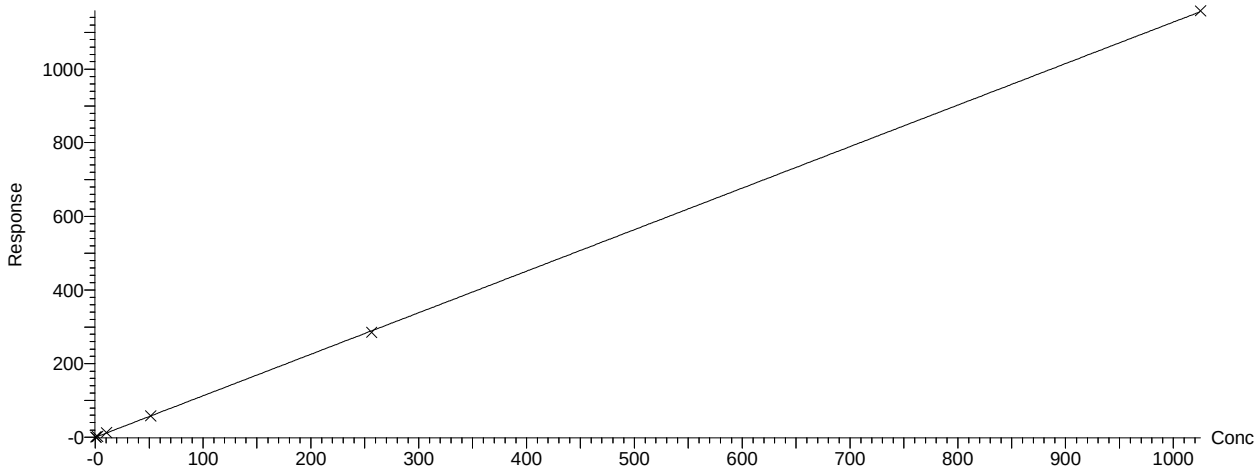
Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_097-A1.qld

Last Altered: Tuesday, March 12, 2019 17:19:00 Pacific Daylight Time
Printed: Wednesday, March 13, 2019 09:12:29 Pacific Daylight Time

**Compound name: PFOS-1**

| # | ID | Name | Type | RT | Area | IS Area | Std. Conc | RRF | Conc. | %Rec | S/N | Acq.Date | Acq.Time | Flags |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2 | FC027B-CAL,, /01 | FC9W_097S12 | Standard | 7.64 | 222 | 4010 | 0.410 | 1.349 | 0.387 | 94.3 | 302 | 08-Mar-19 | 16:13:44 | MM |
| 3 | FC027C-CAL,, /01 | FC9W_097S13 | Standard | 7.64 | 404 | 4202 | 0.820 | 1.173 | 0.749 | 91.4 | 278 | 08-Mar-19 | 16:27:06 | MM |
| 4 | FC027D-CAL,, /01 | FC9W_097S14 | Standard | 7.63 | 1078 | 4353 | 2.050 | 1.208 | 2.091 | 102.0 | 2070 | 08-Mar-19 | 16:40:24 | MM |
| 5 | FC027E-CAL,, /01 | FC9W_097S15 | Standard | 7.63 | 5174 | 3918 | 10.250 | 1.289 | 11.606 | 113.2 | 3309 | 08-Mar-19 | 16:53:43 | MM |
| 6 | FC027F-CAL,, /01 | FC9W_097S16 | Standard | 7.63 | 23586 | 4063 | 51.250 | 1.133 | 51.367 | 100.2 | 23790 | 08-Mar-19 | 18:12:07 | MM |
| 7 | FC027G-CAL,, /01 | FC9W_097S17 | Standard | 7.63 | 106955 | 3748 | 256.250 | 1.114 | 252.885 | 98.7 | 3368 | 08-Mar-19 | 18:25:24 | MM |
| 8 | FC027H-CAL,, /01 | FC9W_097S18 | Standard | 7.63 | 311996 | 2693 | 1025.000 | 1.130 | 1026.9... | 100.2 | 12951 | 08-Mar-19 | 18:38:44 | MM |

Compound name: PFOS-1
Correlation coefficient: r = 0.999912, r^2 = 0.999823
Calibration curve: 1.12791 * x + 0.116982
Response type: Internal Std ( Ref 79 ), Area * ( IS Conc. / IS Area )
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None




PVed by GW, SVed by hh 13-Mar-19. NOTE: Unit=ng based on 4 mL extract

**Quantify Compound Summary Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

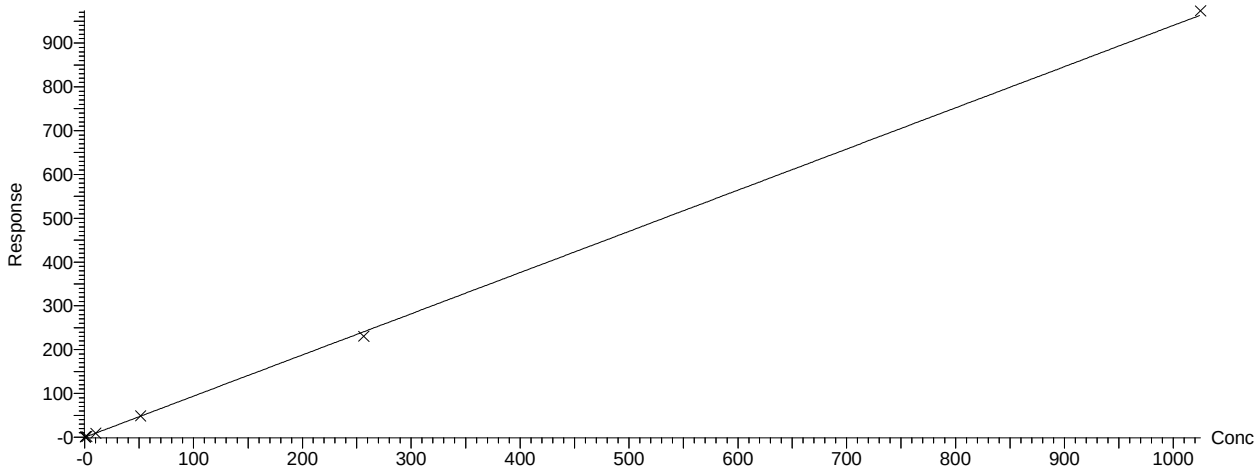
Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_097-A1.qld

Last Altered: Tuesday, March 12, 2019 17:19:00 Pacific Daylight Time
Printed: Wednesday, March 13, 2019 09:12:29 Pacific Daylight Time

**Compound name: PFOS-2**

| # | ID | Name | Type | RT | Area | IS Area | Std. Conc | RRF | Conc. | %Rec | S/N | Acq.Date | Acq.Time | Flags |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2 | FC027B-CAL,, /01 | FC9W_097S12 | Standard | 7.63 | 102 | 2500 | 0.410 | 1.000 | 0.339 | 82.7 | 13 | 08-Mar-19 | 16:13:44 | MM |
| 3 | FC027C-CAL,, /01 | FC9W_097S13 | Standard | 7.64 | 265 | 2542 | 0.820 | 1.270 | 1.011 | 123.3 | 42 | 08-Mar-19 | 16:27:06 | MM |
| 4 | FC027D-CAL,, /01 | FC9W_097S14 | Standard | 7.63 | 533 | 2672 | 2.050 | 0.974 | 2.027 | 98.9 | 106 | 08-Mar-19 | 16:40:24 | MM |
| 5 | FC027E-CAL,, /01 | FC9W_097S15 | Standard | 7.63 | 2572 | 2728 | 10.250 | 0.920 | 9.937 | 96.9 | 408 | 08-Mar-19 | 16:53:43 | MM |
| 6 | FC027F-CAL,, /01 | FC9W_097S16 | Standard | 7.63 | 12190 | 2490 | 51.250 | 0.955 | 51.985 | 101.4 | 994 | 08-Mar-19 | 18:12:07 | MM |
| 7 | FC027G-CAL,, /01 | FC9W_097S17 | Standard | 7.63 | 54896 | 2381 | 256.250 | 0.900 | 245.165 | 95.7 | 3661 | 08-Mar-19 | 18:25:24 | MM |
| 8 | FC027H-CAL,, /01 | FC9W_097S18 | Standard | 7.63 | 157173 | 1615 | 1025.000 | 0.950 | 1035.5... | 101.0 | 10988 | 08-Mar-19 | 18:38:44 | MM |

Compound name: PFOS-2
Correlation coefficient: r = 0.999751, r^2 = 0.999502
Calibration curve: 0.939896 * x + 0.0910854
Response type: Internal Std ( Ref 80 ), Area * ( IS Conc. / IS Area )
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None




PVed by GW, SVed by hh 13-Mar-19. NOTE: Unit=ng based on 4 mL extract

**Quantify Compound Summary Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

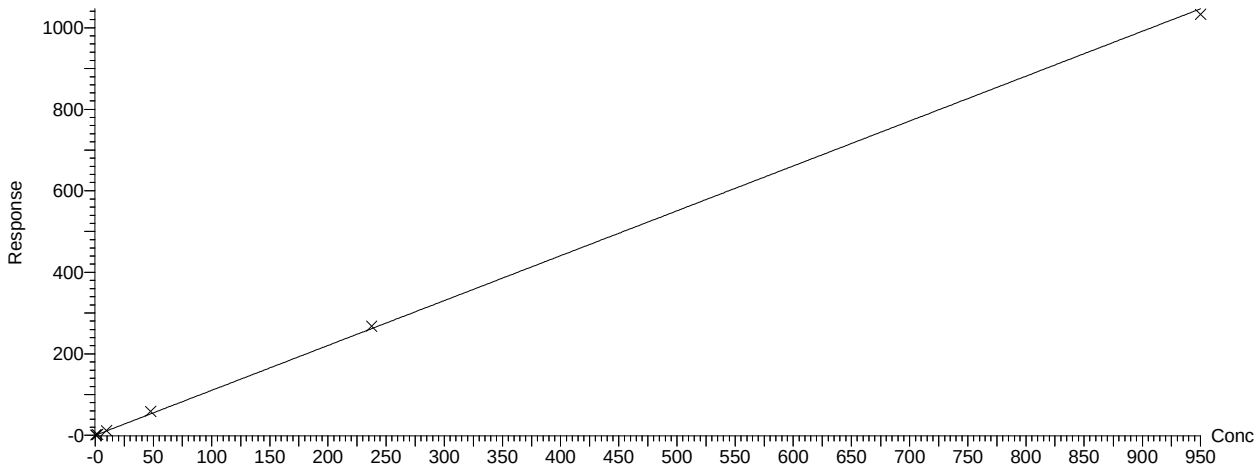
Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_097-A1.qld

Last Altered: Tuesday, March 12, 2019 17:19:00 Pacific Daylight Time
Printed: Wednesday, March 13, 2019 09:12:29 Pacific Daylight Time

**Compound name: PFNS-1**

| # | ID | Name | Type | RT | Area | IS Area | Std. Conc | RRF | Conc. | %Rec | S/N | Acq.Date | Acq.Time | Flags |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2 | FC027B-CAL,, /01 | FC9W_097S12 | Standard | 7.96 | 204 | 4010 | 0.380 | 1.338 | 0.285 | 75.1 | 591 | 08-Mar-19 | 16:13:44 | MM |
| 3 | FC027C-CAL,, /01 | FC9W_097S13 | Standard | 7.95 | 470 | 4202 | 0.760 | 1.470 | 0.838 | 110.3 | 949 | 08-Mar-19 | 16:27:06 | MM |
| 4 | FC027D-CAL,, /01 | FC9W_097S14 | Standard | 7.95 | 924 | 4353 | 1.900 | 1.117 | 1.751 | 92.2 | 4195 | 08-Mar-19 | 16:40:24 | MM |
| 5 | FC027E-CAL,, /01 | FC9W_097S15 | Standard | 7.94 | 4564 | 3918 | 9.500 | 1.226 | 10.400 | 109.5 | 15315 | 08-Mar-19 | 16:53:43 | MM |
| 6 | FC027F-CAL,, /01 | FC9W_097S16 | Standard | 7.95 | 23850 | 4063 | 47.500 | 1.236 | 53.125 | 111.8 | 10124 | 08-Mar-19 | 18:12:07 | MM |
| 7 | FC027G-CAL,, /01 | FC9W_097S17 | Standard | 7.95 | 100551 | 3748 | 237.500 | 1.130 | 243.409 | 102.5 | 36150 | 08-Mar-19 | 18:25:24 | bb |
| 8 | FC027H-CAL,, /01 | FC9W_097S18 | Standard | 7.94 | 278199 | 2693 | 950.000 | 1.087 | 937.732 | 98.7 | 10187 | 08-Mar-19 | 18:38:44 | MM |

Compound name: PFNS-1
Correlation coefficient: r = 0.999556, r^2 = 0.999111
Calibration curve: 1.10131 * x + 0.19439
Response type: Internal Std ( Ref 79 ), Area * ( IS Conc. / IS Area )
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None




PVed by GW, SVed by hh 13-Mar-19. NOTE: Unit=ng based on 4 mL extract

**Quantify Compound Summary Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

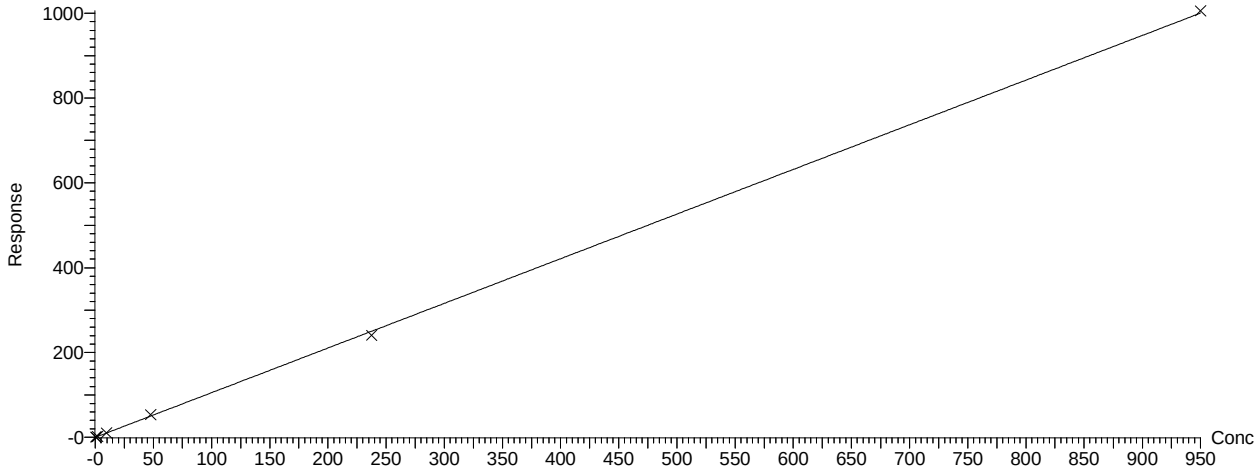
Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_097-A1.qld

Last Altered: Tuesday, March 12, 2019 17:19:00 Pacific Daylight Time
Printed: Wednesday, March 13, 2019 09:12:29 Pacific Daylight Time

**Compound name: PFNS-2**

| # | ID | Name | Type | RT | Area | IS Area | Std. Conc | RRF | Conc. | %Rec | S/N | Acq.Date | Acq.Time | Flags |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2 | FC027B-CAL,, /01 | FC9W_097S12 | Standard | 7.96 | 97 | 2500 | 0.380 | 1.019 | 0.334 | 87.8 | 256 | 08-Mar-19 | 16:13:44 | MM |
| 3 | FC027C-CAL,, /01 | FC9W_097S13 | Standard | 7.95 | 205 | 2542 | 0.760 | 1.061 | 0.732 | 96.3 | 435 | 08-Mar-19 | 16:27:06 | db |
| 4 | FC027D-CAL,, /01 | FC9W_097S14 | Standard | 7.95 | 584 | 2672 | 1.900 | 1.151 | 2.042 | 107.5 | 927 | 08-Mar-19 | 16:40:24 | bb |
| 5 | FC027E-CAL,, /01 | FC9W_097S15 | Standard | 7.94 | 2867 | 2728 | 9.500 | 1.106 | 9.947 | 104.7 | 414 | 08-Mar-19 | 16:53:43 | bb |
| 6 | FC027F-CAL,, /01 | FC9W_097S16 | Standard | 7.95 | 13328 | 2490 | 47.500 | 1.127 | 50.790 | 106.9 | 1899 | 08-Mar-19 | 18:12:07 | bb |
| 7 | FC027G-CAL,, /01 | FC9W_097S17 | Standard | 7.95 | 57320 | 2381 | 237.500 | 1.013 | 228.548 | 96.2 | 5511 | 08-Mar-19 | 18:25:24 | bb |
| 8 | FC027H-CAL,, /01 | FC9W_097S18 | Standard | 7.94 | 162406 | 1615 | 950.000 | 1.059 | 955.147 | 100.5 | 7691 | 08-Mar-19 | 18:38:44 | MM |

Compound name: PFNS-2
Correlation coefficient: r = 0.999745, r^2 = 0.999490
Calibration curve: 1.05301 * x + 0.0356483
Response type: Internal Std ( Ref 80 ), Area * ( IS Conc. / IS Area )
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None




PVed by GW, SVed by hh 13-Mar-19. NOTE: Unit=ng based on 4 mL extract

**Quantify Compound Summary Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

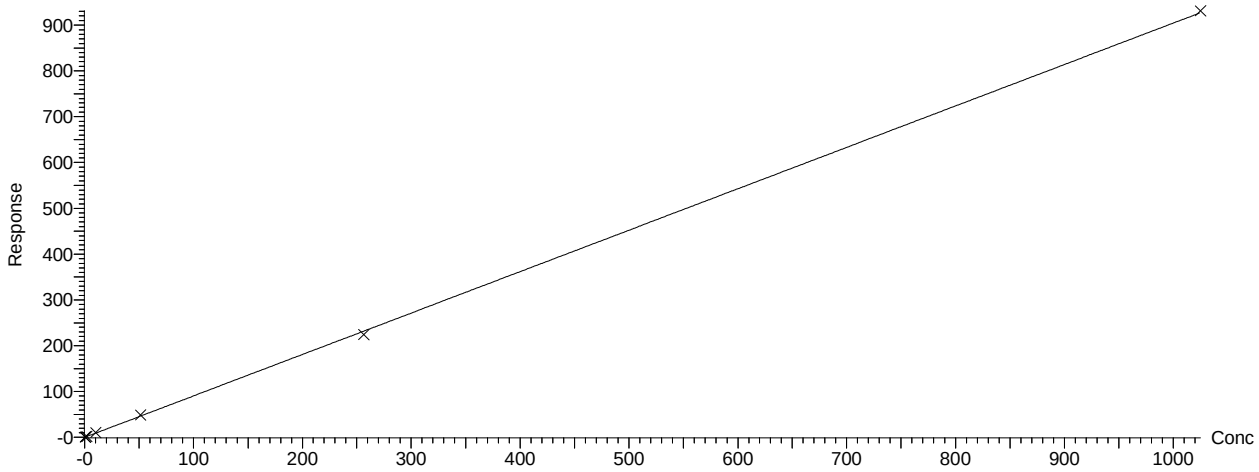
Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_097-A1.qld

Last Altered: Tuesday, March 12, 2019 17:19:00 Pacific Daylight Time
Printed: Wednesday, March 13, 2019 09:12:29 Pacific Daylight Time

**Compound name: PFDS-1**

| # | ID | Name | Type | RT | Area | IS Area | Std. Conc | RRF | Conc. | %Rec | S/N | Acq.Date | Acq.Time | Flags |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2 | FC027B-CAL,, /01 | FC9W_097S12 | Standard | 8.33 | 170 | 4010 | 0.410 | 1.036 | 0.428 | 104.4 | 51 | 08-Mar-19 | 16:13:44 | bb |
| 3 | FC027C-CAL,, /01 | FC9W_097S13 | Standard | 8.34 | 251 | 4202 | 0.820 | 0.727 | 0.618 | 75.3 | 589 | 08-Mar-19 | 16:27:06 | MM |
| 4 | FC027D-CAL,, /01 | FC9W_097S14 | Standard | 8.33 | 901 | 4353 | 2.050 | 1.009 | 2.246 | 109.6 | 649 | 08-Mar-19 | 16:40:24 | MM |
| 5 | FC027E-CAL,, /01 | FC9W_097S15 | Standard | 8.32 | 3943 | 3918 | 10.250 | 0.982 | 11.087 | 108.2 | 9868 | 08-Mar-19 | 16:53:43 | MM |
| 6 | FC027F-CAL,, /01 | FC9W_097S16 | Standard | 8.34 | 19834 | 4063 | 51.250 | 0.953 | 53.937 | 105.2 | 3472 | 08-Mar-19 | 18:12:07 | MM |
| 7 | FC027G-CAL,, /01 | FC9W_097S17 | Standard | 8.33 | 84107 | 3748 | 256.250 | 0.876 | 248.073 | 96.8 | 8983 | 08-Mar-19 | 18:25:24 | MM |
| 8 | FC027H-CAL,, /01 | FC9W_097S18 | Standard | 8.33 | 250810 | 2693 | 1025.000 | 0.909 | 1029.6... | 100.5 | 5960 | 08-Mar-19 | 18:38:44 | MM |

Compound name: PFDS-1
Correlation coefficient: r = 0.999790, r^2 = 0.999580
Calibration curve: 0.904392 * x + 0.0374996
Response type: Internal Std ( Ref 79 ), Area * ( IS Conc. / IS Area )
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None




PVed by GW, SVed by hh 13-Mar-19. NOTE: Unit=ng based on 4 mL extract

**Quantify Compound Summary Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

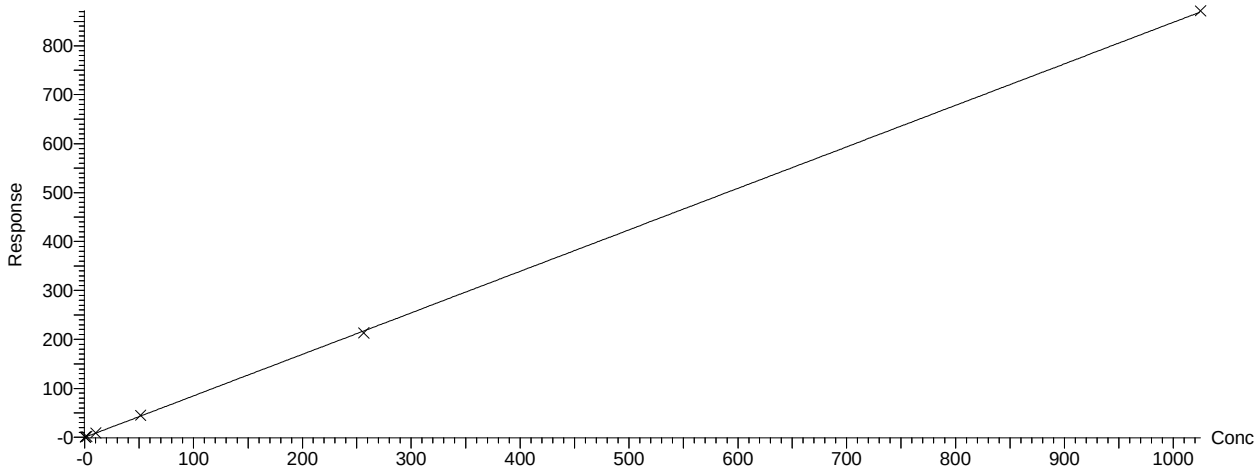
Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_097-A1.qld

Last Altered: Tuesday, March 12, 2019 17:19:00 Pacific Daylight Time
Printed: Wednesday, March 13, 2019 09:12:29 Pacific Daylight Time

**Compound name: PFDS-2**

| # | ID | Name | Type | RT | Area | IS Area | Std. Conc | RRF | Conc. | %Rec | S/N | Acq.Date | Acq.Time | Flags |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2 | FC027B-CAL,, /01 | FC9W_097S12 | Standard | 8.34 | 65 | 2500 | 0.410 | 0.630 | 0.400 | 97.6 | 113 | 08-Mar-19 | 16:13:44 | MM |
| 3 | FC027C-CAL,, /01 | FC9W_097S13 | Standard | 8.33 | 149 | 2542 | 0.820 | 0.716 | 0.788 | 96.1 | 79 | 08-Mar-19 | 16:27:06 | MM |
| 4 | FC027D-CAL,, /01 | FC9W_097S14 | Standard | 8.33 | 452 | 2672 | 2.050 | 0.824 | 2.088 | 101.9 | 128 | 08-Mar-19 | 16:40:24 | MM |
| 5 | FC027E-CAL,, /01 | FC9W_097S15 | Standard | 8.32 | 2414 | 2728 | 10.250 | 0.864 | 10.533 | 102.8 | 1072 | 08-Mar-19 | 16:53:43 | bb |
| 6 | FC027F-CAL,, /01 | FC9W_097S16 | Standard | 8.34 | 11147 | 2490 | 51.250 | 0.873 | 52.879 | 103.2 | 732 | 08-Mar-19 | 18:12:07 | bb |
| 7 | FC027G-CAL,, /01 | FC9W_097S17 | Standard | 8.32 | 50779 | 2381 | 256.250 | 0.832 | 251.548 | 98.2 | 6189 | 08-Mar-19 | 18:25:24 | bb |
| 8 | FC027H-CAL,, /01 | FC9W_097S18 | Standard | 8.33 | 140717 | 1615 | 1025.000 | 0.850 | 1027.7... | 100.3 | 4635 | 08-Mar-19 | 18:38:44 | bb |

Compound name: PFDS-2
Correlation coefficient: r = 0.999942, r^2 = 0.999883
Calibration curve: 0.848008 * x + -0.0812995
Response type: Internal Std ( Ref 80 ), Area * ( IS Conc. / IS Area )
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None




PVed by GW, SVed by hh 13-Mar-19. NOTE: Unit=ng based on 4 mL extract

**Quantify Compound Summary Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

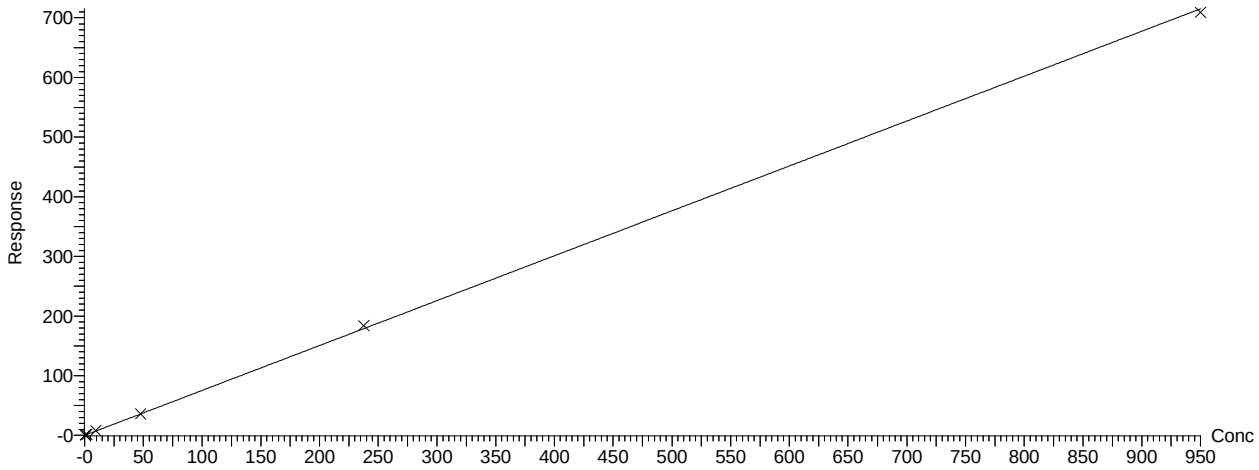
Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_097-A1.qld

Last Altered: Tuesday, March 12, 2019 17:19:00 Pacific Daylight Time
Printed: Wednesday, March 13, 2019 09:12:29 Pacific Daylight Time

**Compound name: PFDoS-1**

| # | ID | Name | Type | RT | Area | IS Area | Std. Conc | RRF | Conc. | %Rec | S/N | Acq.Date | Acq.Time | Flags |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2 | FC027B-CAL,, /01 | FC9W_097S12 | Standard | 9.19 | 134 | 4010 | 0.380 | 0.880 | 0.372 | 98.0 | 395 | 08-Mar-19 | 16:13:44 | MM |
| 3 | FC027C-CAL,, /01 | FC9W_097S13 | Standard | 9.19 | 250 | 4202 | 0.760 | 0.783 | 0.719 | 94.6 | 659 | 08-Mar-19 | 16:27:06 | bb |
| 4 | FC027D-CAL,, /01 | FC9W_097S14 | Standard | 9.18 | 622 | 4353 | 1.900 | 0.753 | 1.828 | 96.2 | 1168 | 08-Mar-19 | 16:40:24 | bb |
| 5 | FC027E-CAL,, /01 | FC9W_097S15 | Standard | 9.18 | 3063 | 3918 | 9.500 | 0.823 | 10.314 | 108.6 | 1649 | 08-Mar-19 | 16:53:43 | bb |
| 6 | FC027F-CAL,, /01 | FC9W_097S16 | Standard | 9.20 | 14615 | 4063 | 47.500 | 0.757 | 47.717 | 100.5 | 2346 | 08-Mar-19 | 18:12:07 | bb |
| 7 | FC027G-CAL,, /01 | FC9W_097S17 | Standard | 9.19 | 69022 | 3748 | 237.500 | 0.775 | 244.564 | 103.0 | 3868 | 08-Mar-19 | 18:25:24 | bb |
| 8 | FC027H-CAL,, /01 | FC9W_097S18 | Standard | 9.18 | 190995 | 2693 | 950.000 | 0.746 | 942.026 | 99.2 | 5427 | 08-Mar-19 | 18:38:44 | bb |

Compound name: PFDoS-1
Correlation coefficient: r = 0.999857, r^2 = 0.999715
Calibration curve: 0.752734 * x + 0.0540283
Response type: Internal Std ( Ref 79 ), Area * ( IS Conc. / IS Area )
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None




PVed by GW, SVed by hh 13-Mar-19. NOTE: Unit=ng based on 4 mL extract

**Quantify Compound Summary Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

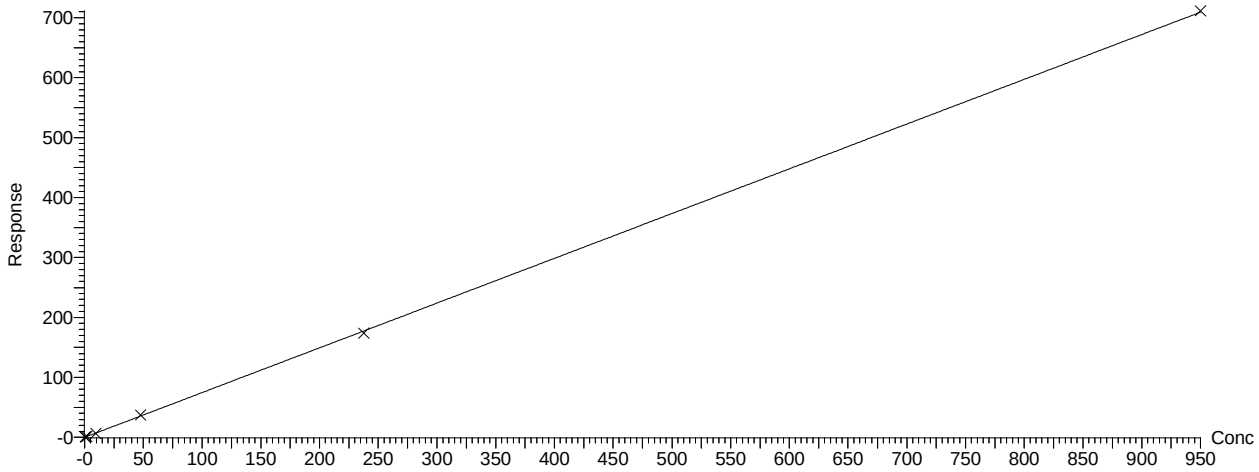
Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_097-A1.qld

Last Altered: Tuesday, March 12, 2019 17:19:00 Pacific Daylight Time
Printed: Wednesday, March 13, 2019 09:12:29 Pacific Daylight Time

**Compound name: PFDoS-2**

| # | ID | Name | Type | RT | Area | IS Area | Std. Conc | RRF | Conc. | %Rec | S/N | Acq.Date | Acq.Time | Flags |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2 | FC027B-CAL,, /01 | FC9W_097S12 | Standard | 9.19 | 87 | 2500 | 0.380 | 0.911 | 0.424 | 111.6 | 176 | 08-Mar-19 | 16:13:44 | MM |
| 3 | FC027C-CAL,, /01 | FC9W_097S13 | Standard | 9.19 | 141 | 2542 | 0.760 | 0.732 | 0.705 | 92.8 | 281 | 08-Mar-19 | 16:27:06 | bb |
| 4 | FC027D-CAL,, /01 | FC9W_097S14 | Standard | 9.19 | 381 | 2672 | 1.900 | 0.749 | 1.868 | 98.3 | 258 | 08-Mar-19 | 16:40:24 | bb |
| 5 | FC027E-CAL,, /01 | FC9W_097S15 | Standard | 9.18 | 1823 | 2728 | 9.500 | 0.704 | 8.914 | 93.8 | 838 | 08-Mar-19 | 16:53:43 | bb |
| 6 | FC027F-CAL,, /01 | FC9W_097S16 | Standard | 9.20 | 9300 | 2490 | 47.500 | 0.786 | 49.980 | 105.2 | 2960 | 08-Mar-19 | 18:12:07 | bb |
| 7 | FC027G-CAL,, /01 | FC9W_097S17 | Standard | 9.18 | 41360 | 2381 | 237.500 | 0.731 | 232.594 | 97.9 | 6598 | 08-Mar-19 | 18:25:24 | bb |
| 8 | FC027H-CAL,, /01 | FC9W_097S18 | Standard | 9.18 | 114894 | 1615 | 950.000 | 0.749 | 953.056 | 100.3 | 11039 | 08-Mar-19 | 18:38:44 | bb |

Compound name: PFDoS-2
Correlation coefficient: r = 0.999884, r^2 = 0.999768
Calibration curve: 0.746589 * x + 0.0296783
Response type: Internal Std ( Ref 80 ), Area * ( IS Conc. / IS Area )
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None




PVed by GW, SVed by hh 13-Mar-19. NOTE: Unit=ng based on 4 mL extract

**Quantify Compound Summary Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

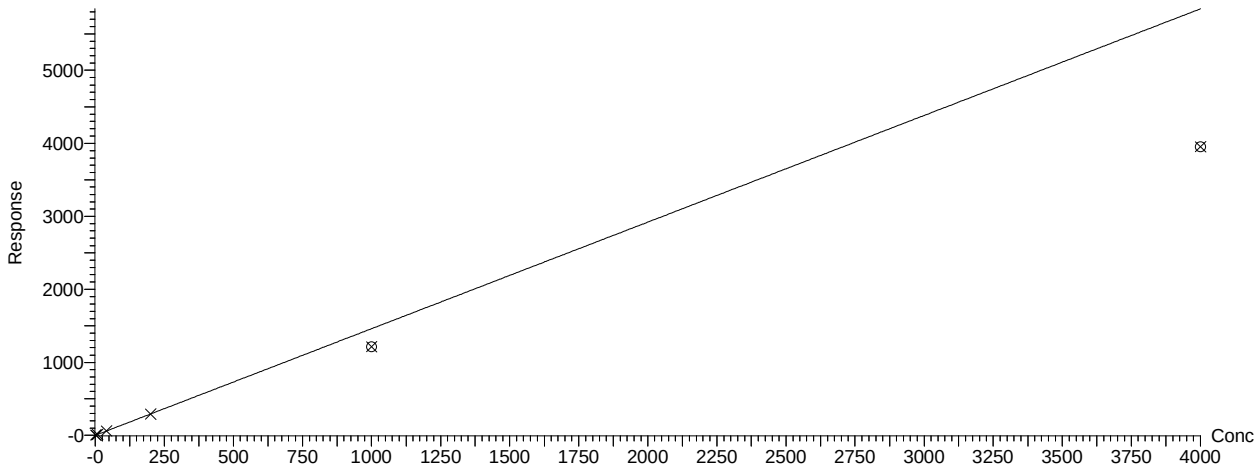
Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_097-A1.qld

Last Altered: Tuesday, March 12, 2019 17:19:00 Pacific Daylight Time
Printed: Wednesday, March 13, 2019 09:12:29 Pacific Daylight Time

**Compound name: 4:2 FTS-1**

| # | ID | Name | Type | RT | Area | IS Area | Std. Conc | RRF | Conc. | %Rec | S/N | Acq.Date | Acq.Time | Flags |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2 | FC027B-CAL,, /01 | FC9W_097S12 | Standard | 4.78 | 460 | 3446 | 1.600 | 1.667 | 1.681 | 105.1 | 1845 | 08-Mar-19 | 16:13:44 | MM |
| 3 | FC027C-CAL,, /01 | FC9W_097S13 | Standard | 4.78 | 774 | 3172 | 3.200 | 1.525 | 3.196 | 99.9 | 1905 | 08-Mar-19 | 16:27:06 | bb |
| 4 | FC027D-CAL,, /01 | FC9W_097S14 | Standard | 4.78 | 1826 | 3307 | 8.000 | 1.380 | 7.413 | 92.7 | 9797 | 08-Mar-19 | 16:40:24 | bb |
| 5 | FC027E-CAL,, /01 | FC9W_097S15 | Standard | 4.77 | 9453 | 3141 | 40.000 | 1.505 | 41.064 | 102.7 | 5564 | 08-Mar-19 | 16:53:43 | MM |
| 6 | FC027F-CAL,, /01 | FC9W_097S16 | Standard | 4.78 | 39994 | 2744 | 200.000 | 1.458 | 199.445 | 99.7 | 6992 | 08-Mar-19 | 18:12:07 | MM |
| 7 | FC027G-CAL,, /01 | FC9W_097S17 | Standard | 4.77 | 131018 | 2158 | 1000.000 | 1.214 | 831.034 | 83.1 | 7260 | 08-Mar-19 | 18:25:24 | MMX |
| 8 | FC027H-CAL,, /01 | FC9W_097S18 | Standard | 4.77 | 338950 | 1716 | 4000.000 | 0.988 | 2704.9... | 67.6 | 9055 | 08-Mar-19 | 18:38:44 | MMX |

Compound name: 4:2 FTS-1
Correlation coefficient: r = 0.999832, r^2 = 0.999665
Calibration curve: 1.46073 * x + 0.210901
Response type: Internal Std ( Ref 81 ), Area * ( IS Conc. / IS Area )
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None




PVed by GW, SVed by hh 13-Mar-19. NOTE: Unit=ng based on 4 mL extract

**Quantify Compound Summary Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

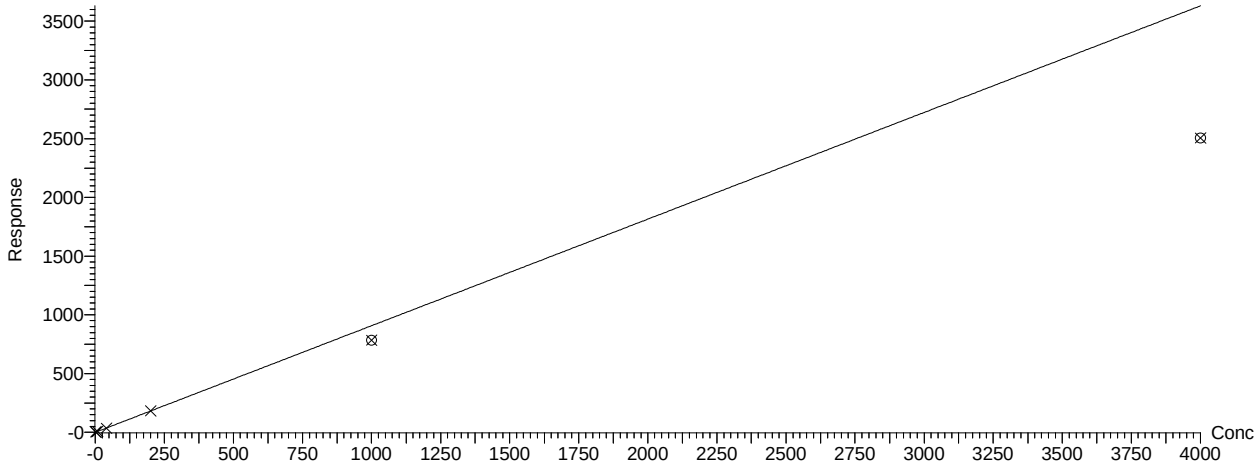
Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_097-A1.qld

Last Altered: Tuesday, March 12, 2019 17:19:00 Pacific Daylight Time
Printed: Wednesday, March 13, 2019 09:12:29 Pacific Daylight Time

**Compound name: 4:2 FTS-2**

| # | ID | Name | Type | RT | Area | IS Area | Std. Conc | RRF | Conc. | %Rec | S/N | Acq.Date | Acq.Time | Flags |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2 | FC027B-CAL,, /01 | FC9W_097S12 | Standard | 4.79 | 256 | 3446 | 1.600 | 0.928 | 1.695 | 105.9 | 86 | 08-Mar-19 | 16:13:44 | MM |
| 3 | FC027C-CAL,, /01 | FC9W_097S13 | Standard | 4.78 | 463 | 3172 | 3.200 | 0.913 | 3.278 | 102.4 | 1603 | 08-Mar-19 | 16:27:06 | bb |
| 4 | FC027D-CAL,, /01 | FC9W_097S14 | Standard | 4.78 | 1131 | 3307 | 8.000 | 0.855 | 7.594 | 94.9 | 947 | 08-Mar-19 | 16:40:24 | bb |
| 5 | FC027E-CAL,, /01 | FC9W_097S15 | Standard | 4.77 | 5453 | 3141 | 40.000 | 0.868 | 38.311 | 95.8 | 3412 | 08-Mar-19 | 16:53:43 | bb |
| 6 | FC027F-CAL,, /01 | FC9W_097S16 | Standard | 4.78 | 25136 | 2744 | 200.000 | 0.916 | 201.922 | 101.0 | 4664 | 08-Mar-19 | 18:12:07 | bb |
| 7 | FC027G-CAL,, /01 | FC9W_097S17 | Standard | 4.77 | 84675 | 2158 | 1000.000 | 0.785 | 864.490 | 86.4 | 10269 | 08-Mar-19 | 18:25:24 | MMX |
| 8 | FC027H-CAL,, /01 | FC9W_097S18 | Standard | 4.77 | 214975 | 1716 | 4000.000 | 0.627 | 2760.9... | 69.0 | 9917 | 08-Mar-19 | 18:38:44 | bbX |

Compound name: 4:2 FTS-2
Correlation coefficient: r = 0.999744, r^2 = 0.999488
Calibration curve: 0.907737 * x + -0.0538755
Response type: Internal Std ( Ref 81 ), Area * ( IS Conc. / IS Area )
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None




PVed by GW, SVed by hh 13-Mar-19. NOTE: Unit=ng based on 4 mL extract

**Quantify Compound Summary Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

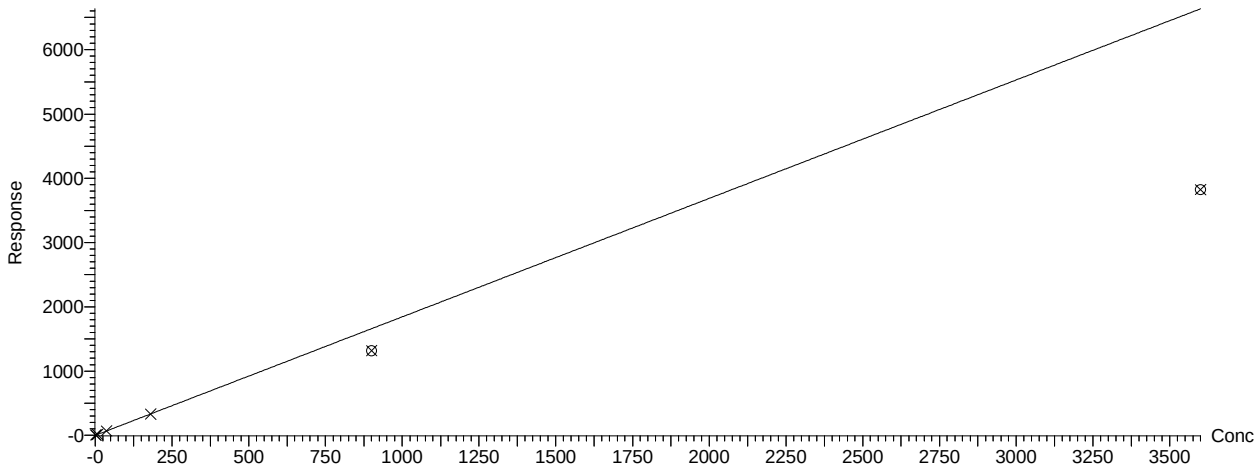
Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_097-A1.qld

Last Altered: Tuesday, March 12, 2019 17:19:00 Pacific Daylight Time
Printed: Wednesday, March 13, 2019 09:12:29 Pacific Daylight Time

**Compound name: 6:2 FTS-1**

| # | ID | Name | Type | RT | Area | IS Area | Std. Conc | RRF | Conc. | %Rec | S/N | Acq.Date | Acq.Time | Flags |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2 | FC027B-CAL,, /01 | FC9W_097S12 | Standard | 6.04 | 378 | 2366 | 1.440 | 2.218 | 1.458 | 101.2 | 623 | 08-Mar-19 | 16:13:44 | MM |
| 3 | FC027C-CAL,, /01 | FC9W_097S13 | Standard | 6.05 | 687 | 2629 | 2.880 | 1.815 | 2.561 | 88.9 | 732 | 08-Mar-19 | 16:27:06 | MM |
| 4 | FC027D-CAL,, /01 | FC9W_097S14 | Standard | 6.04 | 1790 | 2400 | 7.200 | 2.072 | 7.818 | 108.6 | 3980 | 08-Mar-19 | 16:40:24 | MM |
| 5 | FC027E-CAL,, /01 | FC9W_097S15 | Standard | 6.03 | 8249 | 2425 | 36.000 | 1.890 | 36.635 | 101.8 | 15730 | 08-Mar-19 | 16:53:43 | MM |
| 6 | FC027F-CAL,, /01 | FC9W_097S16 | Standard | 6.05 | 35363 | 2140 | 180.000 | 1.836 | 179.047 | 99.5 | 2931 | 08-Mar-19 | 18:12:07 | MM |
| 7 | FC027G-CAL,, /01 | FC9W_097S17 | Standard | 6.04 | 129239 | 1965 | 900.000 | 1.461 | 713.274 | 79.3 | 12089 | 08-Mar-19 | 18:25:24 | MMX |
| 8 | FC027H-CAL,, /01 | FC9W_097S18 | Standard | 6.03 | 350391 | 1832 | 3600.000 | 1.063 | 2074.9... | 57.6 | 12274 | 08-Mar-19 | 18:38:44 | bbX |

Compound name: 6:2 FTS-1
Correlation coefficient: r = 0.999747, r^2 = 0.999494
Calibration curve: 1.84334 * x + 0.506268
Response type: Internal Std ( Ref 83 ), Area * ( IS Conc. / IS Area )
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None




PVed by GW, SVed by hh 13-Mar-19. NOTE: Unit=ng based on 4 mL extract

**Quantify Compound Summary Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

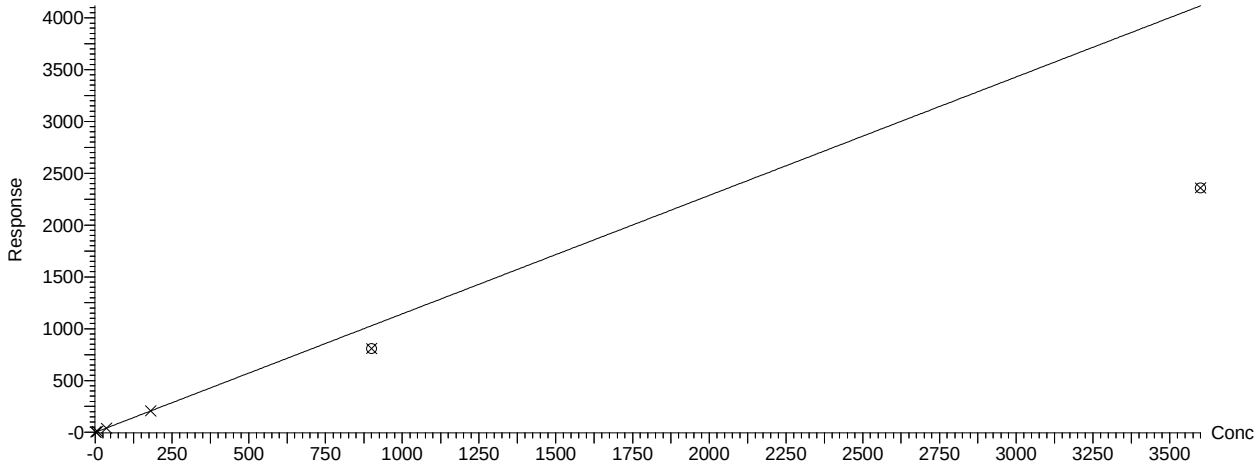
Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_097-A1.qld

Last Altered: Tuesday, March 12, 2019 17:19:00 Pacific Daylight Time
Printed: Wednesday, March 13, 2019 09:12:29 Pacific Daylight Time

**Compound name: 6:2 FTS-2**

| # | ID | Name | Type | RT | Area | IS Area | Std. Conc | RRF | Conc. | %Rec | S/N | Acq.Date | Acq.Time | Flags |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2 | FC027B-CAL,, /01 | FC9W_097S12 | Standard | 6.04 | 197 | 2366 | 1.440 | 1.158 | 1.489 | 103.4 | 794 | 08-Mar-19 | 16:13:44 | MM |
| 3 | FC027C-CAL,, /01 | FC9W_097S13 | Standard | 6.05 | 411 | 2629 | 2.880 | 1.085 | 2.763 | 96.0 | 713 | 08-Mar-19 | 16:27:06 | MM |
| 4 | FC027D-CAL,, /01 | FC9W_097S14 | Standard | 6.04 | 1031 | 2400 | 7.200 | 1.193 | 7.545 | 104.8 | 4317 | 08-Mar-19 | 16:40:24 | MM |
| 5 | FC027E-CAL,, /01 | FC9W_097S15 | Standard | 6.03 | 4737 | 2425 | 36.000 | 1.085 | 34.202 | 95.0 | 2429 | 08-Mar-19 | 16:53:43 | MM |
| 6 | FC027F-CAL,, /01 | FC9W_097S16 | Standard | 6.04 | 22201 | 2140 | 180.000 | 1.153 | 181.520 | 100.8 | 3727 | 08-Mar-19 | 18:12:07 | MM |
| 7 | FC027G-CAL,, /01 | FC9W_097S17 | Standard | 6.04 | 79518 | 1965 | 900.000 | 0.899 | 707.786 | 78.6 | 8458 | 08-Mar-19 | 18:25:24 | MMX |
| 8 | FC027H-CAL,, /01 | FC9W_097S18 | Standard | 6.03 | 216143 | 1832 | 3600.000 | 0.655 | 2063.7... | 57.3 | 68 | 08-Mar-19 | 18:38:44 | bbX |

Compound name: 6:2 FTS-2
Correlation coefficient: r = 0.999697, r^2 = 0.999393
Calibration curve: 1.14344 * x + -0.0351885
Response type: Internal Std ( Ref 83 ), Area * ( IS Conc. / IS Area )
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None




PVed by GW, SVed by hh 13-Mar-19. NOTE: Unit=ng based on 4 mL extract

**Quantify Compound Summary Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

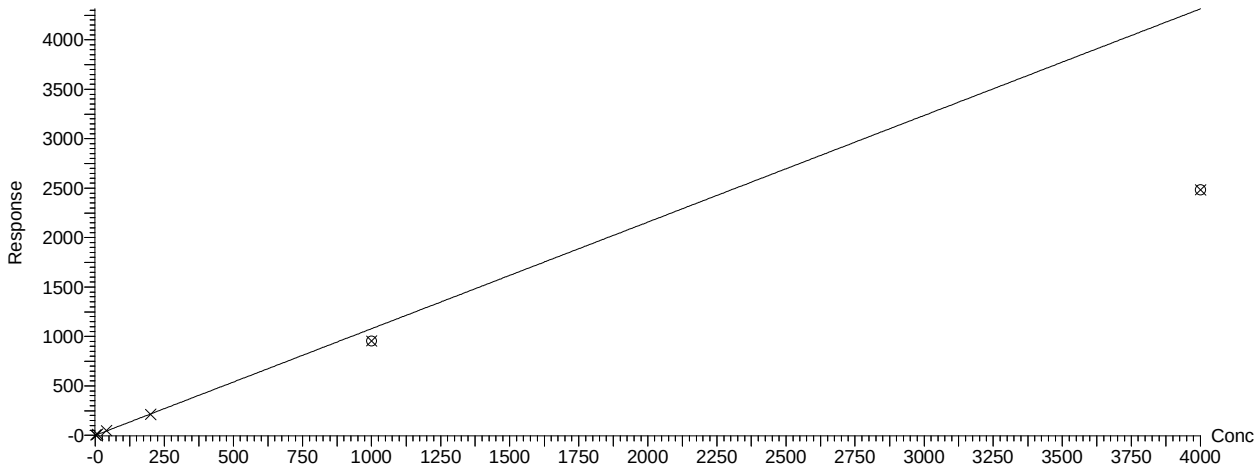
Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_097-A1.qld

Last Altered: Tuesday, March 12, 2019 17:19:00 Pacific Daylight Time
Printed: Wednesday, March 13, 2019 09:12:29 Pacific Daylight Time

**Compound name: 8:2 FTS-1**

| # | ID | Name | Type | RT | Area | IS Area | Std. Conc | RRF | Conc. | %Rec | S/N | Acq.Date | Acq.Time | Flags |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2 | FC027B-CAL,, /01 | FC9W_097S12 | Standard | 7.39 | 361 | 3881 | 1.600 | 1.163 | 1.480 | 92.5 | 538 | 08-Mar-19 | 16:13:44 | MM |
| 3 | FC027C-CAL,, /01 | FC9W_097S13 | Standard | 7.39 | 624 | 4001 | 3.200 | 0.974 | 2.647 | 82.7 | 3923 | 08-Mar-19 | 16:27:06 | MM |
| 4 | FC027D-CAL,, /01 | FC9W_097S14 | Standard | 7.39 | 1912 | 3668 | 8.000 | 1.303 | 9.421 | 117.8 | 3484 | 08-Mar-19 | 16:40:24 | MM |
| 5 | FC027E-CAL,, /01 | FC9W_097S15 | Standard | 7.39 | 8426 | 3557 | 40.000 | 1.185 | 43.695 | 109.2 | 1580 | 08-Mar-19 | 16:53:43 | MM |
| 6 | FC027F-CAL,, /01 | FC9W_097S16 | Standard | 7.39 | 33852 | 3206 | 200.000 | 1.056 | 195.557 | 97.8 | 6636 | 08-Mar-19 | 18:12:07 | MM |
| 7 | FC027G-CAL,, /01 | FC9W_097S17 | Standard | 7.38 | 127347 | 2666 | 1000.000 | 0.955 | 885.653 | 88.6 | 9507 | 08-Mar-19 | 18:25:24 | MMX |
| 8 | FC027H-CAL,, /01 | FC9W_097S18 | Standard | 7.38 | 324657 | 2616 | 4000.000 | 0.621 | 2301.8... | 57.5 | 7866 | 08-Mar-19 | 18:38:44 | bbX |

Compound name: 8:2 FTS-1
Correlation coefficient: r = 0.998271, r^2 = 0.996544
Calibration curve: 1.07836 * x + 0.264237
Response type: Internal Std ( Ref 85 ), Area * ( IS Conc. / IS Area )
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None




PVed by GW, SVed by hh 13-Mar-19. NOTE: Unit=ng based on 4 mL extract

**Quantify Compound Summary Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

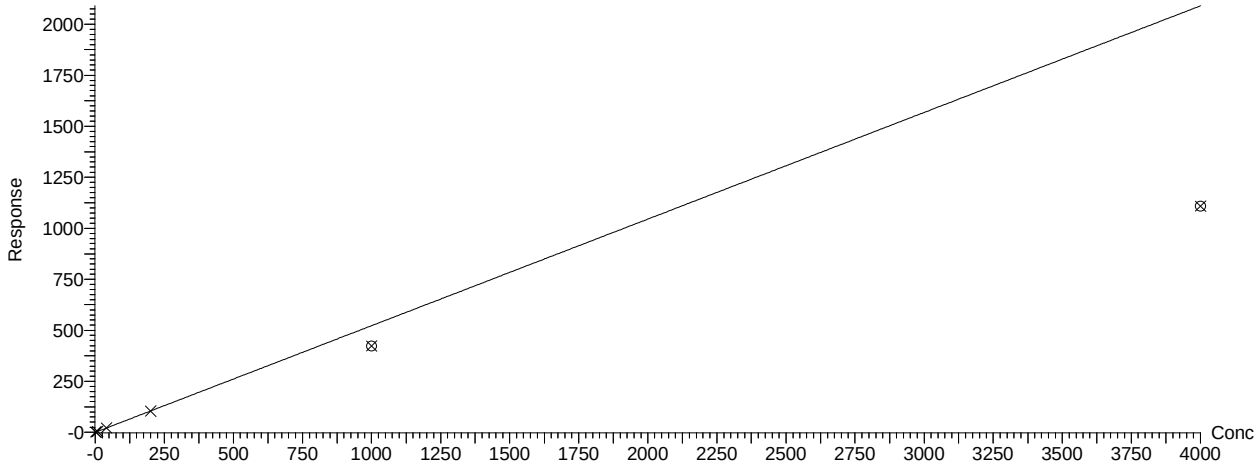
Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_097-A1.qld

Last Altered: Tuesday, March 12, 2019 17:19:00 Pacific Daylight Time
Printed: Wednesday, March 13, 2019 09:12:29 Pacific Daylight Time

**Compound name: 8:2 FTS-2**

| # | ID | Name | Type | RT | Area | IS Area | Std. Conc | RRF | Conc. | %Rec | S/N | Acq.Date | Acq.Time | Flags |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2 | FC027B-CAL,, /01 | FC9W_097S12 | Standard | 7.39 | 154 | 3881 | 1.600 | 0.494 | 1.340 | 83.7 | 681 | 08-Mar-19 | 16:13:44 | MM |
| 3 | FC027C-CAL,, /01 | FC9W_097S13 | Standard | 7.39 | 369 | 4001 | 3.200 | 0.576 | 3.353 | 104.8 | 869 | 08-Mar-19 | 16:27:06 | bb |
| 4 | FC027D-CAL,, /01 | FC9W_097S14 | Standard | 7.39 | 866 | 3668 | 8.000 | 0.590 | 8.862 | 110.8 | 642 | 08-Mar-19 | 16:40:24 | bb |
| 5 | FC027E-CAL,, /01 | FC9W_097S15 | Standard | 7.38 | 3784 | 3557 | 40.000 | 0.532 | 40.548 | 101.4 | 10123 | 08-Mar-19 | 16:53:43 | MM |
| 6 | FC027F-CAL,, /01 | FC9W_097S16 | Standard | 7.39 | 16661 | 3206 | 200.000 | 0.520 | 198.698 | 99.3 | 8902 | 08-Mar-19 | 18:12:07 | MM |
| 7 | FC027G-CAL,, /01 | FC9W_097S17 | Standard | 7.39 | 56380 | 2666 | 1000.000 | 0.423 | 809.192 | 80.9 | 4587 | 08-Mar-19 | 18:25:24 | bbX |
| 8 | FC027H-CAL,, /01 | FC9W_097S18 | Standard | 7.38 | 144988 | 2616 | 4000.000 | 0.277 | 2121.4... | 53.0 | 11018 | 08-Mar-19 | 18:38:44 | bbX |

Compound name: 8:2 FTS-2
Correlation coefficient: r = 0.999656, r^2 = 0.999312
Calibration curve: 0.522565 * x + 0.0910225
Response type: Internal Std ( Ref 85 ), Area * ( IS Conc. / IS Area )
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None




PVed by GW, SVed by hh 13-Mar-19. NOTE: Unit=ng based on 4 mL extract

**Quantify Compound Summary Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

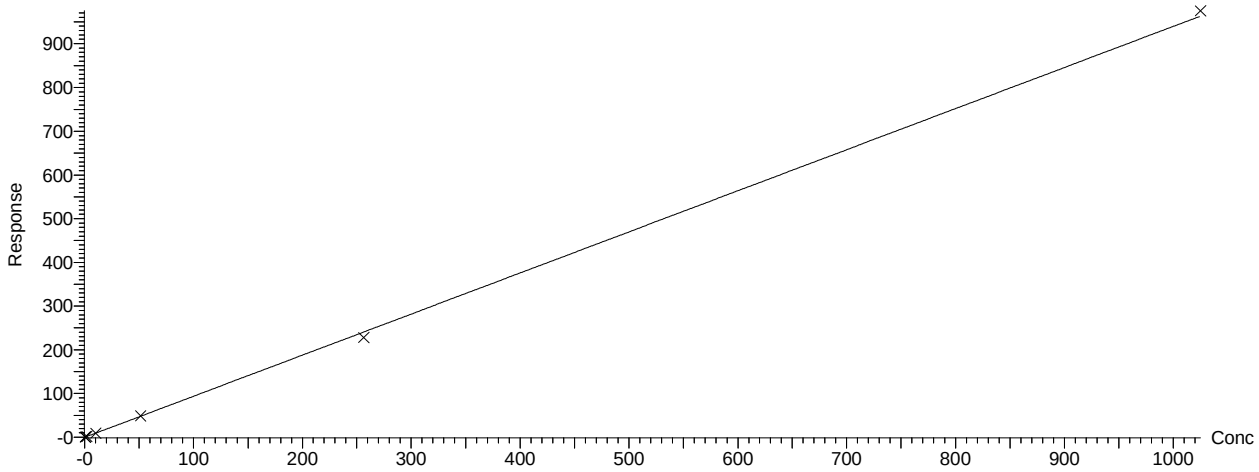
Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_097-A1.qld

Last Altered: Tuesday, March 12, 2019 17:19:00 Pacific Daylight Time
Printed: Wednesday, March 13, 2019 09:12:29 Pacific Daylight Time

**Compound name: PFOSA-1**

| # | ID | Name | Type | RT | Area | IS Area | Std. Conc | RRF | Conc. | %Rec | S/N | Acq.Date | Acq.Time | Flags |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2 | FC027B-CAL,, /01 | FC9W_097S12 | Standard | 9.02 | 186 | 5808 | 0.410 | 0.780 | 0.420 | 102.5 | 320 | 08-Mar-19 | 16:13:44 | MM |
| 3 | FC027C-CAL,, /01 | FC9W_097S13 | Standard | 9.02 | 416 | 6090 | 0.820 | 0.834 | 0.808 | 98.5 | 22 | 08-Mar-19 | 16:27:06 | MM |
| 4 | FC027D-CAL,, /01 | FC9W_097S14 | Standard | 9.01 | 1124 | 5915 | 2.050 | 0.927 | 2.102 | 102.5 | 589 | 08-Mar-19 | 16:40:24 | MM |
| 5 | FC027E-CAL,, /01 | FC9W_097S15 | Standard | 9.00 | 5850 | 6212 | 10.250 | 0.919 | 10.102 | 98.6 | 773 | 08-Mar-19 | 16:53:43 | MM |
| 6 | FC027F-CAL,, /01 | FC9W_097S16 | Standard | 9.02 | 30386 | 6192 | 51.250 | 0.957 | 52.299 | 102.0 | 2002 | 08-Mar-19 | 18:12:07 | MM |
| 7 | FC027G-CAL,, /01 | FC9W_097S17 | Standard | 9.00 | 144851 | 6363 | 256.250 | 0.888 | 242.339 | 94.6 | 2334 | 08-Mar-19 | 18:25:24 | MM |
| 8 | FC027H-CAL,, /01 | FC9W_097S18 | Standard | 9.02 | 530167 | 5436 | 1025.000 | 0.951 | 1037.9... | 101.3 | 16011 | 08-Mar-19 | 18:38:44 | MM |

Compound name: PFOSA-1
Correlation coefficient: r = 0.999646, r^2 = 0.999293
Calibration curve: 0.939676 * x + -0.0752291
Response type: Internal Std ( Ref 87 ), Area * ( IS Conc. / IS Area )
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None




PVed by GW, SVed by hh 13-Mar-19. NOTE: Unit=ng based on 4 mL extract

**Quantify Compound Summary Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

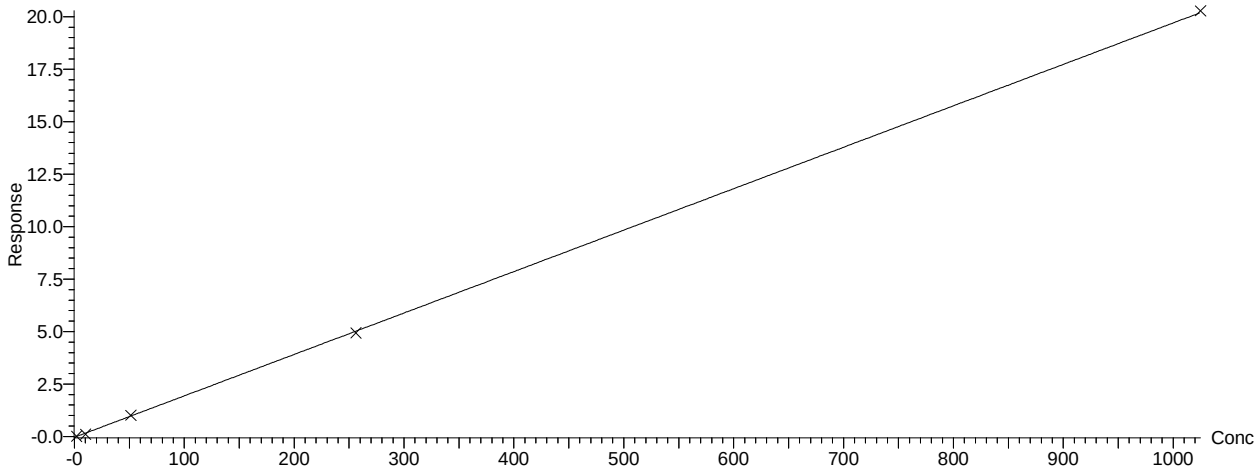
Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_097-A1.qld

Last Altered: Tuesday, March 12, 2019 17:19:00 Pacific Daylight Time
Printed: Wednesday, March 13, 2019 09:12:29 Pacific Daylight Time

**Compound name: PFOSA-2**

| # | ID | Name | Type | RT | Area | IS Area | Std. Conc | RRF | Conc. | %Rec | S/N | Acq.Date | Acq.Time | Flags |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2 | FC027B-CAL,, /01 | FC9W_097S12 | Standard | | | 5808 | 0.410 | | | | | 08-Mar-19 | 16:13:44 | MM- |
| 3 | FC027C-CAL,, /01 | FC9W_097S13 | Standard | | | 6090 | 0.820 | | | | | 08-Mar-19 | 16:27:06 | MM- |
| 4 | FC027D-CAL,, /01 | FC9W_097S14 | Standard | 8.99 | 8 | 5915 | 2.050 | 0.007 | 2.583 | 126.0 | 24 | 08-Mar-19 | 16:40:24 | MM |
| 5 | FC027E-CAL,, /01 | FC9W_097S15 | Standard | 9.01 | 67 | 6212 | 10.250 | 0.010 | 7.321 | 71.4 | 34 | 08-Mar-19 | 16:53:43 | MM |
| 6 | FC027F-CAL,, /01 | FC9W_097S16 | Standard | 9.02 | 626 | 6192 | 51.250 | 0.020 | 53.119 | 103.6 | 68 | 08-Mar-19 | 18:12:07 | MM |
| 7 | FC027G-CAL,, /01 | FC9W_097S17 | Standard | 9.01 | 3146 | 6363 | 256.250 | 0.019 | 252.363 | 98.5 | 453 | 08-Mar-19 | 18:25:24 | MM |
| 8 | FC027H-CAL,, /01 | FC9W_097S18 | Standard | 9.02 | 11026 | 5436 | 1025.000 | 0.020 | 1029.4... | 100.4 | 387 | 08-Mar-19 | 18:38:44 | MM |

Compound name: PFOSA-2
Correlation coefficient: r = 0.999570, r^2 = 0.999140
Calibration curve: 0.0197388 * x + -0.0371421
Response type: Internal Std ( Ref 87 ), Area * ( IS Conc. / IS Area )
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None




PVed by GW, SVed by hh 13-Mar-19. NOTE: Unit=ng based on 4 mL extract

**Quantify Compound Summary Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

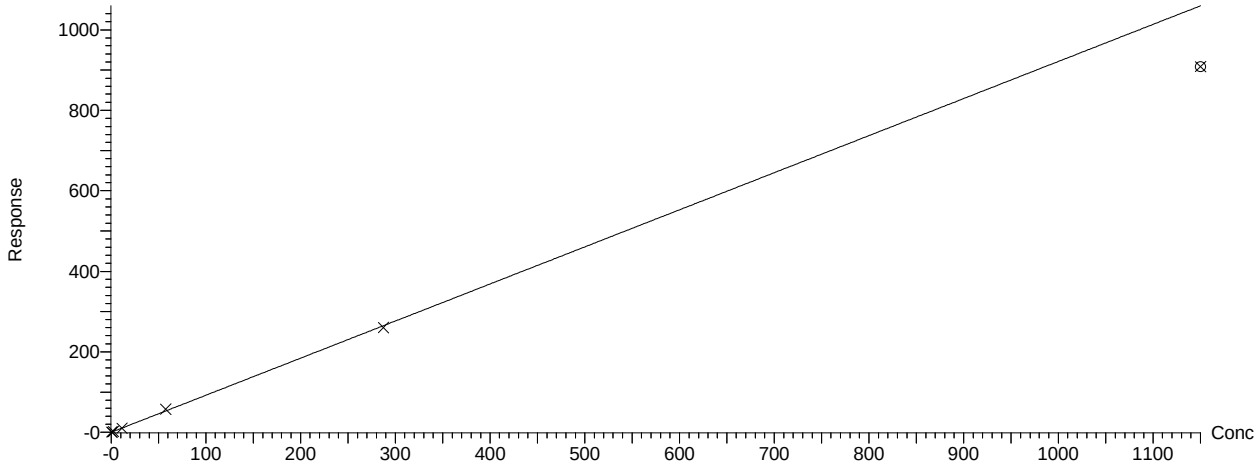
Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_097-A1.qld

Last Altered: Tuesday, March 12, 2019 17:19:00 Pacific Daylight Time
Printed: Wednesday, March 13, 2019 09:12:29 Pacific Daylight Time

**Compound name: N-MeFOSA-1**

| # | ID | Name | Type | RT | Area | IS Area | Std. Conc | RRF | Conc. | %Rec | S/N | Acq.Date | Acq.Time | Flags |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2 | FC027B-CAL,, /01 | FC9W_097S12 | Standard | 9.97 | 139 | 3003 | 0.460 | 1.008 | 0.439 | 95.4 | 47 | 08-Mar-19 | 16:13:44 | MM |
| 3 | FC027C-CAL,, /01 | FC9W_097S13 | Standard | 9.96 | 281 | 3250 | 0.920 | 0.940 | 0.874 | 95.0 | 203 | 08-Mar-19 | 16:27:06 | MM |
| 4 | FC027D-CAL,, /01 | FC9W_097S14 | Standard | 9.95 | 729 | 3264 | 2.300 | 0.971 | 2.360 | 102.6 | 263 | 08-Mar-19 | 16:40:24 | MM |
| 5 | FC027E-CAL,, /01 | FC9W_097S15 | Standard | 9.95 | 3516 | 3296 | 11.500 | 0.928 | 11.515 | 100.1 | 451 | 08-Mar-19 | 16:53:43 | MM |
| 6 | FC027F-CAL,, /01 | FC9W_097S16 | Standard | 9.96 | 18258 | 3171 | 57.500 | 1.001 | 62.436 | 108.6 | 1390 | 08-Mar-19 | 18:12:07 | MM |
| 7 | FC027G-CAL,, /01 | FC9W_097S17 | Standard | 9.95 | 97684 | 3752 | 287.500 | 0.906 | 282.556 | 98.3 | 3202 | 08-Mar-19 | 18:25:24 | MM |
| 8 | FC027H-CAL,, /01 | FC9W_097S18 | Standard | 9.96 | 350237 | 3856 | 1150.000 | 0.790 | 985.748 | 85.7 | 3051 | 08-Mar-19 | 18:38:44 | MMX |

Compound name: N-MeFOSA-1
Correlation coefficient: r = 0.999269, r^2 = 0.998538
Calibration curve: 0.921279 * x + 0.0595288
Response type: Internal Std ( Ref 88 ), Area * ( IS Conc. / IS Area )
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None




PVed by GW, SVed by hh 13-Mar-19. NOTE: Unit=ng based on 4 mL extract

**Quantify Compound Summary Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

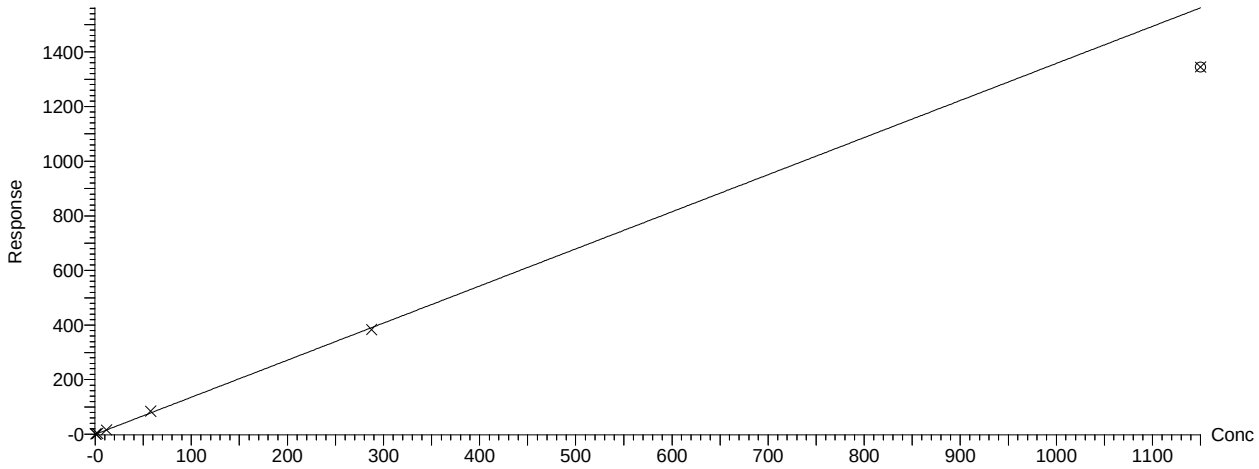
Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_097-A1.qld

Last Altered: Tuesday, March 12, 2019 17:19:00 Pacific Daylight Time
Printed: Wednesday, March 13, 2019 09:12:29 Pacific Daylight Time

**Compound name: N-MeFOSA-2**

| # | ID | Name | Type | RT | Area | IS Area | Std. Conc | RRF | Conc. | %Rec | S/N | Acq.Date | Acq.Time | Flags |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2 | FC027B-CAL,, /01 | FC9W_097S12 | Standard | 9.96 | 182 | 3003 | 0.460 | 1.315 | 0.346 | 75.1 | 185 | 08-Mar-19 | 16:13:44 | MM |
| 3 | FC027C-CAL,, /01 | FC9W_097S13 | Standard | 9.95 | 480 | 3250 | 0.920 | 1.607 | 0.989 | 107.5 | 502 | 08-Mar-19 | 16:27:06 | MM |
| 4 | FC027D-CAL,, /01 | FC9W_097S14 | Standard | 9.95 | 1167 | 3264 | 2.300 | 1.554 | 2.532 | 110.1 | 357 | 08-Mar-19 | 16:40:24 | MM |
| 5 | FC027E-CAL,, /01 | FC9W_097S15 | Standard | 9.95 | 5245 | 3296 | 11.500 | 1.384 | 11.619 | 101.0 | 1550 | 08-Mar-19 | 16:53:43 | MM |
| 6 | FC027F-CAL,, /01 | FC9W_097S16 | Standard | 9.96 | 26771 | 3171 | 57.500 | 1.468 | 62.074 | 108.0 | 641 | 08-Mar-19 | 18:12:07 | MM |
| 7 | FC027G-CAL,, /01 | FC9W_097S17 | Standard | 9.96 | 144032 | 3752 | 287.500 | 1.335 | 282.621 | 98.3 | 4143 | 08-Mar-19 | 18:25:24 | MM |
| 8 | FC027H-CAL,, /01 | FC9W_097S18 | Standard | 9.96 | 518622 | 3856 | 1150.000 | 1.169 | 990.284 | 86.1 | 10567 | 08-Mar-19 | 18:38:44 | MMX |

Compound name: N-MeFOSA-2
Correlation coefficient: r = 0.999281, r^2 = 0.998562
Calibration curve: 1.35791 * x + 0.135666
Response type: Internal Std ( Ref 88 ), Area * ( IS Conc. / IS Area )
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None




PVed by GW, SVed by hh 13-Mar-19. NOTE: Unit=ng based on 4 mL extract

**Quantify Compound Summary Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

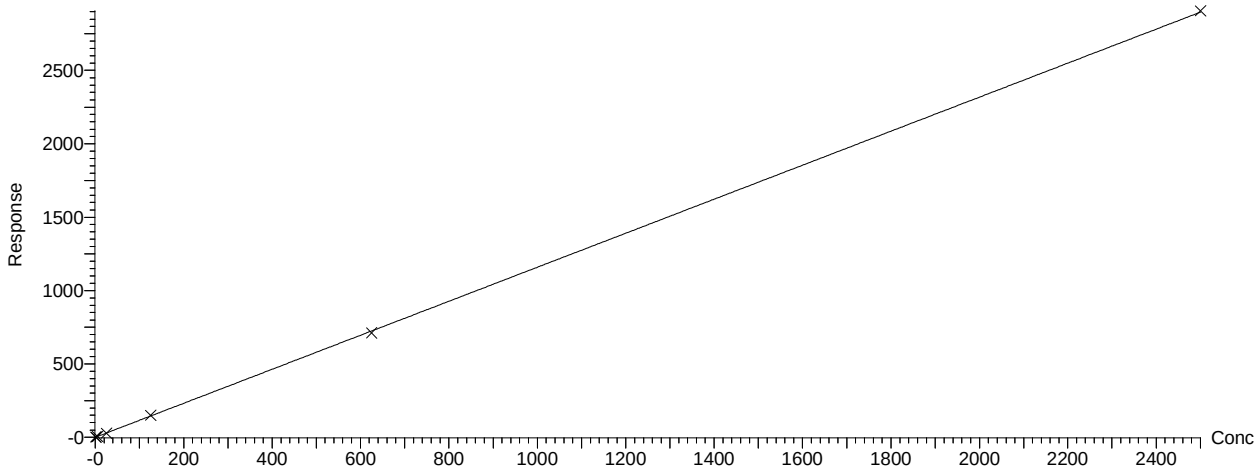
Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_097-A1.qld

Last Altered: Tuesday, March 12, 2019 17:19:00 Pacific Daylight Time
Printed: Wednesday, March 13, 2019 09:12:29 Pacific Daylight Time

**Compound name: N-EtFOSA-1**

| # | ID | Name | Type | RT | Area | IS Area | Std. Conc | RRF | Conc. | %Rec | S/N | Acq.Date | Acq.Time | Flags |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2 | FC027B-CAL,, /01 | FC9W_097S12 | Standard | 10.25 | 328 | 2450 | 1.000 | 1.339 | 0.985 | 98.5 | 25 | 08-Mar-19 | 16:13:44 | MM |
| 3 | FC027C-CAL,, /01 | FC9W_097S13 | Standard | 10.24 | 686 | 2674 | 2.000 | 1.282 | 2.042 | 102.1 | 94 | 08-Mar-19 | 16:27:06 | MM |
| 4 | FC027D-CAL,, /01 | FC9W_097S14 | Standard | 10.23 | 1567 | 2659 | 5.000 | 1.179 | 4.914 | 98.3 | 67 | 08-Mar-19 | 16:40:24 | MM |
| 5 | FC027E-CAL,, /01 | FC9W_097S15 | Standard | 10.23 | 7661 | 2644 | 25.000 | 1.159 | 24.828 | 99.3 | 71 | 08-Mar-19 | 16:53:43 | MM |
| 6 | FC027F-CAL,, /01 | FC9W_097S16 | Standard | 10.24 | 37835 | 2523 | 125.000 | 1.200 | 129.236 | 103.4 | 1883 | 08-Mar-19 | 18:12:07 | MM |
| 7 | FC027G-CAL,, /01 | FC9W_097S17 | Standard | 10.24 | 199028 | 2799 | 625.000 | 1.138 | 613.413 | 98.1 | 4063 | 08-Mar-19 | 18:25:24 | MM |
| 8 | FC027H-CAL,, /01 | FC9W_097S18 | Standard | 10.25 | 728876 | 2508 | 2500.000 | 1.162 | 2507.5... | 100.3 | 10540 | 08-Mar-19 | 18:38:44 | MM |

Compound name: N-EtFOSA-1
Correlation coefficient: r = 0.999941, r^2 = 0.999882
Calibration curve: 1.15889 * x + 0.198055
Response type: Internal Std ( Ref 89 ), Area * ( IS Conc. / IS Area )
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None




PVed by GW, SVed by hh 13-Mar-19. NOTE: Unit=ng based on 4 mL extract

**Quantify Compound Summary Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

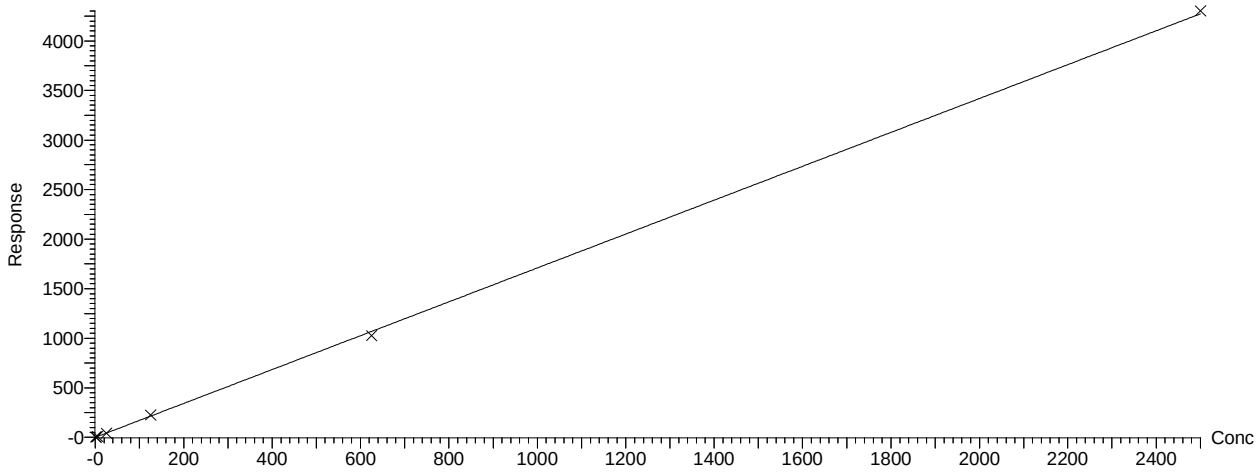
Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_097-A1.qld

Last Altered: Tuesday, March 12, 2019 17:19:00 Pacific Daylight Time
Printed: Wednesday, March 13, 2019 09:12:29 Pacific Daylight Time

**Compound name: N-EtFOSA-2**

| # | ID | Name | Type | RT | Area | IS Area | Std. Conc | RRF | Conc. | %Rec | S/N | Acq.Date | Acq.Time | Flags |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2 | FC027B-CAL,, /01 | FC9W_097S12 | Standard | 10.24 | 443 | 2450 | 1.000 | 1.808 | 1.020 | 102.0 | 35 | 08-Mar-19 | 16:13:44 | MM |
| 3 | FC027C-CAL,, /01 | FC9W_097S13 | Standard | 10.24 | 876 | 2674 | 2.000 | 1.638 | 1.879 | 93.9 | 75 | 08-Mar-19 | 16:27:06 | MM |
| 4 | FC027D-CAL,, /01 | FC9W_097S14 | Standard | 10.23 | 2294 | 2659 | 5.000 | 1.726 | 5.009 | 100.2 | 205 | 08-Mar-19 | 16:40:24 | MM |
| 5 | FC027E-CAL,, /01 | FC9W_097S15 | Standard | 10.23 | 11515 | 2644 | 25.000 | 1.742 | 25.434 | 101.7 | 449 | 08-Mar-19 | 16:53:43 | MM |
| 6 | FC027F-CAL,, /01 | FC9W_097S16 | Standard | 10.24 | 56843 | 2523 | 125.000 | 1.802 | 131.753 | 105.4 | 4083 | 08-Mar-19 | 18:12:07 | MM |
| 7 | FC027G-CAL,, /01 | FC9W_097S17 | Standard | 10.23 | 287284 | 2799 | 625.000 | 1.642 | 600.334 | 96.1 | 18200 | 08-Mar-19 | 18:25:24 | MM |
| 8 | FC027H-CAL,, /01 | FC9W_097S18 | Standard | 10.24 | 1079461 | 2508 | 2500.000 | 1.722 | 2517.5... | 100.7 | 16169 | 08-Mar-19 | 18:38:44 | MM |

Compound name: N-EtFOSA-2
Correlation coefficient: r = 0.999773, r^2 = 0.999546
Calibration curve: 1.70959 * x + 0.0646526
Response type: Internal Std ( Ref 89 ), Area * ( IS Conc. / IS Area )
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None




PVed by GW, SVed by hh 13-Mar-19. NOTE: Unit=ng based on 4 mL extract

**Quantify Compound Summary Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

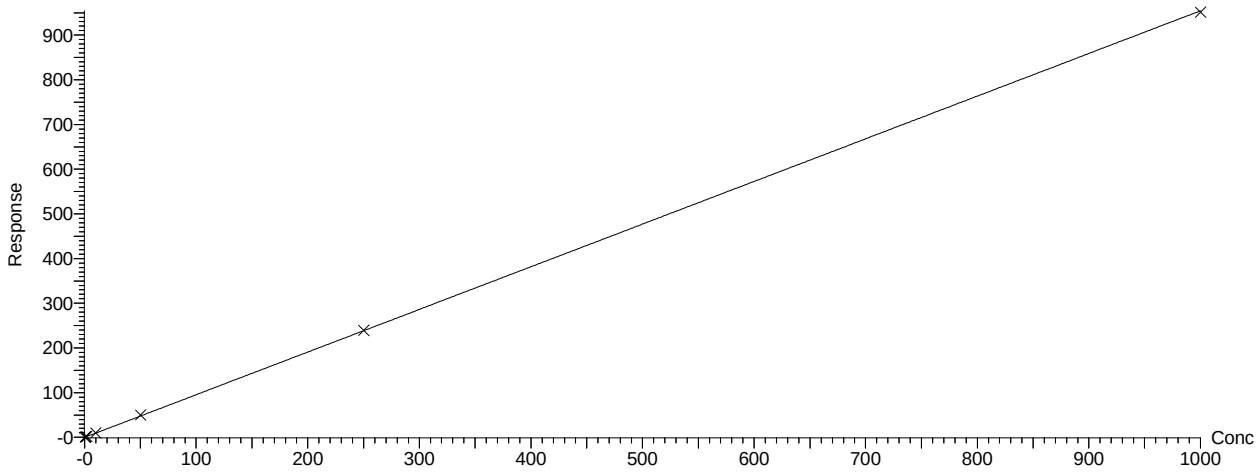
Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_097-A1.qld

Last Altered: Tuesday, March 12, 2019 17:19:00 Pacific Daylight Time
Printed: Wednesday, March 13, 2019 09:12:29 Pacific Daylight Time

**Compound name: MeFOSAA-1**

| # | ID | Name | Type | RT | Area | IS Area | Std. Conc | RRF | Conc. | %Rec | S/N | Acq.Date | Acq.Time | Flags |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2 | FC027B-CAL,, /01 | FC9W_097S12 | Standard | 7.59 | 96 | 6497 | 0.400 | 0.740 | 0.284 | 71.0 | 34 | 08-Mar-19 | 16:13:44 | MM |
| 3 | FC027C-CAL,, /01 | FC9W_097S13 | Standard | 7.59 | 339 | 6920 | 0.800 | 1.224 | 1.000 | 124.9 | 546 | 08-Mar-19 | 16:27:06 | MM |
| 4 | FC027D-CAL,, /01 | FC9W_097S14 | Standard | 7.59 | 602 | 6613 | 2.000 | 0.911 | 1.882 | 94.1 | 307 | 08-Mar-19 | 16:40:24 | MM |
| 5 | FC027E-CAL,, /01 | FC9W_097S15 | Standard | 7.58 | 3603 | 7165 | 10.000 | 1.006 | 10.509 | 105.1 | 3008 | 08-Mar-19 | 16:53:43 | MM |
| 6 | FC027F-CAL,, /01 | FC9W_097S16 | Standard | 7.59 | 17577 | 7011 | 50.000 | 1.003 | 52.495 | 105.0 | 1714 | 08-Mar-19 | 18:12:07 | MM |
| 7 | FC027G-CAL,, /01 | FC9W_097S17 | Standard | 7.58 | 85199 | 7124 | 250.000 | 0.957 | 250.523 | 100.2 | 6674 | 08-Mar-19 | 18:25:24 | MM |
| 8 | FC027H-CAL,, /01 | FC9W_097S18 | Standard | 7.58 | 264521 | 5561 | 1000.000 | 0.951 | 996.507 | 99.7 | 13356 | 08-Mar-19 | 18:38:44 | MM |

Compound name: MeFOSAA-1
Correlation coefficient: r = 0.999902, r^2 = 0.999805
Calibration curve: 0.954624 * x + 0.024825
Response type: Internal Std ( Ref 90 ), Area * ( IS Conc. / IS Area )
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None




PVed by GW, SVed by hh 13-Mar-19. NOTE: Unit=ng based on 4 mL extract

**Quantify Compound Summary Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

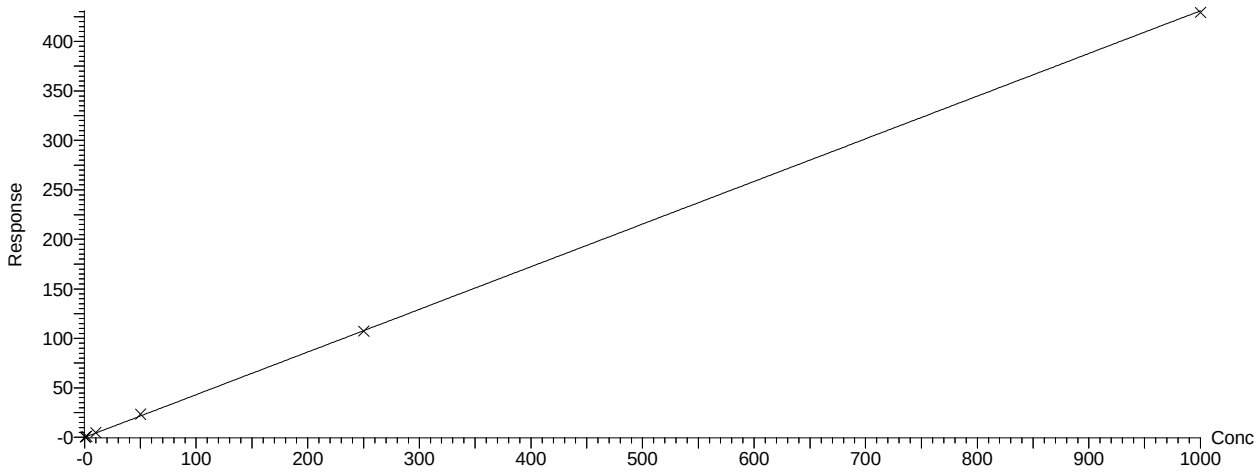
Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_097-A1.qld

Last Altered: Tuesday, March 12, 2019 17:19:00 Pacific Daylight Time
Printed: Wednesday, March 13, 2019 09:12:29 Pacific Daylight Time

**Compound name: MeFOSAA-2**

| # | ID | Name | Type | RT | Area | IS Area | Std. Conc | RRF | Conc. | %Rec | S/N | Acq.Date | Acq.Time | Flags |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2 | FC027B-CAL,, /01 | FC9W_097S12 | Standard | 7.60 | 67 | 6497 | 0.400 | 0.517 | 0.328 | 81.9 | 15 | 08-Mar-19 | 16:13:44 | MM |
| 3 | FC027C-CAL,, /01 | FC9W_097S13 | Standard | 7.59 | 124 | 6920 | 0.800 | 0.449 | 0.681 | 85.1 | 72 | 08-Mar-19 | 16:27:06 | MM |
| 4 | FC027D-CAL,, /01 | FC9W_097S14 | Standard | 7.58 | 358 | 6613 | 2.000 | 0.541 | 2.358 | 117.9 | 201 | 08-Mar-19 | 16:40:24 | MM |
| 5 | FC027E-CAL,, /01 | FC9W_097S15 | Standard | 7.58 | 1679 | 7165 | 10.000 | 0.469 | 10.722 | 107.2 | 541 | 08-Mar-19 | 16:53:43 | MM |
| 6 | FC027F-CAL,, /01 | FC9W_097S16 | Standard | 7.59 | 8240 | 7011 | 50.000 | 0.470 | 54.399 | 108.8 | 2292 | 08-Mar-19 | 18:12:07 | MM |
| 7 | FC027G-CAL,, /01 | FC9W_097S17 | Standard | 7.58 | 38180 | 7124 | 250.000 | 0.429 | 248.601 | 99.4 | 3460 | 08-Mar-19 | 18:25:24 | MM |
| 8 | FC027H-CAL,, /01 | FC9W_097S18 | Standard | 7.58 | 119364 | 5561 | 1000.000 | 0.429 | 996.110 | 99.6 | 11681 | 08-Mar-19 | 18:38:44 | MM |

Compound name: MeFOSAA-2
Correlation coefficient: r = 0.999786, r^2 = 0.999572
Calibration curve: 0.430887 * x + 0.0655723
Response type: Internal Std ( Ref 90 ), Area * ( IS Conc. / IS Area )
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None




PVed by GW, SVed by hh 13-Mar-19. NOTE: Unit=ng based on 4 mL extract

**Quantify Compound Summary Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

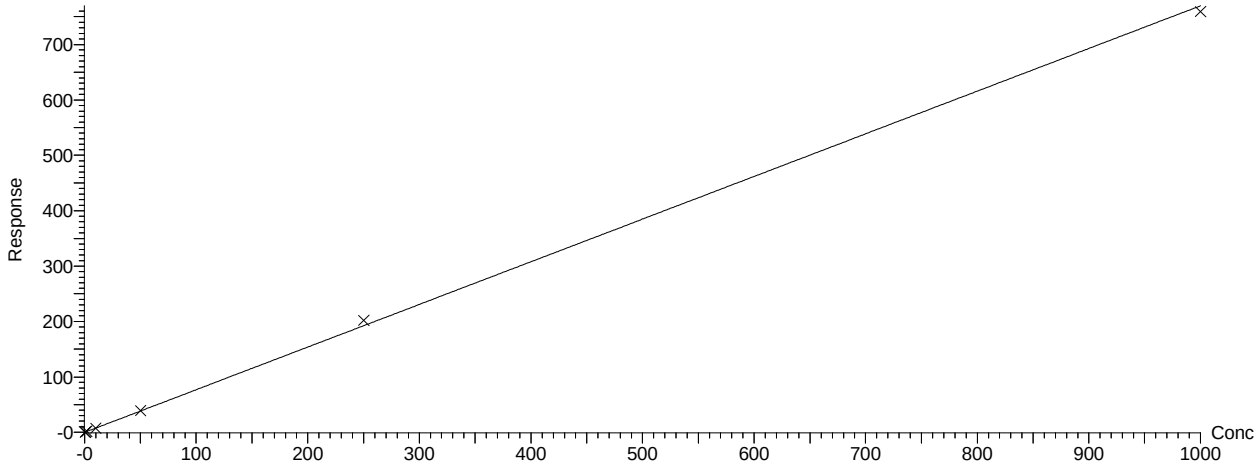
Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_097-A1.qld

Last Altered: Tuesday, March 12, 2019 17:19:00 Pacific Daylight Time
Printed: Wednesday, March 13, 2019 09:12:29 Pacific Daylight Time

**Compound name: EtFOSAA-1**

| # | ID | Name | Type | RT | Area | IS Area | Std. Conc | RRF | Conc. | %Rec | S/N | Acq.Date | Acq.Time | Flags |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2 | FC027B-CAL,, /01 | FC9W_097S12 | Standard | 7.73 | 52 | 5196 | 0.400 | 0.501 | 0.322 | 80.5 | 56 | 08-Mar-19 | 16:13:44 | MM |
| 3 | FC027C-CAL,, /01 | FC9W_097S13 | Standard | 7.72 | 147 | 5888 | 0.800 | 0.623 | 0.709 | 88.7 | 584 | 08-Mar-19 | 16:27:06 | MM |
| 4 | FC027D-CAL,, /01 | FC9W_097S14 | Standard | 7.73 | 541 | 5770 | 2.000 | 0.938 | 2.499 | 124.9 | 1488 | 08-Mar-19 | 16:40:24 | MM |
| 5 | FC027E-CAL,, /01 | FC9W_097S15 | Standard | 7.72 | 2270 | 5917 | 10.000 | 0.767 | 10.029 | 100.3 | 3094 | 08-Mar-19 | 16:53:43 | MM |
| 6 | FC027F-CAL,, /01 | FC9W_097S16 | Standard | 7.73 | 11174 | 5701 | 50.000 | 0.784 | 50.978 | 102.0 | 1524 | 08-Mar-19 | 18:12:07 | MM |
| 7 | FC027G-CAL,, /01 | FC9W_097S17 | Standard | 7.72 | 58785 | 5815 | 250.000 | 0.809 | 262.688 | 105.1 | 6437 | 08-Mar-19 | 18:25:24 | MM |
| 8 | FC027H-CAL,, /01 | FC9W_097S18 | Standard | 7.72 | 183455 | 4834 | 1000.000 | 0.759 | 985.975 | 98.6 | 14868 | 08-Mar-19 | 18:38:44 | MM |

Compound name: EtFOSAA-1
Correlation coefficient: r = 0.999612, r^2 = 0.999225
Calibration curve: 0.769878 * x + -0.0474692
Response type: Internal Std ( Ref 91 ), Area * ( IS Conc. / IS Area )
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None




PVed by GW, SVed by hh 13-Mar-19. NOTE: Unit=ng based on 4 mL extract

**Quantify Compound Summary Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

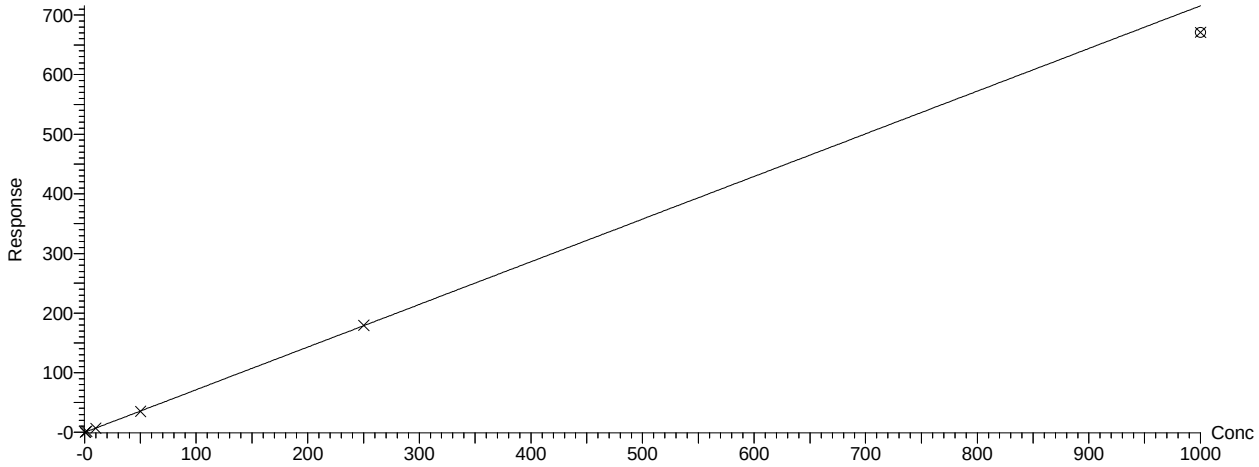
Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_097-A1.qld

Last Altered: Tuesday, March 12, 2019 17:19:00 Pacific Daylight Time
Printed: Wednesday, March 13, 2019 09:12:29 Pacific Daylight Time

**Compound name: EtFOSAA-2**

| # | ID | Name | Type | RT | Area | IS Area | Std. Conc | RRF | Conc. | %Rec | S/N | Acq.Date | Acq.Time | Flags |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2 | FC027B-CAL,, /01 | FC9W_097S12 | Standard | 7.73 | 35 | 5196 | 0.400 | 0.335 | 0.304 | 75.9 | 23 | 08-Mar-19 | 16:13:44 | MM |
| 3 | FC027C-CAL,, /01 | FC9W_097S13 | Standard | 7.73 | 150 | 5888 | 0.800 | 0.635 | 0.827 | 103.4 | 469 | 08-Mar-19 | 16:27:06 | MM |
| 4 | FC027D-CAL,, /01 | FC9W_097S14 | Standard | 7.72 | 492 | 5770 | 2.000 | 0.852 | 2.498 | 124.9 | 1259 | 08-Mar-19 | 16:40:24 | MM |
| 5 | FC027E-CAL,, /01 | FC9W_097S15 | Standard | 7.72 | 2045 | 5917 | 10.000 | 0.691 | 9.775 | 97.7 | 3306 | 08-Mar-19 | 16:53:43 | MM |
| 6 | FC027F-CAL,, /01 | FC9W_097S16 | Standard | 7.73 | 9937 | 5701 | 50.000 | 0.697 | 48.839 | 97.7 | 19999 | 08-Mar-19 | 18:12:07 | MM |
| 7 | FC027G-CAL,, /01 | FC9W_097S17 | Standard | 7.72 | 52181 | 5815 | 250.000 | 0.718 | 250.958 | 100.4 | 2744 | 08-Mar-19 | 18:25:24 | MM |
| 8 | FC027H-CAL,, /01 | FC9W_097S18 | Standard | 7.72 | 162149 | 4834 | 1000.000 | 0.671 | 937.756 | 93.8 | 2797 | 08-Mar-19 | 18:38:44 | MMX |

Compound name: EtFOSAA-2
Correlation coefficient: r = 0.999699, r^2 = 0.999398
Calibration curve: 0.7155 * x + -0.083401
Response type: Internal Std ( Ref 91 ), Area * ( IS Conc. / IS Area )
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None




PVed by GW, SVed by hh 13-Mar-19. NOTE: Unit=ng based on 4 mL extract

**Quantify Compound Summary Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

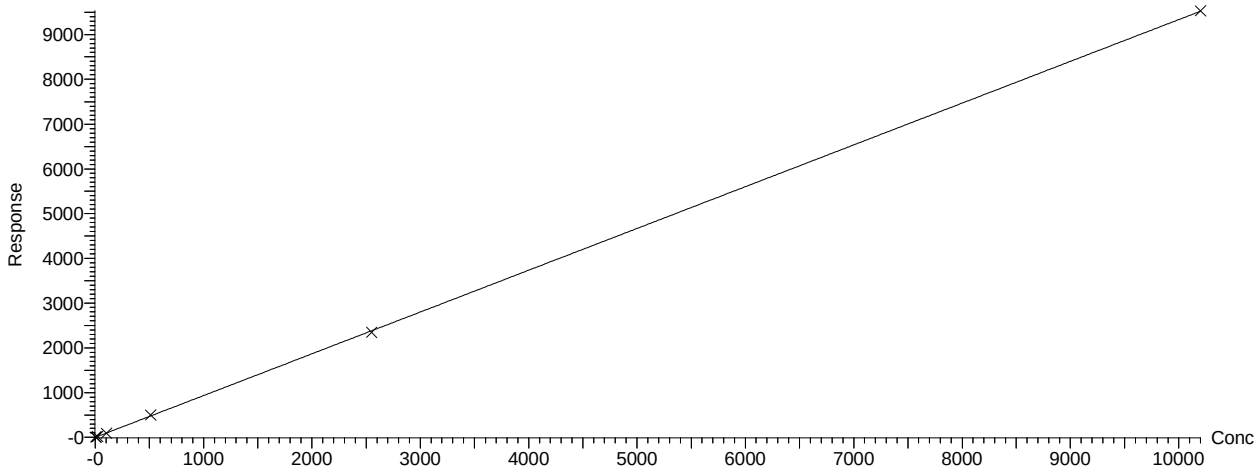
Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_097-A1.qld

Last Altered: Tuesday, March 12, 2019 17:19:00 Pacific Daylight Time
Printed: Wednesday, March 13, 2019 09:12:29 Pacific Daylight Time

**Compound name: N-MeFOSE**

| # | ID | Name | Type | RT | Area | IS Area | Std. Conc | RRF | Conc. | %Rec | S/N | Acq.Date | Acq.Time | Flags |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2 | FC027B-CAL,, /01 | FC9W_097S12 | Standard | 9.85 | 537 | 13810 | 4.080 | 0.954 | 3.890 | 95.3 | 245 | 08-Mar-19 | 16:13:44 | MM |
| 3 | FC027C-CAL,, /01 | FC9W_097S13 | Standard | 9.84 | 1099 | 14362 | 8.160 | 0.938 | 7.922 | 97.1 | 369 | 08-Mar-19 | 16:27:06 | MM |
| 4 | FC027D-CAL,, /01 | FC9W_097S14 | Standard | 9.83 | 2829 | 14175 | 20.400 | 0.978 | 21.100 | 103.4 | 325 | 08-Mar-19 | 16:40:24 | MM |
| 5 | FC027E-CAL,, /01 | FC9W_097S15 | Standard | 9.83 | 13841 | 14452 | 102.000 | 0.939 | 102.301 | 100.3 | 1343 | 08-Mar-19 | 16:53:43 | MM |
| 6 | FC027F-CAL,, /01 | FC9W_097S16 | Standard | 9.84 | 68899 | 13749 | 510.000 | 0.983 | 536.472 | 105.2 | 2419 | 08-Mar-19 | 18:12:07 | MM |
| 7 | FC027G-CAL,, /01 | FC9W_097S17 | Standard | 9.83 | 358206 | 15263 | 2550.000 | 0.920 | 2513.4... | 98.6 | 8836 | 08-Mar-19 | 18:25:24 | MM |
| 8 | FC027H-CAL,, /01 | FC9W_097S18 | Standard | 9.83 | 1326227 | 13913 | 10200.000 | 0.935 | 10209.... | 100.1 | 17250 | 08-Mar-19 | 18:38:44 | MM |

Compound name: N-MeFOSE
Correlation coefficient: r = 0.999927, r^2 = 0.999853
Calibration curve: 0.933609 * x + 0.259483
Response type: Internal Std ( Ref 92 ), Area * ( IS Conc. / IS Area )
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None




PVed by GW, SVed by hh 13-Mar-19. NOTE: Unit=ng based on 4 mL extract

**Quantify Compound Summary Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

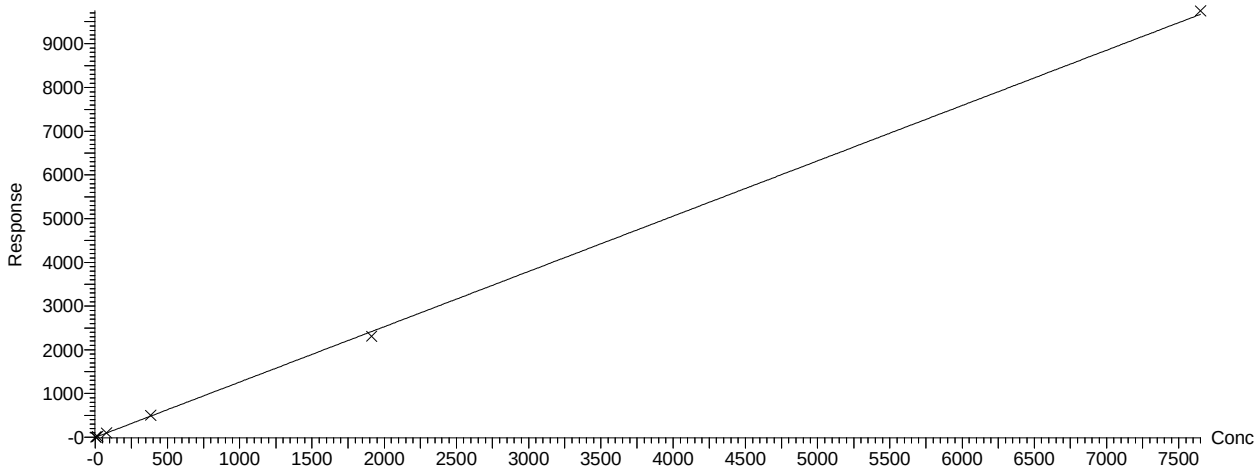
Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_097-A1.qld

Last Altered: Tuesday, March 12, 2019 17:19:00 Pacific Daylight Time
Printed: Wednesday, March 13, 2019 09:12:29 Pacific Daylight Time

**Compound name: N-EtFOSE**

| # | ID | Name | Type | RT | Area | IS Area | Std. Conc | RRF | Conc. | %Rec | S/N | Acq.Date | Acq.Time | Flags |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2 | FC027B-CAL,, /01 | FC9W_097S12 | Standard | 10.13 | 541 | 14238 | 3.060 | 1.241 | 2.733 | 89.3 | 185 | 08-Mar-19 | 16:13:44 | MM |
| 3 | FC027C-CAL,, /01 | FC9W_097S13 | Standard | 10.12 | 1194 | 14801 | 6.120 | 1.318 | 6.111 | 99.9 | 84 | 08-Mar-19 | 16:27:06 | MM |
| 4 | FC027D-CAL,, /01 | FC9W_097S14 | Standard | 10.11 | 3087 | 14736 | 15.300 | 1.369 | 16.301 | 106.5 | 199 | 08-Mar-19 | 16:40:24 | MM |
| 5 | FC027E-CAL,, /01 | FC9W_097S15 | Standard | 10.11 | 14688 | 14632 | 76.500 | 1.312 | 79.127 | 103.4 | 691 | 08-Mar-19 | 16:53:43 | MM |
| 6 | FC027F-CAL,, /01 | FC9W_097S16 | Standard | 10.13 | 72437 | 14341 | 382.500 | 1.321 | 399.260 | 104.4 | 750 | 08-Mar-19 | 18:12:07 | MM |
| 7 | FC027G-CAL,, /01 | FC9W_097S17 | Standard | 10.12 | 375415 | 16227 | 1912.500 | 1.210 | 1829.6... | 95.7 | 7477 | 08-Mar-19 | 18:25:24 | MM |
| 8 | FC027H-CAL,, /01 | FC9W_097S18 | Standard | 10.13 | 1397932 | 14336 | 7650.000 | 1.275 | 7712.8... | 100.8 | 29826 | 08-Mar-19 | 18:38:44 | MM |

Compound name: N-EtFOSE
Correlation coefficient: r = 0.999748, r^2 = 0.999495
Calibration curve: 1.26425 * x + 0.343154
Response type: Internal Std ( Ref 93 ), Area * ( IS Conc. / IS Area )
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None




PVed by GW, SVed by hh 13-Mar-19. NOTE: Unit=ng based on 4 mL extract

**Quantify Compound Summary Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

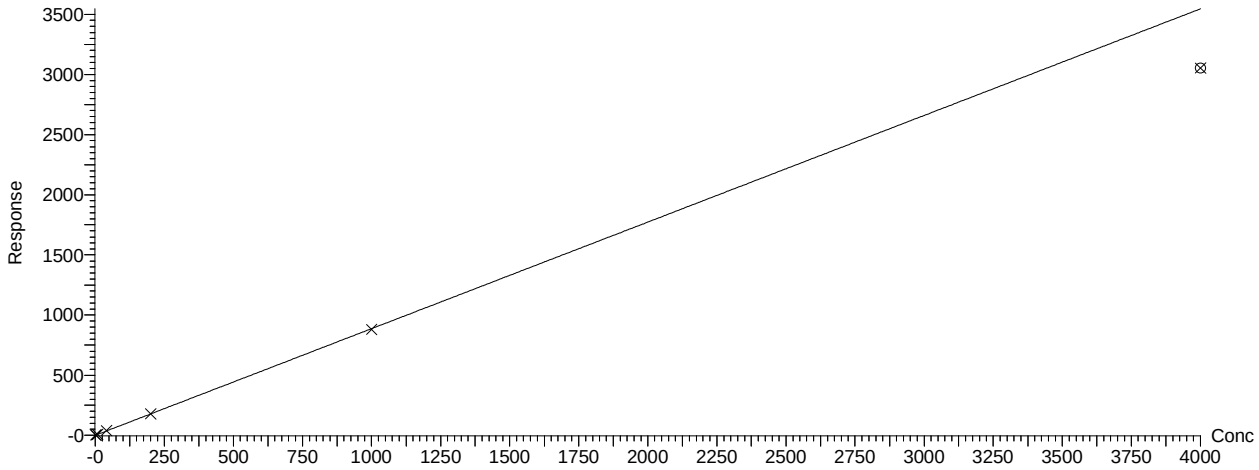
Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_097-A1.qld

Last Altered: Tuesday, March 12, 2019 17:19:00 Pacific Daylight Time
Printed: Wednesday, March 13, 2019 09:12:29 Pacific Daylight Time

**Compound name: HFPO-DA-1**

| # | ID | Name | Type | RT | Area | IS Area | Std. Conc | RRF | Conc. | %Rec | S/N | Acq.Date | Acq.Time | Flags |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2 | FC027B-CAL,, /01 | FC9W_097S12 | Standard | 5.10 | 1076 | 25712 | 1.600 | 1.047 | 1.330 | 83.1 | 7719 | 08-Mar-19 | 16:13:44 | bb |
| 3 | FC027C-CAL,, /01 | FC9W_097S13 | Standard | 5.10 | 2257 | 27622 | 3.200 | 1.021 | 3.129 | 97.8 | 421 | 08-Mar-19 | 16:27:06 | bb |
| 4 | FC027D-CAL,, /01 | FC9W_097S14 | Standard | 5.10 | 5368 | 26474 | 8.000 | 1.014 | 8.591 | 107.4 | 11138 | 08-Mar-19 | 16:40:24 | bb |
| 5 | FC027E-CAL,, /01 | FC9W_097S15 | Standard | 5.10 | 26639 | 26660 | 40.000 | 0.999 | 44.528 | 111.3 | 10380 | 08-Mar-19 | 16:53:43 | bb |
| 6 | FC027F-CAL,, /01 | FC9W_097S16 | Standard | 5.10 | 108423 | 24136 | 200.000 | 0.898 | 202.145 | 101.1 | 25640 | 08-Mar-19 | 18:12:07 | bb |
| 7 | FC027G-CAL,, /01 | FC9W_097S17 | Standard | 5.10 | 423660 | 19239 | 1000.000 | 0.881 | 993.077 | 99.3 | 40353 | 08-Mar-19 | 18:25:24 | bb |
| 8 | FC027H-CAL,, /01 | FC9W_097S18 | Standard | 5.09 | 1036168 | 13567 | 4000.000 | 0.764 | 3445.6... | 86.1 | 599723 | 08-Mar-19 | 18:38:44 | bbX |

Compound name: HFPO-DA-1
Correlation coefficient: r = 0.999724, r^2 = 0.999448
Calibration curve: 0.886463 * x + 0.495135
Response type: Internal Std ( Ref 94 ), Area * ( IS Conc. / IS Area )
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None




PVed by GW, SVed by hh 13-Mar-19. NOTE: Unit=ng based on 4 mL extract

**Quantify Compound Summary Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

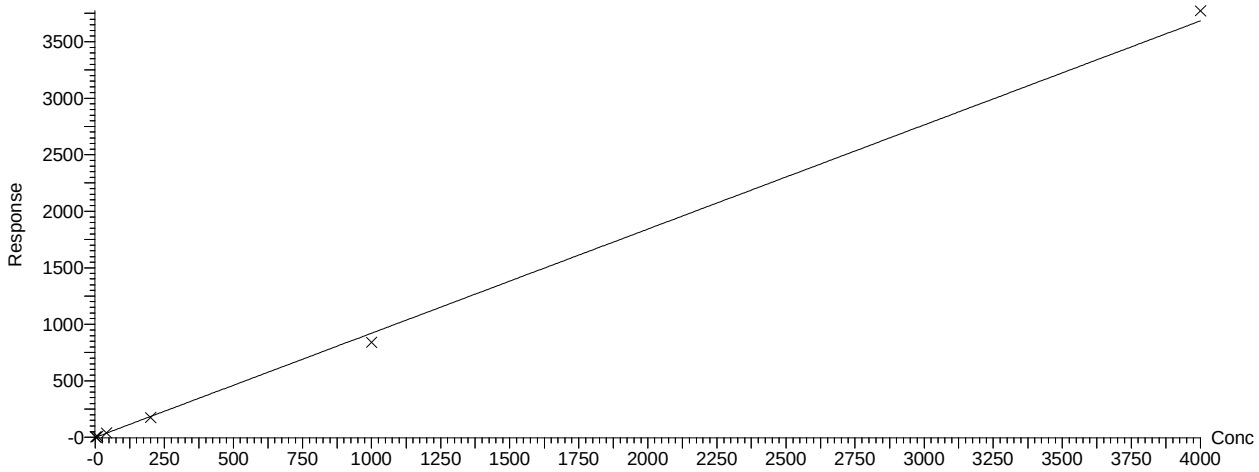
Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_097-A1.qld

Last Altered: Tuesday, March 12, 2019 17:19:00 Pacific Daylight Time
Printed: Wednesday, March 13, 2019 09:12:29 Pacific Daylight Time

**Compound name: HFPO-DA-2**

| # | ID | Name | Type | RT | Area | IS Area | Std. Conc | RRF | Conc. | %Rec | S/N | Acq.Date | Acq.Time | Flags |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2 | FC027B-CAL,, /01 | FC9W_097S12 | Standard | 5.10 | 454 | 12778 | 1.600 | 0.888 | 1.490 | 93.1 | 41 | 08-Mar-19 | 16:13:44 | MM |
| 3 | FC027C-CAL,, /01 | FC9W_097S13 | Standard | 5.10 | 1070 | 13733 | 3.200 | 0.974 | 3.330 | 104.1 | 149 | 08-Mar-19 | 16:27:06 | bb |
| 4 | FC027D-CAL,, /01 | FC9W_097S14 | Standard | 5.10 | 2657 | 13144 | 8.000 | 1.011 | 8.724 | 109.0 | 607 | 08-Mar-19 | 16:40:24 | bb |
| 5 | FC027E-CAL,, /01 | FC9W_097S15 | Standard | 5.10 | 13325 | 13690 | 40.000 | 0.973 | 42.211 | 105.5 | 1428 | 08-Mar-19 | 16:53:43 | bb |
| 6 | FC027F-CAL,, /01 | FC9W_097S16 | Standard | 5.10 | 52380 | 12012 | 200.000 | 0.872 | 189.288 | 94.6 | 3700 | 08-Mar-19 | 18:12:07 | bb |
| 7 | FC027G-CAL,, /01 | FC9W_097S17 | Standard | 5.10 | 202621 | 9647 | 1000.000 | 0.840 | 911.915 | 91.2 | 13129 | 08-Mar-19 | 18:25:24 | bb |
| 8 | FC027H-CAL,, /01 | FC9W_097S18 | Standard | 5.09 | 515870 | 5469 | 4000.000 | 0.943 | 4095.8... | 102.4 | 20120 | 08-Mar-19 | 18:38:44 | bb |

Compound name: HFPO-DA-2
Correlation coefficient: r = 0.998962, r^2 = 0.997925
Calibration curve: 0.92125 * x + 0.0478189
Response type: Internal Std ( Ref 95 ), Area * ( IS Conc. / IS Area )
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None




PVed by GW, SVed by hh 13-Mar-19. NOTE: Unit=ng based on 4 mL extract

**Quantify Compound Summary Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

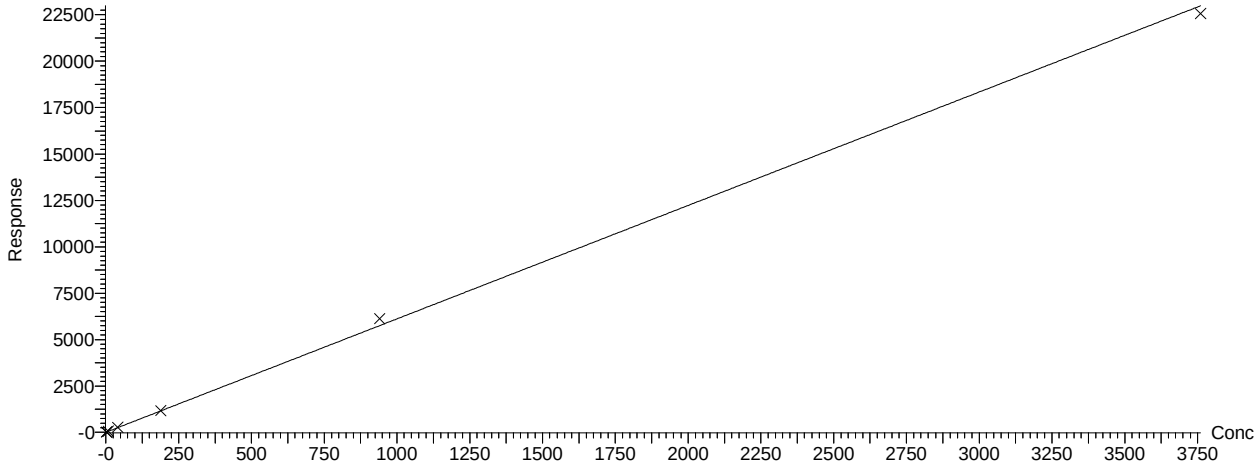
Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_097-A1.qld

Last Altered: Tuesday, March 12, 2019 17:19:00 Pacific Daylight Time
Printed: Wednesday, March 13, 2019 09:12:29 Pacific Daylight Time

**Compound name: ADONA-1**

| # | ID | Name | Type | RT | Area | IS Area | Std. Conc | RRF | Conc. | %Rec | S/N | Acq.Date | Acq.Time | Flags |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2 | FC027B-CAL,, /01 | FC9W_097S12 | Standard | 5.80 | 7678 | 25712 | 1.600 | 7.465 | 1.393 | 87.1 | 1913 | 08-Mar-19 | 16:13:44 | bb |
| 3 | FC027C-CAL,, /01 | FC9W_097S13 | Standard | 5.80 | 15126 | 27622 | 3.200 | 6.845 | 3.023 | 94.5 | 4836 | 08-Mar-19 | 16:27:06 | bb |
| 4 | FC027D-CAL,, /01 | FC9W_097S14 | Standard | 5.80 | 35796 | 26474 | 8.000 | 6.760 | 8.287 | 103.6 | 4296 | 08-Mar-19 | 16:40:24 | bb |
| 5 | FC027E-CAL,, /01 | FC9W_097S15 | Standard | 5.79 | 179470 | 26660 | 40.000 | 6.732 | 43.491 | 108.7 | 15296 | 08-Mar-19 | 16:53:43 | bb |
| 6 | FC027F-CAL,, /01 | FC9W_097S16 | Standard | 5.80 | 704563 | 24136 | 188.000 | 6.211 | 190.466 | 101.3 | 65202 | 08-Mar-19 | 18:12:07 | bb |
| 7 | FC027G-CAL,, /01 | FC9W_097S17 | Standard | 5.79 | 2949897 | 19239 | 940.000 | 6.525 | 1002.7... | 106.7 | 50990 | 08-Mar-19 | 18:25:24 | bb |
| 8 | FC027H-CAL,, /01 | FC9W_097S18 | Standard | 5.78 | 7654260 | 13567 | 3760.000 | 6.002 | 3691.3... | 98.2 | 96886 | 08-Mar-19 | 18:38:44 | bb |

Compound name: ADONA-1
Correlation coefficient: r = 0.999405, r^2 = 0.998810
Calibration curve: 6.11258 * x + 3.42895
Response type: Internal Std ( Ref 94 ), Area * ( IS Conc. / IS Area )
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None




PVed by GW, SVed by hh 13-Mar-19. NOTE: Unit=ng based on 4 mL extract

**Quantify Compound Summary Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

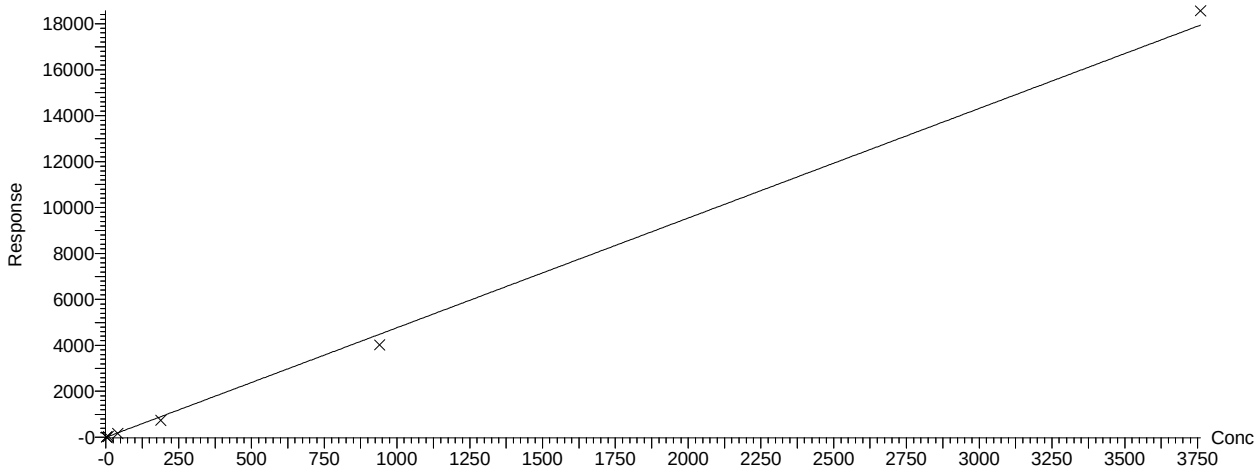
Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_097-A1.qld

Last Altered: Tuesday, March 12, 2019 17:19:00 Pacific Daylight Time
Printed: Wednesday, March 13, 2019 09:12:29 Pacific Daylight Time

**Compound name: ADONA-2**

| # | ID | Name | Type | RT | Area | IS Area | Std. Conc | RRF | Conc. | %Rec | S/N | Acq.Date | Acq.Time | Flags |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2 | FC027B-CAL,, /01 | FC9W_097S12 | Standard | 5.80 | 2268 | 12778 | 1.600 | 4.437 | 2.013 | 125.8 | 3177 | 08-Mar-19 | 16:13:44 | bb |
| 3 | FC027C-CAL,, /01 | FC9W_097S13 | Standard | 5.80 | 4602 | 13733 | 3.200 | 4.189 | 3.334 | 104.2 | 12272 | 08-Mar-19 | 16:27:06 | bb |
| 4 | FC027D-CAL,, /01 | FC9W_097S14 | Standard | 5.80 | 11920 | 13144 | 8.000 | 4.535 | 8.126 | 101.6 | 6112 | 08-Mar-19 | 16:40:24 | bb |
| 5 | FC027E-CAL,, /01 | FC9W_097S15 | Standard | 5.79 | 59418 | 13690 | 40.000 | 4.340 | 36.904 | 92.3 | 8237 | 08-Mar-19 | 16:53:43 | bb |
| 6 | FC027F-CAL,, /01 | FC9W_097S16 | Standard | 5.80 | 222517 | 12012 | 188.000 | 3.942 | 155.789 | 82.9 | 26203 | 08-Mar-19 | 18:12:07 | bb |
| 7 | FC027G-CAL,, /01 | FC9W_097S17 | Standard | 5.79 | 971306 | 9647 | 940.000 | 4.285 | 844.402 | 89.8 | 55430 | 08-Mar-19 | 18:25:24 | bb |
| 8 | FC027H-CAL,, /01 | FC9W_097S18 | Standard | 5.78 | 2537939 | 5469 | 3760.000 | 4.937 | 3890.2... | 103.5 | 37348 | 08-Mar-19 | 18:38:44 | bb |

Compound name: ADONA-2
Correlation coefficient: r = 0.997953, r^2 = 0.995910
Calibration curve: 4.77255 * x + -2.50783
Response type: Internal Std ( Ref 95 ), Area * ( IS Conc. / IS Area )
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None




PVed by GW, SVed by hh 13-Mar-19. NOTE: Unit=ng based on 4 mL extract

**Quantify Compound Summary Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

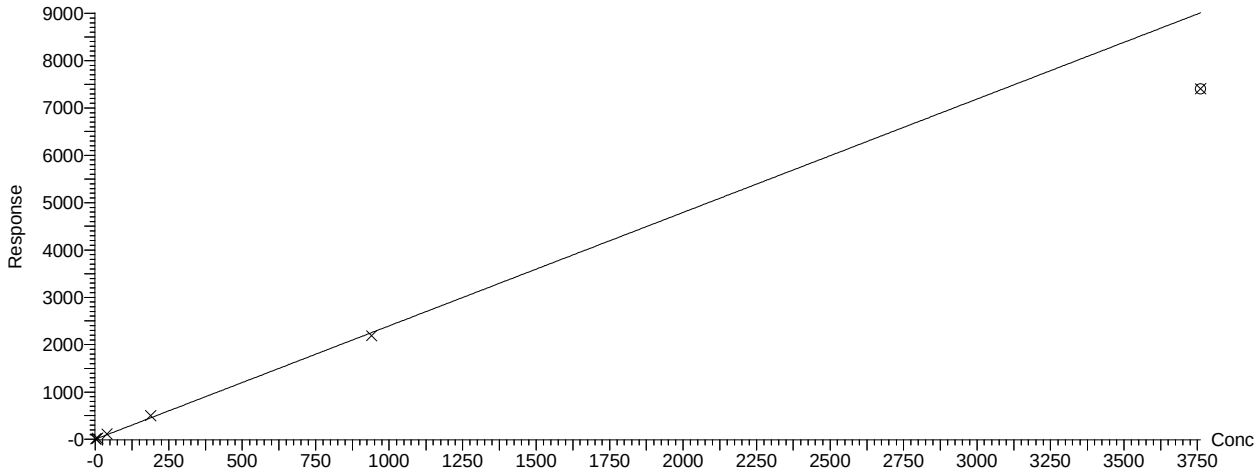
Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_097-A1.qld

Last Altered: Tuesday, March 12, 2019 17:19:00 Pacific Daylight Time
Printed: Wednesday, March 13, 2019 09:12:29 Pacific Daylight Time

**Compound name: 9Cl-PF3ONS-1**

| # | ID | Name | Type | RT | Area | IS Area | Std. Conc | RRF | Conc. | %Rec | S/N | Acq.Date | Acq.Time | Flags |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2 | FC027B-CAL,, /01 | FC9W_097S12 | Standard | 7.85 | 3178 | 25712 | 1.600 | 3.090 | 1.157 | 72.3 | 287 | 08-Mar-19 | 16:13:44 | MM |
| 3 | FC027C-CAL,, /01 | FC9W_097S13 | Standard | 7.85 | 6435 | 27622 | 3.200 | 2.912 | 2.983 | 93.2 | 406 | 08-Mar-19 | 16:27:06 | MM |
| 4 | FC027D-CAL,, /01 | FC9W_097S14 | Standard | 7.85 | 15707 | 26474 | 8.000 | 2.966 | 9.000 | 112.5 | 2292 | 08-Mar-19 | 16:40:24 | MM |
| 5 | FC027E-CAL,, /01 | FC9W_097S15 | Standard | 7.85 | 74023 | 26660 | 40.000 | 2.777 | 45.454 | 113.6 | 4681 | 08-Mar-19 | 16:53:43 | MM |
| 6 | FC027F-CAL,, /01 | FC9W_097S16 | Standard | 7.85 | 303338 | 24136 | 188.000 | 2.674 | 208.945 | 111.1 | 21706 | 08-Mar-19 | 18:12:07 | MM |
| 7 | FC027G-CAL,, /01 | FC9W_097S17 | Standard | 7.85 | 1053342 | 19239 | 940.000 | 2.330 | 913.261 | 97.2 | 15619 | 08-Mar-19 | 18:25:24 | MM |
| 8 | FC027H-CAL,, /01 | FC9W_097S18 | Standard | 7.84 | 2510741 | 13567 | 3760.000 | 1.969 | 3089.1... | 82.2 | 37624 | 08-Mar-19 | 18:38:44 | bbX |

Compound name: 9Cl-PF3ONS-1
Correlation coefficient: r = 0.998219, r^2 = 0.996441
Calibration curve: 2.3956 * x + 2.17185
Response type: Internal Std ( Ref 94 ), Area * ( IS Conc. / IS Area )
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None




PVed by GW, SVed by hh 13-Mar-19. NOTE: Unit=ng based on 4 mL extract

**Quantify Compound Summary Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

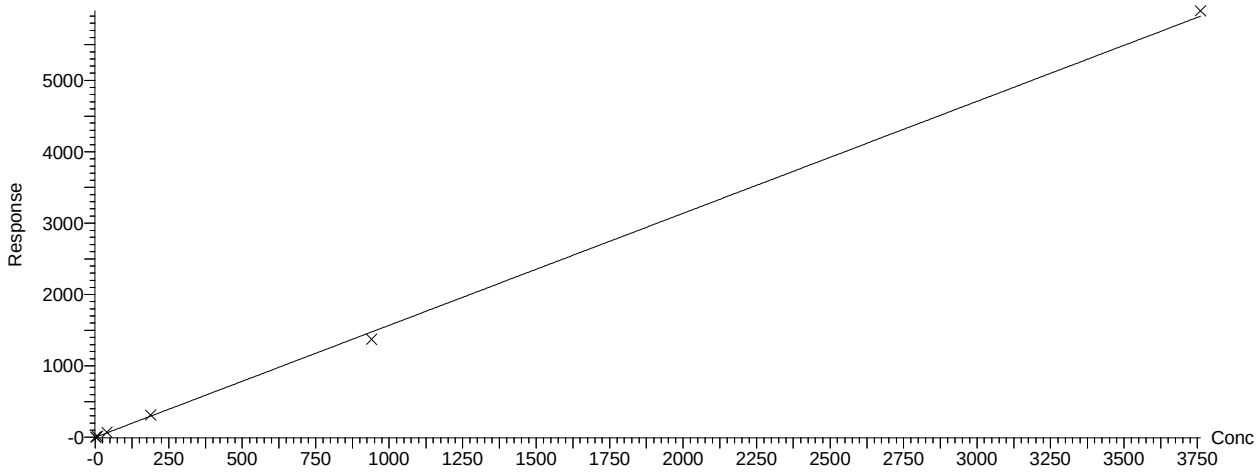
Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_097-A1.qld

Last Altered: Tuesday, March 12, 2019 17:19:00 Pacific Daylight Time
Printed: Wednesday, March 13, 2019 09:12:29 Pacific Daylight Time

**Compound name: 9Cl-PF3ONS-2**

| # | ID | Name | Type | RT | Area | IS Area | Std. Conc | RRF | Conc. | %Rec | S/N | Acq.Date | Acq.Time | Flags |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2 | FC027B-CAL,, /01 | FC9W_097S12 | Standard | 7.85 | 978 | 12778 | 1.600 | 1.913 | 1.244 | 77.7 | 62 | 08-Mar-19 | 16:13:44 | MM |
| 3 | FC027C-CAL,, /01 | FC9W_097S13 | Standard | 7.85 | 1976 | 13733 | 3.200 | 1.798 | 2.961 | 92.5 | 104 | 08-Mar-19 | 16:27:06 | bb |
| 4 | FC027D-CAL,, /01 | FC9W_097S14 | Standard | 7.85 | 5277 | 13144 | 8.000 | 2.007 | 9.531 | 119.1 | 358 | 08-Mar-19 | 16:40:24 | bb |
| 5 | FC027E-CAL,, /01 | FC9W_097S15 | Standard | 7.84 | 24035 | 13690 | 40.000 | 1.756 | 44.068 | 110.2 | 1109 | 08-Mar-19 | 16:53:43 | bb |
| 6 | FC027F-CAL,, /01 | FC9W_097S16 | Standard | 7.85 | 94198 | 12012 | 188.000 | 1.669 | 199.292 | 106.0 | 2419 | 08-Mar-19 | 18:12:07 | bb |
| 7 | FC027G-CAL,, /01 | FC9W_097S17 | Standard | 7.85 | 331477 | 9647 | 940.000 | 1.462 | 875.600 | 93.1 | 7318 | 08-Mar-19 | 18:25:24 | bb |
| 8 | FC027H-CAL,, /01 | FC9W_097S18 | Standard | 7.84 | 816721 | 5469 | 3760.000 | 1.589 | 3808.1... | 101.3 | 13981 | 08-Mar-19 | 18:38:44 | bb |

Compound name: 9Cl-PF3ONS-2
Correlation coefficient: r = 0.999336, r^2 = 0.998672
Calibration curve: 1.56845 * x + 1.10969
Response type: Internal Std ( Ref 95 ), Area * ( IS Conc. / IS Area )
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None




PVed by GW, SVed by hh 13-Mar-19. NOTE: Unit=ng based on 4 mL extract

**Quantify Compound Summary Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

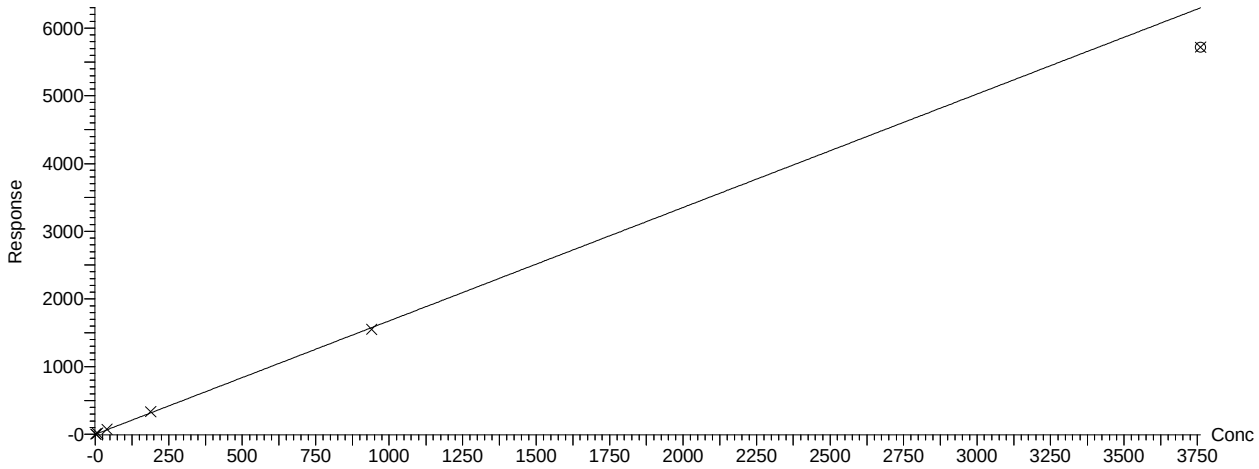
Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_097-A1.qld

Last Altered: Tuesday, March 12, 2019 17:19:00 Pacific Daylight Time
Printed: Wednesday, March 13, 2019 09:12:29 Pacific Daylight Time

**Compound name: 11Cl-PF3OUdS-1**

| # | ID | Name | Type | RT | Area | IS Area | Std. Conc | RRF | Conc. | %Rec | S/N | Acq.Date | Acq.Time | Flags |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2 | FC027B-CAL,, /01 | FC9W_097S12 | Standard | 8.63 | 1879 | 25712 | 1.600 | 1.827 | 1.351 | 84.4 | 353 | 08-Mar-19 | 16:13:44 | bb |
| 3 | FC027C-CAL,, /01 | FC9W_097S13 | Standard | 8.64 | 3938 | 27622 | 3.200 | 1.782 | 3.010 | 94.1 | 714 | 08-Mar-19 | 16:27:06 | bb |
| 4 | FC027D-CAL,, /01 | FC9W_097S14 | Standard | 8.63 | 9872 | 26474 | 8.000 | 1.864 | 8.508 | 106.4 | 748 | 08-Mar-19 | 16:40:24 | bb |
| 5 | FC027E-CAL,, /01 | FC9W_097S15 | Standard | 8.62 | 50056 | 26660 | 40.000 | 1.878 | 44.427 | 111.1 | 3115 | 08-Mar-19 | 16:53:43 | bb |
| 6 | FC027F-CAL,, /01 | FC9W_097S16 | Standard | 8.64 | 201363 | 24136 | 188.000 | 1.775 | 198.770 | 105.7 | 13053 | 08-Mar-19 | 18:12:07 | bb |
| 7 | FC027G-CAL,, /01 | FC9W_097S17 | Standard | 8.62 | 745589 | 19239 | 940.000 | 1.649 | 924.735 | 98.4 | 12229 | 08-Mar-19 | 18:25:24 | bb |
| 8 | FC027H-CAL,, /01 | FC9W_097S18 | Standard | 8.62 | 1939444 | 13567 | 3760.000 | 1.521 | 3412.1... | 90.7 | 14580 | 08-Mar-19 | 18:38:44 | bbX |

Compound name: 11Cl-PF3OUdS-1
Correlation coefficient: r = 0.999375, r^2 = 0.998750
Calibration curve: 1.67559 * x + 0.659886
Response type: Internal Std ( Ref 94 ), Area * ( IS Conc. / IS Area )
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None




PVed by GW, SVed by hh 13-Mar-19. NOTE: Unit=ng based on 4 mL extract

**Quantify Compound Summary Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

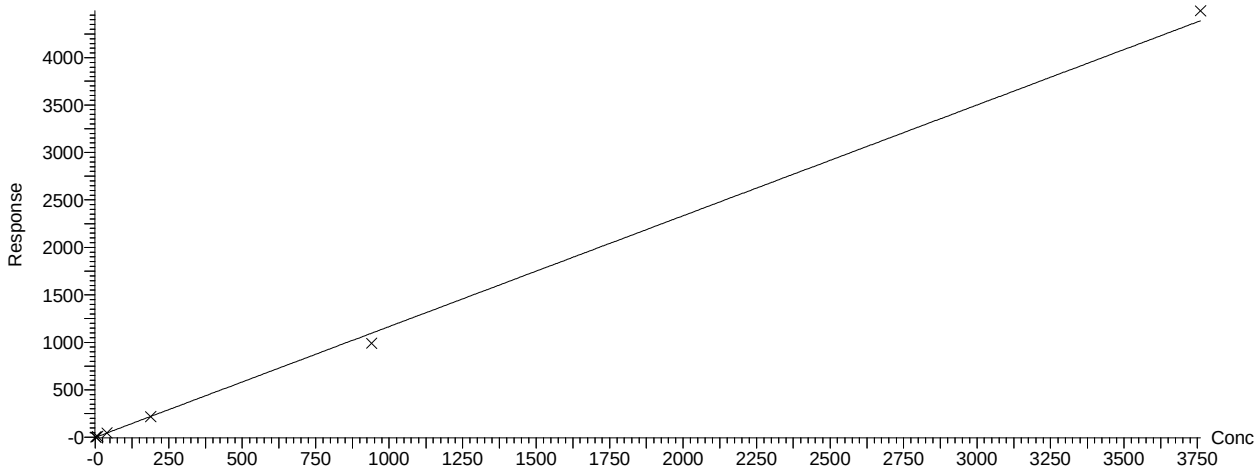
Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_097-A1.qld

Last Altered: Tuesday, March 12, 2019 17:19:00 Pacific Daylight Time
Printed: Wednesday, March 13, 2019 09:12:29 Pacific Daylight Time

**Compound name: 11Cl-PF3OUdS-2**

| # | ID | Name | Type | RT | Area | IS Area | Std. Conc | RRF | Conc. | %Rec | S/N | Acq.Date | Acq.Time | Flags |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2 | FC027B-CAL,, /01 | FC9W_097S12 | Standard | 8.62 | 587 | 12778 | 1.600 | 1.149 | 1.549 | 96.8 | 64 | 08-Mar-19 | 16:13:44 | MM |
| 3 | FC027C-CAL,, /01 | FC9W_097S13 | Standard | 8.64 | 1362 | 13733 | 3.200 | 1.240 | 3.372 | 105.4 | 246 | 08-Mar-19 | 16:27:06 | bb |
| 4 | FC027D-CAL,, /01 | FC9W_097S14 | Standard | 8.63 | 3216 | 13144 | 8.000 | 1.223 | 8.360 | 104.5 | 371 | 08-Mar-19 | 16:40:24 | bb |
| 5 | FC027E-CAL,, /01 | FC9W_097S15 | Standard | 8.62 | 16133 | 13690 | 40.000 | 1.179 | 40.364 | 100.9 | 223 | 08-Mar-19 | 16:53:43 | bb |
| 6 | FC027F-CAL,, /01 | FC9W_097S16 | Standard | 8.64 | 65605 | 12012 | 188.000 | 1.162 | 187.166 | 99.6 | 3319 | 08-Mar-19 | 18:12:07 | bb |
| 7 | FC027G-CAL,, /01 | FC9W_097S17 | Standard | 8.62 | 239356 | 9647 | 940.000 | 1.056 | 850.353 | 90.5 | 7792 | 08-Mar-19 | 18:25:24 | MM |
| 8 | FC027H-CAL,, /01 | FC9W_097S18 | Standard | 8.62 | 614244 | 5469 | 3760.000 | 1.195 | 3849.6... | 102.4 | 7352 | 08-Mar-19 | 18:38:44 | bb |

Compound name: 11Cl-PF3OUdS-2
Correlation coefficient: r = 0.998907, r^2 = 0.997815
Calibration curve: 1.16709 * x + 0.0311258
Response type: Internal Std ( Ref 95 ), Area * ( IS Conc. / IS Area )
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None




PVed by GW, SVed by hh 13-Mar-19. NOTE: Unit=ng based on 4 mL extract

**Quantify Compound Summary Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

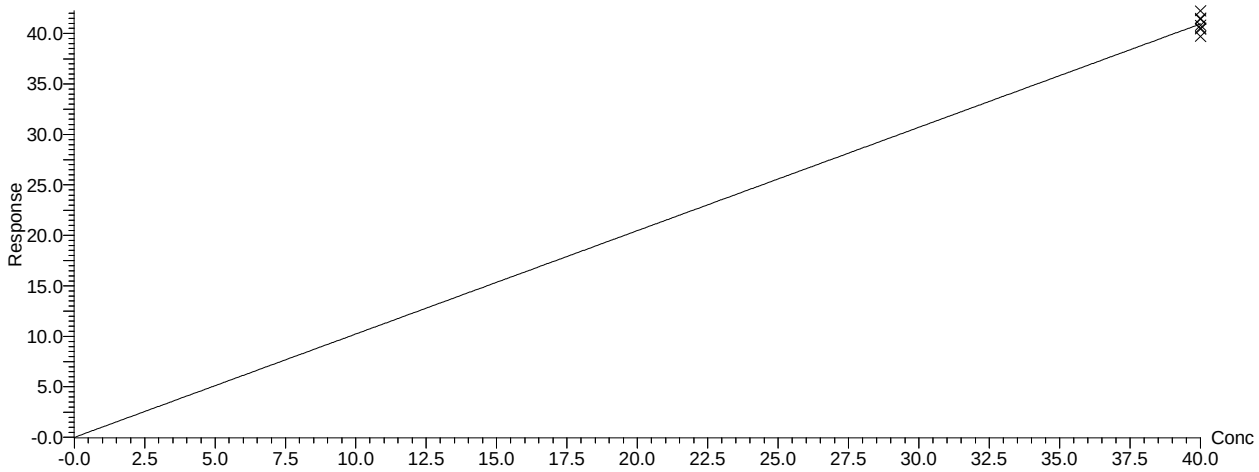
Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_097-A1.qld

Last Altered: Tuesday, March 12, 2019 17:19:00 Pacific Daylight Time
Printed: Wednesday, March 13, 2019 09:12:29 Pacific Daylight Time

**Compound name: 13C4-PFBA**

| # | ID | Name | Type | RT | Area | IS Area | Std. Conc | RRF | Conc. | %Rec | S/N | Acq.Date | Acq.Time | Flags |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2 | FC027B-CAL,, /01 | FC9W_097S12 | Standard | 2.10 | 62795 | 7692 | 40.000 | 1.020 | 39.871 | 99.7 | 7014 | 08-Mar-19 | 16:13:44 | bb |
| 3 | FC027C-CAL,, /01 | FC9W_097S13 | Standard | 2.11 | 66113 | 8173 | 40.000 | 1.011 | 39.510 | 98.8 | 14249 | 08-Mar-19 | 16:27:06 | bb |
| 4 | FC027D-CAL,, /01 | FC9W_097S14 | Standard | 2.09 | 63038 | 7941 | 40.000 | 0.992 | 38.769 | 96.9 | 7377 | 08-Mar-19 | 16:40:24 | bb |
| 5 | FC027E-CAL,, /01 | FC9W_097S15 | Standard | 2.11 | 64411 | 7775 | 40.000 | 1.036 | 40.464 | 101.2 | 7909 | 08-Mar-19 | 16:53:43 | bb |
| 6 | FC027F-CAL,, /01 | FC9W_097S16 | Standard | 2.10 | 58312 | 7195 | 40.000 | 1.013 | 39.583 | 99.0 | 9181 | 08-Mar-19 | 18:12:07 | bb |
| 7 | FC027G-CAL,, /01 | FC9W_097S17 | Standard | 2.09 | 52264 | 6186 | 40.000 | 1.056 | 41.268 | 103.2 | 6732 | 08-Mar-19 | 18:25:24 | bb |
| 8 | FC027H-CAL,, /01 | FC9W_097S18 | Standard | 2.09 | 33449 | 4030 | 40.000 | 1.037 | 40.536 | 101.3 | 5365 | 08-Mar-19 | 18:38:44 | bb |

Compound name: 13C4-PFBA
Response Factor: 1.02373
RRF SD: 0.0210417, % Relative SD: 2.0554
Response type: Internal Std ( Ref 96 ), Area * ( IS Conc. / IS Area )
Curve type: RF




PVed by GW, SVed by hh 13-Mar-19. NOTE: Unit=ng based on 4 mL extract

**Quantify Compound Summary Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

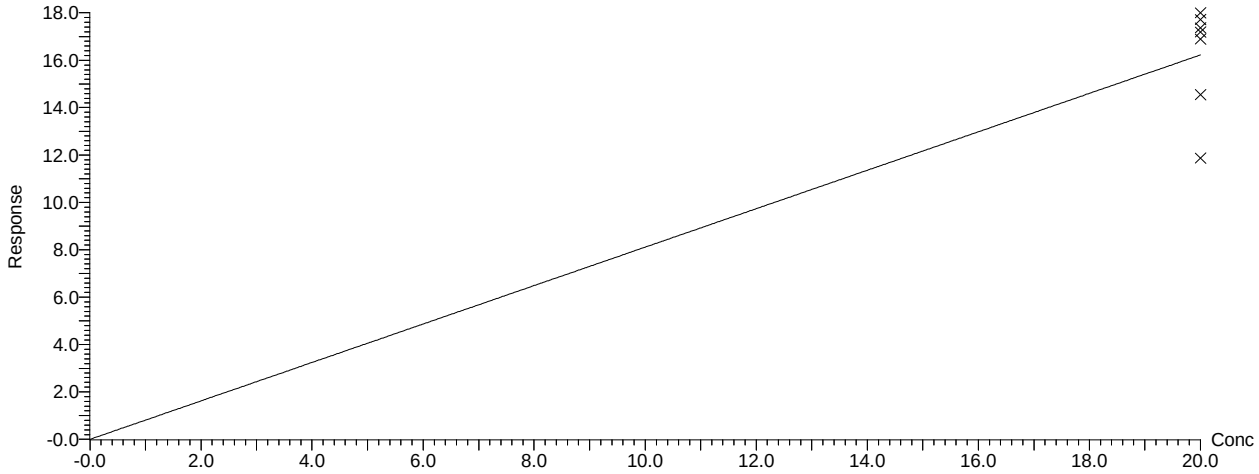
Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_097-A1.qld

Last Altered: Tuesday, March 12, 2019 17:19:00 Pacific Daylight Time
Printed: Wednesday, March 13, 2019 09:12:29 Pacific Daylight Time

**Compound name: 13C5-PFPeA**

| # | ID | Name | Type | RT | Area | IS Area | Std. Conc | RRF | Conc. | %Rec | S/N | Acq.Date | Acq.Time | Flags |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2 | FC027B-CAL,, /01 | FC9W_097S12 | Standard | 4.34 | 32851 | 4862 | 20.000 | 0.845 | 20.822 | 104.1 | 10630 | 08-Mar-19 | 16:13:44 | MM |
| 3 | FC027C-CAL,, /01 | FC9W_097S13 | Standard | 4.34 | 34707 | 4898 | 20.000 | 0.886 | 21.835 | 109.2 | 12358 | 08-Mar-19 | 16:27:06 | MM |
| 4 | FC027D-CAL,, /01 | FC9W_097S14 | Standard | 4.34 | 32474 | 4723 | 20.000 | 0.859 | 21.187 | 105.9 | 8333 | 08-Mar-19 | 16:40:24 | MM |
| 5 | FC027E-CAL,, /01 | FC9W_097S15 | Standard | 4.33 | 33902 | 4708 | 20.000 | 0.900 | 22.190 | 111.0 | 11400 | 08-Mar-19 | 16:53:43 | MM |
| 6 | FC027F-CAL,, /01 | FC9W_097S16 | Standard | 4.34 | 30018 | 4322 | 20.000 | 0.868 | 21.401 | 107.0 | 9825 | 08-Mar-19 | 18:12:07 | bb |
| 7 | FC027G-CAL,, /01 | FC9W_097S17 | Standard | 4.33 | 25187 | 4329 | 20.000 | 0.727 | 17.930 | 89.6 | 7820 | 08-Mar-19 | 18:25:24 | bb |
| 8 | FC027H-CAL,, /01 | FC9W_097S18 | Standard | 4.33 | 16146 | 3400 | 20.000 | 0.594 | 14.635 | 73.2 | 4403 | 08-Mar-19 | 18:38:44 | MM |

Compound name: 13C5-PFPeA
Response Factor: 0.811269
RRF SD: 0.11144, % Relative SD: 13.7365
Response type: Internal Std ( Ref 97 ), Area * ( IS Conc. / IS Area )
Curve type: RF




PVed by GW, SVed by hh 13-Mar-19. NOTE: Unit=ng based on 4 mL extract

**Quantify Compound Summary Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

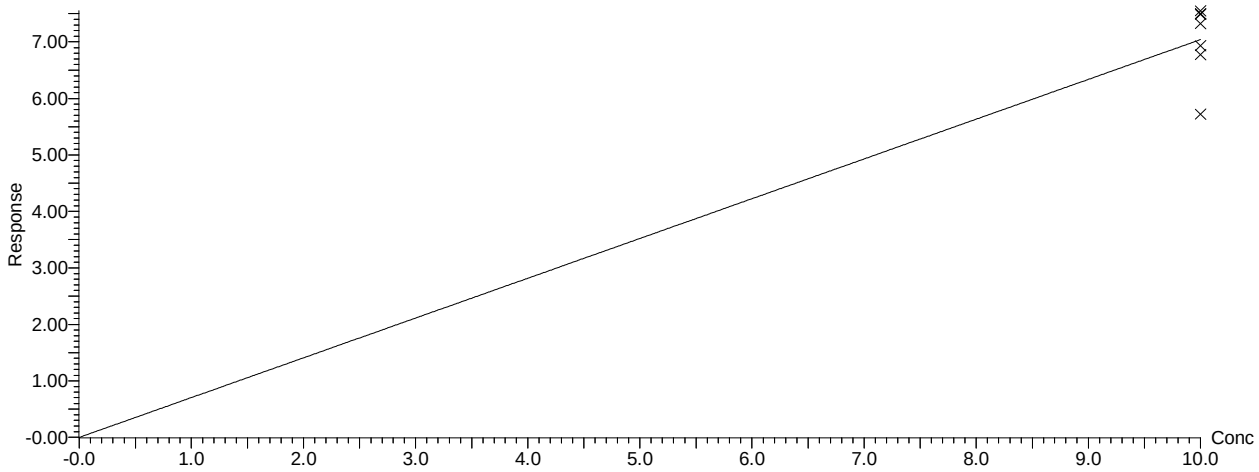
Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_097-A1.qld

Last Altered: Tuesday, March 12, 2019 17:19:00 Pacific Daylight Time
Printed: Wednesday, March 13, 2019 09:12:29 Pacific Daylight Time

**Compound name: 13C5-PFHxA-1**

| # | ID | Name | Type | RT | Area | IS Area | Std. Conc | RRF | Conc. | %Rec | S/N | Acq.Date | Acq.Time | Flags |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2 | FC027B-CAL,, /01 | FC9W_097S12 | Standard | 4.92 | 14555 | 4862 | 10.000 | 0.748 | 10.630 | 106.3 | 1670 | 08-Mar-19 | 16:13:44 | bb |
| 3 | FC027C-CAL,, /01 | FC9W_097S13 | Standard | 4.92 | 14702 | 4898 | 10.000 | 0.750 | 10.657 | 106.6 | 2995 | 08-Mar-19 | 16:27:06 | bb |
| 4 | FC027D-CAL,, /01 | FC9W_097S14 | Standard | 4.91 | 13102 | 4723 | 10.000 | 0.693 | 9.849 | 98.5 | 1458 | 08-Mar-19 | 16:40:24 | bb |
| 5 | FC027E-CAL,, /01 | FC9W_097S15 | Standard | 4.91 | 13787 | 4708 | 10.000 | 0.732 | 10.397 | 104.0 | 2928 | 08-Mar-19 | 16:53:43 | bb |
| 6 | FC027F-CAL,, /01 | FC9W_097S16 | Standard | 4.92 | 13055 | 4322 | 10.000 | 0.755 | 10.724 | 107.2 | 4608 | 08-Mar-19 | 18:12:07 | bb |
| 7 | FC027G-CAL,, /01 | FC9W_097S17 | Standard | 4.91 | 11729 | 4329 | 10.000 | 0.677 | 9.619 | 96.2 | 2798 | 08-Mar-19 | 18:25:24 | bb |
| 8 | FC027H-CAL,, /01 | FC9W_097S18 | Standard | 4.90 | 7780 | 3400 | 10.000 | 0.572 | 8.124 | 81.2 | 2781 | 08-Mar-19 | 18:38:44 | bb |

Compound name: 13C5-PFHxA-1
Response Factor: 0.70413
RRF SD: 0.0655244, % Relative SD: 9.30573
Response type: Internal Std ( Ref 97 ), Area * ( IS Conc. / IS Area )
Curve type: RF




PVed by GW, SVed by hh 13-Mar-19. NOTE: Unit=ng based on 4 mL extract

**Quantify Compound Summary Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

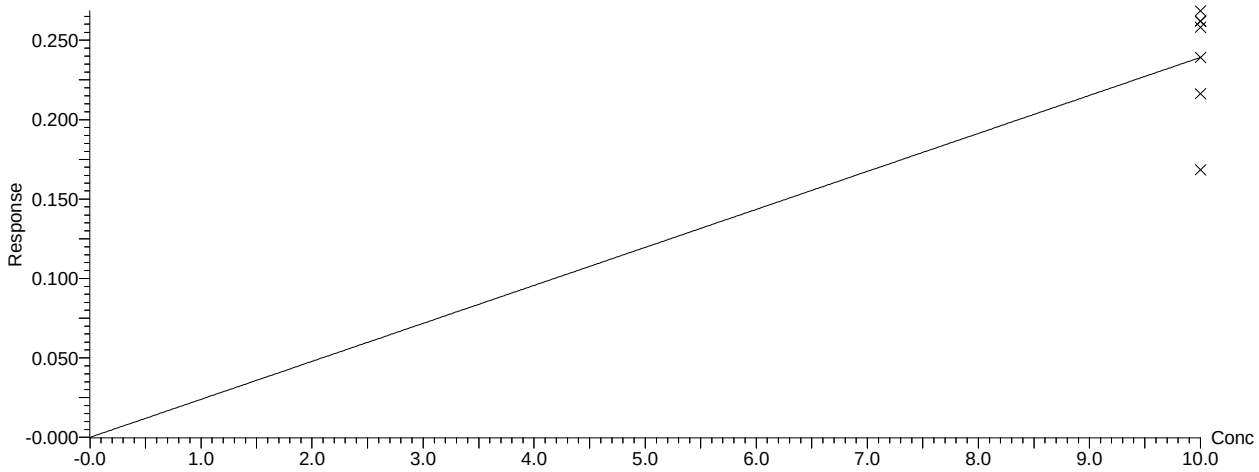
Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_097-A1.qld

Last Altered: Tuesday, March 12, 2019 17:19:00 Pacific Daylight Time
Printed: Wednesday, March 13, 2019 09:12:29 Pacific Daylight Time

**Compound name: 13C5-PFHxA-2**

| # | ID | Name | Type | RT | Area | IS Area | Std. Conc | RRF | Conc. | %Rec | S/N | Acq.Date | Acq.Time | Flags |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2 | FC027B-CAL,, /01 | FC9W_097S12 | Standard | 4.92 | 509 | 4862 | 10.000 | 0.026 | 10.944 | 109.4 | 1414 | 08-Mar-19 | 16:13:44 | bb |
| 3 | FC027C-CAL,, /01 | FC9W_097S13 | Standard | 4.92 | 526 | 4898 | 10.000 | 0.027 | 11.226 | 112.3 | 1714 | 08-Mar-19 | 16:27:06 | bb |
| 4 | FC027D-CAL,, /01 | FC9W_097S14 | Standard | 4.91 | 452 | 4723 | 10.000 | 0.024 | 9.995 | 100.0 | 1793 | 08-Mar-19 | 16:40:24 | bb |
| 5 | FC027E-CAL,, /01 | FC9W_097S15 | Standard | 4.91 | 486 | 4708 | 10.000 | 0.026 | 10.792 | 107.9 | 1841 | 08-Mar-19 | 16:53:43 | bb |
| 6 | FC027F-CAL,, /01 | FC9W_097S16 | Standard | 4.92 | 453 | 4322 | 10.000 | 0.026 | 10.954 | 109.5 | 360 | 08-Mar-19 | 18:12:07 | bb |
| 7 | FC027G-CAL,, /01 | FC9W_097S17 | Standard | 4.91 | 374 | 4329 | 10.000 | 0.022 | 9.041 | 90.4 | 617 | 08-Mar-19 | 18:25:24 | bb |
| 8 | FC027H-CAL,, /01 | FC9W_097S18 | Standard | 4.90 | 229 | 3400 | 10.000 | 0.017 | 7.046 | 70.5 | 442 | 08-Mar-19 | 18:38:44 | bb |

Compound name: 13C5-PFHxA-2
Response Factor: 0.0239166
RRF SD: 0.00359814, % Relative SD: 15.0445
Response type: Internal Std ( Ref 97 ), Area * ( IS Conc. / IS Area )
Curve type: RF




PVed by GW, SVed by hh 13-Mar-19. NOTE: Unit=ng based on 4 mL extract

**Quantify Compound Summary Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

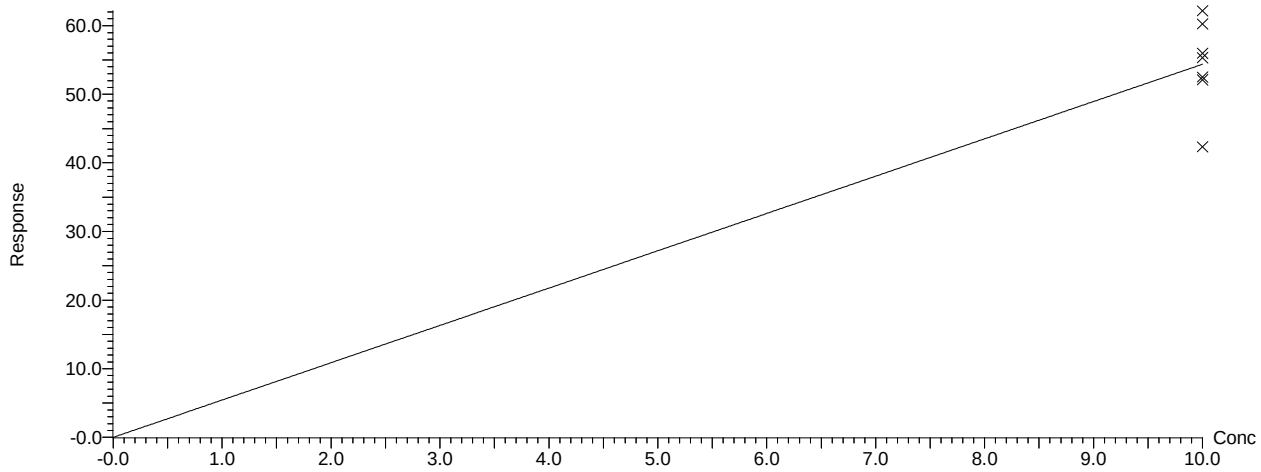
Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_097-A1.qld

Last Altered: Tuesday, March 12, 2019 17:19:00 Pacific Daylight Time
Printed: Wednesday, March 13, 2019 09:12:29 Pacific Daylight Time

**Compound name: 13C4-PFHpA**

| # | ID | Name | Type | RT | Area | IS Area | Std. Conc | RRF | Conc. | %Rec | S/N | Acq.Date | Acq.Time | Flags |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2 | FC027B-CAL,, /01 | FC9W_097S12 | Standard | 5.52 | 17282 | 695 | 10.000 | 6.216 | 11.431 | 114.3 | 2724 | 08-Mar-19 | 16:13:44 | bb |
| 3 | FC027C-CAL,, /01 | FC9W_097S13 | Standard | 5.51 | 18389 | 876 | 10.000 | 5.249 | 9.654 | 96.5 | 4734 | 08-Mar-19 | 16:27:06 | bb |
| 4 | FC027D-CAL,, /01 | FC9W_097S14 | Standard | 5.51 | 17522 | 727 | 10.000 | 6.023 | 11.076 | 110.8 | 4051 | 08-Mar-19 | 16:40:24 | bb |
| 5 | FC027E-CAL,, /01 | FC9W_097S15 | Standard | 5.51 | 16966 | 814 | 10.000 | 5.212 | 9.585 | 95.9 | 587 | 08-Mar-19 | 16:53:43 | bb |
| 6 | FC027F-CAL,, /01 | FC9W_097S16 | Standard | 5.51 | 16754 | 748 | 10.000 | 5.598 | 10.295 | 102.9 | 1463 | 08-Mar-19 | 18:12:07 | bb |
| 7 | FC027G-CAL,, /01 | FC9W_097S17 | Standard | 5.51 | 16361 | 739 | 10.000 | 5.533 | 10.175 | 101.7 | 942 | 08-Mar-19 | 18:25:24 | bb |
| 8 | FC027H-CAL,, /01 | FC9W_097S18 | Standard | 5.50 | 11145 | 658 | 10.000 | 4.233 | 7.784 | 77.8 | 839 | 08-Mar-19 | 18:38:44 | bb |

Compound name: 13C4-PFHpA
Response Factor: 5.43763
RRF SD: 0.648118, % Relative SD: 11.9191
Response type: Internal Std ( Ref 99 ), Area * ( IS Conc. / IS Area )
Curve type: RF




PVed by GW, SVed by hh 13-Mar-19. NOTE: Unit=ng based on 4 mL extract

**Quantify Compound Summary Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

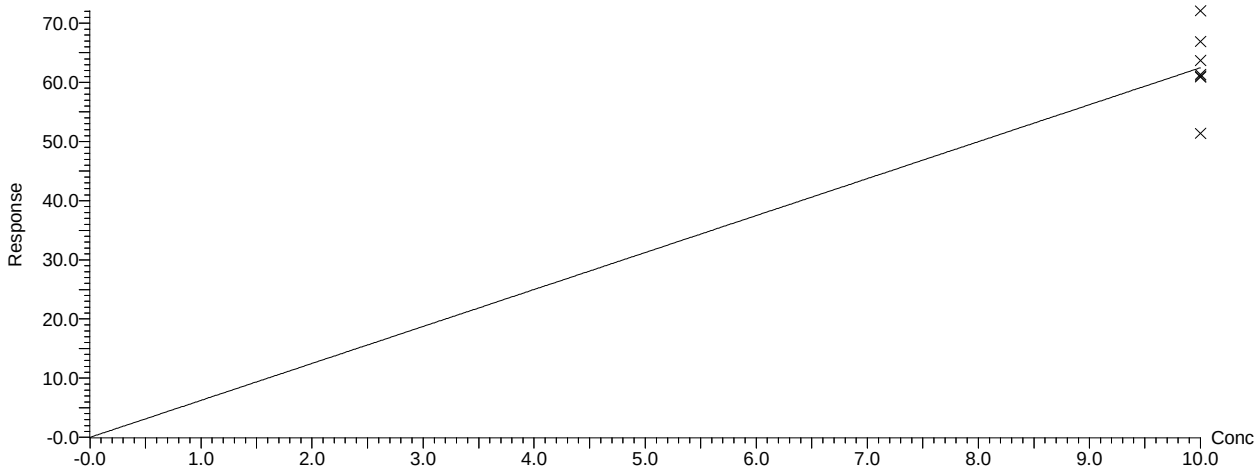
Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_097-A1.qld

Last Altered: Tuesday, March 12, 2019 17:19:00 Pacific Daylight Time
Printed: Wednesday, March 13, 2019 09:12:29 Pacific Daylight Time

**Compound name: 13C8-PFOA**

| # | ID | Name | Type | RT | Area | IS Area | Std. Conc | RRF | Conc. | %Rec | S/N | Acq.Date | Acq.Time | Flags |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2 | FC027B-CAL,, /01 | FC9W_097S12 | Standard | 6.39 | 20045 | 695 | 10.000 | 7.210 | 11.540 | 115.4 | 4041 | 08-Mar-19 | 16:13:44 | bb |
| 3 | FC027C-CAL,, /01 | FC9W_097S13 | Standard | 6.39 | 21343 | 876 | 10.000 | 6.092 | 9.751 | 97.5 | 10828 | 08-Mar-19 | 16:27:06 | bb |
| 4 | FC027D-CAL,, /01 | FC9W_097S14 | Standard | 6.38 | 19461 | 727 | 10.000 | 6.689 | 10.707 | 107.1 | 5176 | 08-Mar-19 | 16:40:24 | bb |
| 5 | FC027E-CAL,, /01 | FC9W_097S15 | Standard | 6.38 | 19962 | 814 | 10.000 | 6.133 | 9.816 | 98.2 | 11020 | 08-Mar-19 | 16:53:43 | bb |
| 6 | FC027F-CAL,, /01 | FC9W_097S16 | Standard | 6.39 | 19060 | 748 | 10.000 | 6.368 | 10.193 | 101.9 | 3192 | 08-Mar-19 | 18:12:07 | bb |
| 7 | FC027G-CAL,, /01 | FC9W_097S17 | Standard | 6.38 | 18051 | 739 | 10.000 | 6.104 | 9.770 | 97.7 | 27384 | 08-Mar-19 | 18:25:24 | bb |
| 8 | FC027H-CAL,, /01 | FC9W_097S18 | Standard | 6.38 | 13528 | 658 | 10.000 | 5.138 | 8.224 | 82.2 | 4018 | 08-Mar-19 | 18:38:44 | bb |

Compound name: 13C8-PFOA
Response Factor: 6.24779
RRF SD: 0.635705, % Relative SD: 10.1749
Response type: Internal Std ( Ref 99 ), Area * ( IS Conc. / IS Area )
Curve type: RF




PVed by GW, SVed by hh 13-Mar-19. NOTE: Unit=ng based on 4 mL extract

**Quantify Compound Summary Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

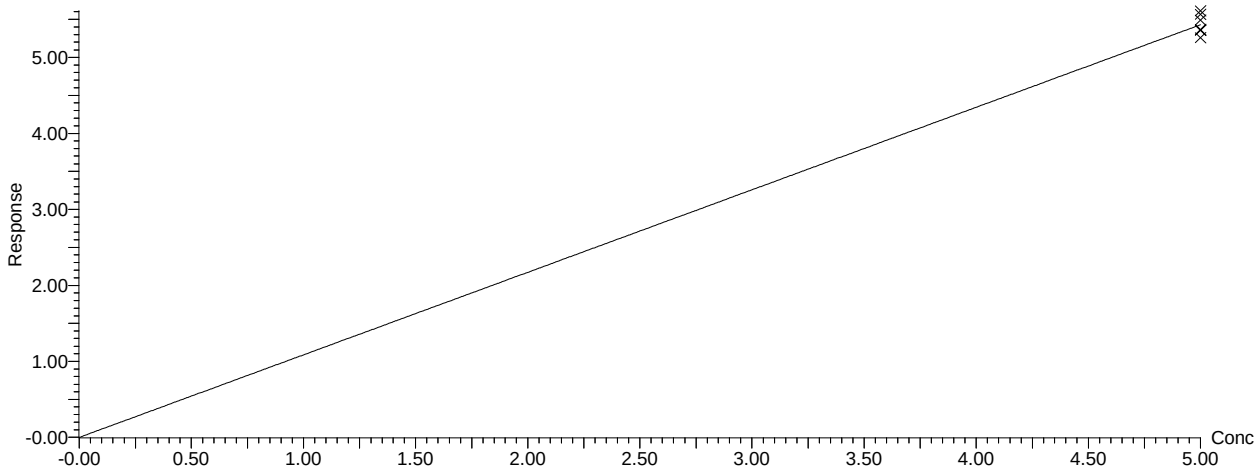
Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_097-A1.qld

Last Altered: Tuesday, March 12, 2019 17:19:00 Pacific Daylight Time
Printed: Wednesday, March 13, 2019 09:12:29 Pacific Daylight Time

**Compound name: 13C9-PFNA**

| # | ID | Name | Type | RT | Area | IS Area | Std. Conc | RRF | Conc. | %Rec | S/N | Acq.Date | Acq.Time | Flags |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2 | FC027B-CAL,, /01 | FC9W_097S12 | Standard | 7.13 | 11593 | 2755 | 5.000 | 1.052 | 4.844 | 96.9 | 1657 | 08-Mar-19 | 16:13:44 | bb |
| 3 | FC027C-CAL,, /01 | FC9W_097S13 | Standard | 7.13 | 12221 | 2782 | 5.000 | 1.098 | 5.057 | 101.1 | 234 | 08-Mar-19 | 16:27:06 | bb |
| 4 | FC027D-CAL,, /01 | FC9W_097S14 | Standard | 7.12 | 12094 | 2823 | 5.000 | 1.071 | 4.932 | 98.6 | 1584 | 08-Mar-19 | 16:40:24 | bb |
| 5 | FC027E-CAL,, /01 | FC9W_097S15 | Standard | 7.11 | 11941 | 2683 | 5.000 | 1.113 | 5.124 | 102.5 | 2283 | 08-Mar-19 | 16:53:43 | bb |
| 6 | FC027F-CAL,, /01 | FC9W_097S16 | Standard | 7.13 | 11481 | 2679 | 5.000 | 1.072 | 4.934 | 98.7 | 1728 | 08-Mar-19 | 18:12:07 | bb |
| 7 | FC027G-CAL,, /01 | FC9W_097S17 | Standard | 7.12 | 10760 | 2396 | 5.000 | 1.123 | 5.169 | 103.4 | 2987 | 08-Mar-19 | 18:25:24 | bb |
| 8 | FC027H-CAL,, /01 | FC9W_097S18 | Standard | 7.11 | 7434 | 1732 | 5.000 | 1.073 | 4.941 | 98.8 | 303 | 08-Mar-19 | 18:38:44 | bb |

Compound name: 13C9-PFNA
Response Factor: 1.08592
RRF SD: 0.025681, % Relative SD: 2.36491
Response type: Internal Std ( Ref 100 ), Area * ( IS Conc. / IS Area )
Curve type: RF




PVed by GW, SVed by hh 13-Mar-19. NOTE: Unit=ng based on 4 mL extract

**Quantify Compound Summary Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

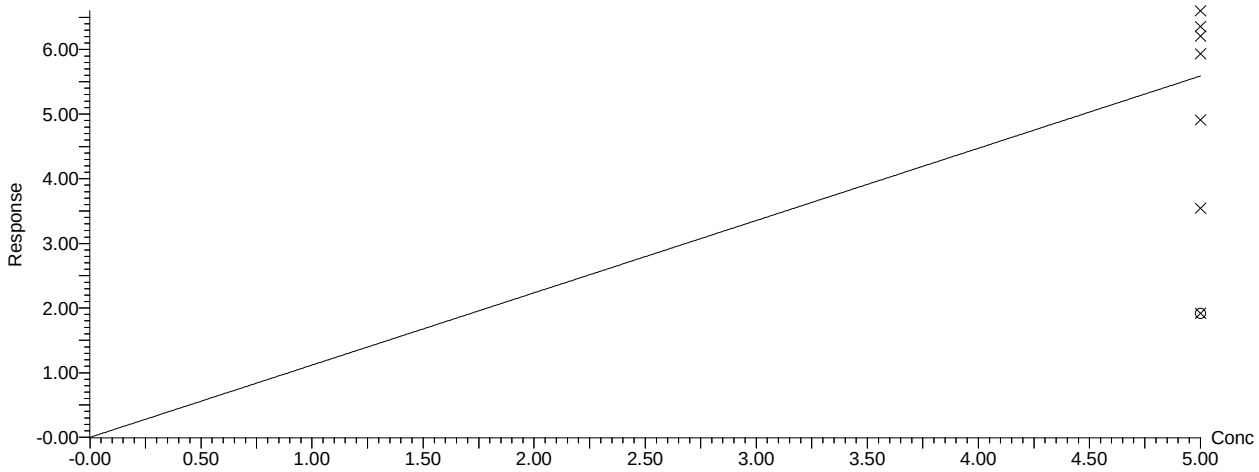
Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_097-A1.qld

Last Altered: Tuesday, March 12, 2019 17:19:00 Pacific Daylight Time
Printed: Wednesday, March 13, 2019 09:12:29 Pacific Daylight Time

**Compound name: 13C7-PFUnA**

| # | ID | Name | Type | RT | Area | IS Area | Std. Conc | RRF | Conc. | %Rec | S/N | Acq.Date | Acq.Time | Flags |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2 | FC027B-CAL,, /01 | FC9W_097S12 | Standard | 7.84 | 13683 | 2757 | 5.000 | 1.241 | 5.548 | 111.0 | 17820 | 08-Mar-19 | 16:13:44 | bb |
| 3 | FC027C-CAL,, /01 | FC9W_097S13 | Standard | 7.84 | 14122 | 2675 | 5.000 | 1.320 | 5.901 | 118.0 | 3421 | 08-Mar-19 | 16:27:06 | bb |
| 4 | FC027D-CAL,, /01 | FC9W_097S14 | Standard | 7.84 | 13693 | 2694 | 5.000 | 1.271 | 5.683 | 113.7 | 3876 | 08-Mar-19 | 16:40:24 | MM |
| 5 | FC027E-CAL,, /01 | FC9W_097S15 | Standard | 7.83 | 12466 | 2627 | 5.000 | 1.186 | 5.305 | 106.1 | 5936 | 08-Mar-19 | 16:53:43 | bb |
| 6 | FC027F-CAL,, /01 | FC9W_097S16 | Standard | 7.84 | 11005 | 2801 | 5.000 | 0.982 | 4.392 | 87.8 | 1242 | 08-Mar-19 | 18:12:07 | bb |
| 7 | FC027G-CAL,, /01 | FC9W_097S17 | Standard | 7.83 | 8449 | 2980 | 5.000 | 0.709 | 3.170 | 63.4 | 2887 | 08-Mar-19 | 18:25:24 | MM |
| 8 | FC027H-CAL,, /01 | FC9W_097S18 | Standard | 7.82 | 5178 | 3370 | 5.000 | 0.384 | 1.718 | 34.4 | 715 | 08-Mar-19 | 18:38:44 | bbX |

Compound name: 13C7-PFUnA
Response Factor: 1.11813
RRF SD: 0.232208, % Relative SD: 20.7676
Response type: Internal Std ( Ref 101 ), Area * ( IS Conc. / IS Area )
Curve type: RF




PVed by GW, SVed by hh 13-Mar-19. NOTE: Unit=ng based on 4 mL extract

**Quantify Compound Summary Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

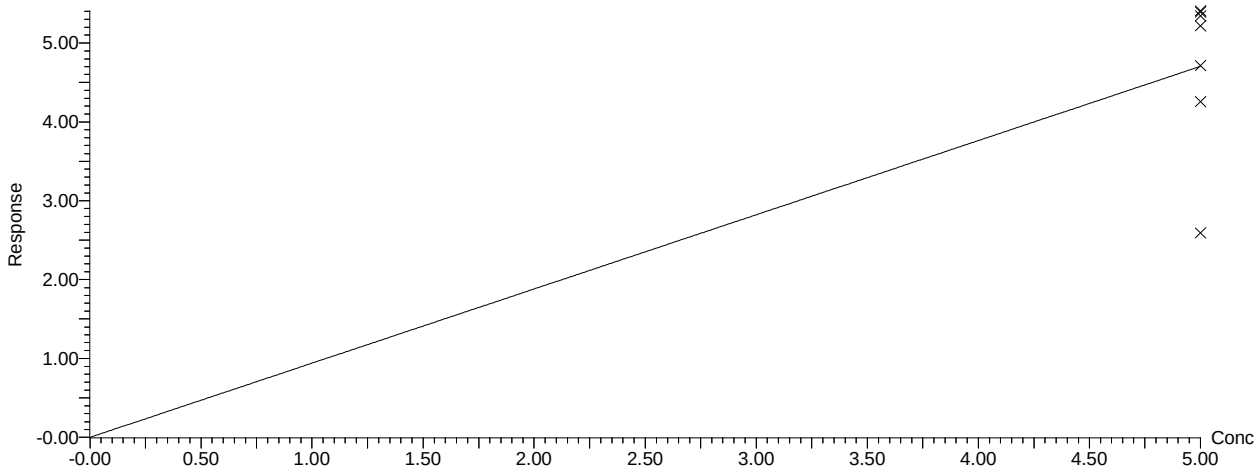
Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_097-A1.qld

Last Altered: Tuesday, March 12, 2019 17:19:00 Pacific Daylight Time
Printed: Wednesday, March 13, 2019 09:12:29 Pacific Daylight Time

**Compound name: 13C6-PFDA**

| # | ID | Name | Type | RT | Area | IS Area | Std. Conc | RRF | Conc. | %Rec | S/N | Acq.Date | Acq.Time | Flags |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2 | FC027B-CAL,, /01 | FC9W_097S12 | Standard | 7.54 | 11507 | 2757 | 5.000 | 1.043 | 5.545 | 110.9 | 2159 | 08-Mar-19 | 16:13:44 | bb |
| 3 | FC027C-CAL,, /01 | FC9W_097S13 | Standard | 7.54 | 11437 | 2675 | 5.000 | 1.069 | 5.679 | 113.6 | 3661 | 08-Mar-19 | 16:27:06 | bb |
| 4 | FC027D-CAL,, /01 | FC9W_097S14 | Standard | 7.54 | 11654 | 2694 | 5.000 | 1.082 | 5.748 | 115.0 | 1694 | 08-Mar-19 | 16:40:24 | bb |
| 5 | FC027E-CAL,, /01 | FC9W_097S15 | Standard | 7.53 | 11338 | 2627 | 5.000 | 1.079 | 5.734 | 114.7 | 6357 | 08-Mar-19 | 16:53:43 | bb |
| 6 | FC027F-CAL,, /01 | FC9W_097S16 | Standard | 7.54 | 10569 | 2801 | 5.000 | 0.943 | 5.012 | 100.2 | 12910 | 08-Mar-19 | 18:12:07 | bb |
| 7 | FC027G-CAL,, /01 | FC9W_097S17 | Standard | 7.53 | 10146 | 2980 | 5.000 | 0.851 | 4.524 | 90.5 | 14100 | 08-Mar-19 | 18:25:24 | bb |
| 8 | FC027H-CAL,, /01 | FC9W_097S18 | Standard | 7.53 | 6993 | 3370 | 5.000 | 0.519 | 2.757 | 55.1 | 2333 | 08-Mar-19 | 18:38:44 | bb |

Compound name: 13C6-PFDA
Response Factor: 0.940863
RRF SD: 0.204924, % Relative SD: 21.7804
Response type: Internal Std ( Ref 101 ), Area * ( IS Conc. / IS Area )
Curve type: RF




PVed by GW, SVed by hh 13-Mar-19. NOTE: Unit=ng based on 4 mL extract

**Quantify Compound Summary Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

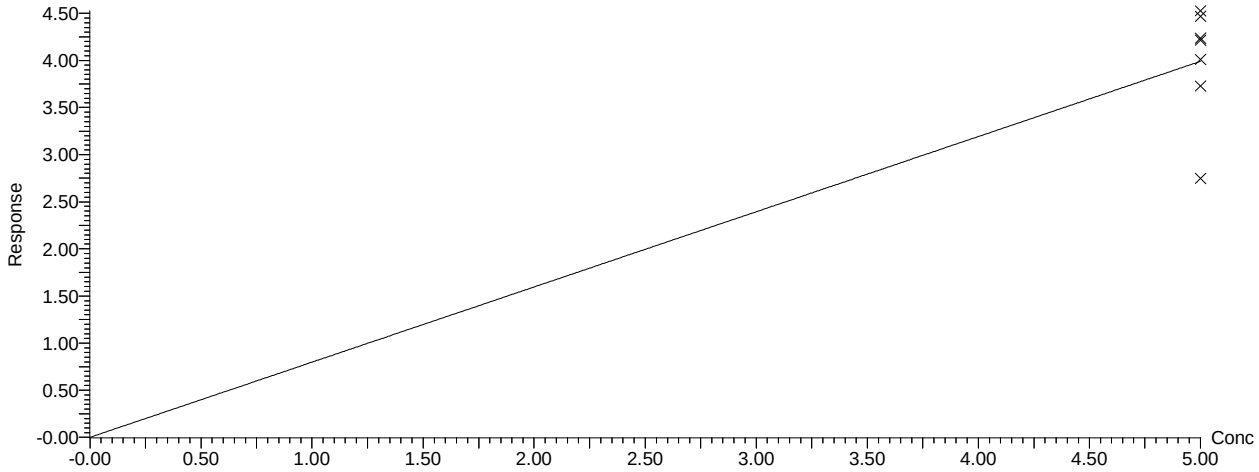
Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_097-A1.qld

Last Altered: Tuesday, March 12, 2019 17:19:00 Pacific Daylight Time
Printed: Wednesday, March 13, 2019 09:12:29 Pacific Daylight Time

**Compound name: 13C2-PFDoA**

| # | ID | Name | Type | RT | Area | IS Area | Std. Conc | RRF | Conc. | %Rec | S/N | Acq.Date | Acq.Time | Flags |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2 | FC027B-CAL,, /01 | FC9W_097S12 | Standard | 8.18 | 9343 | 2757 | 5.000 | 0.847 | 5.307 | 106.1 | 4263 | 08-Mar-19 | 16:13:44 | MM |
| 3 | FC027C-CAL,, /01 | FC9W_097S13 | Standard | 8.18 | 9688 | 2675 | 5.000 | 0.905 | 5.672 | 113.4 | 1021 | 08-Mar-19 | 16:27:06 | bb |
| 4 | FC027D-CAL,, /01 | FC9W_097S14 | Standard | 8.17 | 9082 | 2694 | 5.000 | 0.843 | 5.281 | 105.6 | 1403 | 08-Mar-19 | 16:40:24 | MM |
| 5 | FC027E-CAL,, /01 | FC9W_097S15 | Standard | 8.17 | 9389 | 2627 | 5.000 | 0.893 | 5.598 | 112.0 | 3776 | 08-Mar-19 | 16:53:43 | bb |
| 6 | FC027F-CAL,, /01 | FC9W_097S16 | Standard | 8.19 | 8988 | 2801 | 5.000 | 0.802 | 5.025 | 100.5 | 11681 | 08-Mar-19 | 18:12:07 | bb |
| 7 | FC027G-CAL,, /01 | FC9W_097S17 | Standard | 8.17 | 8891 | 2980 | 5.000 | 0.746 | 4.674 | 93.5 | 3380 | 08-Mar-19 | 18:25:24 | MM |
| 8 | FC027H-CAL,, /01 | FC9W_097S18 | Standard | 8.17 | 7409 | 3370 | 5.000 | 0.550 | 3.444 | 68.9 | 1797 | 08-Mar-19 | 18:38:44 | bb |

Compound name: 13C2-PFDoA
Response Factor: 0.7981
RRF SD: 0.1221, % Relative SD: 15.2989
Response type: Internal Std ( Ref 101 ), Area * ( IS Conc. / IS Area )
Curve type: RF




PVed by GW, SVed by hh 13-Mar-19. NOTE: Unit=ng based on 4 mL extract

**Quantify Compound Summary Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

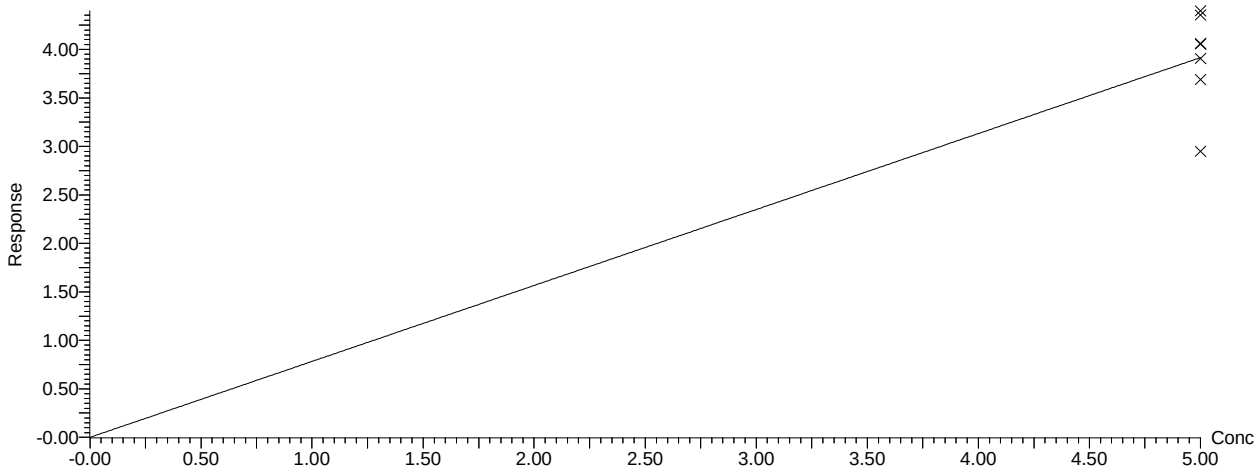
Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_097-A1.qld

Last Altered: Tuesday, March 12, 2019 17:19:00 Pacific Daylight Time
Printed: Wednesday, March 13, 2019 09:12:29 Pacific Daylight Time

**Compound name: 13C2-PFTeDA**

| # | ID | Name | Type | RT | Area | IS Area | Std. Conc | RRF | Conc. | %Rec | S/N | Acq.Date | Acq.Time | Flags |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2 | FC027B-CAL,, /01 | FC9W_097S12 | Standard | 9.02 | 8610 | 2757 | 5.000 | 0.781 | 4.986 | 99.7 | 1429 | 08-Mar-19 | 16:13:44 | MM |
| 3 | FC027C-CAL,, /01 | FC9W_097S13 | Standard | 9.02 | 9318 | 2675 | 5.000 | 0.871 | 5.560 | 111.2 | 1971 | 08-Mar-19 | 16:27:06 | bb |
| 4 | FC027D-CAL,, /01 | FC9W_097S14 | Standard | 9.01 | 8735 | 2694 | 5.000 | 0.811 | 5.177 | 103.5 | 631 | 08-Mar-19 | 16:40:24 | bb |
| 5 | FC027E-CAL,, /01 | FC9W_097S15 | Standard | 9.01 | 9242 | 2627 | 5.000 | 0.879 | 5.616 | 112.3 | 1410 | 08-Mar-19 | 16:53:43 | bb |
| 6 | FC027F-CAL,, /01 | FC9W_097S16 | Standard | 9.03 | 9100 | 2801 | 5.000 | 0.812 | 5.186 | 103.7 | 2625 | 08-Mar-19 | 18:12:07 | MM |
| 7 | FC027G-CAL,, /01 | FC9W_097S17 | Standard | 9.01 | 8791 | 2980 | 5.000 | 0.738 | 4.710 | 94.2 | 1441 | 08-Mar-19 | 18:25:24 | bb |
| 8 | FC027H-CAL,, /01 | FC9W_097S18 | Standard | 9.01 | 7947 | 3370 | 5.000 | 0.590 | 3.765 | 75.3 | 992 | 08-Mar-19 | 18:38:44 | bb |

Compound name: 13C2-PFTeDA
Response Factor: 0.782991
RRF SD: 0.0984185, % Relative SD: 12.5696
Response type: Internal Std ( Ref 101 ), Area * ( IS Conc. / IS Area )
Curve type: RF




PVed by GW, SVed by hh 13-Mar-19. NOTE: Unit=ng based on 4 mL extract

**Quantify Compound Summary Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

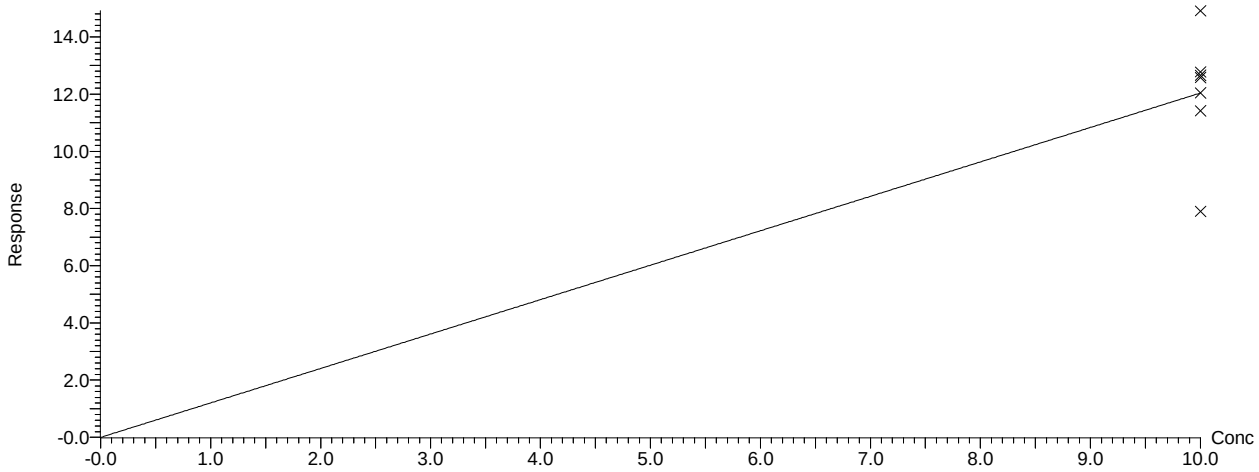
Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_097-A1.qld

Last Altered: Tuesday, March 12, 2019 17:19:00 Pacific Daylight Time
Printed: Wednesday, March 13, 2019 09:12:29 Pacific Daylight Time

**Compound name: 13C3-PFBS-1**

| # | ID | Name | Type | RT | Area | IS Area | Std. Conc | RRF | Conc. | %Rec | S/N | Acq.Date | Acq.Time | Flags |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2 | FC027B-CAL,, /01 | FC9W_097S12 | Standard | 4.89 | 5106 | 1060 | 10.000 | 1.204 | 10.002 | 100.0 | 10668 | 08-Mar-19 | 16:13:44 | bb |
| 3 | FC027C-CAL,, /01 | FC9W_097S13 | Standard | 4.89 | 5503 | 923 | 10.000 | 1.491 | 12.387 | 123.9 | 707 | 08-Mar-19 | 16:27:06 | bb |
| 4 | FC027D-CAL,, /01 | FC9W_097S14 | Standard | 4.88 | 5159 | 1020 | 10.000 | 1.265 | 10.509 | 105.1 | 1815 | 08-Mar-19 | 16:40:24 | bb |
| 5 | FC027E-CAL,, /01 | FC9W_097S15 | Standard | 4.88 | 5423 | 1078 | 10.000 | 1.258 | 10.451 | 104.5 | 30853 | 08-Mar-19 | 16:53:43 | bb |
| 6 | FC027F-CAL,, /01 | FC9W_097S16 | Standard | 4.89 | 5186 | 1016 | 10.000 | 1.277 | 10.609 | 106.1 | 3368 | 08-Mar-19 | 18:12:07 | bb |
| 7 | FC027G-CAL,, /01 | FC9W_097S17 | Standard | 4.88 | 4275 | 937 | 10.000 | 1.141 | 9.480 | 94.8 | 3817 | 08-Mar-19 | 18:25:24 | bb |
| 8 | FC027H-CAL,, /01 | FC9W_097S18 | Standard | 4.88 | 2658 | 841 | 10.000 | 0.790 | 6.563 | 65.6 | 682 | 08-Mar-19 | 18:38:44 | bb |

Compound name: 13C3-PFBS-1
Response Factor: 1.20354
RRF SD: 0.211965, % Relative SD: 17.6117
Response type: Internal Std ( Ref 102 ), Area * ( IS Conc. / IS Area )
Curve type: RF




PVed by GW, SVed by hh 13-Mar-19. NOTE: Unit=ng based on 4 mL extract

**Quantify Compound Summary Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

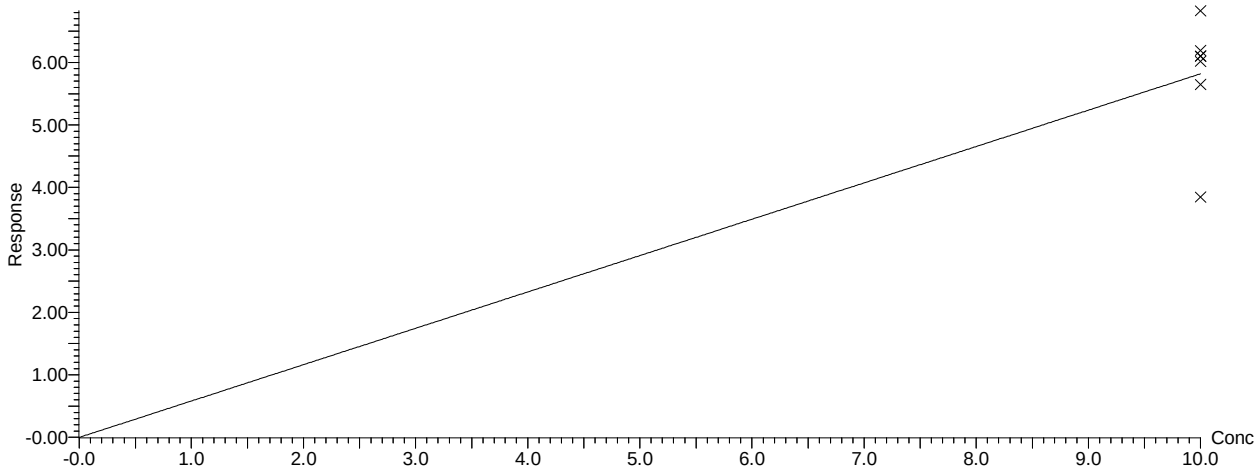
Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_097-A1.qld

Last Altered: Tuesday, March 12, 2019 17:19:00 Pacific Daylight Time
Printed: Wednesday, March 13, 2019 09:12:29 Pacific Daylight Time

**Compound name: 13C3-PFBS-2**

| # | ID | Name | Type | RT | Area | IS Area | Std. Conc | RRF | Conc. | %Rec | S/N | Acq.Date | Acq.Time | Flags |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2 | FC027B-CAL,, /01 | FC9W_097S12 | Standard | 4.89 | 2626 | 1060 | 10.000 | 0.619 | 10.641 | 106.4 | 2034 | 08-Mar-19 | 16:13:44 | bb |
| 3 | FC027C-CAL,, /01 | FC9W_097S13 | Standard | 4.89 | 2520 | 923 | 10.000 | 0.683 | 11.732 | 117.3 | 2007 | 08-Mar-19 | 16:27:06 | bb |
| 4 | FC027D-CAL,, /01 | FC9W_097S14 | Standard | 4.88 | 2490 | 1020 | 10.000 | 0.610 | 10.491 | 104.9 | 5552 | 08-Mar-19 | 16:40:24 | bb |
| 5 | FC027E-CAL,, /01 | FC9W_097S15 | Standard | 4.88 | 2629 | 1078 | 10.000 | 0.610 | 10.480 | 104.8 | 8840 | 08-Mar-19 | 16:53:43 | bb |
| 6 | FC027F-CAL,, /01 | FC9W_097S16 | Standard | 4.89 | 2445 | 1016 | 10.000 | 0.602 | 10.344 | 103.4 | 4545 | 08-Mar-19 | 18:12:07 | bb |
| 7 | FC027G-CAL,, /01 | FC9W_097S17 | Standard | 4.88 | 2115 | 937 | 10.000 | 0.565 | 9.703 | 97.0 | 1906 | 08-Mar-19 | 18:25:24 | bb |
| 8 | FC027H-CAL,, /01 | FC9W_097S18 | Standard | 4.88 | 1294 | 841 | 10.000 | 0.385 | 6.609 | 66.1 | 1166 | 08-Mar-19 | 18:38:44 | bb |

Compound name: 13C3-PFBS-2
Response Factor: 0.581848
RRF SD: 0.0937902, % Relative SD: 16.1194
Response type: Internal Std ( Ref 102 ), Area * ( IS Conc. / IS Area )
Curve type: RF




PVed by GW, SVed by hh 13-Mar-19. NOTE: Unit=ng based on 4 mL extract

**Quantify Compound Summary Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

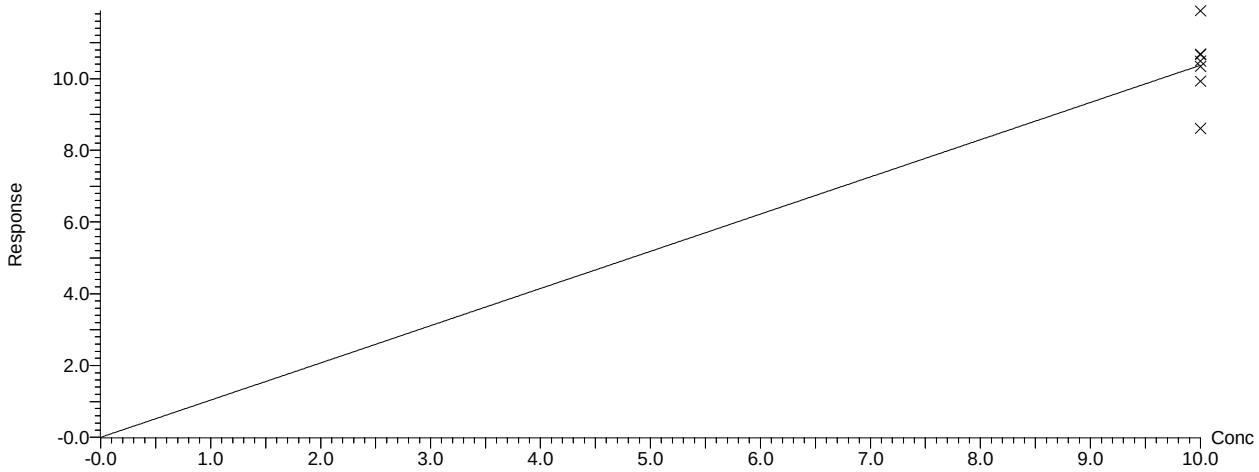
Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_097-A1.qld

Last Altered: Tuesday, March 12, 2019 17:19:00 Pacific Daylight Time
Printed: Wednesday, March 13, 2019 09:12:29 Pacific Daylight Time

**Compound name: 13C3-PFHxS-1**

| # | ID | Name | Type | RT | Area | IS Area | Std. Conc | RRF | Conc. | %Rec | S/N | Acq.Date | Acq.Time | Flags |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2 | FC027B-CAL,, /01 | FC9W_097S12 | Standard | 6.52 | 4209 | 1060 | 10.000 | 0.992 | 9.568 | 95.7 | 3137 | 08-Mar-19 | 16:13:44 | bb |
| 3 | FC027C-CAL,, /01 | FC9W_097S13 | Standard | 6.52 | 4389 | 923 | 10.000 | 1.189 | 11.463 | 114.6 | 1925 | 08-Mar-19 | 16:27:06 | bb |
| 4 | FC027D-CAL,, /01 | FC9W_097S14 | Standard | 6.51 | 4359 | 1020 | 10.000 | 1.069 | 10.303 | 103.0 | 11350 | 08-Mar-19 | 16:40:24 | bb |
| 5 | FC027E-CAL,, /01 | FC9W_097S15 | Standard | 6.51 | 4457 | 1078 | 10.000 | 1.034 | 9.968 | 99.7 | 4888 | 08-Mar-19 | 16:53:43 | bb |
| 6 | FC027F-CAL,, /01 | FC9W_097S16 | Standard | 6.52 | 4259 | 1016 | 10.000 | 1.048 | 10.109 | 101.1 | 13681 | 08-Mar-19 | 18:12:07 | bb |
| 7 | FC027G-CAL,, /01 | FC9W_097S17 | Standard | 6.51 | 3998 | 937 | 10.000 | 1.067 | 10.286 | 102.9 | 2674 | 08-Mar-19 | 18:25:24 | bb |
| 8 | FC027H-CAL,, /01 | FC9W_097S18 | Standard | 6.51 | 2898 | 841 | 10.000 | 0.861 | 8.303 | 83.0 | 2192 | 08-Mar-19 | 18:38:44 | bb |

Compound name: 13C3-PFHxS-1
Response Factor: 1.03719
RRF SD: 0.0983318, % Relative SD: 9.48056
Response type: Internal Std ( Ref 102 ), Area * ( IS Conc. / IS Area )
Curve type: RF




PVed by GW, SVed by hh 13-Mar-19. NOTE: Unit=ng based on 4 mL extract

**Quantify Compound Summary Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

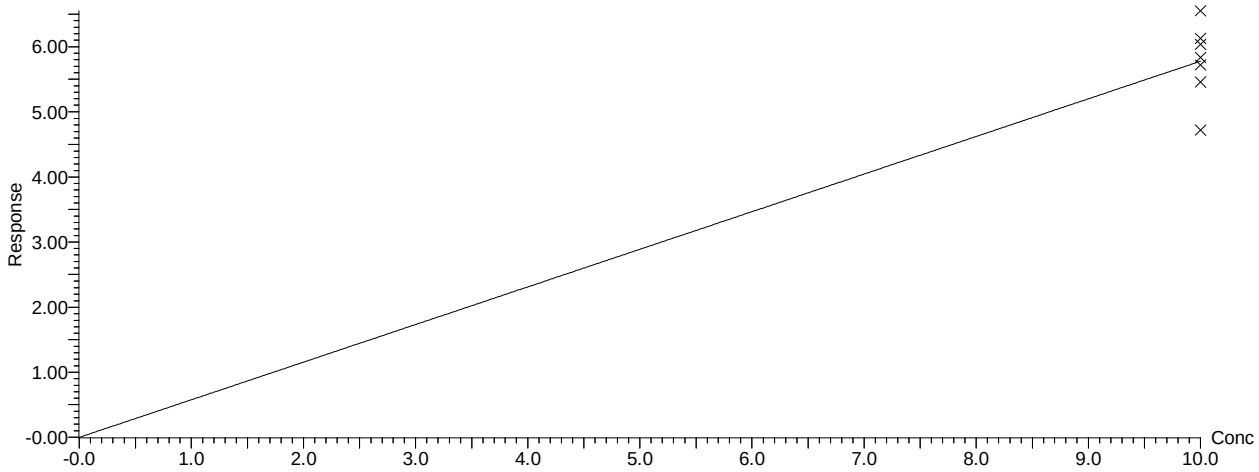
Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_097-A1.qld

Last Altered: Tuesday, March 12, 2019 17:19:00 Pacific Daylight Time
Printed: Wednesday, March 13, 2019 09:12:29 Pacific Daylight Time

**Compound name: 13C3-PFHxS-2**

| # | ID | Name | Type | RT | Area | IS Area | Std. Conc | RRF | Conc. | %Rec | S/N | Acq.Date | Acq.Time | Flags |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2 | FC027B-CAL,, /01 | FC9W_097S12 | Standard | 6.52 | 2315 | 1060 | 10.000 | 0.546 | 9.444 | 94.4 | 1033 | 08-Mar-19 | 16:13:44 | bb |
| 3 | FC027C-CAL,, /01 | FC9W_097S13 | Standard | 6.52 | 2419 | 923 | 10.000 | 0.655 | 11.340 | 113.4 | 935 | 08-Mar-19 | 16:27:06 | bb |
| 4 | FC027D-CAL,, /01 | FC9W_097S14 | Standard | 6.51 | 2381 | 1020 | 10.000 | 0.584 | 10.100 | 101.0 | 1885 | 08-Mar-19 | 16:40:24 | bb |
| 5 | FC027E-CAL,, /01 | FC9W_097S15 | Standard | 6.51 | 2603 | 1078 | 10.000 | 0.604 | 10.448 | 104.5 | 3360 | 08-Mar-19 | 16:53:43 | bb |
| 6 | FC027F-CAL,, /01 | FC9W_097S16 | Standard | 6.52 | 2323 | 1016 | 10.000 | 0.572 | 9.896 | 99.0 | 1818 | 08-Mar-19 | 18:12:07 | bb |
| 7 | FC027G-CAL,, /01 | FC9W_097S17 | Standard | 6.51 | 2295 | 937 | 10.000 | 0.613 | 10.602 | 106.0 | 1790 | 08-Mar-19 | 18:25:24 | bb |
| 8 | FC027H-CAL,, /01 | FC9W_097S18 | Standard | 6.50 | 1588 | 841 | 10.000 | 0.472 | 8.170 | 81.7 | 820 | 08-Mar-19 | 18:38:44 | bb |

Compound name: 13C3-PFHxS-2
Response Factor: 0.577815
RRF SD: 0.0579637, % Relative SD: 10.0315
Response type: Internal Std ( Ref 102 ), Area * ( IS Conc. / IS Area )
Curve type: RF




PVed by GW, SVed by hh 13-Mar-19. NOTE: Unit=ng based on 4 mL extract

**Quantify Compound Summary Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

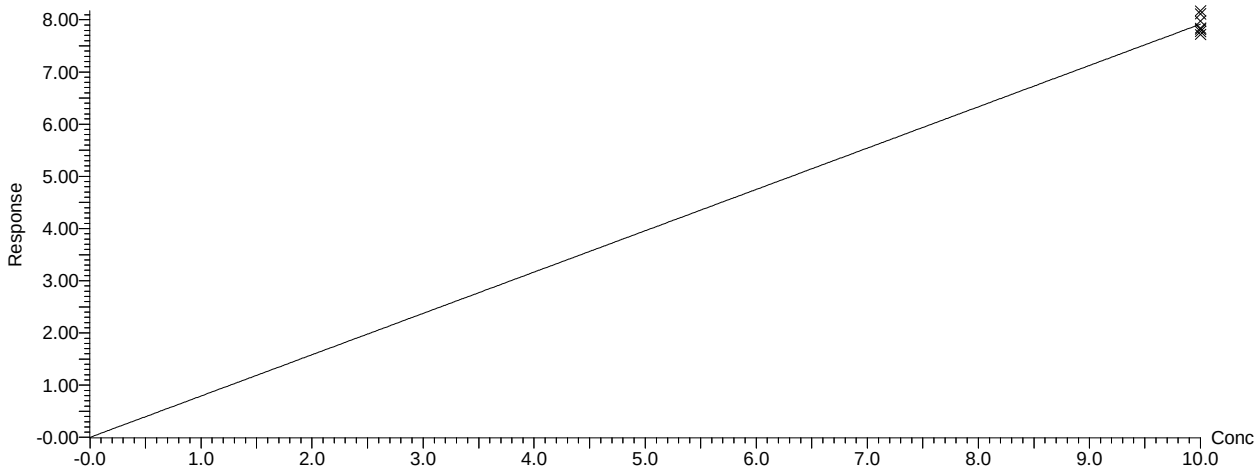
Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_097-A1.qld

Last Altered: Tuesday, March 12, 2019 17:19:00 Pacific Daylight Time
Printed: Wednesday, March 13, 2019 09:12:29 Pacific Daylight Time

**Compound name: 13C8-PFOS-1**

| # | ID | Name | Type | RT | Area | IS Area | Std. Conc | RRF | Conc. | %Rec | S/N | Acq.Date | Acq.Time | Flags |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2 | FC027B-CAL,, /01 | FC9W_097S12 | Standard | 7.64 | 4010 | 1278 | 10.000 | 0.784 | 9.907 | 99.1 | 13402 | 08-Mar-19 | 16:13:44 | bb |
| 3 | FC027C-CAL,, /01 | FC9W_097S13 | Standard | 7.63 | 4202 | 1317 | 10.000 | 0.798 | 10.074 | 100.7 | 1813 | 08-Mar-19 | 16:27:06 | bb |
| 4 | FC027D-CAL,, /01 | FC9W_097S14 | Standard | 7.63 | 4353 | 1342 | 10.000 | 0.811 | 10.247 | 102.5 | 3273 | 08-Mar-19 | 16:40:24 | MM |
| 5 | FC027E-CAL,, /01 | FC9W_097S15 | Standard | 7.63 | 3918 | 1259 | 10.000 | 0.778 | 9.825 | 98.3 | 5657 | 08-Mar-19 | 16:53:43 | bb |
| 6 | FC027F-CAL,, /01 | FC9W_097S16 | Standard | 7.63 | 4063 | 1243 | 10.000 | 0.817 | 10.323 | 103.2 | 2602 | 08-Mar-19 | 18:12:07 | bb |
| 7 | FC027G-CAL,, /01 | FC9W_097S17 | Standard | 7.63 | 3748 | 1215 | 10.000 | 0.771 | 9.745 | 97.4 | 465 | 08-Mar-19 | 18:25:24 | bb |
| 8 | FC027H-CAL,, /01 | FC9W_097S18 | Standard | 7.62 | 2693 | 861 | 10.000 | 0.782 | 9.880 | 98.8 | 242 | 08-Mar-19 | 18:38:44 | MM |

Compound name: 13C8-PFOS-1
Response Factor: 0.791694
RRF SD: 0.0173867, % Relative SD: 2.19614
Response type: Internal Std ( Ref 103 ), Area * ( IS Conc. / IS Area )
Curve type: RF




PVed by GW, SVed by hh 13-Mar-19. NOTE: Unit=ng based on 4 mL extract

**Quantify Compound Summary Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

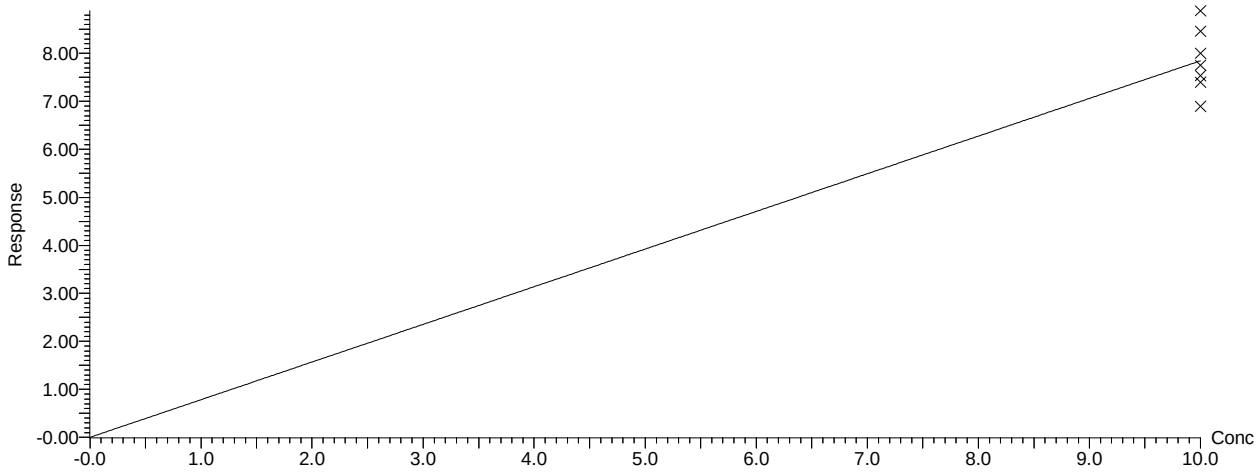
Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_097-A1.qld

Last Altered: Tuesday, March 12, 2019 17:19:00 Pacific Daylight Time
Printed: Wednesday, March 13, 2019 09:12:29 Pacific Daylight Time

**Compound name: 13C8-PFOS-2**

| # | ID | Name | Type | RT | Area | IS Area | Std. Conc | RRF | Conc. | %Rec | S/N | Acq.Date | Acq.Time | Flags |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2 | FC027B-CAL,, /01 | FC9W_097S12 | Standard | 7.64 | 2500 | 907 | 10.000 | 0.689 | 8.786 | 87.9 | 3821 | 08-Mar-19 | 16:13:44 | bb |
| 3 | FC027C-CAL,, /01 | FC9W_097S13 | Standard | 7.63 | 2542 | 843 | 10.000 | 0.753 | 9.603 | 96.0 | 442 | 08-Mar-19 | 16:27:06 | bb |
| 4 | FC027D-CAL,, /01 | FC9W_097S14 | Standard | 7.63 | 2672 | 904 | 10.000 | 0.739 | 9.424 | 94.2 | 1647 | 08-Mar-19 | 16:40:24 | bb |
| 5 | FC027E-CAL,, /01 | FC9W_097S15 | Standard | 7.63 | 2728 | 852 | 10.000 | 0.800 | 10.196 | 102.0 | 3680 | 08-Mar-19 | 16:53:43 | bb |
| 6 | FC027F-CAL,, /01 | FC9W_097S16 | Standard | 7.63 | 2490 | 736 | 10.000 | 0.846 | 10.784 | 107.8 | 912 | 08-Mar-19 | 18:12:07 | bb |
| 7 | FC027G-CAL,, /01 | FC9W_097S17 | Standard | 7.63 | 2381 | 768 | 10.000 | 0.775 | 9.880 | 98.8 | 616 | 08-Mar-19 | 18:25:24 | bb |
| 8 | FC027H-CAL,, /01 | FC9W_097S18 | Standard | 7.62 | 1615 | 454 | 10.000 | 0.889 | 11.326 | 113.3 | 610 | 08-Mar-19 | 18:38:44 | bb |

Compound name: 13C8-PFOS-2
Response Factor: 0.784499
RRF SD: 0.0671047, % Relative SD: 8.55383
Response type: Internal Std ( Ref 104 ), Area * ( IS Conc. / IS Area )
Curve type: RF




PVed by GW, SVed by hh 13-Mar-19. NOTE: Unit=ng based on 4 mL extract

**Quantify Compound Summary Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

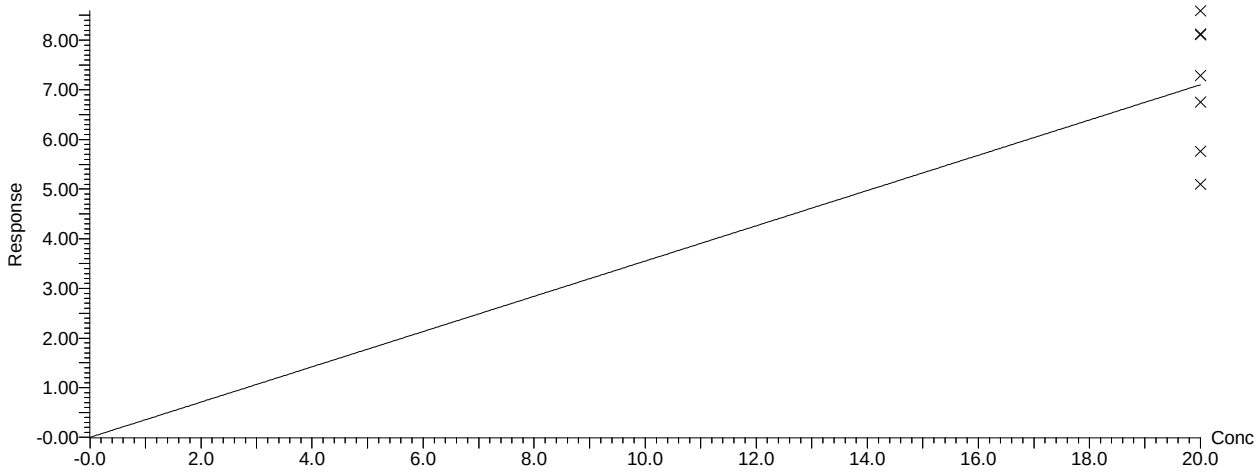
Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_097-A1.qld

Last Altered: Tuesday, March 12, 2019 17:19:00 Pacific Daylight Time
Printed: Wednesday, March 13, 2019 09:12:29 Pacific Daylight Time

**Compound name: 13C2-4:2 FTS-1**

| # | ID | Name | Type | RT | Area | IS Area | Std. Conc | RRF | Conc. | %Rec | S/N | Acq.Date | Acq.Time | Flags |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2 | FC027B-CAL,, /01 | FC9W_097S12 | Standard | 4.78 | 3446 | 1060 | 20.000 | 0.406 | 22.876 | 114.4 | 1671 | 08-Mar-19 | 16:13:44 | bb |
| 3 | FC027C-CAL,, /01 | FC9W_097S13 | Standard | 4.78 | 3172 | 923 | 20.000 | 0.430 | 24.192 | 121.0 | 2425 | 08-Mar-19 | 16:27:06 | bb |
| 4 | FC027D-CAL,, /01 | FC9W_097S14 | Standard | 4.78 | 3307 | 1020 | 20.000 | 0.405 | 22.830 | 114.1 | 7934 | 08-Mar-19 | 16:40:24 | bb |
| 5 | FC027E-CAL,, /01 | FC9W_097S15 | Standard | 4.77 | 3141 | 1078 | 20.000 | 0.364 | 20.513 | 102.6 | 1389 | 08-Mar-19 | 16:53:43 | MM |
| 6 | FC027F-CAL,, /01 | FC9W_097S16 | Standard | 4.78 | 2744 | 1016 | 20.000 | 0.338 | 19.016 | 95.1 | 1067 | 08-Mar-19 | 18:12:07 | MM |
| 7 | FC027G-CAL,, /01 | FC9W_097S17 | Standard | 4.77 | 2158 | 937 | 20.000 | 0.288 | 16.218 | 81.1 | 1328 | 08-Mar-19 | 18:25:24 | MM |
| 8 | FC027H-CAL,, /01 | FC9W_097S18 | Standard | 4.76 | 1716 | 841 | 20.000 | 0.255 | 14.356 | 71.8 | 557 | 08-Mar-19 | 18:38:44 | bb |

Compound name: 13C2-4:2 FTS-1
Response Factor: 0.355172
RRF SD: 0.0653452, % Relative SD: 18.3982
Response type: Internal Std ( Ref 102 ), Area * ( IS Conc. / IS Area )
Curve type: RF




PVed by GW, SVed by hh 13-Mar-19. NOTE: Unit=ng based on 4 mL extract

**Quantify Compound Summary Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

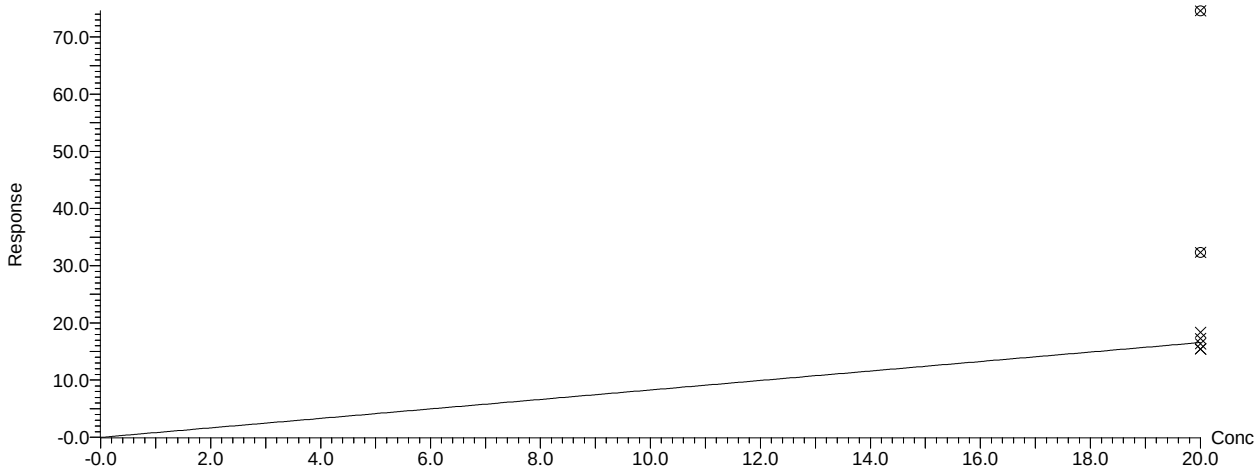
Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_097-A1.qld

Last Altered: Tuesday, March 12, 2019 17:19:00 Pacific Daylight Time
Printed: Wednesday, March 13, 2019 09:12:29 Pacific Daylight Time

**Compound name: 13C2-4:2 FTS-2**

| # | ID | Name | Type | RT | Area | IS Area | Std. Conc | RRF | Conc. | %Rec | S/N | Acq.Date | Acq.Time | Flags |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2 | FC027B-CAL,, /01 | FC9W_097S12 | Standard | 4.78 | 6542 | 1060 | 20.000 | 0.771 | 18.607 | 93.0 | 1839 | 08-Mar-19 | 16:13:44 | bb |
| 3 | FC027C-CAL,, /01 | FC9W_097S13 | Standard | 4.78 | 6387 | 923 | 20.000 | 0.865 | 20.876 | 104.4 | 2151 | 08-Mar-19 | 16:27:06 | bb |
| 4 | FC027D-CAL,, /01 | FC9W_097S14 | Standard | 4.77 | 6288 | 1020 | 20.000 | 0.771 | 18.600 | 93.0 | 1478 | 08-Mar-19 | 16:40:24 | bb |
| 5 | FC027E-CAL,, /01 | FC9W_097S15 | Standard | 4.77 | 7063 | 1078 | 20.000 | 0.819 | 19.767 | 98.8 | 1358 | 08-Mar-19 | 16:53:43 | bb |
| 6 | FC027F-CAL,, /01 | FC9W_097S16 | Standard | 4.78 | 7458 | 1016 | 20.000 | 0.918 | 22.149 | 110.7 | 691 | 08-Mar-19 | 18:12:07 | bb |
| 7 | FC027G-CAL,, /01 | FC9W_097S17 | Standard | 4.77 | 12109 | 937 | 20.000 | 1.616 | 38.993 | 195.0 | 7289 | 08-Mar-19 | 18:25:24 | bbX |
| 8 | FC027H-CAL,, /01 | FC9W_097S18 | Standard | 4.77 | 25099 | 841 | 20.000 | 3.730 | 90.000 | 450.0 | 4282 | 08-Mar-19 | 18:38:44 | bbX |

Compound name: 13C2-4:2 FTS-2
Response Factor: 0.828856
RRF SD: 0.0633286, % Relative SD: 7.64048
Response type: Internal Std ( Ref 102 ), Area * ( IS Conc. / IS Area )
Curve type: RF




PVed by GW, SVed by hh 13-Mar-19. NOTE: Unit=ng based on 4 mL extract

**Quantify Compound Summary Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

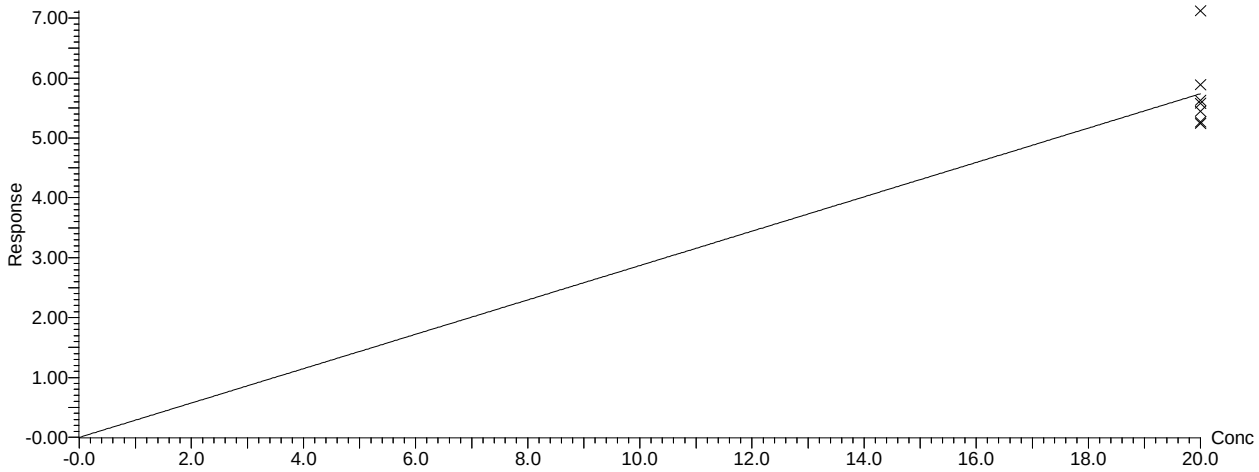
Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_097-A1.qld

Last Altered: Tuesday, March 12, 2019 17:19:00 Pacific Daylight Time
Printed: Wednesday, March 13, 2019 09:12:29 Pacific Daylight Time

**Compound name: 13C2-6:2 FTS-1**

| # | ID | Name | Type | RT | Area | IS Area | Std. Conc | RRF | Conc. | %Rec | S/N | Acq.Date | Acq.Time | Flags |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2 | FC027B-CAL,, /01 | FC9W_097S12 | Standard | 6.05 | 2366 | 1060 | 20.000 | 0.279 | 19.445 | 97.2 | 6270 | 08-Mar-19 | 16:13:44 | MM |
| 3 | FC027C-CAL,, /01 | FC9W_097S13 | Standard | 6.05 | 2629 | 923 | 20.000 | 0.356 | 24.825 | 124.1 | 9378 | 08-Mar-19 | 16:27:06 | bb |
| 4 | FC027D-CAL,, /01 | FC9W_097S14 | Standard | 6.03 | 2400 | 1020 | 20.000 | 0.294 | 20.510 | 102.5 | 4048 | 08-Mar-19 | 16:40:24 | bb |
| 5 | FC027E-CAL,, /01 | FC9W_097S15 | Standard | 6.03 | 2425 | 1078 | 20.000 | 0.281 | 19.604 | 98.0 | 1470 | 08-Mar-19 | 16:53:43 | bb |
| 6 | FC027F-CAL,, /01 | FC9W_097S16 | Standard | 6.04 | 2140 | 1016 | 20.000 | 0.263 | 18.359 | 91.8 | 2208 | 08-Mar-19 | 18:12:07 | bb |
| 7 | FC027G-CAL,, /01 | FC9W_097S17 | Standard | 6.04 | 1965 | 937 | 20.000 | 0.262 | 18.280 | 91.4 | 2753 | 08-Mar-19 | 18:25:24 | MM |
| 8 | FC027H-CAL,, /01 | FC9W_097S18 | Standard | 6.03 | 1832 | 841 | 20.000 | 0.272 | 18.977 | 94.9 | 256 | 08-Mar-19 | 18:38:44 | bb |

Compound name: 13C2-6:2 FTS-1
Response Factor: 0.28691
RRF SD: 0.0324513, % Relative SD: 11.3106
Response type: Internal Std ( Ref 102 ), Area * ( IS Conc. / IS Area )
Curve type: RF




PVed by GW, SVed by hh 13-Mar-19. NOTE: Unit=ng based on 4 mL extract

**Quantify Compound Summary Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

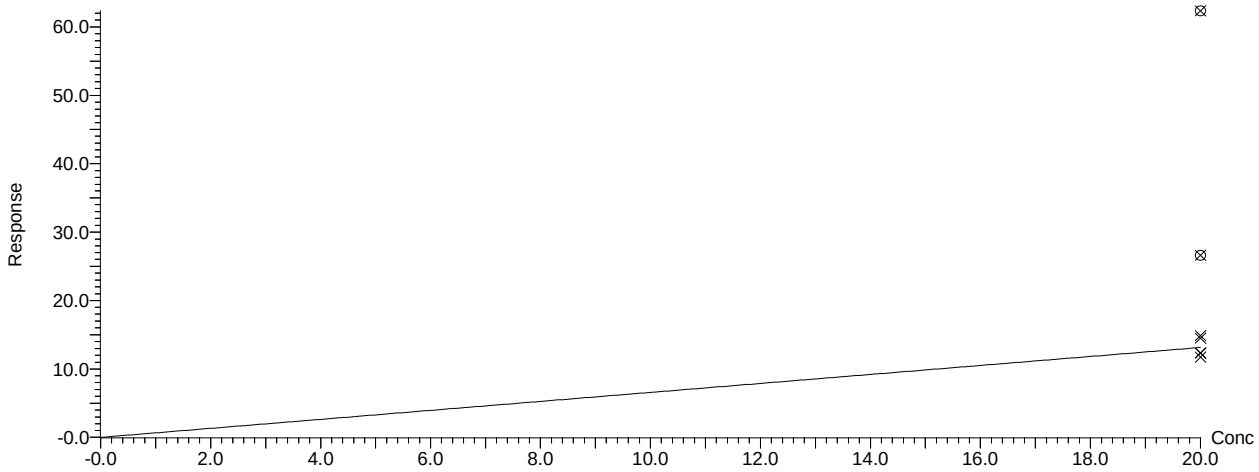
Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_097-A1.qld

Last Altered: Tuesday, March 12, 2019 17:19:00 Pacific Daylight Time
Printed: Wednesday, March 13, 2019 09:12:29 Pacific Daylight Time

**Compound name: 13C2-6:2 FTS-2**

| # | ID | Name | Type | RT | Area | IS Area | Std. Conc | RRF | Conc. | %Rec | S/N | Acq.Date | Acq.Time | Flags |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2 | FC027B-CAL,, /01 | FC9W_097S12 | Standard | 6.04 | 5212 | 1060 | 20.000 | 0.614 | 18.704 | 93.5 | 9716 | 08-Mar-19 | 16:13:44 | bb |
| 3 | FC027C-CAL,, /01 | FC9W_097S13 | Standard | 6.05 | 5349 | 923 | 20.000 | 0.725 | 22.059 | 110.3 | 2393 | 08-Mar-19 | 16:27:06 | bb |
| 4 | FC027D-CAL,, /01 | FC9W_097S14 | Standard | 6.03 | 4773 | 1020 | 20.000 | 0.585 | 17.812 | 89.1 | 14597 | 08-Mar-19 | 16:40:24 | bb |
| 5 | FC027E-CAL,, /01 | FC9W_097S15 | Standard | 6.03 | 5322 | 1078 | 20.000 | 0.617 | 18.791 | 94.0 | 1008 | 08-Mar-19 | 16:53:43 | bb |
| 6 | FC027F-CAL,, /01 | FC9W_097S16 | Standard | 6.04 | 6040 | 1016 | 20.000 | 0.743 | 22.634 | 113.2 | 4297 | 08-Mar-19 | 18:12:07 | bb |
| 7 | FC027G-CAL,, /01 | FC9W_097S17 | Standard | 6.04 | 9975 | 937 | 20.000 | 1.331 | 40.525 | 202.6 | 1680 | 08-Mar-19 | 18:25:24 | bbX |
| 8 | FC027H-CAL,, /01 | FC9W_097S18 | Standard | 6.03 | 20980 | 841 | 20.000 | 3.118 | 94.913 | 474.6 | 4603 | 08-Mar-19 | 18:38:44 | bbX |

Compound name: 13C2-6:2 FTS-2
Response Factor: 0.65697
RRF SD: 0.071793, % Relative SD: 10.9279
Response type: Internal Std ( Ref 102 ), Area * ( IS Conc. / IS Area )
Curve type: RF




PVed by GW, SVed by hh 13-Mar-19. NOTE: Unit=ng based on 4 mL extract

**Quantify Compound Summary Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

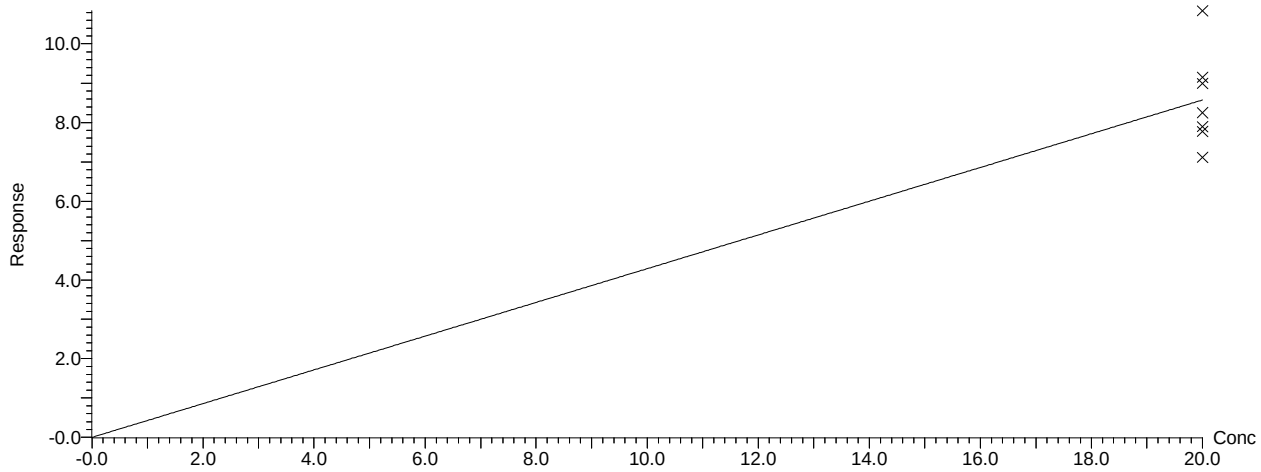
Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_097-A1.qld

Last Altered: Tuesday, March 12, 2019 17:19:00 Pacific Daylight Time
Printed: Wednesday, March 13, 2019 09:12:29 Pacific Daylight Time

**Compound name: 13C2-8:2 FTS-1**

| # | ID | Name | Type | RT | Area | IS Area | Std. Conc | RRF | Conc. | %Rec | S/N | Acq.Date | Acq.Time | Flags |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2 | FC027B-CAL,, /01 | FC9W_097S12 | Standard | 7.39 | 3881 | 1060 | 20.000 | 0.458 | 21.345 | 106.7 | 349 | 08-Mar-19 | 16:13:44 | MM |
| 3 | FC027C-CAL,, /01 | FC9W_097S13 | Standard | 7.39 | 4001 | 923 | 20.000 | 0.542 | 25.287 | 126.4 | 1956 | 08-Mar-19 | 16:27:06 | MM |
| 4 | FC027D-CAL,, /01 | FC9W_097S14 | Standard | 7.39 | 3668 | 1020 | 20.000 | 0.450 | 20.978 | 104.9 | 1223 | 08-Mar-19 | 16:40:24 | MM |
| 5 | FC027E-CAL,, /01 | FC9W_097S15 | Standard | 7.38 | 3557 | 1078 | 20.000 | 0.413 | 19.245 | 96.2 | 2033 | 08-Mar-19 | 16:53:43 | bb |
| 6 | FC027F-CAL,, /01 | FC9W_097S16 | Standard | 7.39 | 3206 | 1016 | 20.000 | 0.395 | 18.413 | 92.1 | 9611 | 08-Mar-19 | 18:12:07 | bb |
| 7 | FC027G-CAL,, /01 | FC9W_097S17 | Standard | 7.38 | 2666 | 937 | 20.000 | 0.356 | 16.598 | 83.0 | 7140 | 08-Mar-19 | 18:25:24 | bb |
| 8 | FC027H-CAL,, /01 | FC9W_097S18 | Standard | 7.38 | 2616 | 841 | 20.000 | 0.389 | 18.134 | 90.7 | 289 | 08-Mar-19 | 18:38:44 | bb |

Compound name: 13C2-8:2 FTS-1
Response Factor: 0.428687
RRF SD: 0.0611637, % Relative SD: 14.2677
Response type: Internal Std ( Ref 102 ), Area * ( IS Conc. / IS Area )
Curve type: RF




PVed by GW, SVed by hh 13-Mar-19. NOTE: Unit=ng based on 4 mL extract

**Quantify Compound Summary Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

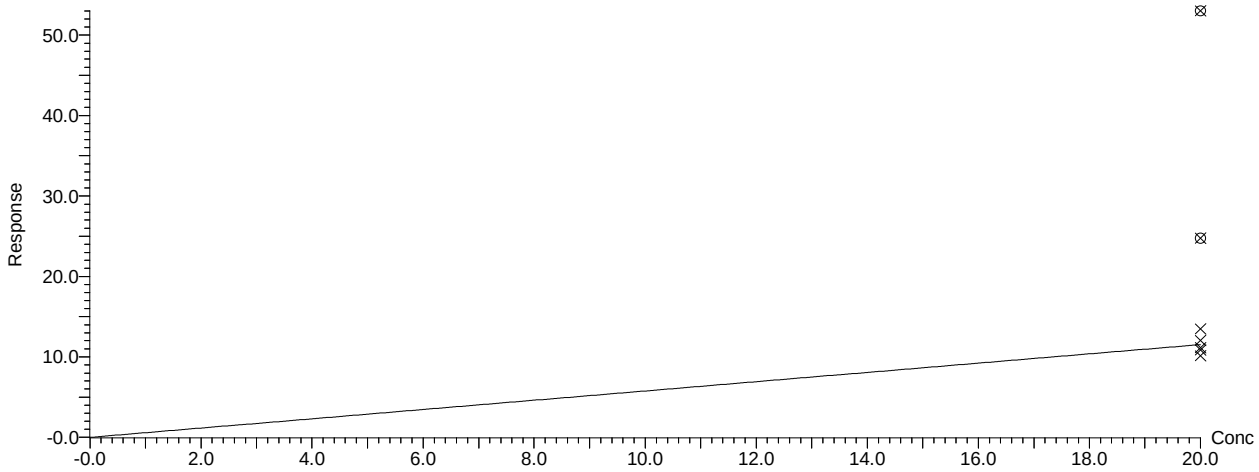
Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_097-A1.qld

Last Altered: Tuesday, March 12, 2019 17:19:00 Pacific Daylight Time
Printed: Wednesday, March 13, 2019 09:12:29 Pacific Daylight Time

**Compound name: 13C2-8:2 FTS-2**

| # | ID | Name | Type | RT | Area | IS Area | Std. Conc | RRF | Conc. | %Rec | S/N | Acq.Date | Acq.Time | Flags |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2 | FC027B-CAL,, /01 | FC9W_097S12 | Standard | 7.39 | 4727 | 1060 | 20.000 | 0.557 | 19.330 | 96.7 | 1646 | 08-Mar-19 | 16:13:44 | bb |
| 3 | FC027C-CAL,, /01 | FC9W_097S13 | Standard | 7.39 | 4445 | 923 | 20.000 | 0.602 | 20.883 | 104.4 | 6005 | 08-Mar-19 | 16:27:06 | bb |
| 4 | FC027D-CAL,, /01 | FC9W_097S14 | Standard | 7.39 | 4428 | 1020 | 20.000 | 0.543 | 18.826 | 94.1 | 167897 | 08-Mar-19 | 16:40:24 | bb |
| 5 | FC027E-CAL,, /01 | FC9W_097S15 | Standard | 7.38 | 4373 | 1078 | 20.000 | 0.507 | 17.592 | 88.0 | 292 | 08-Mar-19 | 16:53:43 | bb |
| 6 | FC027F-CAL,, /01 | FC9W_097S16 | Standard | 7.39 | 5473 | 1016 | 20.000 | 0.674 | 23.367 | 116.8 | 4093 | 08-Mar-19 | 18:12:07 | bb |
| 7 | FC027G-CAL,, /01 | FC9W_097S17 | Standard | 7.38 | 9272 | 937 | 20.000 | 1.237 | 42.921 | 214.6 | 821 | 08-Mar-19 | 18:25:24 | bbX |
| 8 | FC027H-CAL,, /01 | FC9W_097S18 | Standard | 7.38 | 17840 | 841 | 20.000 | 2.651 | 91.960 | 459.8 | 2061 | 08-Mar-19 | 18:38:44 | bbX |

Compound name: 13C2-8:2 FTS-2
Response Factor: 0.576575
RRF SD: 0.0640464, % Relative SD: 11.1081
Response type: Internal Std ( Ref 102 ), Area * ( IS Conc. / IS Area )
Curve type: RF




PVed by GW, SVed by hh 13-Mar-19. NOTE: Unit=ng based on 4 mL extract

**Quantify Compound Summary Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

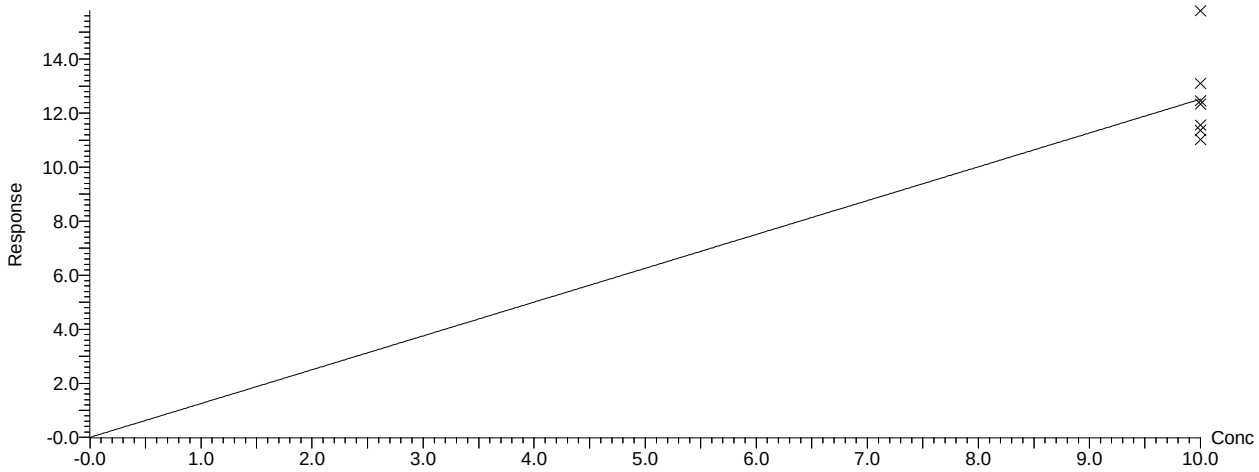
Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_097-A1.qld

Last Altered: Tuesday, March 12, 2019 17:19:00 Pacific Daylight Time
Printed: Wednesday, March 13, 2019 09:12:29 Pacific Daylight Time

**Compound name: 13C8-PFOSA**

| # | ID | Name | Type | RT | Area | IS Area | Std. Conc | RRF | Conc. | %Rec | S/N | Acq.Date | Acq.Time | Flags |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2 | FC027B-CAL,, /01 | FC9W_097S12 | Standard | 9.01 | 5808 | 1278 | 10.000 | 1.136 | 9.077 | 90.8 | 9888 | 08-Mar-19 | 16:13:44 | bb |
| 3 | FC027C-CAL,, /01 | FC9W_097S13 | Standard | 9.01 | 6090 | 1317 | 10.000 | 1.156 | 9.235 | 92.3 | 358 | 08-Mar-19 | 16:27:06 | bb |
| 4 | FC027D-CAL,, /01 | FC9W_097S14 | Standard | 9.01 | 5915 | 1342 | 10.000 | 1.102 | 8.807 | 88.1 | 8334 | 08-Mar-19 | 16:40:24 | bb |
| 5 | FC027E-CAL,, /01 | FC9W_097S15 | Standard | 9.00 | 6212 | 1259 | 10.000 | 1.233 | 9.854 | 98.5 | 88 | 08-Mar-19 | 16:53:43 | bb |
| 6 | FC027F-CAL,, /01 | FC9W_097S16 | Standard | 9.02 | 6192 | 1243 | 10.000 | 1.246 | 9.952 | 99.5 | 10255 | 08-Mar-19 | 18:12:07 | bb |
| 7 | FC027G-CAL,, /01 | FC9W_097S17 | Standard | 9.01 | 6363 | 1215 | 10.000 | 1.310 | 10.464 | 104.6 | 8441 | 08-Mar-19 | 18:25:24 | bb |
| 8 | FC027H-CAL,, /01 | FC9W_097S18 | Standard | 9.02 | 5436 | 861 | 10.000 | 1.579 | 12.613 | 126.1 | 4325 | 08-Mar-19 | 18:38:44 | bb |

Compound name: 13C8-PFOSA
Response Factor: 1.25167
RRF SD: 0.161001, % Relative SD: 12.8629
Response type: Internal Std ( Ref 103 ), Area * ( IS Conc. / IS Area )
Curve type: RF




PVed by GW, SVed by hh 13-Mar-19. NOTE: Unit=ng based on 4 mL extract

**Quantify Compound Summary Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

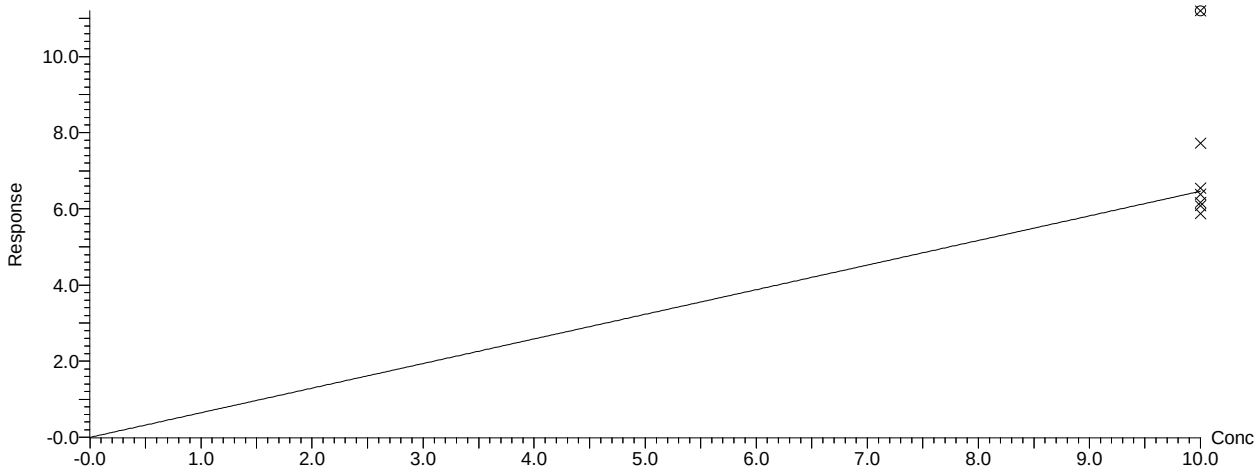
Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_097-A1.qld

Last Altered: Tuesday, March 12, 2019 17:19:00 Pacific Daylight Time
Printed: Wednesday, March 13, 2019 09:12:29 Pacific Daylight Time

**Compound name: D3-N-MeFOSA**

| # | ID | Name | Type | RT | Area | IS Area | Std. Conc | RRF | Conc. | %Rec | S/N | Acq.Date | Acq.Time | Flags |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2 | FC027B-CAL,, /01 | FC9W_097S12 | Standard | 9.97 | 3003 | 1278 | 10.000 | 0.587 | 9.090 | 90.9 | 962 | 08-Mar-19 | 16:13:44 | MM |
| 3 | FC027C-CAL,, /01 | FC9W_097S13 | Standard | 9.96 | 3250 | 1317 | 10.000 | 0.617 | 9.545 | 95.5 | 104 | 08-Mar-19 | 16:27:06 | bb |
| 4 | FC027D-CAL,, /01 | FC9W_097S14 | Standard | 9.95 | 3264 | 1342 | 10.000 | 0.608 | 9.413 | 94.1 | 868 | 08-Mar-19 | 16:40:24 | MM |
| 5 | FC027E-CAL,, /01 | FC9W_097S15 | Standard | 9.94 | 3296 | 1259 | 10.000 | 0.654 | 10.129 | 101.3 | 464 | 08-Mar-19 | 16:53:43 | bb |
| 6 | FC027F-CAL,, /01 | FC9W_097S16 | Standard | 9.95 | 3171 | 1243 | 10.000 | 0.638 | 9.871 | 98.7 | 213 | 08-Mar-19 | 18:12:07 | MM |
| 7 | FC027G-CAL,, /01 | FC9W_097S17 | Standard | 9.95 | 3752 | 1215 | 10.000 | 0.772 | 11.951 | 119.5 | 957 | 08-Mar-19 | 18:25:24 | bb |
| 8 | FC027H-CAL,, /01 | FC9W_097S18 | Standard | 9.96 | 3856 | 861 | 10.000 | 1.120 | 17.332 | 173.3 | 395 | 08-Mar-19 | 18:38:44 | bbX |

Compound name: D3-N-MeFOSA
Response Factor: 0.646148
RRF SD: 0.0660093, % Relative SD: 10.2158
Response type: Internal Std ( Ref 103 ), Area * ( IS Conc. / IS Area )
Curve type: RF




PVed by GW, SVed by hh 13-Mar-19. NOTE: Unit=ng based on 4 mL extract

**Quantify Compound Summary Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

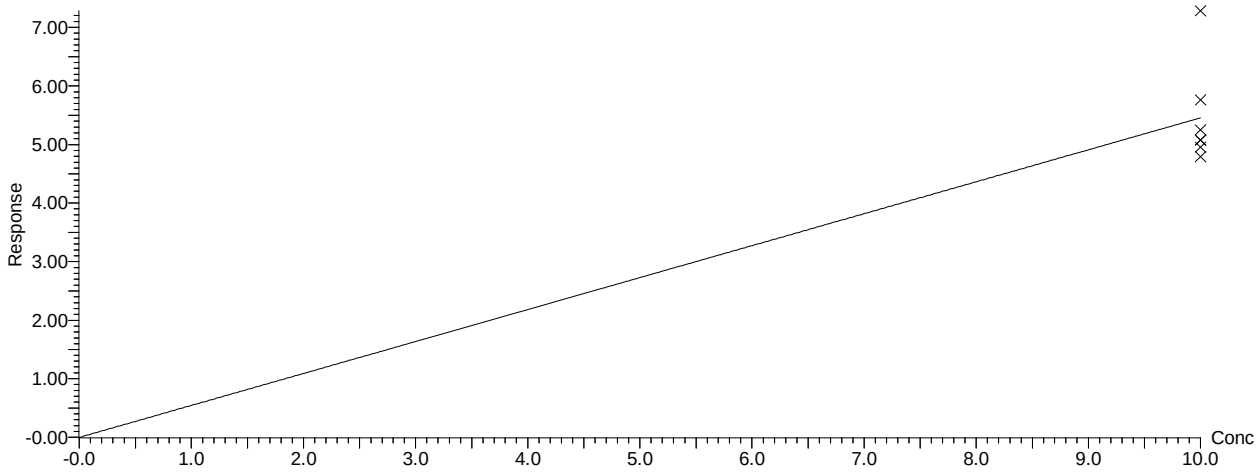
Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_097-A1.qld

Last Altered: Tuesday, March 12, 2019 17:19:00 Pacific Daylight Time
Printed: Wednesday, March 13, 2019 09:12:29 Pacific Daylight Time

**Compound name: D5-N-EtFOSA**

| # | ID | Name | Type | RT | Area | IS Area | Std. Conc | RRF | Conc. | %Rec | S/N | Acq.Date | Acq.Time | Flags |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2 | FC027B-CAL,, /01 | FC9W_097S12 | Standard | 10.24 | 2450 | 1278 | 10.000 | 0.479 | 8.783 | 87.8 | 801 | 08-Mar-19 | 16:13:44 | bb |
| 3 | FC027C-CAL,, /01 | FC9W_097S13 | Standard | 10.23 | 2674 | 1317 | 10.000 | 0.508 | 9.302 | 93.0 | 977 | 08-Mar-19 | 16:27:06 | bb |
| 4 | FC027D-CAL,, /01 | FC9W_097S14 | Standard | 10.22 | 2659 | 1342 | 10.000 | 0.495 | 9.082 | 90.8 | 749 | 08-Mar-19 | 16:40:24 | bb |
| 5 | FC027E-CAL,, /01 | FC9W_097S15 | Standard | 10.22 | 2644 | 1259 | 10.000 | 0.525 | 9.623 | 96.2 | 525 | 08-Mar-19 | 16:53:43 | MM |
| 6 | FC027F-CAL,, /01 | FC9W_097S16 | Standard | 10.23 | 2523 | 1243 | 10.000 | 0.507 | 9.301 | 93.0 | 439 | 08-Mar-19 | 18:12:07 | bb |
| 7 | FC027G-CAL,, /01 | FC9W_097S17 | Standard | 10.22 | 2799 | 1215 | 10.000 | 0.576 | 10.559 | 105.6 | 340 | 08-Mar-19 | 18:25:24 | bb |
| 8 | FC027H-CAL,, /01 | FC9W_097S18 | Standard | 10.24 | 2508 | 861 | 10.000 | 0.728 | 13.350 | 133.5 | 527 | 08-Mar-19 | 18:38:44 | bb |

Compound name: D5-N-EtFOSA
Response Factor: 0.545588
RRF SD: 0.0861967, % Relative SD: 15.7989
Response type: Internal Std ( Ref 103 ), Area * ( IS Conc. / IS Area )
Curve type: RF




PVed by GW, SVed by hh 13-Mar-19. NOTE: Unit=ng based on 4 mL extract

**Quantify Compound Summary Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

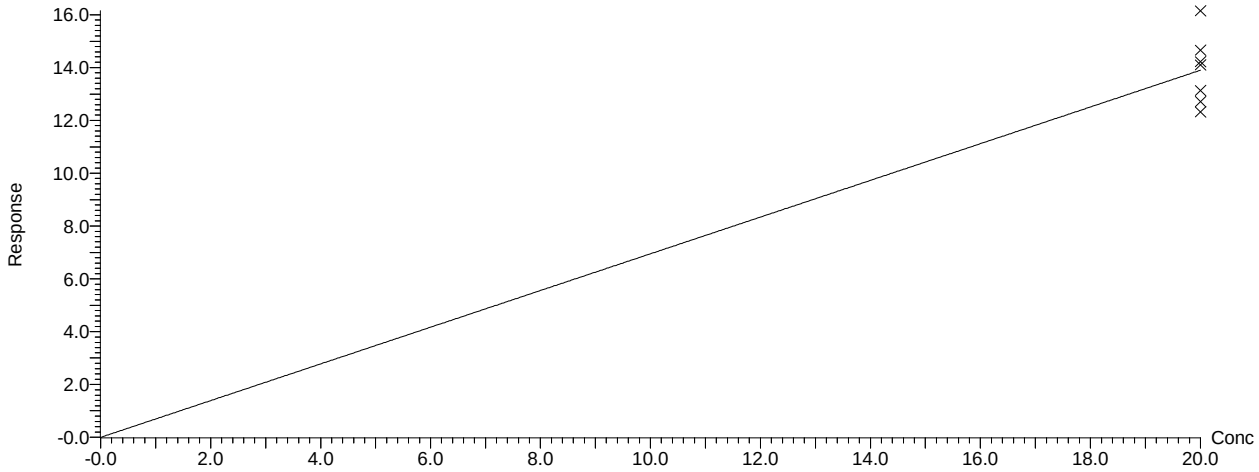
Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_097-A1.qld

Last Altered: Tuesday, March 12, 2019 17:19:00 Pacific Daylight Time
Printed: Wednesday, March 13, 2019 09:12:29 Pacific Daylight Time

**Compound name: D3-MeFOSAA**

| # | ID | Name | Type | RT | Area | IS Area | Std. Conc | RRF | Conc. | %Rec | S/N | Acq.Date | Acq.Time | Flags |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2 | FC027B-CAL,, /01 | FC9W_097S12 | Standard | 7.59 | 6497 | 1278 | 20.000 | 0.635 | 18.284 | 91.4 | 1414 | 08-Mar-19 | 16:13:44 | MM |
| 3 | FC027C-CAL,, /01 | FC9W_097S13 | Standard | 7.59 | 6920 | 1317 | 20.000 | 0.657 | 18.896 | 94.5 | 1924 | 08-Mar-19 | 16:27:06 | MM |
| 4 | FC027D-CAL,, /01 | FC9W_097S14 | Standard | 7.58 | 6613 | 1342 | 20.000 | 0.616 | 17.729 | 88.6 | 502 | 08-Mar-19 | 16:40:24 | MM |
| 5 | FC027E-CAL,, /01 | FC9W_097S15 | Standard | 7.58 | 7165 | 1259 | 20.000 | 0.711 | 20.468 | 102.3 | 4051 | 08-Mar-19 | 16:53:43 | MM |
| 6 | FC027F-CAL,, /01 | FC9W_097S16 | Standard | 7.59 | 7011 | 1243 | 20.000 | 0.705 | 20.291 | 101.5 | 18224 | 08-Mar-19 | 18:12:07 | MM |
| 7 | FC027G-CAL,, /01 | FC9W_097S17 | Standard | 7.58 | 7124 | 1215 | 20.000 | 0.733 | 21.097 | 105.5 | 2346 | 08-Mar-19 | 18:25:24 | MM |
| 8 | FC027H-CAL,, /01 | FC9W_097S18 | Standard | 7.58 | 5561 | 861 | 20.000 | 0.808 | 23.235 | 116.2 | 4650 | 08-Mar-19 | 18:38:44 | MM |

Compound name: D3-MeFOSAA
Response Factor: 0.695078
RRF SD: 0.0654646, % Relative SD: 9.41831
Response type: Internal Std ( Ref 103 ), Area * ( IS Conc. / IS Area )
Curve type: RF




PVed by GW, SVed by hh 13-Mar-19. NOTE: Unit=ng based on 4 mL extract

**Quantify Compound Summary Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

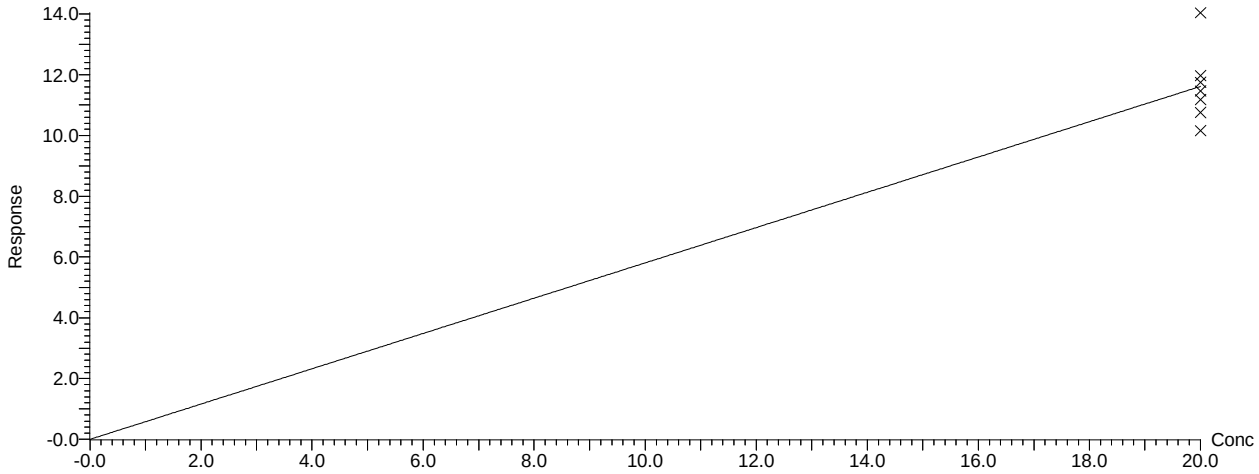
Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_097-A1.qld

Last Altered: Tuesday, March 12, 2019 17:19:00 Pacific Daylight Time
Printed: Wednesday, March 13, 2019 09:12:29 Pacific Daylight Time

**Compound name: D5-EtFOSAA**

| # | ID | Name | Type | RT | Area | IS Area | Std. Conc | RRF | Conc. | %Rec | S/N | Acq.Date | Acq.Time | Flags |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2 | FC027B-CAL,, /01 | FC9W_097S12 | Standard | 7.72 | 5196 | 1278 | 20.000 | 0.508 | 17.498 | 87.5 | 721 | 08-Mar-19 | 16:13:44 | MM |
| 3 | FC027C-CAL,, /01 | FC9W_097S13 | Standard | 7.72 | 5888 | 1317 | 20.000 | 0.559 | 19.240 | 96.2 | 986 | 08-Mar-19 | 16:27:06 | MM |
| 4 | FC027D-CAL,, /01 | FC9W_097S14 | Standard | 7.72 | 5770 | 1342 | 20.000 | 0.538 | 18.515 | 92.6 | 763 | 08-Mar-19 | 16:40:24 | MM |
| 5 | FC027E-CAL,, /01 | FC9W_097S15 | Standard | 7.72 | 5917 | 1259 | 20.000 | 0.587 | 20.228 | 101.1 | 3884 | 08-Mar-19 | 16:53:43 | MM |
| 6 | FC027F-CAL,, /01 | FC9W_097S16 | Standard | 7.72 | 5701 | 1243 | 20.000 | 0.573 | 19.744 | 98.7 | 6177 | 08-Mar-19 | 18:12:07 | MM |
| 7 | FC027G-CAL,, /01 | FC9W_097S17 | Standard | 7.72 | 5815 | 1215 | 20.000 | 0.598 | 20.606 | 103.0 | 346 | 08-Mar-19 | 18:25:24 | MM |
| 8 | FC027H-CAL,, /01 | FC9W_097S18 | Standard | 7.72 | 4834 | 861 | 20.000 | 0.702 | 24.170 | 120.8 | 508 | 08-Mar-19 | 18:38:44 | MM |

Compound name: D5-EtFOSAA
Response Factor: 0.580814
RRF SD: 0.0615124, % Relative SD: 10.5907
Response type: Internal Std ( Ref 103 ), Area * ( IS Conc. / IS Area )
Curve type: RF




PVed by GW, SVed by hh 13-Mar-19. NOTE: Unit=ng based on 4 mL extract

**Quantify Compound Summary Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

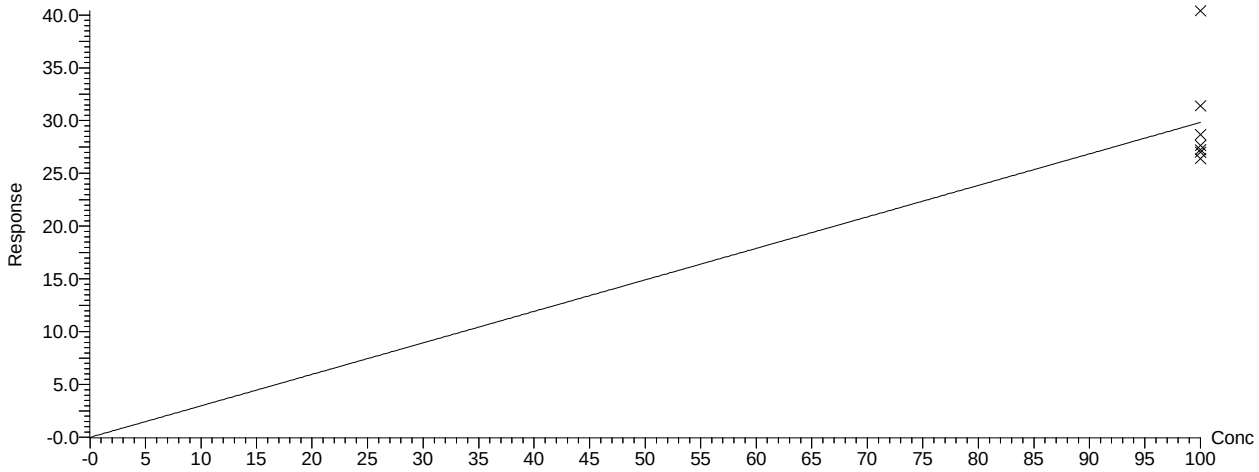
Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_097-A1.qld

Last Altered: Tuesday, March 12, 2019 17:19:00 Pacific Daylight Time
Printed: Wednesday, March 13, 2019 09:12:29 Pacific Daylight Time

**Compound name: D7-N-MeFOSE**

| # | ID | Name | Type | RT | Area | IS Area | Std. Conc | RRF | Conc. | %Rec | S/N | Acq.Date | Acq.Time | Flags |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2 | FC027B-CAL,, /01 | FC9W_097S12 | Standard | 9.83 | 13810 | 1278 | 100.000 | 0.270 | 90.536 | 90.5 | 977 | 08-Mar-19 | 16:13:44 | bb |
| 3 | FC027C-CAL,, /01 | FC9W_097S13 | Standard | 9.82 | 14362 | 1317 | 100.000 | 0.273 | 91.355 | 91.4 | 2013 | 08-Mar-19 | 16:27:06 | bb |
| 4 | FC027D-CAL,, /01 | FC9W_097S14 | Standard | 9.81 | 14175 | 1342 | 100.000 | 0.264 | 88.532 | 88.5 | 1916 | 08-Mar-19 | 16:40:24 | bb |
| 5 | FC027E-CAL,, /01 | FC9W_097S15 | Standard | 9.81 | 14452 | 1259 | 100.000 | 0.287 | 96.172 | 96.2 | 1107 | 08-Mar-19 | 16:53:43 | bb |
| 6 | FC027F-CAL,, /01 | FC9W_097S16 | Standard | 9.82 | 13749 | 1243 | 100.000 | 0.277 | 92.691 | 92.7 | 1154 | 08-Mar-19 | 18:12:07 | bb |
| 7 | FC027G-CAL,, /01 | FC9W_097S17 | Standard | 9.81 | 15263 | 1215 | 100.000 | 0.314 | 105.293 | 105.3 | 1346 | 08-Mar-19 | 18:25:24 | bb |
| 8 | FC027H-CAL,, /01 | FC9W_097S18 | Standard | 9.82 | 13913 | 861 | 100.000 | 0.404 | 135.422 | 135.4 | 582 | 08-Mar-19 | 18:38:44 | bb |

Compound name: D7-N-MeFOSE
Response Factor: 0.298373
RRF SD: 0.0494288, % Relative SD: 16.5661
Response type: Internal Std ( Ref 103 ), Area * ( IS Conc. / IS Area )
Curve type: RF




PVed by GW, SVed by hh 13-Mar-19. NOTE: Unit=ng based on 4 mL extract

**Quantify Compound Summary Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

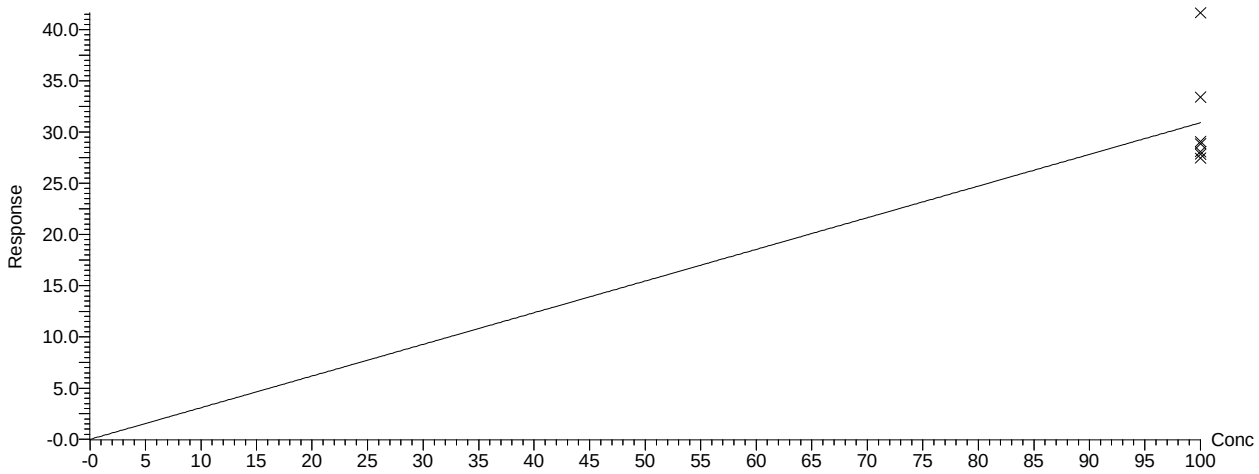
Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_097-A1.qld

Last Altered: Tuesday, March 12, 2019 17:19:00 Pacific Daylight Time
Printed: Wednesday, March 13, 2019 09:12:29 Pacific Daylight Time

**Compound name: D9-N-EtFOSE**

| # | ID | Name | Type | RT | Area | IS Area | Std. Conc | RRF | Conc. | %Rec | S/N | Acq.Date | Acq.Time | Flags |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2 | FC027B-CAL,, /01 | FC9W_097S12 | Standard | 10.11 | 14238 | 1278 | 100.000 | 0.279 | 90.116 | 90.1 | 1263 | 08-Mar-19 | 16:13:44 | bb |
| 3 | FC027C-CAL,, /01 | FC9W_097S13 | Standard | 10.10 | 14801 | 1317 | 100.000 | 0.281 | 90.897 | 90.9 | 1279 | 08-Mar-19 | 16:27:06 | bb |
| 4 | FC027D-CAL,, /01 | FC9W_097S14 | Standard | 10.08 | 14736 | 1342 | 100.000 | 0.275 | 88.856 | 88.9 | 1743 | 08-Mar-19 | 16:40:24 | bb |
| 5 | FC027E-CAL,, /01 | FC9W_097S15 | Standard | 10.08 | 14632 | 1259 | 100.000 | 0.291 | 94.003 | 94.0 | 1404 | 08-Mar-19 | 16:53:43 | bb |
| 6 | FC027F-CAL,, /01 | FC9W_097S16 | Standard | 10.11 | 14341 | 1243 | 100.000 | 0.288 | 93.340 | 93.3 | 1612 | 08-Mar-19 | 18:12:07 | bb |
| 7 | FC027G-CAL,, /01 | FC9W_097S17 | Standard | 10.10 | 16227 | 1215 | 100.000 | 0.334 | 108.075 | 108.1 | 1815 | 08-Mar-19 | 18:25:24 | bb |
| 8 | FC027H-CAL,, /01 | FC9W_097S18 | Standard | 10.10 | 14336 | 861 | 100.000 | 0.416 | 134.713 | 134.7 | 1229 | 08-Mar-19 | 18:38:44 | bb |

Compound name: D9-N-EtFOSE
Response Factor: 0.309049
RRF SD: 0.0513316, % Relative SD: 16.6095
Response type: Internal Std ( Ref 103 ), Area * ( IS Conc. / IS Area )
Curve type: RF




PVed by GW, SVed by hh 13-Mar-19. NOTE: Unit=ng based on 4 mL extract

**Quantify Compound Summary Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

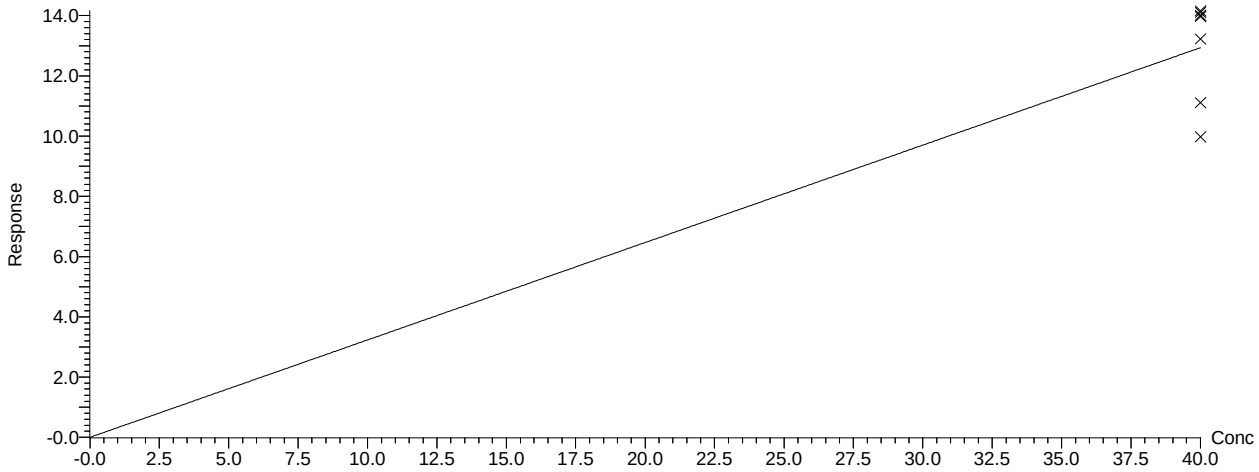
Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_097-A1.qld

Last Altered: Tuesday, March 12, 2019 17:19:00 Pacific Daylight Time
Printed: Wednesday, March 13, 2019 09:12:29 Pacific Daylight Time

**Compound name: 13C3-HFPO-DA-1**

| # | ID | Name | Type | RT | Area | IS Area | Std. Conc | RRF | Conc. | %Rec | S/N | Acq.Date | Acq.Time | Flags |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2 | FC027B-CAL,, /01 | FC9W_097S12 | Standard | 5.10 | 25712 | 4862 | 40.000 | 0.331 | 40.890 | 102.2 | 2255 | 08-Mar-19 | 16:13:44 | MM |
| 3 | FC027C-CAL,, /01 | FC9W_097S13 | Standard | 5.10 | 27622 | 4898 | 40.000 | 0.352 | 43.600 | 109.0 | 4961 | 08-Mar-19 | 16:27:06 | bb |
| 4 | FC027D-CAL,, /01 | FC9W_097S14 | Standard | 5.10 | 26474 | 4723 | 40.000 | 0.350 | 43.337 | 108.3 | 3068 | 08-Mar-19 | 16:40:24 | MM |
| 5 | FC027E-CAL,, /01 | FC9W_097S15 | Standard | 5.10 | 26660 | 4708 | 40.000 | 0.354 | 43.783 | 109.5 | 7700 | 08-Mar-19 | 16:53:43 | MM |
| 6 | FC027F-CAL,, /01 | FC9W_097S16 | Standard | 5.10 | 24136 | 4322 | 40.000 | 0.349 | 43.174 | 107.9 | 15481 | 08-Mar-19 | 18:12:07 | MM |
| 7 | FC027G-CAL,, /01 | FC9W_097S17 | Standard | 5.10 | 19239 | 4329 | 40.000 | 0.278 | 34.363 | 85.9 | 11637 | 08-Mar-19 | 18:25:24 | MM |
| 8 | FC027H-CAL,, /01 | FC9W_097S18 | Standard | 5.09 | 13567 | 3400 | 40.000 | 0.249 | 30.853 | 77.1 | 1787 | 08-Mar-19 | 18:38:44 | bb |

Compound name: 13C3-HFPO-DA-1
Response Factor: 0.32334
RRF SD: 0.0423547, % Relative SD: 13.0991
Response type: Internal Std ( Ref 97 ), Area * ( IS Conc. / IS Area )
Curve type: RF




PVed by GW, SVed by hh 13-Mar-19. NOTE: Unit=ng based on 4 mL extract

**Quantify Compound Summary Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

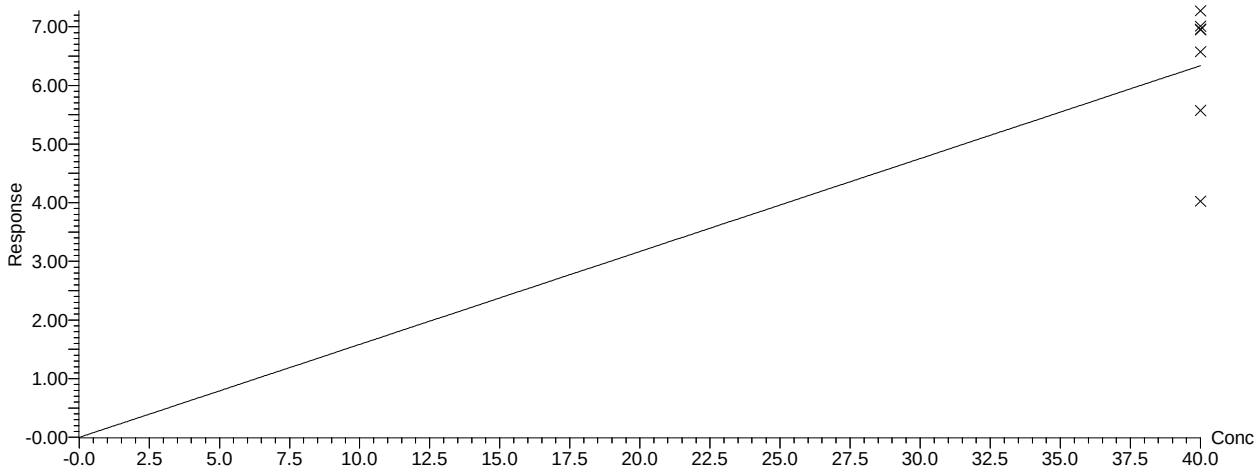
Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_097-A1.qld

Last Altered: Tuesday, March 12, 2019 17:19:00 Pacific Daylight Time
Printed: Wednesday, March 13, 2019 09:12:29 Pacific Daylight Time

**Compound name: 13C3-HFPO-DA-2**

| # | ID | Name | Type | RT | Area | IS Area | Std. Conc | RRF | Conc. | %Rec | S/N | Acq.Date | Acq.Time | Flags |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2 | FC027B-CAL,, /01 | FC9W_097S12 | Standard | 5.10 | 12778 | 4862 | 40.000 | 0.164 | 41.489 | 103.7 | 1707 | 08-Mar-19 | 16:13:44 | bb |
| 3 | FC027C-CAL,, /01 | FC9W_097S13 | Standard | 5.10 | 13733 | 4898 | 40.000 | 0.175 | 44.255 | 110.6 | 2041 | 08-Mar-19 | 16:27:06 | bb |
| 4 | FC027D-CAL,, /01 | FC9W_097S14 | Standard | 5.10 | 13144 | 4723 | 40.000 | 0.174 | 43.926 | 109.8 | 3044 | 08-Mar-19 | 16:40:24 | bb |
| 5 | FC027E-CAL,, /01 | FC9W_097S15 | Standard | 5.10 | 13690 | 4708 | 40.000 | 0.182 | 45.898 | 114.7 | 7177 | 08-Mar-19 | 16:53:43 | bb |
| 6 | FC027F-CAL,, /01 | FC9W_097S16 | Standard | 5.10 | 12012 | 4322 | 40.000 | 0.174 | 43.866 | 109.7 | 6481 | 08-Mar-19 | 18:12:07 | bb |
| 7 | FC027G-CAL,, /01 | FC9W_097S17 | Standard | 5.10 | 9647 | 4329 | 40.000 | 0.139 | 35.176 | 87.9 | 1814 | 08-Mar-19 | 18:25:24 | bb |
| 8 | FC027H-CAL,, /01 | FC9W_097S18 | Standard | 5.09 | 5469 | 3400 | 40.000 | 0.101 | 25.389 | 63.5 | 461 | 08-Mar-19 | 18:38:44 | bb |

Compound name: 13C3-HFPO-DA-2
Response Factor: 0.158378
RRF SD: 0.0290157, % Relative SD: 18.3206
Response type: Internal Std ( Ref 97 ), Area * ( IS Conc. / IS Area )
Curve type: RF




PVed by GW, SVed by hh 13-Mar-19. NOTE: Unit=ng based on 4 mL extract

**Quantify Compound Summary Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

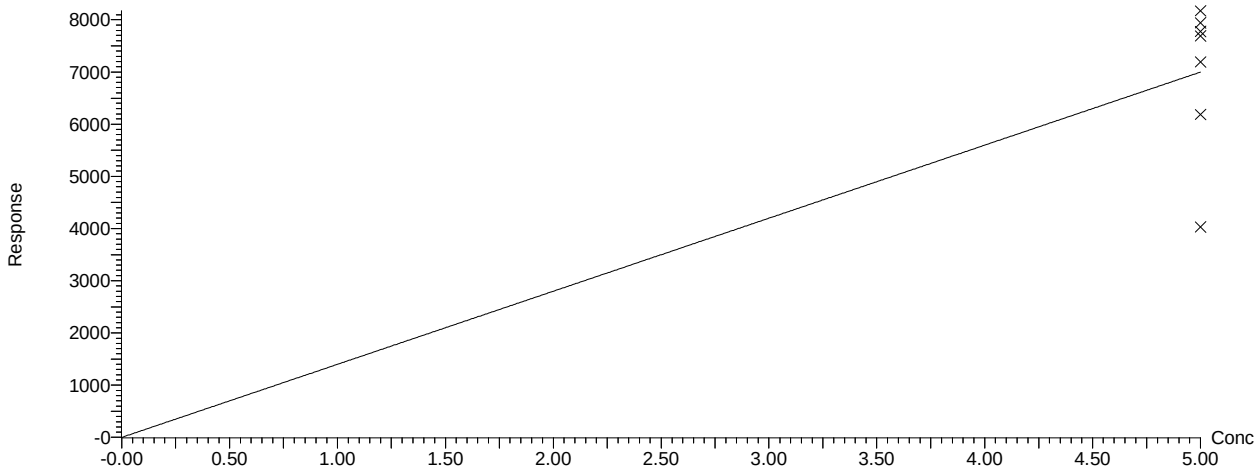
Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_097-A1.qld

Last Altered: Tuesday, March 12, 2019 17:19:00 Pacific Daylight Time
Printed: Wednesday, March 13, 2019 09:12:29 Pacific Daylight Time

**Compound name: 13C3-PFBA**

| # | ID | Name | Type | RT | Area | IS Area | Std. Conc | RRF | Conc. | %Rec | S/N | Acq.Date | Acq.Time | Flags |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2 | FC027B-CAL,, /01 | FC9W_097S12 | Standard | 2.10 | 7692 | | 5.000 | 1538.4... | 5.495 | 109.9 | 414 | 08-Mar-19 | 16:13:44 | bb |
| 3 | FC027C-CAL,, /01 | FC9W_097S13 | Standard | 2.11 | 8173 | | 5.000 | 1634.5... | 5.839 | 116.8 | 269 | 08-Mar-19 | 16:27:06 | bb |
| 4 | FC027D-CAL,, /01 | FC9W_097S14 | Standard | 2.09 | 7941 | | 5.000 | 1588.2... | 5.673 | 113.5 | 454 | 08-Mar-19 | 16:40:24 | bb |
| 5 | FC027E-CAL,, /01 | FC9W_097S15 | Standard | 2.11 | 7775 | | 5.000 | 1554.9... | 5.554 | 111.1 | 395 | 08-Mar-19 | 16:53:43 | bb |
| 6 | FC027F-CAL,, /01 | FC9W_097S16 | Standard | 2.11 | 7195 | | 5.000 | 1439.0... | 5.140 | 102.8 | 298 | 08-Mar-19 | 18:12:07 | bb |
| 7 | FC027G-CAL,, /01 | FC9W_097S17 | Standard | 2.09 | 6186 | | 5.000 | 1237.1... | 4.419 | 88.4 | 263 | 08-Mar-19 | 18:25:24 | bb |
| 8 | FC027H-CAL,, /01 | FC9W_097S18 | Standard | 2.09 | 4030 | | 5.000 | 806.057 | 2.879 | 57.6 | 166 | 08-Mar-19 | 18:38:44 | MM |

Compound name: 13C3-PFBA
Response Factor: 1399.77
RRF SD: 292.822, % Relative SD: 20.9192
Response type: External Std, Area
Curve type: RF




PVed by GW, SVed by hh 13-Mar-19. NOTE: Unit=ng based on 4 mL extract

**Quantify Compound Summary Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

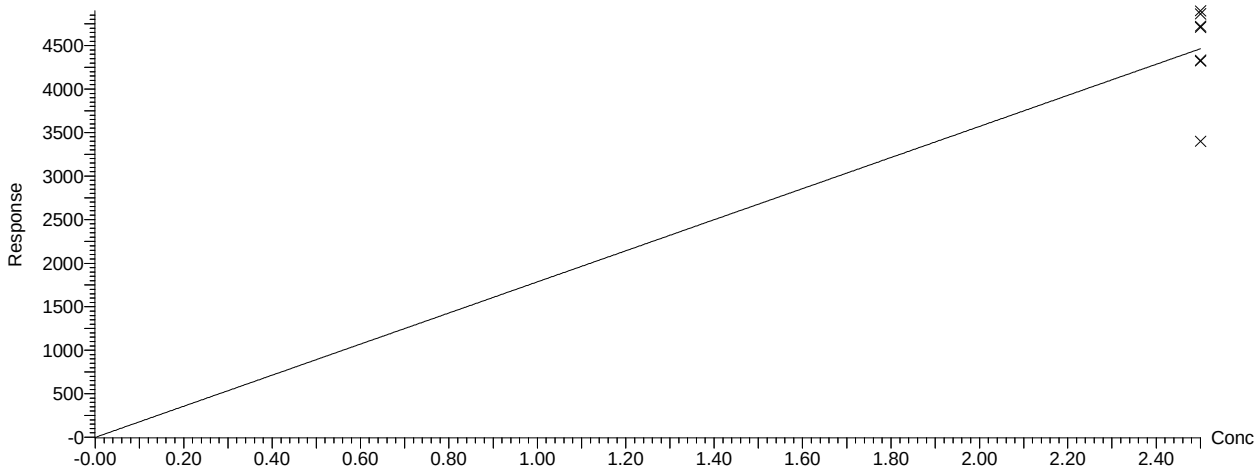
Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_097-A1.qld

Last Altered: Tuesday, March 12, 2019 17:19:00 Pacific Daylight Time
Printed: Wednesday, March 13, 2019 09:12:29 Pacific Daylight Time

**Compound name: 13C2-PFHxA-1**

| # | ID | Name | Type | RT | Area | IS Area | Std. Conc | RRF | Conc. | %Rec | S/N | Acq.Date | Acq.Time | Flags |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2 | FC027B-CAL,, /01 | FC9W_097S12 | Standard | 4.92 | 4862 | | 2.500 | 1944.7... | 2.723 | 108.9 | 33033 | 08-Mar-19 | 16:13:44 | bb |
| 3 | FC027C-CAL,, /01 | FC9W_097S13 | Standard | 4.92 | 4898 | | 2.500 | 1959.3... | 2.744 | 109.7 | 16130 | 08-Mar-19 | 16:27:06 | bb |
| 4 | FC027D-CAL,, /01 | FC9W_097S14 | Standard | 4.91 | 4723 | | 2.500 | 1889.3... | 2.646 | 105.8 | 2389 | 08-Mar-19 | 16:40:24 | bb |
| 5 | FC027E-CAL,, /01 | FC9W_097S15 | Standard | 4.91 | 4708 | | 2.500 | 1883.2... | 2.637 | 105.5 | 776 | 08-Mar-19 | 16:53:43 | bb |
| 6 | FC027F-CAL,, /01 | FC9W_097S16 | Standard | 4.92 | 4322 | | 2.500 | 1728.9... | 2.421 | 96.8 | 2369 | 08-Mar-19 | 18:12:07 | bb |
| 7 | FC027G-CAL,, /01 | FC9W_097S17 | Standard | 4.91 | 4329 | | 2.500 | 1731.5... | 2.425 | 97.0 | 17084 | 08-Mar-19 | 18:25:24 | bb |
| 8 | FC027H-CAL,, /01 | FC9W_097S18 | Standard | 4.90 | 3400 | | 2.500 | 1359.9... | 1.904 | 76.2 | 795 | 08-Mar-19 | 18:38:44 | bb |

Compound name: 13C2-PFHxA-1
Response Factor: 1785.29
RRF SD: 209.389, % Relative SD: 11.7286
Response type: External Std, Area
Curve type: RF




PVed by GW, SVed by hh 13-Mar-19. NOTE: Unit=ng based on 4 mL extract

**Quantify Compound Summary Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

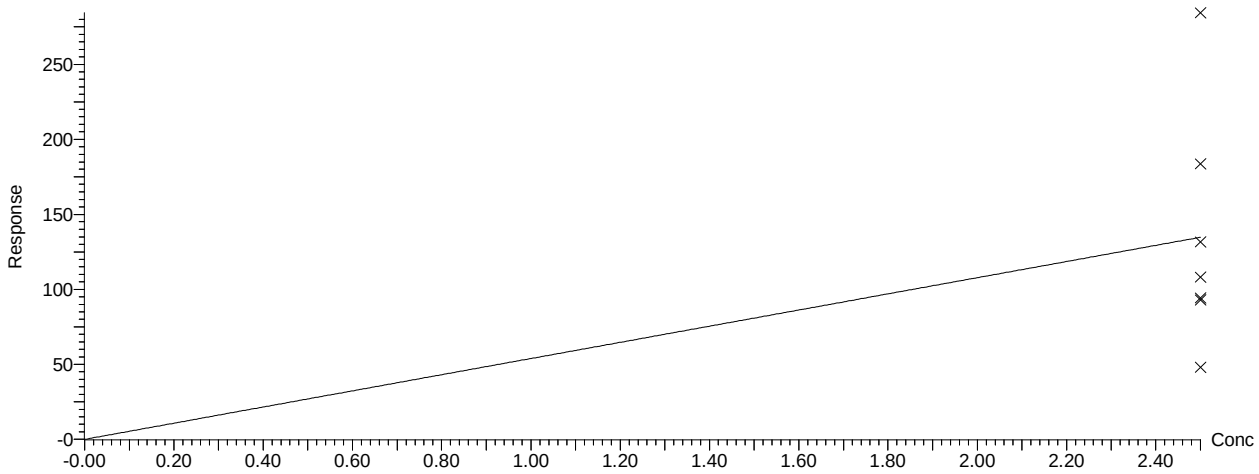
Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_097-A1.qld

Last Altered: Tuesday, March 12, 2019 17:19:00 Pacific Daylight Time
Printed: Wednesday, March 13, 2019 09:12:29 Pacific Daylight Time

**Compound name: 13C2-PFHxA-2**

| # | ID | Name | Type | RT | Area | IS Area | Std. Conc | RRF | Conc. | %Rec | S/N | Acq.Date | Acq.Time | Flags |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2 | FC027B-CAL,, /01 | FC9W_097S12 | Standard | 4.93 | 48 | | 2.500 | 19.220 | 0.892 | 35.7 | 33 | 08-Mar-19 | 16:13:44 | bb |
| 3 | FC027C-CAL,, /01 | FC9W_097S13 | Standard | 4.92 | 94 | | 2.500 | 37.708 | 1.749 | 70.0 | 46 | 08-Mar-19 | 16:27:06 | bb |
| 4 | FC027D-CAL,, /01 | FC9W_097S14 | Standard | 4.91 | 93 | | 2.500 | 37.150 | 1.724 | 68.9 | 264 | 08-Mar-19 | 16:40:24 | bb |
| 5 | FC027E-CAL,, /01 | FC9W_097S15 | Standard | 4.91 | 108 | | 2.500 | 43.269 | 2.007 | 80.3 | 707 | 08-Mar-19 | 16:53:43 | bb |
| 6 | FC027F-CAL,, /01 | FC9W_097S16 | Standard | 4.91 | 132 | | 2.500 | 52.650 | 2.443 | 97.7 | 652 | 08-Mar-19 | 18:12:07 | bb |
| 7 | FC027G-CAL,, /01 | FC9W_097S17 | Standard | 4.91 | 184 | | 2.500 | 73.465 | 3.408 | 136.3 | 33 | 08-Mar-19 | 18:25:24 | bb |
| 8 | FC027H-CAL,, /01 | FC9W_097S18 | Standard | 4.91 | 284 | | 2.500 | 113.744 | 5.277 | 211.1 | 771 | 08-Mar-19 | 18:38:44 | bb |

Compound name: 13C2-PFHxA-2
Response Factor: 53.8866
RRF SD: 31.156, % Relative SD: 57.8177
Response type: External Std, Area
Curve type: RF




PVed by GW, SVed by hh 13-Mar-19. NOTE: Unit=ng based on 4 mL extract

**Quantify Compound Summary Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

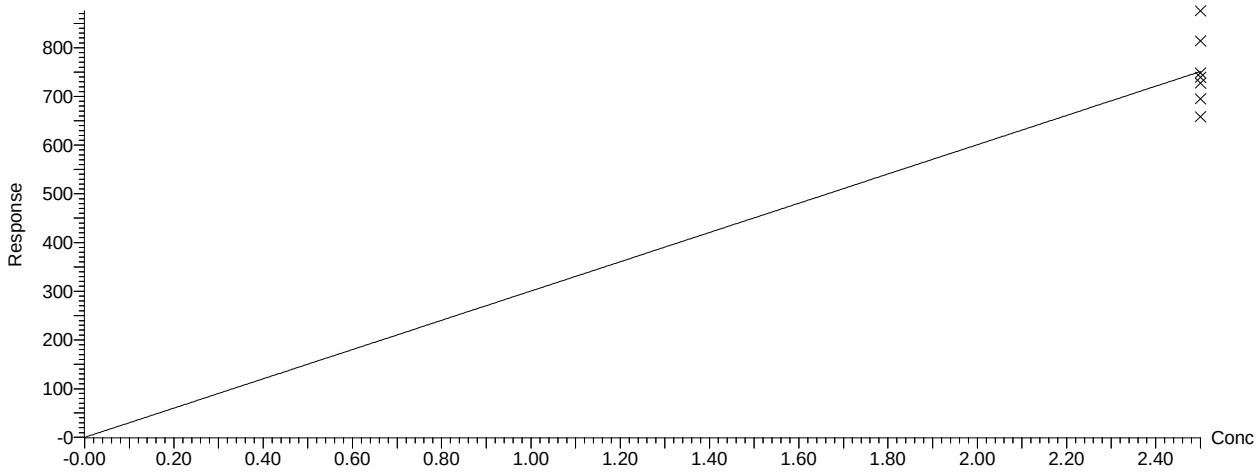
Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_097-A1.qld

Last Altered: Tuesday, March 12, 2019 17:19:00 Pacific Daylight Time
Printed: Wednesday, March 13, 2019 09:12:29 Pacific Daylight Time

**Compound name: 13C4-PFOA**

| # | ID | Name | Type | RT | Area | IS Area | Std. Conc | RRF | Conc. | %Rec | S/N | Acq.Date | Acq.Time | Flags |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2 | FC027B-CAL,, /01 | FC9W_097S12 | Standard | 6.40 | 695 | | 2.500 | 278.030 | 2.314 | 92.5 | 434 | 08-Mar-19 | 16:13:44 | bb |
| 3 | FC027C-CAL,, /01 | FC9W_097S13 | Standard | 6.40 | 876 | | 2.500 | 350.310 | 2.915 | 116.6 | 405 | 08-Mar-19 | 16:27:06 | bb |
| 4 | FC027D-CAL,, /01 | FC9W_097S14 | Standard | 6.39 | 727 | | 2.500 | 290.928 | 2.421 | 96.8 | 1745 | 08-Mar-19 | 16:40:24 | bb |
| 5 | FC027E-CAL,, /01 | FC9W_097S15 | Standard | 6.38 | 814 | | 2.500 | 325.503 | 2.709 | 108.3 | 311 | 08-Mar-19 | 16:53:43 | bb |
| 6 | FC027F-CAL,, /01 | FC9W_097S16 | Standard | 6.39 | 748 | | 2.500 | 299.300 | 2.491 | 99.6 | 62 | 08-Mar-19 | 18:12:07 | bb |
| 7 | FC027G-CAL,, /01 | FC9W_097S17 | Standard | 6.38 | 739 | | 2.500 | 295.709 | 2.461 | 98.4 | 544 | 08-Mar-19 | 18:25:24 | bb |
| 8 | FC027H-CAL,, /01 | FC9W_097S18 | Standard | 6.38 | 658 | | 2.500 | 263.292 | 2.191 | 87.6 | 712 | 08-Mar-19 | 18:38:44 | bb |

Compound name: 13C4-PFOA
Response Factor: 300.439
RRF SD: 29.1878, % Relative SD: 9.71507
Response type: External Std, Area
Curve type: RF




PVed by GW, SVed by hh 13-Mar-19. NOTE: Unit=ng based on 4 mL extract

**Quantify Compound Summary Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

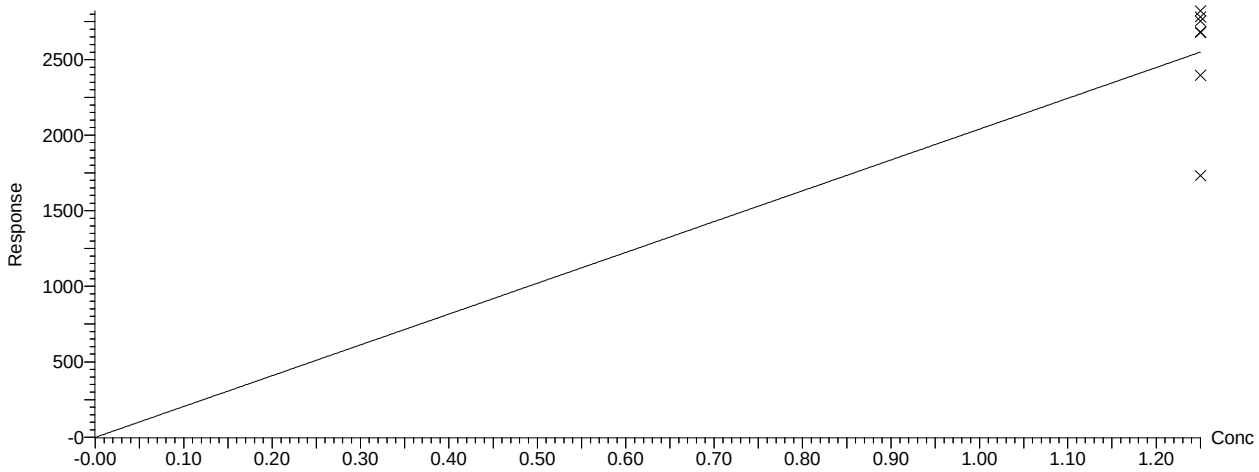
Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_097-A1.qld

Last Altered: Tuesday, March 12, 2019 17:19:00 Pacific Daylight Time
Printed: Wednesday, March 13, 2019 09:12:29 Pacific Daylight Time

**Compound name: 13C5-PFNA**

| # | ID | Name | Type | RT | Area | IS Area | Std. Conc | RRF | Conc. | %Rec | S/N | Acq.Date | Acq.Time | Flags |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2 | FC027B-CAL,, /01 | FC9W_097S12 | Standard | 7.14 | 2755 | | 1.250 | 2203.8... | 1.350 | 108.0 | 223 | 08-Mar-19 | 16:13:44 | bb |
| 3 | FC027C-CAL,, /01 | FC9W_097S13 | Standard | 7.13 | 2782 | | 1.250 | 2225.6... | 1.364 | 109.1 | 3829 | 08-Mar-19 | 16:27:06 | bb |
| 4 | FC027D-CAL,, /01 | FC9W_097S14 | Standard | 7.12 | 2823 | | 1.250 | 2258.2... | 1.384 | 110.7 | 998 | 08-Mar-19 | 16:40:24 | bb |
| 5 | FC027E-CAL,, /01 | FC9W_097S15 | Standard | 7.11 | 2683 | | 1.250 | 2146.0... | 1.315 | 105.2 | 1304 | 08-Mar-19 | 16:53:43 | bb |
| 6 | FC027F-CAL,, /01 | FC9W_097S16 | Standard | 7.13 | 2679 | | 1.250 | 2142.9... | 1.313 | 105.1 | 88 | 08-Mar-19 | 18:12:07 | bb |
| 7 | FC027G-CAL,, /01 | FC9W_097S17 | Standard | 7.12 | 2396 | | 1.250 | 1916.9... | 1.175 | 94.0 | 89 | 08-Mar-19 | 18:25:24 | bb |
| 8 | FC027H-CAL,, /01 | FC9W_097S18 | Standard | 7.12 | 1732 | | 1.250 | 1385.4... | 0.849 | 67.9 | 143 | 08-Mar-19 | 18:38:44 | bb |

Compound name: 13C5-PFNA
Response Factor: 2039.88
RRF SD: 309.413, % Relative SD: 15.1682
Response type: External Std, Area
Curve type: RF




PVed by GW, SVed by hh 13-Mar-19. NOTE: Unit=ng based on 4 mL extract

**Quantify Compound Summary Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

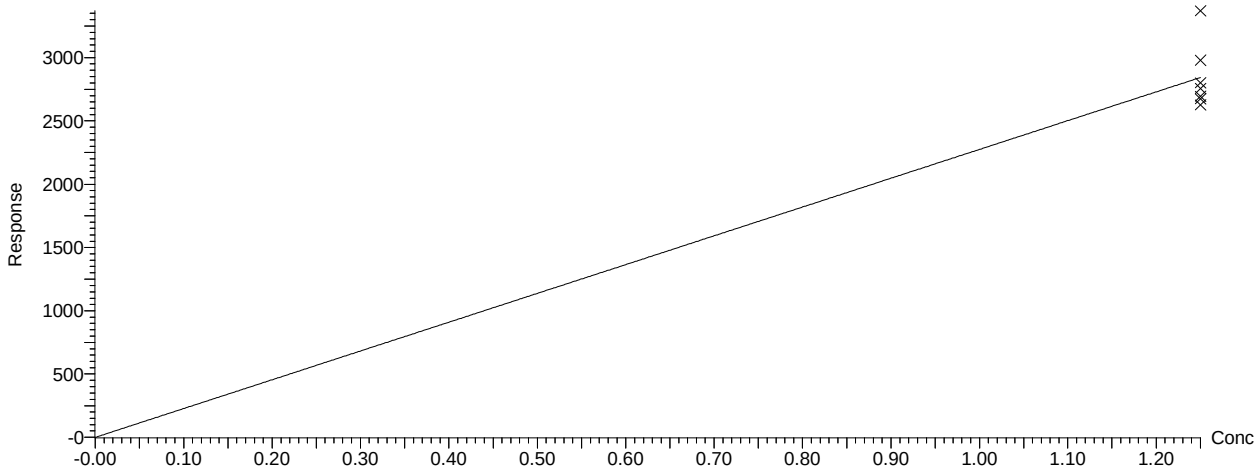
Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_097-A1.qld

Last Altered: Tuesday, March 12, 2019 17:19:00 Pacific Daylight Time
Printed: Wednesday, March 13, 2019 09:12:29 Pacific Daylight Time

**Compound name: 13C2-PFDA**

| # | ID | Name | Type | RT | Area | IS Area | Std. Conc | RRF | Conc. | %Rec | S/N | Acq.Date | Acq.Time | Flags |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2 | FC027B-CAL,, /01 | FC9W_097S12 | Standard | 7.54 | 2757 | | 1.250 | 2205.5... | 1.212 | 97.0 | 4597 | 08-Mar-19 | 16:13:44 | bb |
| 3 | FC027C-CAL,, /01 | FC9W_097S13 | Standard | 7.54 | 2675 | | 1.250 | 2140.2... | 1.176 | 94.1 | 1218 | 08-Mar-19 | 16:27:06 | bb |
| 4 | FC027D-CAL,, /01 | FC9W_097S14 | Standard | 7.54 | 2694 | | 1.250 | 2154.8... | 1.184 | 94.7 | 2711 | 08-Mar-19 | 16:40:24 | bb |
| 5 | FC027E-CAL,, /01 | FC9W_097S15 | Standard | 7.53 | 2627 | | 1.250 | 2101.6... | 1.155 | 92.4 | 6481 | 08-Mar-19 | 16:53:43 | bb |
| 6 | FC027F-CAL,, /01 | FC9W_097S16 | Standard | 7.54 | 2801 | | 1.250 | 2241.1... | 1.232 | 98.5 | 1581 | 08-Mar-19 | 18:12:07 | bb |
| 7 | FC027G-CAL,, /01 | FC9W_097S17 | Standard | 7.53 | 2980 | | 1.250 | 2383.6... | 1.310 | 104.8 | 4410 | 08-Mar-19 | 18:25:24 | bb |
| 8 | FC027H-CAL,, /01 | FC9W_097S18 | Standard | 7.53 | 3370 | | 1.250 | 2695.8... | 1.481 | 118.5 | 2148 | 08-Mar-19 | 18:38:44 | bb |

Compound name: 13C2-PFDA
Response Factor: 2274.71
RRF SD: 207.198, % Relative SD: 9.10877
Response type: External Std, Area
Curve type: RF




PVed by GW, SVed by hh 13-Mar-19. NOTE: Unit=ng based on 4 mL extract

**Quantify Compound Summary Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

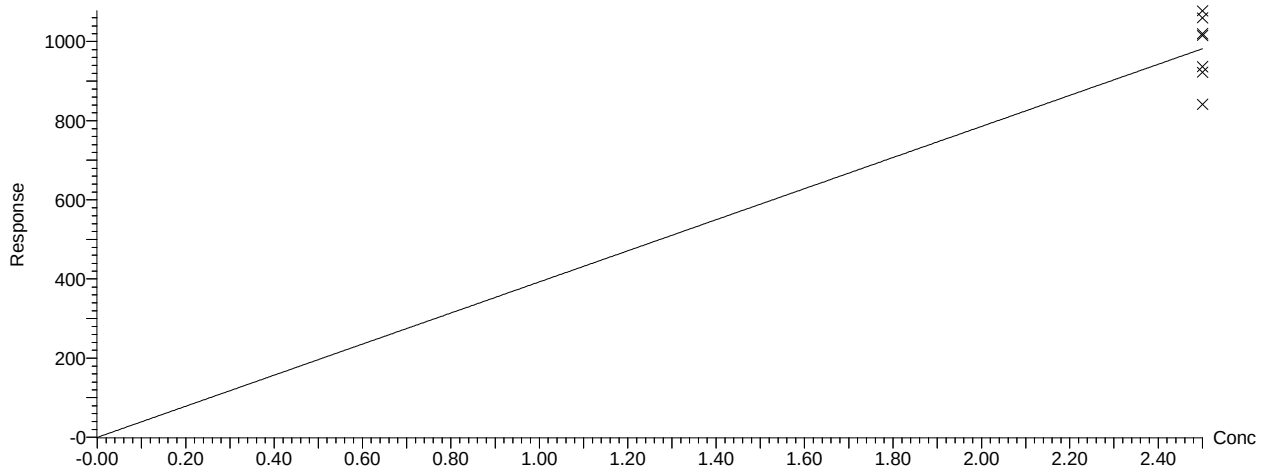
Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_097-A1.qld

Last Altered: Tuesday, March 12, 2019 17:19:00 Pacific Daylight Time
Printed: Wednesday, March 13, 2019 09:12:29 Pacific Daylight Time

**Compound name: 18O2-PFHxS**

| # | ID | Name | Type | RT | Area | IS Area | Std. Conc | RRF | Conc. | %Rec | S/N | Acq.Date | Acq.Time | Flags |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2 | FC027B-CAL,, /01 | FC9W_097S12 | Standard | 6.52 | 1060 | | 2.500 | 424.146 | 2.699 | 108.0 | 458 | 08-Mar-19 | 16:13:44 | bb |
| 3 | FC027C-CAL,, /01 | FC9W_097S13 | Standard | 6.52 | 923 | | 2.500 | 369.126 | 2.349 | 94.0 | 477 | 08-Mar-19 | 16:27:06 | bb |
| 4 | FC027D-CAL,, /01 | FC9W_097S14 | Standard | 6.51 | 1020 | | 2.500 | 407.899 | 2.596 | 103.8 | 536 | 08-Mar-19 | 16:40:24 | bb |
| 5 | FC027E-CAL,, /01 | FC9W_097S15 | Standard | 6.51 | 1078 | | 2.500 | 431.109 | 2.744 | 109.8 | 215 | 08-Mar-19 | 16:53:43 | bb |
| 6 | FC027F-CAL,, /01 | FC9W_097S16 | Standard | 6.52 | 1016 | | 2.500 | 406.214 | 2.585 | 103.4 | 382 | 08-Mar-19 | 18:12:07 | bb |
| 7 | FC027G-CAL,, /01 | FC9W_097S17 | Standard | 6.51 | 937 | | 2.500 | 374.684 | 2.385 | 95.4 | 484 | 08-Mar-19 | 18:25:24 | bb |
| 8 | FC027H-CAL,, /01 | FC9W_097S18 | Standard | 6.50 | 841 | | 2.500 | 336.463 | 2.141 | 85.7 | 211 | 08-Mar-19 | 18:38:44 | bb |

Compound name: 18O2-PFHxS
Response Factor: 392.806
RRF SD: 33.9621, % Relative SD: 8.64603
Response type: External Std, Area
Curve type: RF




PVed by GW, SVed by hh 13-Mar-19. NOTE: Unit=ng based on 4 mL extract

**Quantify Compound Summary Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

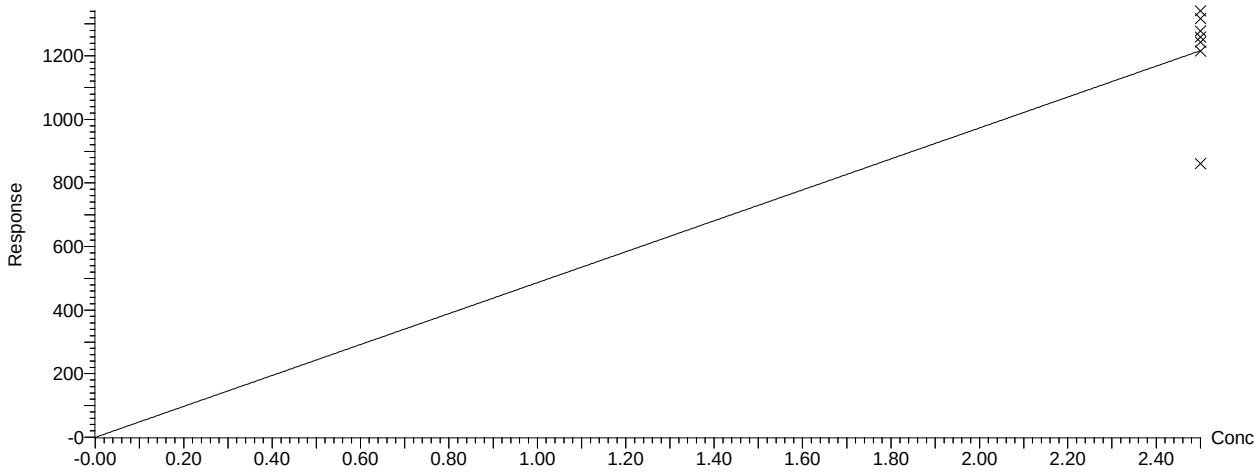
Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_097-A1.qld

Last Altered: Tuesday, March 12, 2019 17:19:00 Pacific Daylight Time
Printed: Wednesday, March 13, 2019 09:12:29 Pacific Daylight Time

**Compound name: 13C4-PFOS-1**

| # | ID | Name | Type | RT | Area | IS Area | Std. Conc | RRF | Conc. | %Rec | S/N | Acq.Date | Acq.Time | Flags |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2 | FC027B-CAL,, /01 | FC9W_097S12 | Standard | 7.64 | 1278 | | 2.500 | 511.242 | 2.627 | 105.1 | 524 | 08-Mar-19 | 16:13:44 | bb |
| 3 | FC027C-CAL,, /01 | FC9W_097S13 | Standard | 7.64 | 1317 | | 2.500 | 526.889 | 2.707 | 108.3 | 2952 | 08-Mar-19 | 16:27:06 | bb |
| 4 | FC027D-CAL,, /01 | FC9W_097S14 | Standard | 7.63 | 1342 | | 2.500 | 536.610 | 2.757 | 110.3 | 3831 | 08-Mar-19 | 16:40:24 | bb |
| 5 | FC027E-CAL,, /01 | FC9W_097S15 | Standard | 7.63 | 1259 | | 2.500 | 503.654 | 2.588 | 103.5 | 4193 | 08-Mar-19 | 16:53:43 | bb |
| 6 | FC027F-CAL,, /01 | FC9W_097S16 | Standard | 7.63 | 1243 | | 2.500 | 497.142 | 2.555 | 102.2 | 3008 | 08-Mar-19 | 18:12:07 | bb |
| 7 | FC027G-CAL,, /01 | FC9W_097S17 | Standard | 7.63 | 1215 | | 2.500 | 485.840 | 2.496 | 99.9 | 2398 | 08-Mar-19 | 18:25:24 | bb |
| 8 | FC027H-CAL,, /01 | FC9W_097S18 | Standard | 7.62 | 861 | | 2.500 | 344.340 | 1.769 | 70.8 | 465 | 08-Mar-19 | 18:38:44 | bb |

Compound name: 13C4-PFOS-1
Response Factor: 486.531
RRF SD: 65.0279, % Relative SD: 13.3656
Response type: External Std, Area
Curve type: RF




PVed by GW, SVed by hh 13-Mar-19. NOTE: Unit=ng based on 4 mL extract

**Quantify Compound Summary Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

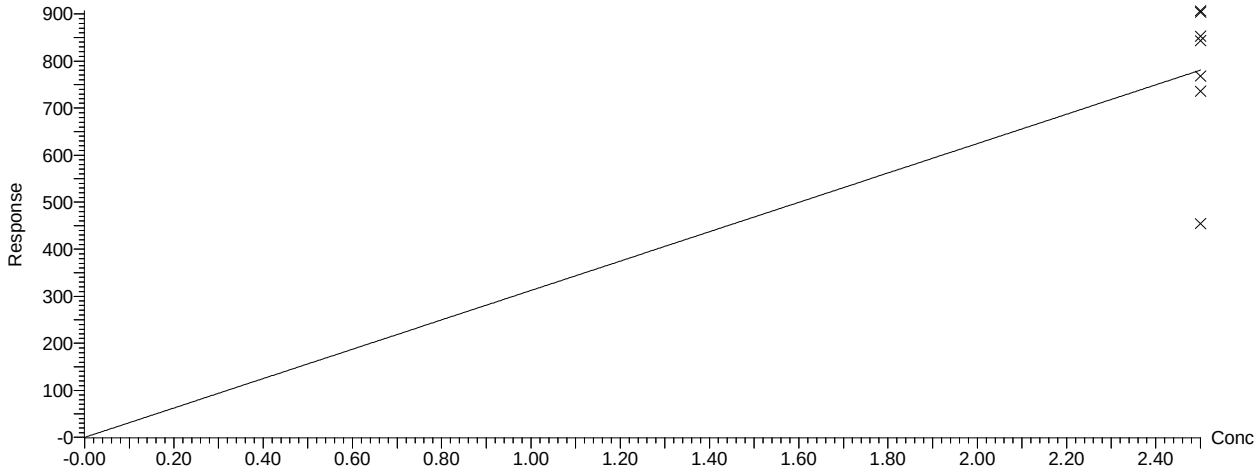
Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_097-A1.qld

Last Altered: Tuesday, March 12, 2019 17:19:00 Pacific Daylight Time
Printed: Wednesday, March 13, 2019 09:12:29 Pacific Daylight Time

**Compound name: 13C4-PFOS-2**

| # | ID | Name | Type | RT | Area | IS Area | Std. Conc | RRF | Conc. | %Rec | S/N | Acq.Date | Acq.Time | Flags |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2 | FC027B-CAL,, /01 | FC9W_097S12 | Standard | 7.64 | 907 | | 2.500 | 362.707 | 2.904 | 116.2 | 1883 | 08-Mar-19 | 16:13:44 | bb |
| 3 | FC027C-CAL,, /01 | FC9W_097S13 | Standard | 7.63 | 843 | | 2.500 | 337.357 | 2.701 | 108.0 | 498 | 08-Mar-19 | 16:27:06 | bb |
| 4 | FC027D-CAL,, /01 | FC9W_097S14 | Standard | 7.63 | 904 | | 2.500 | 361.452 | 2.894 | 115.8 | 326 | 08-Mar-19 | 16:40:24 | bb |
| 5 | FC027E-CAL,, /01 | FC9W_097S15 | Standard | 7.62 | 852 | | 2.500 | 340.991 | 2.730 | 109.2 | 723 | 08-Mar-19 | 16:53:43 | bb |
| 6 | FC027F-CAL,, /01 | FC9W_097S16 | Standard | 7.63 | 736 | | 2.500 | 294.352 | 2.357 | 94.3 | 258 | 08-Mar-19 | 18:12:07 | bb |
| 7 | FC027G-CAL,, /01 | FC9W_097S17 | Standard | 7.63 | 768 | | 2.500 | 307.231 | 2.460 | 98.4 | 487 | 08-Mar-19 | 18:25:24 | bb |
| 8 | FC027H-CAL,, /01 | FC9W_097S18 | Standard | 7.62 | 454 | | 2.500 | 181.722 | 1.455 | 58.2 | 111 | 08-Mar-19 | 18:38:44 | bd |

Compound name: 13C4-PFOS-2
Response Factor: 312.259
RRF SD: 62.9895, % Relative SD: 20.1722
Response type: External Std, Area
Curve type: RF




PVed by GW, SVed by hh 13-Mar-19. NOTE: Unit=ng based on 4 mL extract

**Quantify Sample Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

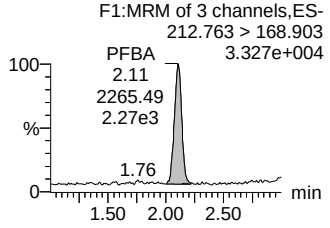
Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_097-A1.qld

Last Altered: Tuesday, March 12, 2019 17:19:00 Pacific Daylight Time
Printed: Wednesday, March 13, 2019 09:12:29 Pacific Daylight Time

**Method: G:\Masslynx\Master Methods\MassLynx SCN 909\UPLC\FC_110_UPLC_06.mdb 10 Mar 2019 18:18:03**
**Calibration: 12 Mar 2019 11:26:10**

**ID: FC027B-CAL,, /01, Name: FC9W_097S12, Description: 1,,2uL, Date: 08-Mar-2019, Time: 16:13:44**

**PFBA**

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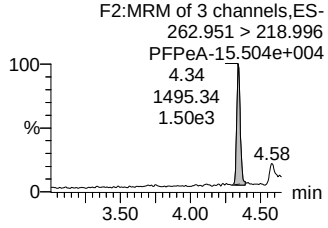


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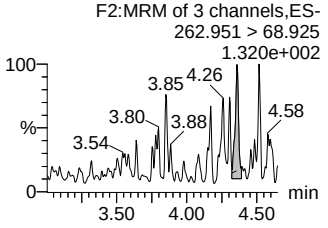


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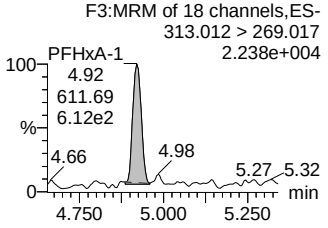


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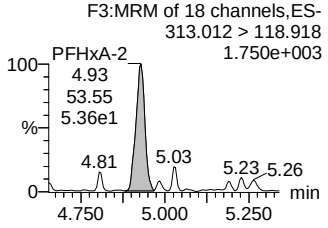


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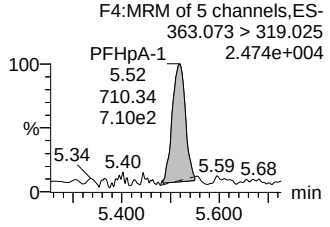


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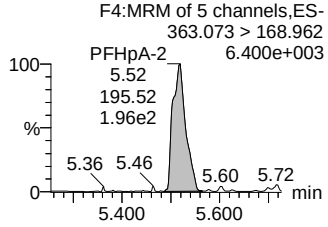


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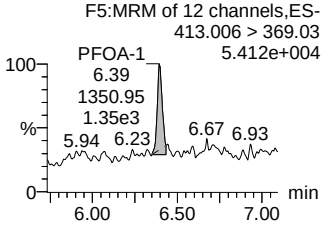


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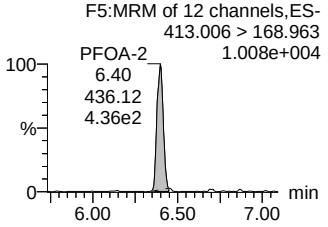


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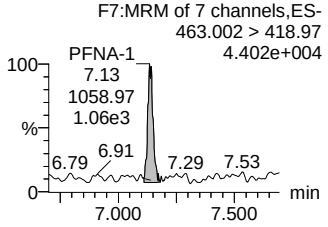


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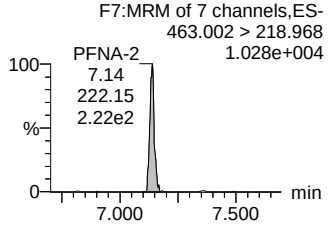


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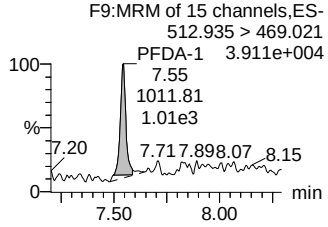


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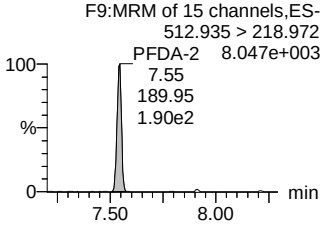


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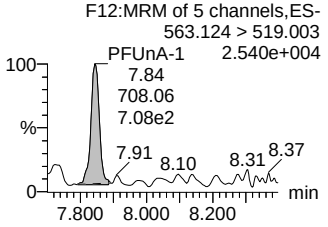


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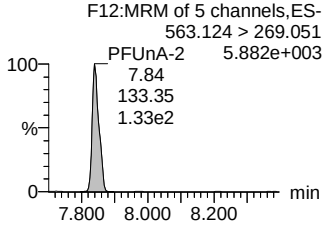


PVed by GW, SVed by hh 13-Mar-19. NOTE: Unit=ng based on 4 mL extract

**Quantify Sample Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_097-A1.qld

Last Altered: Tuesday, March 12, 2019 17:19:00 Pacific Daylight Time
Printed: Wednesday, March 13, 2019 09:12:29 Pacific Daylight Time

**ID: FC027B-CAL,, /01, Name: FC9W_097S12, Description: 1,,2uL, Date: 08-Mar-2019, Time: 16:13:44**

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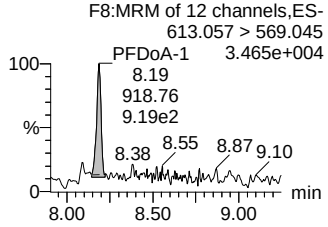


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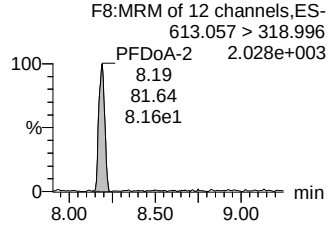


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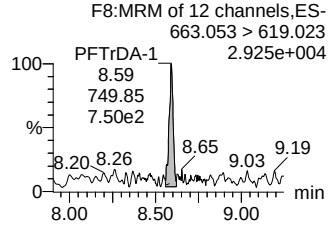


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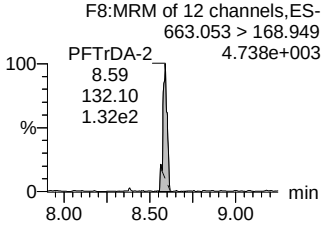


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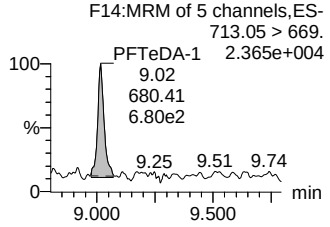


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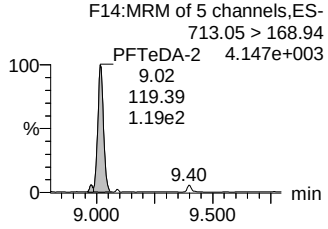
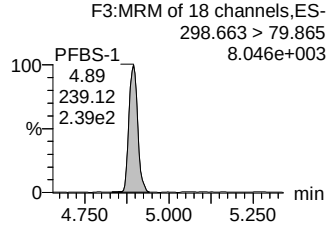



**PFBS-1**

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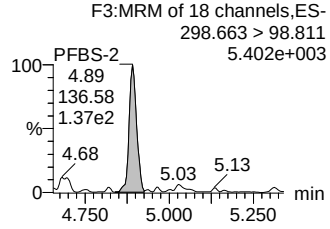
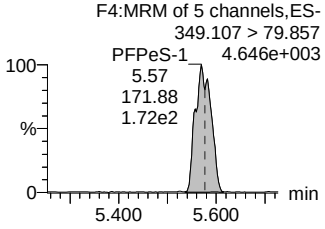



**PFPeS-1**

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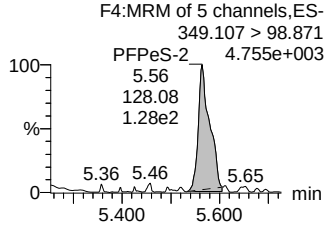


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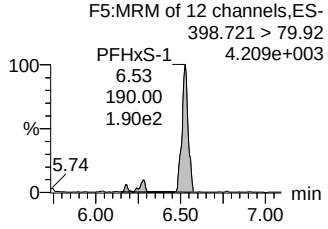


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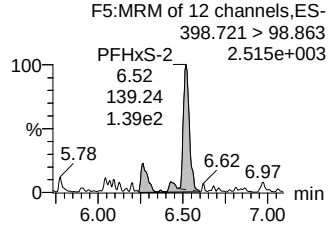


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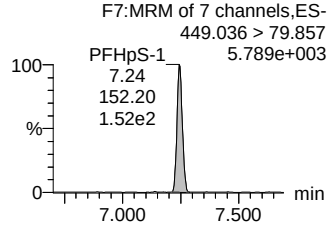


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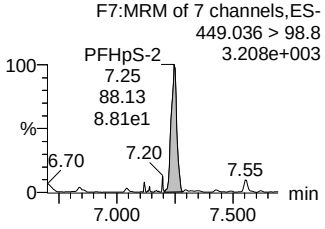


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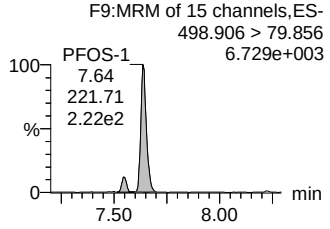



PVed by GW, SVed by hh 13-Mar-19. NOTE: Unit=ng based on 4 mL extract

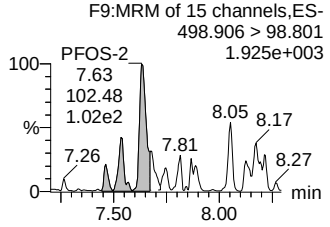
**Quantify Sample Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_097-A1.qld

Last Altered: Tuesday, March 12, 2019 17:19:00 Pacific Daylight Time
Printed: Wednesday, March 13, 2019 09:12:29 Pacific Daylight Time

**ID: FC027B-CAL,, /01, Name: FC9W_097S12, Description: 1,,2uL, Date: 08-Mar-2019, Time: 16:13:44**

**PFOS-2**

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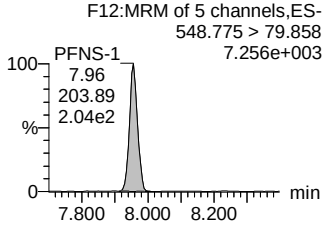


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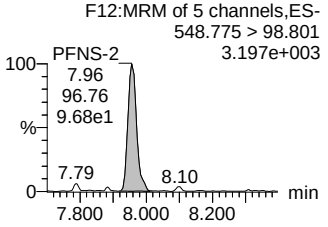


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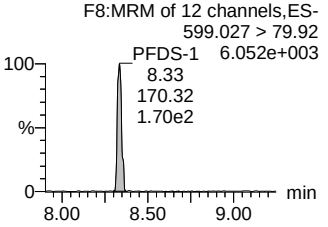


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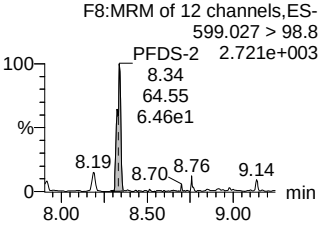


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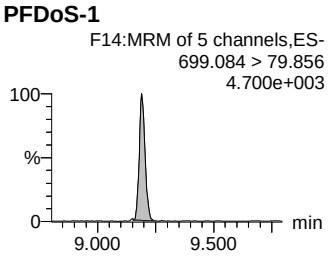


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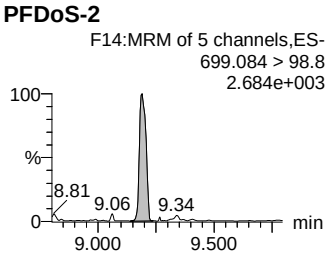


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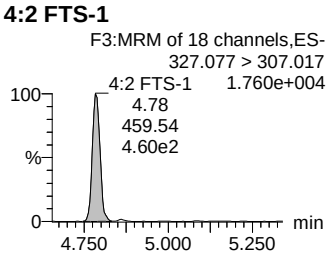


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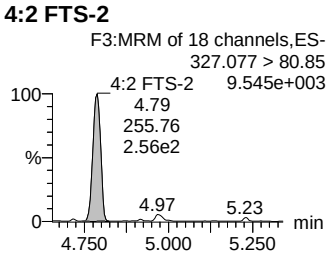


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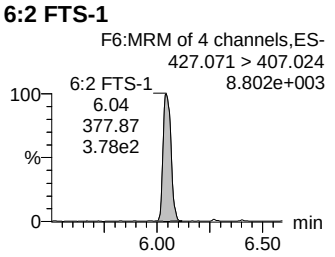


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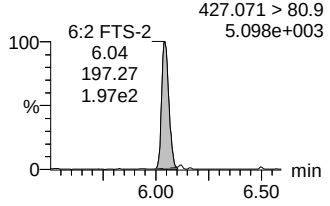


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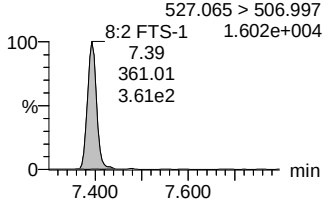


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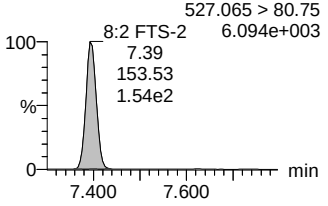


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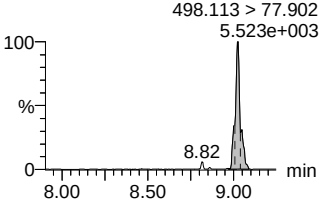


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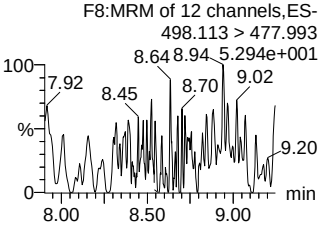


PVed by GW, SVed by hh 13-Mar-19. NOTE: Unit=ng based on 4 mL extract

**Quantify Sample Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_097-A1.qld

Last Altered: Tuesday, March 12, 2019 17:19:00 Pacific Daylight Time
Printed: Wednesday, March 13, 2019 09:12:29 Pacific Daylight Time

**ID: FC027B-CAL,, /01, Name: FC9W_097S12, Description: 1,,2uL, Date: 08-Mar-2019, Time: 16:13:44**

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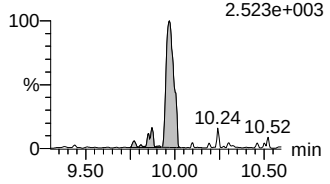


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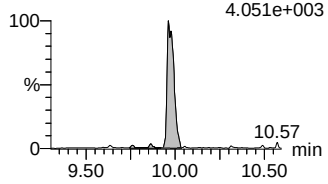


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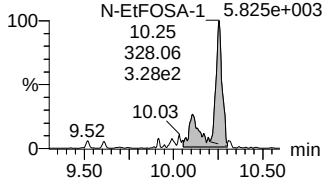


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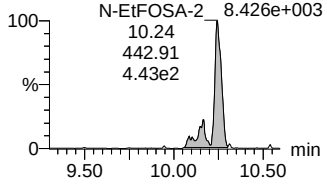


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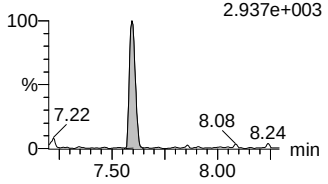


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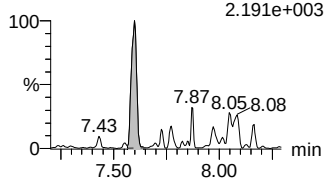


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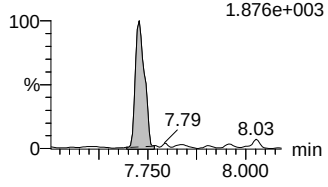


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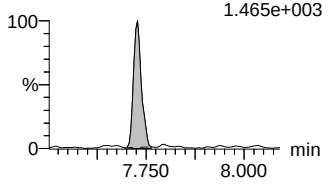


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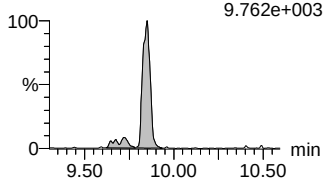


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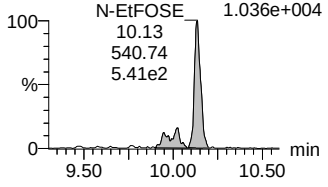


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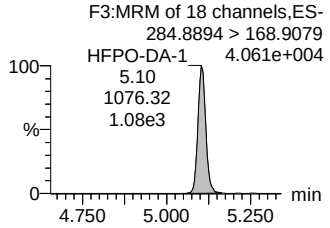


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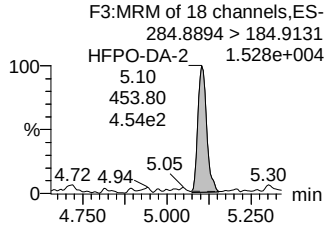


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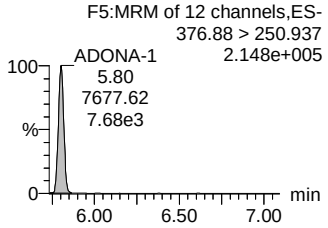


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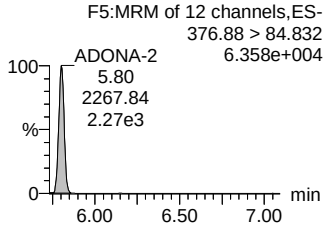
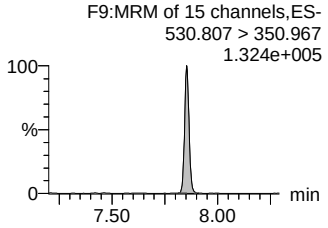



**9Cl-PF3ONS-1**




PVed by GW, SVed by hh 13-Mar-19. NOTE: Unit=ng based on 4 mL extract

**Quantify Sample Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_097-A1.qld

Last Altered: Tuesday, March 12, 2019 17:19:00 Pacific Daylight Time
Printed: Wednesday, March 13, 2019 09:12:29 Pacific Daylight Time

**ID: FC027B-CAL,, /01, Name: FC9W_097S12, Description: 1,,2uL, Date: 08-Mar-2019, Time: 16:13:44**

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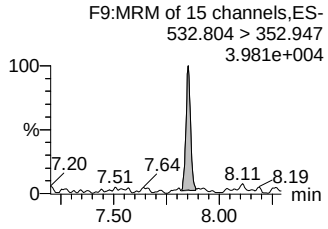


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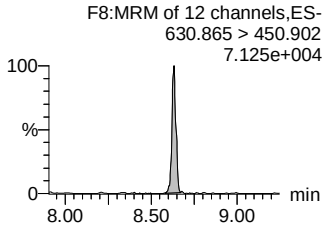


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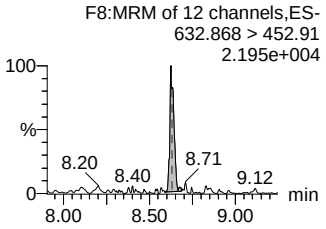


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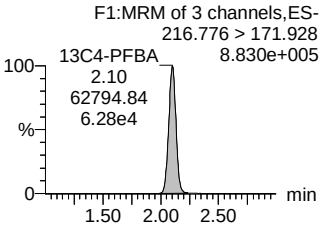


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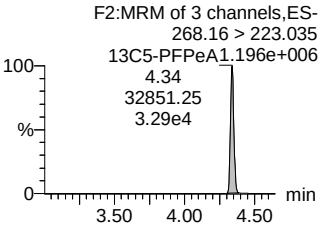


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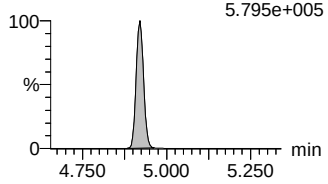


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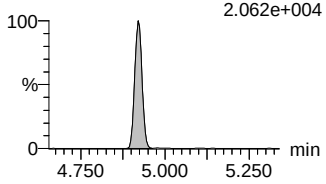


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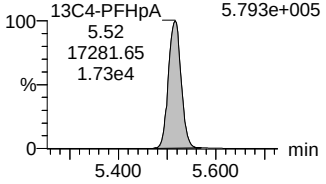


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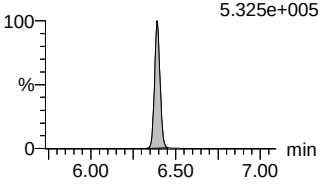


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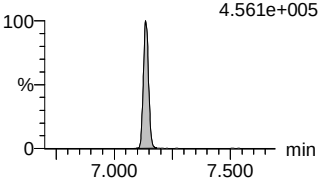


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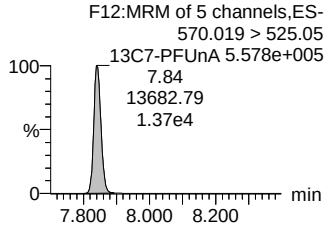


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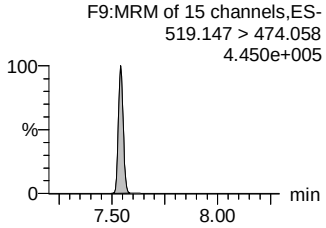


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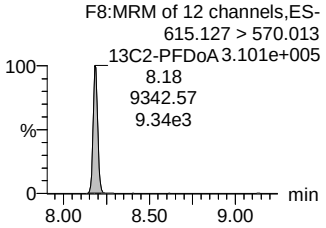


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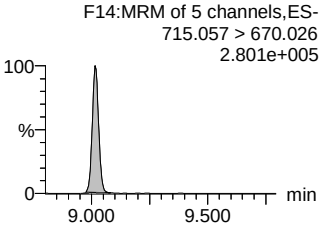
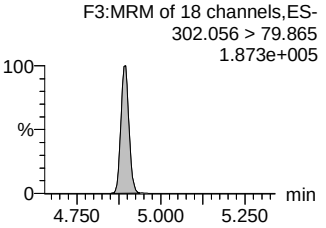



**13C3-PFBS-1**




PVed by GW, SVed by hh 13-Mar-19. NOTE: Unit=ng based on 4 mL extract

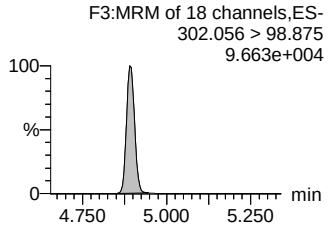
**Quantify Sample Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_097-A1.qld

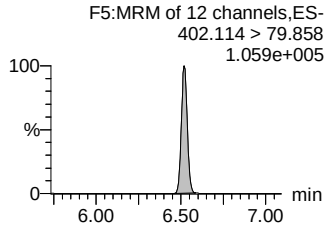
Last Altered: Tuesday, March 12, 2019 17:19:00 Pacific Daylight Time
Printed: Wednesday, March 13, 2019 09:12:29 Pacific Daylight Time

**ID: FC027B-CAL,, /01, Name: FC9W_097S12, Description: 1,,2uL, Date: 08-Mar-2019, Time: 16:13:44**

**13C3-PFBS-2**




**13C3-PFHxS-1**

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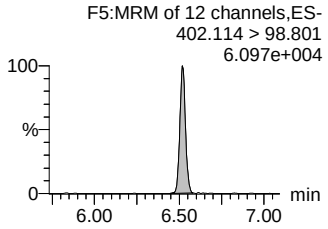
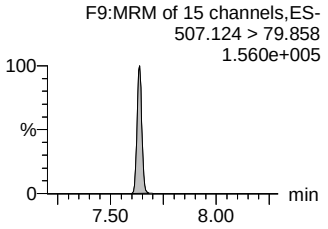



**13C8-PFOS-1**

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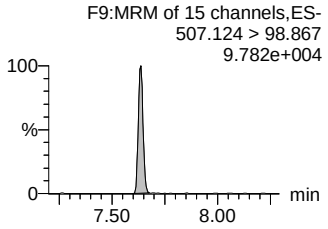
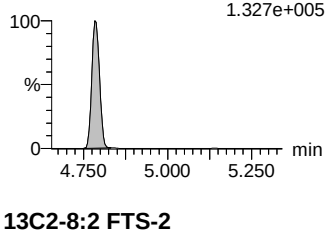
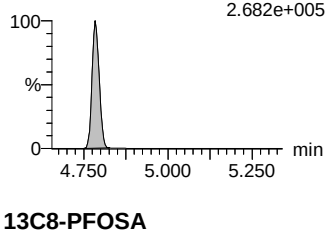


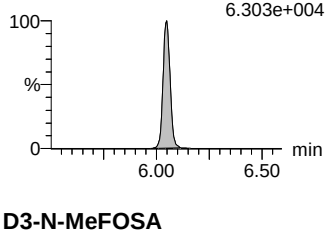

**13C2-4:2 FTS-1**



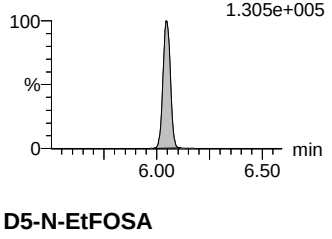

**13C2-4:2 FTS-2**



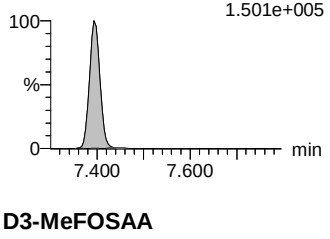

**13C2-6:2 FTS-1**



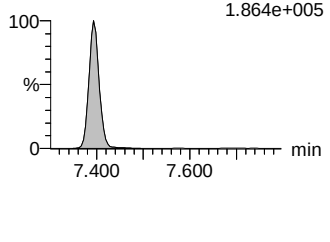

**13C2-6:2 FTS-2**



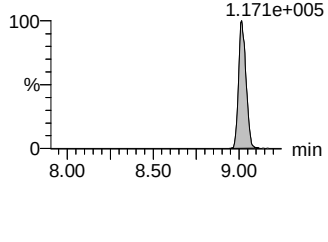

**13C2-8:2 FTS-1**



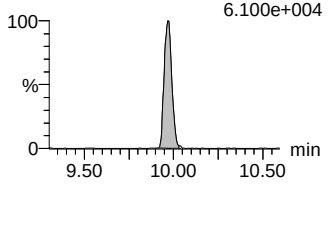

**13C2-8:2 FTS-2**



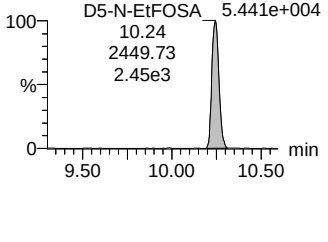

**13C8-PFOSA**



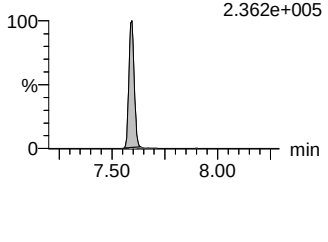

**D3-N-MeFOSA**




**D5-N-EtFOSA**




**D3-MeFOSAA**




PVed by GW, SVed by hh 13-Mar-19. NOTE: Unit=ng based on 4 mL extract

**Quantify Sample Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_097-A1.qld

Last Altered: Tuesday, March 12, 2019 17:19:00 Pacific Daylight Time
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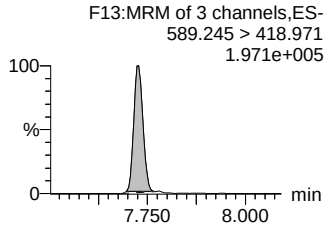
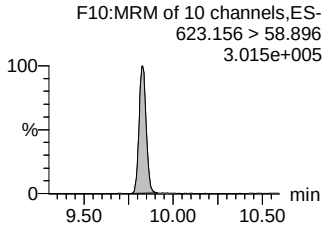
**ID: FC027B-CAL,, /01, Name: FC9W_097S12, Description: 1,,2uL, Date: 08-Mar-2019, Time: 16:13:44**

**D5-EtFOSAA**




**D7-N-MeFOSE**

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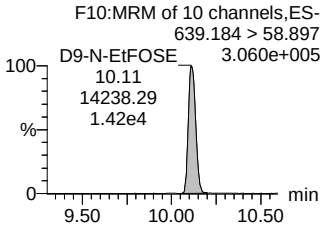


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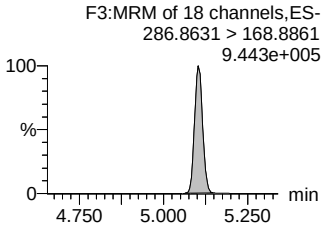


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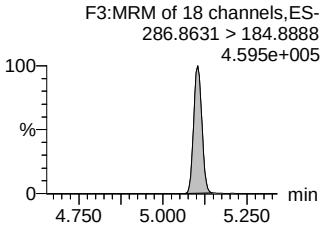


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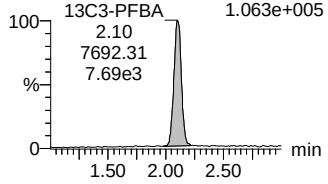
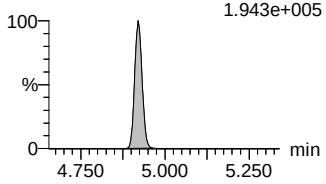



**13C2-PFHxA-1**

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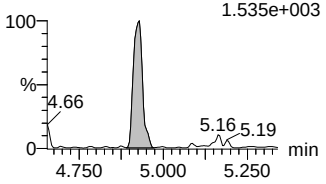
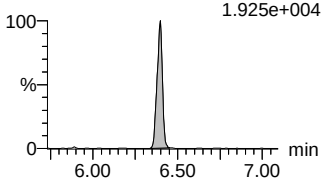



**13C4-PFOA**

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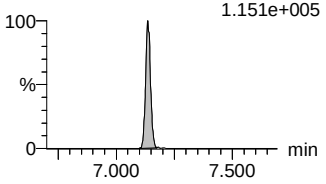
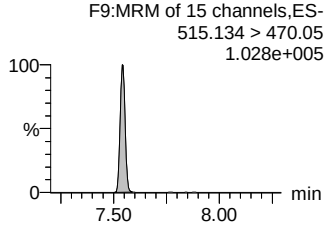
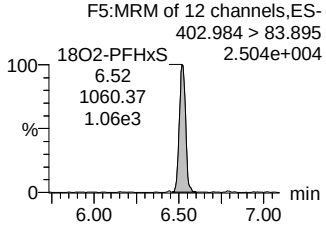


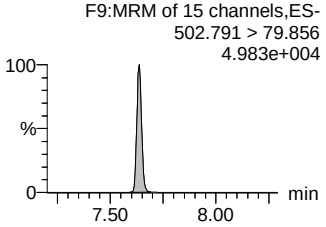

**13C2-PFDA**



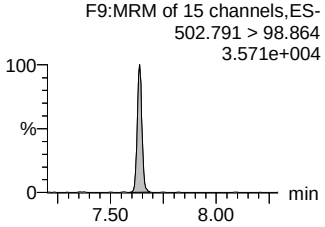

**18O2-PFHxS**




**13C4-PFOS-1**




**13C4-PFOS-2**




PVed by GW, SVed by hh 13-Mar-19. NOTE: Unit=ng based on 4 mL extract

**Quantify Sample Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_097-A1.qld

Last Altered: Tuesday, March 12, 2019 17:19:00 Pacific Daylight Time
Printed: Wednesday, March 13, 2019 09:12:29 Pacific Daylight Time

**ID: FC027B-CAL,, /01, Name: FC9W_097S12, Description: 1,,2uL, Date: 08-Mar-2019, Time: 16:13:44**

| # | Name | IS# | Trace | RT | Area | IS Area | Std. Conc | Conc. | LOD | %Rec | S/N | Noise | Peak Height | IS Height | Sample size | F2 | Flags |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | PFBA | 64 | 212.763 > 168.903 | 2.11 | 2265 | 62795 | 1.640 | 1.556 | | 94.9 | 70 | 444 | 31208 | 881511 | 1.000 | 1.0 | MM |
| 2 | PFPeA-1 | 65 | 262.951 > 218.996 | 4.34 | 1495 | 32851 | 0.820 | 0.764 | | 93.2 | 160 | 326 | 52141 | 1190445 | 1.000 | 1.0 | MM |
| 3 | PFPeA-2 | 65 | 262.951 > 68.925 | 4.36 | 3 | 32851 | 0.820 | 0.583 | 0.1622 | 71.1 | 10 | 11 | 118 | 1190445 | 1.000 | 1.0 | MM |
| 4 | PFHxA-1 | 66 | 313.012 > 269.017 | 4.92 | 612 | 14555 | 0.410 | 0.369 | | 90.1 | 39 | 545 | 21009 | 578419 | 1.000 | 1.0 | MM |
| 5 | PFHxA-2 | 66 | 313.012 > 118.918 | 4.93 | 54 | 14555 | 0.410 | 0.344 | 0.0294 | 83.9 | 28 | 63 | 1738 | 578419 | 1.000 | 1.0 | MM |
| 6 | PFHpA-1 | 68 | 363.073 > 319.025 | 5.52 | 710 | 17282 | 0.410 | 0.391 | | 95.5 | 27 | 855 | 22800 | 578253 | 1.000 | 1.0 | MM |
| 7 | PFHpA-2 | 68 | 363.073 > 168.962 | 5.52 | 196 | 17282 | 0.410 | 0.373 | 0.0069 | 90.9 | 43 | 148 | 6376 | 578253 | 1.000 | 1.0 | bb |
| 8 | PFOA-1 | 69 | 413.006 > 369.03 | 6.39 | 1351 | 20045 | 0.410 | 0.377 | | 92.0 | 16 | 2453 | 38386 | 531125 | 1.000 | 1.0 | MM |
| 9 | PFOA-2 | 69 | 413.006 > 168.963 | 6.40 | 436 | 20045 | 0.410 | 0.421 | | 102.6 | 410 | 25 | 10062 | 531125 | 1.000 | 1.0 | MM |
| 10 | PFNA-1 | 70 | 463.002 > 418.97 | 7.13 | 1059 | 11593 | 0.400 | 0.392 | | 98.0 | 28 | 1471 | 40807 | 455338 | 1.000 | 1.0 | MM |
| 11 | PFNA-2 | 70 | 463.002 > 218.968 | 7.14 | 222 | 11593 | 0.400 | 0.371 | 0.0386 | 92.8 | 24 | 420 | 10271 | 455338 | 1.000 | 1.0 | bb |
| 12 | PFDA-1 | 72 | 512.935 > 469.021 | 7.55 | 1012 | 11507 | 0.400 | 0.424 | | 106.0 | 19 | 1747 | 33882 | 444238 | 1.000 | 1.0 | MM |
| 13 | PFDA-2 | 72 | 512.935 > 218.972 | 7.55 | 190 | 11507 | 0.400 | 0.405 | | 101.3 | 944 | 8 | 8015 | 444238 | 1.000 | 1.0 | bb |
| 14 | PFUnA-1 | 71 | 563.124 > 519.003 | 7.84 | 708 | 13683 | 0.400 | 0.359 | | 89.8 | 26 | 934 | 23933 | 556938 | 1.000 | 1.0 | MM |
| 15 | PFUnA-2 | 71 | 563.124 > 269.051 | 7.84 | 133 | 13683 | 0.400 | 0.346 | | 86.5 | 338 | 17 | 5872 | 556938 | 1.000 | 1.0 | bb |
| 16 | PFDoA-1 | 73 | 613.057 > 569.045 | 8.19 | 919 | 9343 | 0.400 | 0.326 | | 81.4 | 23 | 1315 | 30721 | 309429 | 1.000 | 1.0 | MM |
| 17 | PFDoA-2 | 73 | 613.057 > 318.996 | 8.19 | 82 | 9343 | 0.400 | 0.301 | | 75.4 | 30 | 68 | 2037 | 309429 | 1.000 | 1.0 | MM |
| 18 | PFTrDA-1 | 74 | 663.053 > 619.023 | 8.59 | 750 | 8610 | 0.400 | 0.328 | | 82.0 | 19 | 1459 | 28159 | 277264 | 1.000 | 1.0 | MM |
| 19 | PFTrDA-2 | 74 | 663.053 > 168.949 | 8.59 | 132 | 8610 | 0.400 | 0.343 | | 85.7 | 16 | 290 | 4734 | 277264 | 1.000 | 1.0 | MM |
| 20 | PFTeDA-1 | 74 | 713.05 > 669. | 9.02 | 680 | 8610 | 0.400 | 0.363 | | 90.7 | 23 | 904 | 21088 | 277264 | 1.000 | 1.0 | MM |
| 21 | PFTeDA-2 | 74 | 713.05 > 168.94 | 9.02 | 119 | 8610 | 0.400 | 0.331 | | 82.8 | 265 | 16 | 4139 | 277264 | 1.000 | 1.0 | MM |
| 22 | PFBS-1 | 75 | 298.663 > 79.865 | 4.89 | 239 | 5106 | 0.410 | 0.409 | 0.0035 | 99.8 | 428 | 19 | 8032 | 186790 | 1.000 | 1.0 | bb |
| 23 | PFBS-2 | 76 | 298.663 > 98.811 | 4.89 | 137 | 2626 | 0.410 | 0.395 | | 96.3 | 63 | 85 | 5386 | 96471 | 1.000 | 1.0 | MM |
| 24 | PFPeS-1 | 77 | 349.107 > 79.857 | 5.57 | 172 | 4209 | 0.380 | 0.351 | | 92.3 | 44 | 104 | 4632 | 105719 | 1.000 | 1.0 | MM |
| 25 | PFPeS-2 | 78 | 349.107 > 98.871 | 5.56 | 128 | 2315 | 0.380 | 0.389 | | 102.2 | 34 | 137 | 4709 | 60847 | 1.000 | 1.0 | MM |
| 26 | PFHxS-1 | 77 | 398.721 > 79.92 | 6.53 | 190 | 4209 | 0.410 | 0.476 | 0.1259 | 116.1 | 75 | 56 | 4187 | 105719 | 1.000 | 1.0 | MM |
| 27 | PFHxS-2 | 78 | 398.721 > 98.863 | 6.52 | 139 | 2315 | 0.410 | 0.412 | | 100.6 | 32 | 78 | 2503 | 60847 | 1.000 | 1.0 | MM |
| 28 | PFHpS-1 | 79 | 449.036 > 79.857 | 7.24 | 152 | 4010 | 0.380 | 0.307 | | 80.7 | 505 | 11 | 5787 | 155871 | 1.000 | 1.0 | MM |
| 29 | PFHpS-2 | 80 | 449.036 > 98.8 | 7.25 | 88 | 2500 | 0.380 | 0.382 | 0.0178 | 100.5 | 102 | 31 | 3193 | 97584 | 1.000 | 1.0 | db |
| 30 | PFOS-1 | 79 | 498.906 > 79.856 | 7.64 | 222 | 4010 | 0.410 | 0.387 | | 94.3 | 302 | 22 | 6712 | 155871 | 1.000 | 1.0 | MM |
| 31 | PFOS-2 | 80 | 498.906 > 98.801 | 7.63 | 102 | 2500 | 0.410 | 0.339 | | 82.7 | 13 | 152 | 1921 | 97584 | 1.000 | 1.0 | MM |
| 32 | PFNS-1 | 79 | 548.775 > 79.858 | 7.96 | 204 | 4010 | 0.380 | 0.285 | | 75.1 | 591 | 12 | 7275 | 155871 | 1.000 | 1.0 | MM |
| 33 | PFNS-2 | 80 | 548.775 > 98.801 | 7.96 | 97 | 2500 | 0.380 | 0.334 | | 87.8 | 256 | 12 | 3192 | 97584 | 1.000 | 1.0 | MM |
| 34 | PFDS-1 | 79 | 599.027 > 79.92 | 8.33 | 170 | 4010 | 0.410 | 0.428 | | 104.4 | 51 | 120 | 6041 | 155871 | 1.000 | 1.0 | bb |
| 35 | PFDS-2 | 80 | 599.027 > 98.8 | 8.34 | 65 | 2500 | 0.410 | 0.400 | 0.1046 | 97.6 | 113 | 24 | 2716 | 97584 | 1.000 | 1.0 | MM |

PVed by GW, SVed by hh 13-Mar-19. NOTE: Unit=ng based on 4 mL extract

**Quantify Sample Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_097-A1.qld

Last Altered: Tuesday, March 12, 2019 17:19:00 Pacific Daylight Time
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**ID: FC027B-CAL,, /01, Name: FC9W_097S12, Description: 1,,2uL, Date: 08-Mar-2019, Time: 16:13:44**

| # | Name | IS# | Trace | RT | Area | IS Area | Std. Conc | Conc. | LOD | %Rec | S/N | Noise | Peak Height | IS Height | Sample size | F2 | Flags |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 36 | PFDoS-1 | 79 | 699.084 > 79.856 | 9.19 | 134 | 4010 | 0.380 | 0.372 | | 98.0 | 395 | 12 | 4671 | 155871 | 1.000 | 1.0 | MM |
| 37 | PFDoS-2 | 80 | 699.084 > 98.8 | 9.19 | 87 | 2500 | 0.380 | 0.424 | | 111.6 | 176 | 15 | 2672 | 97584 | 1.000 | 1.0 | MM |
| 38 | 4:2 FTS-1 | 81 | 327.077 > 307.017 | 4.78 | 460 | 3446 | 1.600 | 1.681 | | 105.1 | 1845 | 10 | 17594 | 132394 | 1.000 | 1.0 | MM |
| 39 | 4:2 FTS-2 | 81 | 327.077 > 80.85 | 4.79 | 256 | 3446 | 1.600 | 1.695 | 0.1151 | 105.9 | 86 | 112 | 9557 | 132394 | 1.000 | 1.0 | MM |
| 40 | 6:2 FTS-1 | 83 | 427.071 > 407.024 | 6.04 | 378 | 2366 | 1.440 | 1.458 | | 101.2 | 623 | 14 | 8794 | 62731 | 1.000 | 1.0 | MM |
| 41 | 6:2 FTS-2 | 83 | 427.071 > 80.9 | 6.04 | 197 | 2366 | 1.440 | 1.489 | 0.0361 | 103.4 | 794 | 6 | 5080 | 62731 | 1.000 | 1.0 | MM |
| 42 | 8:2 FTS-1 | 85 | 527.065 > 506.997 | 7.39 | 361 | 3881 | 1.600 | 1.480 | | 92.5 | 538 | 30 | 15996 | 150036 | 1.000 | 1.0 | MM |
| 43 | 8:2 FTS-2 | 85 | 527.065 > 80.75 | 7.39 | 154 | 3881 | 1.600 | 1.340 | | 83.7 | 681 | 9 | 6075 | 150036 | 1.000 | 1.0 | MM |
| 44 | PFOSA-1 | 87 | 498.113 > 77.902 | 9.02 | 186 | 5808 | 0.410 | 0.420 | 0.0847 | 102.5 | 320 | 17 | 5503 | 117066 | 1.000 | 1.0 | MM |
| 45 | PFOSA-2 | 87 | 498.113 > 477.993 | | | 5808 | 0.410 | | 2.0761 | | | 15 | | 117066 | 1.000 | 1.0 | MM- |
| 46 | N-MeFOSA-1 | 88 | 511.937 > 218.985 | 9.97 | 139 | 3003 | 0.460 | 0.439 | | 95.4 | 47 | 53 | 2505 | 60923 | 1.000 | 1.0 | MM |
| 47 | N-MeFOSA-2 | 88 | 511.937 > 168.955 | 9.96 | 182 | 3003 | 0.460 | 0.346 | | 75.1 | 185 | 22 | 4043 | 60923 | 1.000 | 1.0 | MM |
| 48 | N-EtFOSA-1 | 89 | 526.017 > 218.977 | 10.25 | 328 | 2450 | 1.000 | 0.985 | | 98.5 | 25 | 231 | 5746 | 54308 | 1.000 | 1.0 | MM |
| 49 | N-EtFOSA-2 | 89 | 526.017 > 168.95 | 10.24 | 443 | 2450 | 1.000 | 1.020 | 0.0384 | 102.0 | 35 | 236 | 8353 | 54308 | 1.000 | 1.0 | MM |
| 50 | MeFOSAA-1 | 90 | 570.134 > 419.035 | 7.59 | 96 | 6497 | 0.400 | 0.284 | | 71.0 | 34 | 87 | 2970 | 233646 | 1.000 | 1.0 | MM |
| 51 | MeFOSAA-2 | 90 | 570.134 > 482.99 | 7.60 | 67 | 6497 | 0.400 | 0.328 | | 81.9 | 15 | 153 | 2237 | 233646 | 1.000 | 1.0 | MM |
| 52 | EtFOSAA-1 | 91 | 584.15 > 419.062 | 7.73 | 52 | 5196 | 0.400 | 0.322 | 0.0752 | 80.5 | 56 | 34 | 1888 | 193463 | 1.000 | 1.0 | MM |
| 53 | EtFOSAA-2 | 91 | 584.15 > 526.045 | 7.73 | 35 | 5196 | 0.400 | 0.304 | 0.1445 | 75.9 | 23 | 64 | 1467 | 193463 | 1.000 | 1.0 | MM |
| 54 | N-MeFOSE | 92 | 616.112 > 58.894 | 9.85 | 537 | 13810 | 4.080 | 3.890 | | 95.3 | 245 | 40 | 9726 | 300981 | 1.000 | 1.0 | MM |
| 55 | N-EtFOSE | 93 | 630. > 58.893 | 10.13 | 541 | 14238 | 3.060 | 2.733 | | 89.3 | 185 | 56 | 10329 | 305665 | 1.000 | 1.0 | MM |
| 56 | HFPO-DA-1 | 94 | 284.8894 > 168.... | 5.10 | 1076 | 25712 | 1.600 | 1.330 | | 83.1 | 7719 | 5 | 40548 | 940806 | 1.000 | 1.0 | bb |
| 57 | HFPO-DA-2 | 95 | 284.8894 > 184.... | 5.10 | 454 | 12778 | 1.600 | 1.490 | 0.0541 | 93.1 | 41 | 373 | 15118 | 458354 | 1.000 | 1.0 | MM |
| 58 | ADONA-1 | 94 | 376.88 > 250.937 | 5.80 | 7678 | 25712 | 1.600 | 1.393 | | 87.1 | 1913 | 112 | 214260 | 940806 | 1.000 | 1.0 | bb |
| 59 | ADONA-2 | 95 | 376.88 > 84.832 | 5.80 | 2268 | 12778 | 1.600 | 2.013 | 0.5266 | 125.8 | 3177 | 20 | 63360 | 458354 | 1.000 | 1.0 | bb |
| 60 | 9Cl-PF3ONS-1 | 94 | 530.807 > 350.967 | 7.85 | 3178 | 25712 | 1.600 | 1.157 | | 72.3 | 287 | 462 | 132397 | 940806 | 1.000 | 1.0 | MM |
| 61 | 9Cl-PF3ONS-2 | 95 | 532.804 > 352.947 | 7.85 | 978 | 12778 | 1.600 | 1.244 | | 77.7 | 62 | 623 | 38878 | 458354 | 1.000 | 1.0 | MM |
| 62 | 11Cl-PF3OUdS-1 | 94 | 630.865 > 450.902 | 8.63 | 1879 | 25712 | 1.600 | 1.351 | | 84.4 | 353 | 201 | 70887 | 940806 | 1.000 | 1.0 | bb |
| 63 | 11Cl-PF3OUdS-2 | 95 | 632.868 > 452.91 | 8.62 | 587 | 12778 | 1.600 | 1.549 | 0.0485 | 96.8 | 64 | 335 | 21617 | 458354 | 1.000 | 1.0 | MM |
| 64 | 13C4-PFBA | 96 | 216.776 > 171.928 | 2.10 | 62795 | 7692 | 40.000 | 39.871 | 0.0177 | 99.7 | 7014 | 126 | 881511 | 104120 | 1.000 | 1.0 | bb |
| 65 | 13C5-PFPeA | 97 | 268.16 > 223.035 | 4.34 | 32851 | 4862 | 20.000 | 20.822 | 0.0053 | 104.1 | 106... | 112 | 1190445 | 194110 | 1.000 | 1.0 | MM |
| 66 | 13C5-PFHxA-1 | 97 | 318.029 > 272.993 | 4.92 | 14555 | 4862 | 10.000 | 10.630 | 0.0190 | 106.3 | 1670 | 346 | 578419 | 194110 | 1.000 | 1.0 | bb |
| 67 | 13C5-PFHxA-2 | 97 | 318.029 > 120.341 | 4.92 | 509 | 4862 | 10.000 | 10.944 | 0.0235 | 109.4 | 1414 | 15 | 20602 | 194110 | 1.000 | 1.0 | bb |
| 68 | 13C4-PFHpA | 99 | 367.086 > 322.004 | 5.52 | 17282 | 695 | 10.000 | 11.431 | 0.0153 | 114.3 | 2724 | 212 | 578253 | 19174 | 1.000 | 1.0 | bb |
| 69 | 13C8-PFOA | 99 | 421.096 > 376.022 | 6.39 | 20045 | 695 | 10.000 | 11.540 | 0.0082 | 115.4 | 4041 | 131 | 531125 | 19174 | 1.000 | 1.0 | bb |
| 70 | 13C9-PFNA | 100 | 472.096 > 427.014 | 7.13 | 11593 | 2755 | 5.000 | 4.844 | 0.0083 | 96.9 | 1657 | 275 | 455338 | 114735 | 1.000 | 1.0 | bb |

PVed by GW, SVed by hh 13-Mar-19. NOTE: Unit=ng based on 4 mL extract

**Quantify Sample Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_097-A1.qld

Last Altered: Tuesday, March 12, 2019 17:19:00 Pacific Daylight Time
Printed: Wednesday, March 13, 2019 09:12:29 Pacific Daylight Time

**ID: FC027B-CAL,, /01, Name: FC9W_097S12, Description: 1,,2uL, Date: 08-Mar-2019, Time: 16:13:44**

| # | Name | IS# | Trace | RT | Area | IS Area | Std. Conc | Conc. | LOD | %Rec | S/N | Noise | Peak Height | IS Height | Sample size | F2 | Flags |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 71 | 13C7-PFUnA | 101 | 570.019 > 525.05 | 7.84 | 13683 | 2757 | 5.000 | 5.548 | 0.0010 | 111.0 | 178... | 31 | 556938 | 102621 | 1.000 | 1.0 | bb |
| 72 | 13C6-PFDA | 101 | 519.147 > 474.058 | 7.54 | 11507 | 2757 | 5.000 | 5.545 | 0.0080 | 110.9 | 2159 | 206 | 444238 | 102621 | 1.000 | 1.0 | bb |
| 73 | 13C2-PFDoA | 101 | 615.127 > 570.013 | 8.18 | 9343 | 2757 | 5.000 | 5.307 | 0.0033 | 106.1 | 4263 | 73 | 309429 | 102621 | 1.000 | 1.0 | MM |
| 74 | 13C2-PFTeDA | 101 | 715.057 > 670.026 | 9.02 | 8610 | 2757 | 5.000 | 4.986 | 0.0091 | 99.7 | 1429 | 194 | 277264 | 102621 | 1.000 | 1.0 | MM |
| 75 | 13C3-PFBS-1 | 102 | 302.056 > 79.865 | 4.89 | 5106 | 1060 | 10.000 | 10.002 | 0.0044 | 100.0 | 106... | 18 | 186790 | 24988 | 1.000 | 1.0 | bb |
| 76 | 13C3-PFBS-2 | 102 | 302.056 > 98.875 | 4.89 | 2626 | 1060 | 10.000 | 10.641 | 0.0245 | 106.4 | 2034 | 47 | 96471 | 24988 | 1.000 | 1.0 | bb |
| 77 | 13C3-PFHxS-1 | 102 | 402.114 > 79.858 | 6.52 | 4209 | 1060 | 10.000 | 9.568 | 0.0098 | 95.7 | 3137 | 34 | 105719 | 24988 | 1.000 | 1.0 | bb |
| 78 | 13C3-PFHxS-2 | 102 | 402.114 > 98.801 | 6.52 | 2315 | 1060 | 10.000 | 9.444 | 0.0306 | 94.4 | 1033 | 59 | 60847 | 24988 | 1.000 | 1.0 | bb |
| 79 | 13C8-PFOS-1 | 103 | 507.124 > 79.858 | 7.64 | 4010 | 1278 | 10.000 | 9.907 | 0.0022 | 99.1 | 134... | 12 | 155871 | 49765 | 1.000 | 1.0 | bb |
| 80 | 13C8-PFOS-2 | 104 | 507.124 > 98.867 | 7.64 | 2500 | 907 | 10.000 | 8.786 | 0.0068 | 87.9 | 3821 | 26 | 97584 | 35667 | 1.000 | 1.0 | bb |
| 81 | 13C2-4:2 FTS-1 | 102 | 329.084 > 80.9 | 4.78 | 3446 | 1060 | 20.000 | 22.876 | 0.0669 | 114.4 | 1671 | 79 | 132394 | 24988 | 1.000 | 1.0 | bb |
| 82 | 13C2-4:2 FTS-2 | 102 | 329.084 > 309.024 | 4.78 | 6542 | 1060 | 20.000 | 18.607 | 0.0527 | 93.0 | 1839 | 146 | 267701 | 24988 | 1.000 | 1.0 | bb |
| 83 | 13C2-6:2 FTS-1 | 102 | 429.078 > 80.900 | 6.05 | 2366 | 1060 | 20.000 | 19.445 | 0.0105 | 97.2 | 6270 | 10 | 62731 | 24988 | 1.000 | 1.0 | MM |
| 84 | 13C2-6:2 FTS-2 | 102 | 429.078 > 409.031 | 6.04 | 5212 | 1060 | 20.000 | 18.704 | 0.0061 | 93.5 | 9716 | 13 | 130168 | 24988 | 1.000 | 1.0 | bb |
| 85 | 13C2-8:2 FTS-1 | 102 | 529.1351 > 80.900 | 7.39 | 3881 | 1060 | 20.000 | 21.345 | 0.3012 | 106.7 | 349 | 430 | 150036 | 24988 | 1.000 | 1.0 | MM |
| 86 | 13C2-8:2 FTS-2 | 102 | 529.135 > 509.003 | 7.39 | 4727 | 1060 | 20.000 | 19.330 | 0.0589 | 96.7 | 1646 | 113 | 186351 | 24988 | 1.000 | 1.0 | bb |
| 87 | 13C8-PFOSA | 103 | 506.14 > 77.841 | 9.01 | 5808 | 1278 | 10.000 | 9.077 | 0.0014 | 90.8 | 9888 | 12 | 117066 | 49765 | 1.000 | 1.0 | bb |
| 88 | D3-N-MeFOSA | 103 | 514.956 > 218.974 | 9.97 | 3003 | 1278 | 10.000 | 9.090 | 0.0148 | 90.9 | 962 | 63 | 60923 | 49765 | 1.000 | 1.0 | MM |
| 89 | D5-N-EtFOSA | 103 | 531.112 > 218.984 | 10.24 | 2450 | 1278 | 10.000 | 8.783 | 0.0187 | 87.8 | 801 | 68 | 54308 | 49765 | 1.000 | 1.0 | bb |
| 90 | D3-MeFOSAA | 103 | 573.153 > 418.99 | 7.59 | 6497 | 1278 | 20.000 | 18.284 | 0.0358 | 91.4 | 1414 | 165 | 233646 | 49765 | 1.000 | 1.0 | MM |
| 91 | D5-EtFOSAA | 103 | 589.245 > 418.971 | 7.72 | 5196 | 1278 | 20.000 | 17.498 | 0.0696 | 87.5 | 721 | 268 | 193463 | 49765 | 1.000 | 1.0 | MM |
| 92 | D7-N-MeFOSE | 103 | 623.156 > 58.896 | 9.83 | 13810 | 1278 | 100.000 | 90.536 | 0.1557 | 90.5 | 977 | 308 | 300981 | 49765 | 1.000 | 1.0 | bb |
| 93 | D9-N-EtFOSE | 103 | 639.184 > 58.897 | 10.11 | 14238 | 1278 | 100.000 | 90.116 | 0.1180 | 90.1 | 1263 | 242 | 305665 | 49765 | 1.000 | 1.0 | bb |
| 94 | 13C3-HFPO-DA-1 | 97 | 286.8631 > 168.... | 5.10 | 25712 | 4862 | 40.000 | 40.890 | 0.0499 | 102.2 | 2255 | 417 | 940806 | 194110 | 1.000 | 1.0 | MM |
| 95 | 13C3-HFPO-DA-2 | 97 | 286.8631 > 184.... | 5.10 | 12778 | 4862 | 40.000 | 41.489 | 0.0655 | 103.7 | 1707 | 268 | 458354 | 194110 | 1.000 | 1.0 | bb |
| 96 | 13C3-PFBA | | 216.029 > 171.97 | 2.10 | 7692 | | 5.000 | 5.495 | 0.0398 | 109.9 | 414 | 252 | 104120 | | 1.000 | 1.0 | bb |
| 97 | 13C2-PFHxA-1 | | 315.083 > 269.984 | 4.92 | 4862 | | 2.500 | 2.723 | 0.0002 | 108.9 | 330... | 6 | 194110 | | 1.000 | 1.0 | bb |
| 98 | 13C2-PFHxA-2 | | 315.083 > 119.359 | 4.93 | 48 | | 2.500 | 0.892 | 0.0812 | 35.7 | 33 | 46 | 1525 | | 1.000 | 1.0 | bb |
| 99 | 13C4-PFOA | | 417.083 > 171.95 | 6.40 | 695 | | 2.500 | 2.314 | 0.0160 | 92.5 | 434 | 44 | 19174 | | 1.000 | 1.0 | bb |
| 1... | 13C5-PFNA | | 468.019 > 423.008 | 7.14 | 2755 | | 1.250 | 1.350 | 0.0182 | 108.0 | 223 | 515 | 114735 | | 1.000 | 1.0 | bb |
| 1... | 13C2-PFDA | | 515.134 > 470.05 | 7.54 | 2757 | | 1.250 | 1.212 | 0.0008 | 97.0 | 4597 | 22 | 102621 | | 1.000 | 1.0 | bb |
| 1... | 18O2-PFHxS | | 402.984 > 83.895 | 6.52 | 1060 | | 2.500 | 2.699 | 0.0177 | 108.0 | 458 | 55 | 24988 | | 1.000 | 1.0 | bb |
| 1... | 13C4-PFOS-1 | | 502.791 > 79.856 | 7.64 | 1278 | | 2.500 | 2.627 | 0.0150 | 105.1 | 524 | 95 | 49765 | | 1.000 | 1.0 | bb |
| 1... | 13C4-PFOS-2 | | 502.791 > 98.864 | 7.64 | 907 | | 2.500 | 2.904 | 0.0046 | 116.2 | 1883 | 19 | 35667 | | 1.000 | 1.0 | bb |

PVed by GW, SVed by hh 13-Mar-19. NOTE: Unit=ng based on 4 mL extract

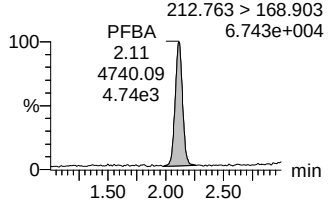
**Quantify Sample Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_097-A1.qld

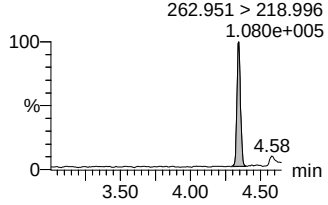
Last Altered: Tuesday, March 12, 2019 17:19:00 Pacific Daylight Time
Printed: Wednesday, March 13, 2019 09:12:29 Pacific Daylight Time

**ID: FC027C-CAL,, /01, Name: FC9W_097S13, Description: 1,,2uL, Date: 08-Mar-2019, Time: 16:27:06**

**PFBA**




**PFPeA-1**

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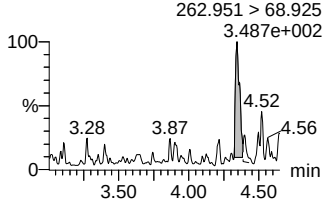


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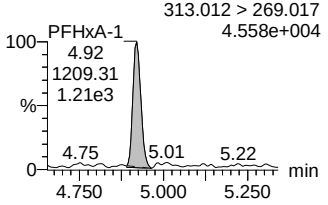


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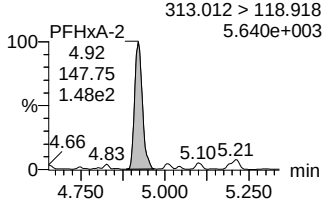


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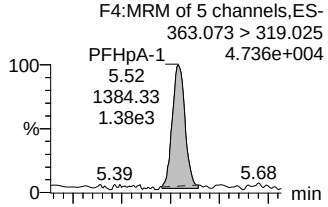


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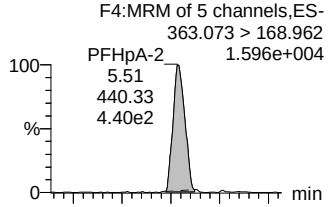


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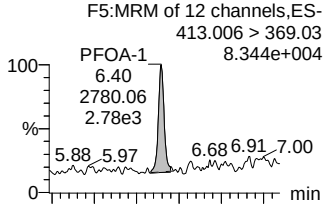


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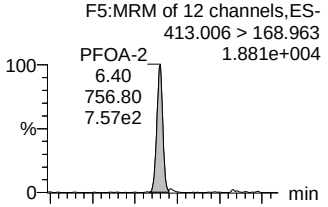


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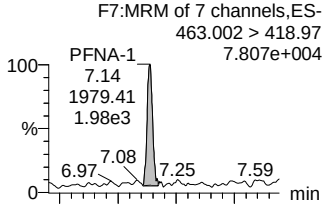


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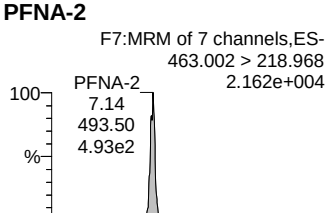


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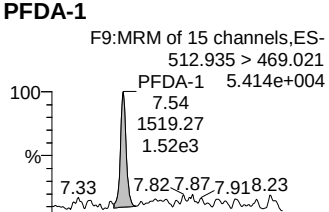


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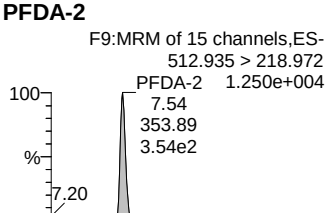


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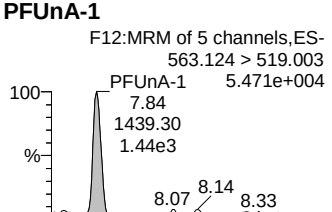
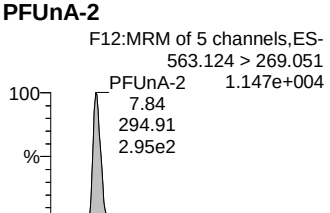



**PFUnA-2**




PVed by GW, SVed by hh 13-Mar-19. NOTE: Unit=ng based on 4 mL extract

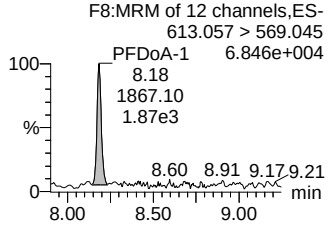
**Quantify Sample Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_097-A1.qld

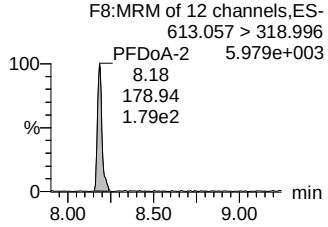
Last Altered: Tuesday, March 12, 2019 17:19:00 Pacific Daylight Time
Printed: Wednesday, March 13, 2019 09:12:29 Pacific Daylight Time

**ID: FC027C-CAL,, /01, Name: FC9W_097S13, Description: 1,,2uL, Date: 08-Mar-2019, Time: 16:27:06**

**PFDoA-1**




**PFDoA-2**

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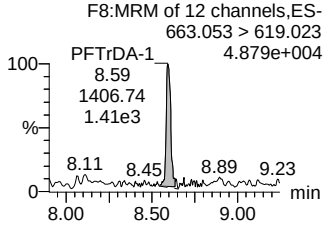


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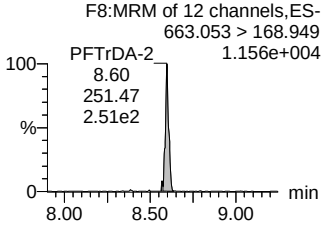
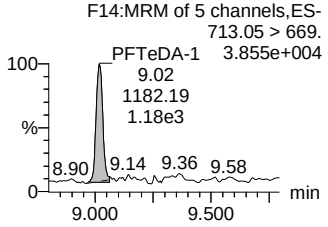
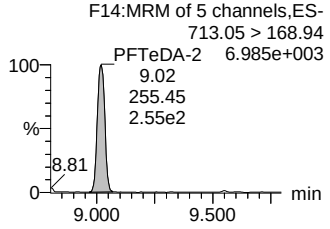



**PFTeDA-1**




**PFTeDA-2**

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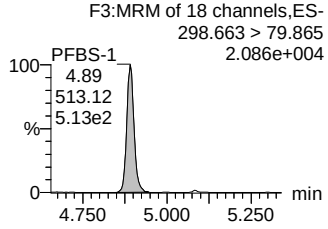


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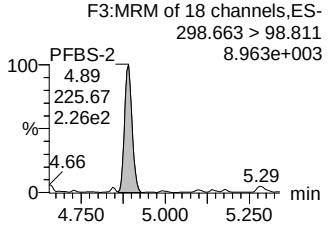


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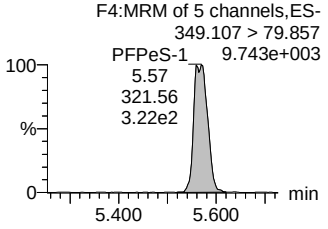


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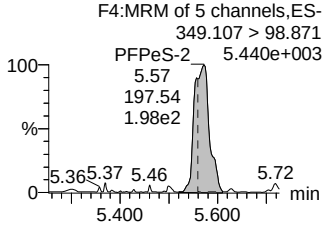


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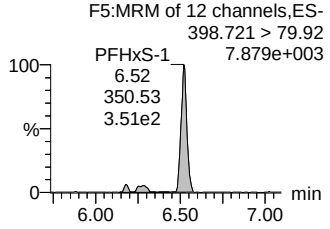


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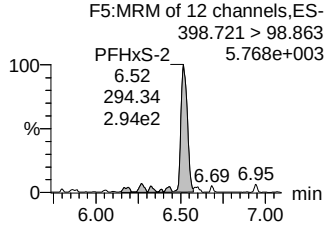


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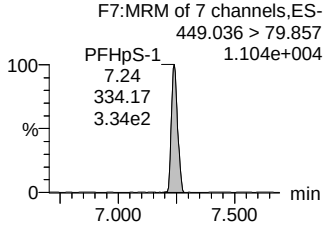


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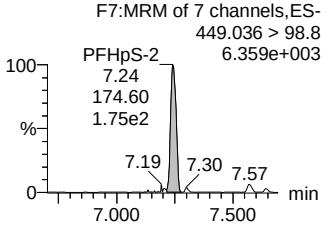


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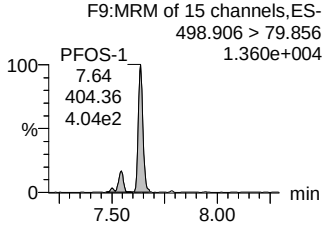


PVed by GW, SVed by hh 13-Mar-19. NOTE: Unit=ng based on 4 mL extract

**Quantify Sample Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_097-A1.qld

Last Altered: Tuesday, March 12, 2019 17:19:00 Pacific Daylight Time
Printed: Wednesday, March 13, 2019 09:12:29 Pacific Daylight Time

**ID: FC027C-CAL,, /01, Name: FC9W_097S13, Description: 1,,2uL, Date: 08-Mar-2019, Time: 16:27:06**

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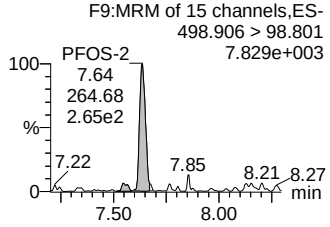


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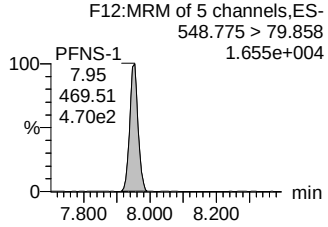


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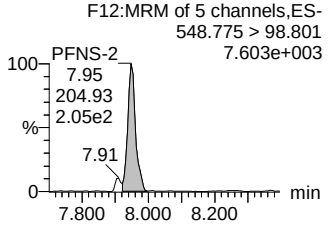


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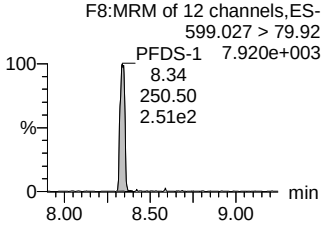


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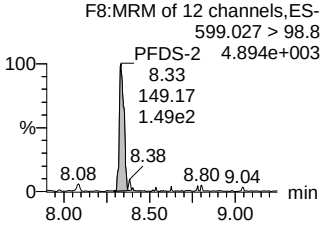


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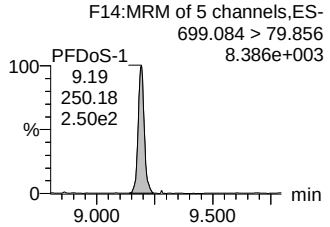


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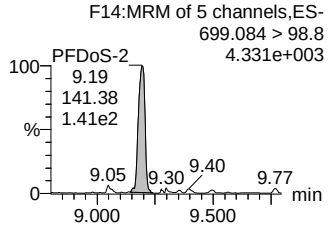


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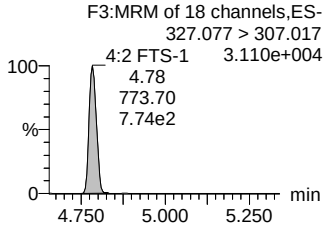


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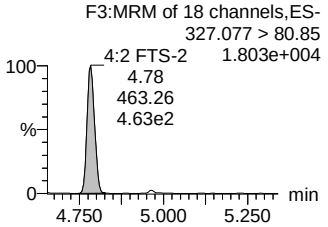


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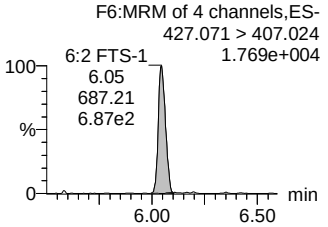


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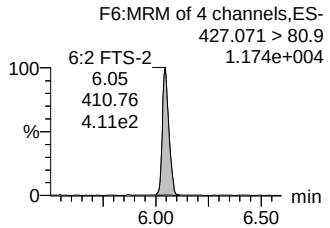


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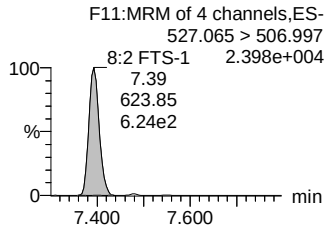


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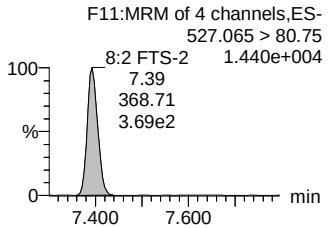


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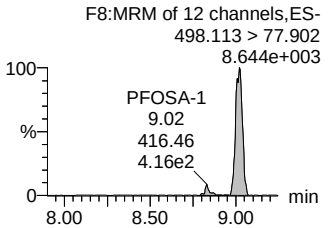


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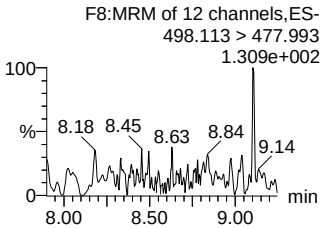



PVed by GW, SVed by hh 13-Mar-19. NOTE: Unit=ng based on 4 mL extract

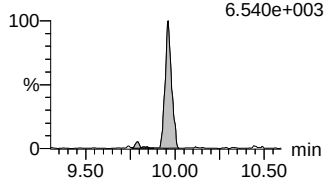
**Quantify Sample Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_097-A1.qld

Last Altered: Tuesday, March 12, 2019 17:19:00 Pacific Daylight Time
Printed: Wednesday, March 13, 2019 09:12:29 Pacific Daylight Time

**ID: FC027C-CAL,, /01, Name: FC9W_097S13, Description: 1,,2uL, Date: 08-Mar-2019, Time: 16:27:06**

**N-MeFOSA-1**

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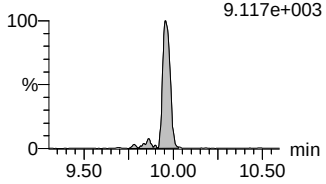


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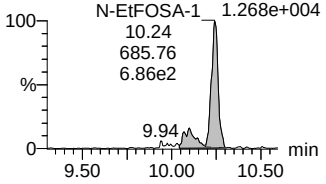


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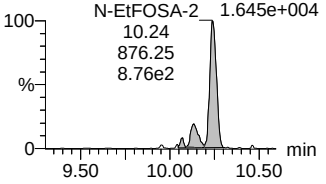


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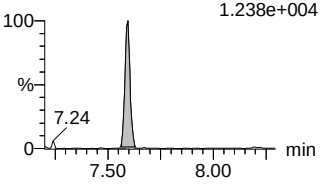


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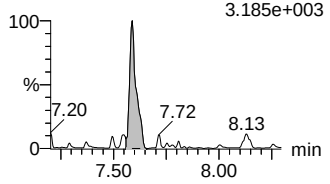


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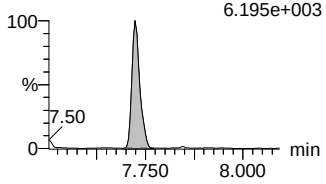


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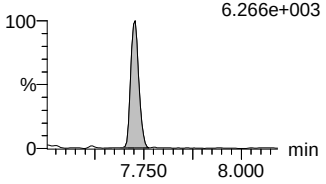


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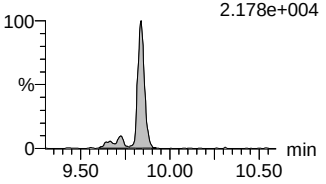


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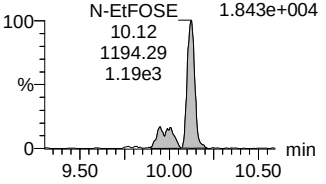


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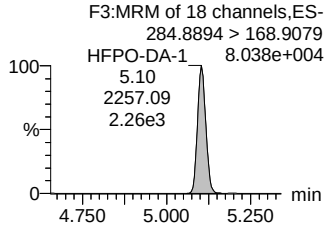


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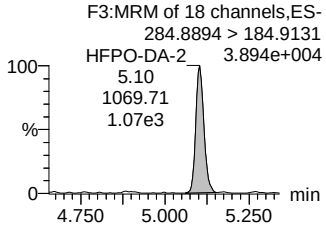


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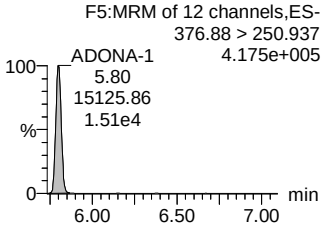


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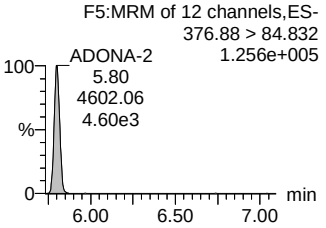
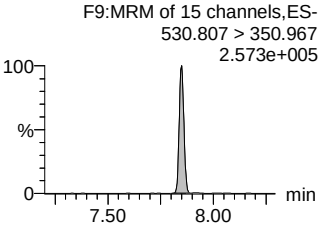



**9Cl-PF3ONS-1**




PVed by GW, SVed by hh 13-Mar-19. NOTE: Unit=ng based on 4 mL extract

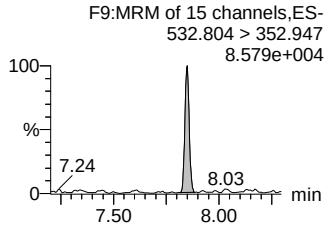
**Quantify Sample Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_097-A1.qld

Last Altered: Tuesday, March 12, 2019 17:19:00 Pacific Daylight Time
Printed: Wednesday, March 13, 2019 09:12:29 Pacific Daylight Time

**ID: FC027C-CAL,, /01, Name: FC9W_097S13, Description: 1,,2uL, Date: 08-Mar-2019, Time: 16:27:06**

**9Cl-PF3ONS-2**

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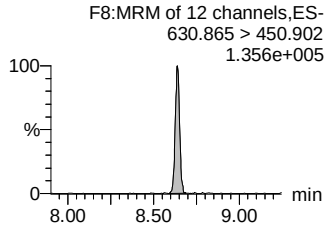


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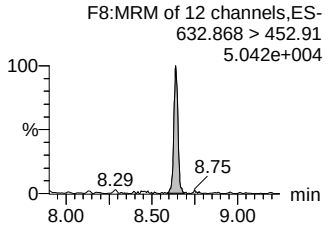


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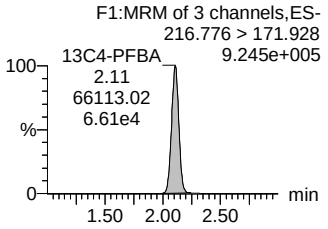
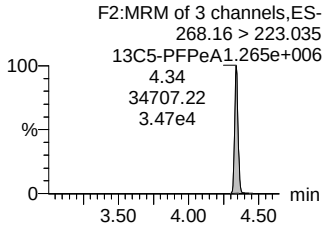



**13C5-PFPeA**

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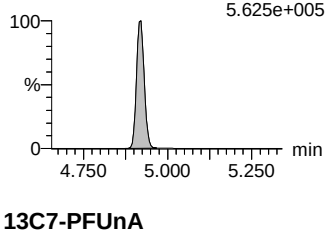


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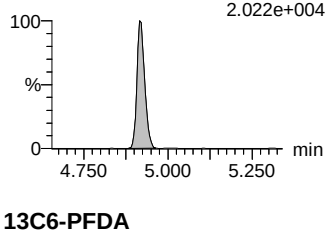


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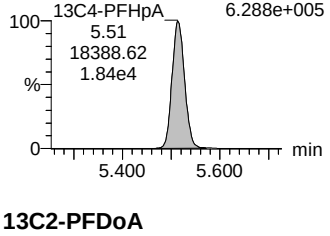


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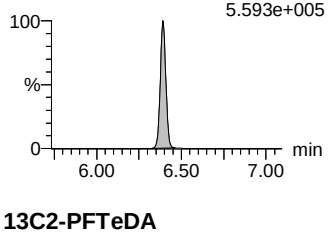


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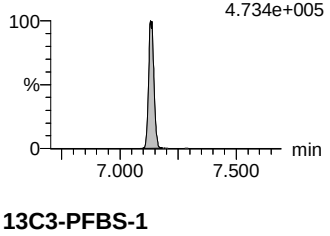


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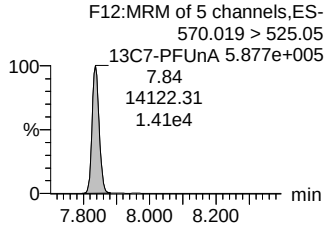
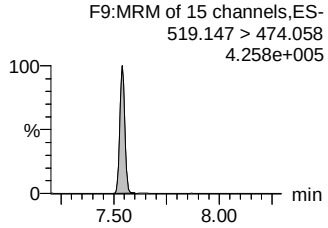
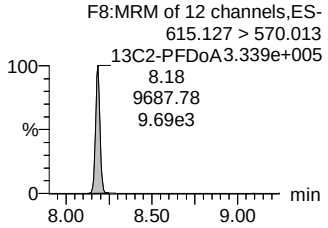


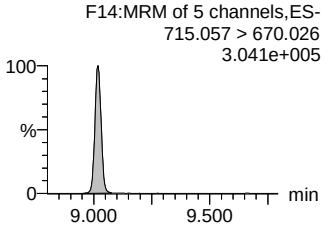

**13C6-PFDA**



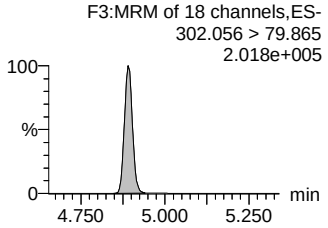

**13C2-PFDoA**




**13C2-PFTeDA**




**13C3-PFBS-1**




PVed by GW, SVed by hh 13-Mar-19. NOTE: Unit=ng based on 4 mL extract

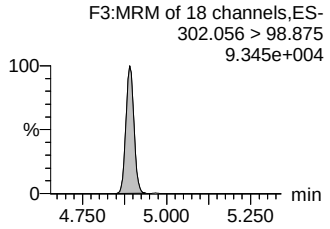
**Quantify Sample Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_097-A1.qld

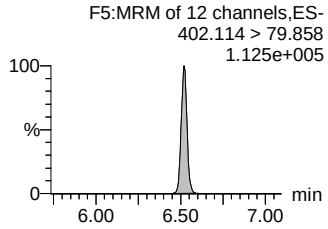
Last Altered: Tuesday, March 12, 2019 17:19:00 Pacific Daylight Time
Printed: Wednesday, March 13, 2019 09:12:29 Pacific Daylight Time

**ID: FC027C-CAL,, /01, Name: FC9W_097S13, Description: 1,,2uL, Date: 08-Mar-2019, Time: 16:27:06**

**13C3-PFBS-2**




**13C3-PFHxS-1**

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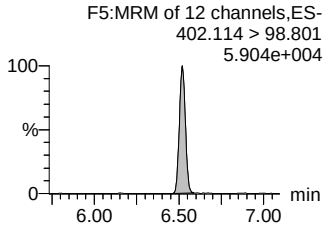
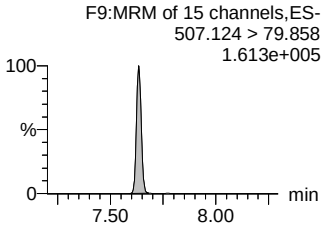



**13C8-PFOS-1**

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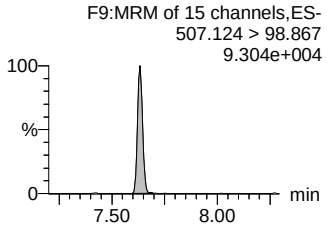


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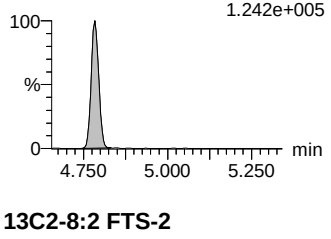
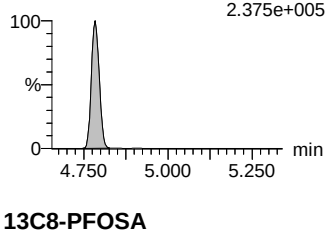



**13C2-4:2 FTS-2**

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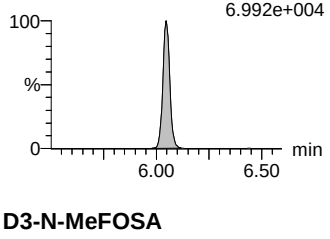
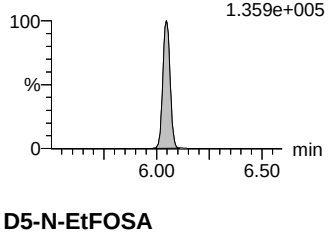



**13C2-6:2 FTS-2**

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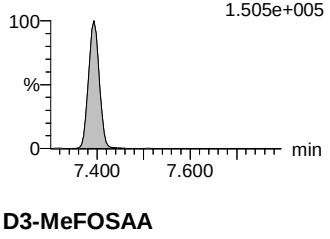


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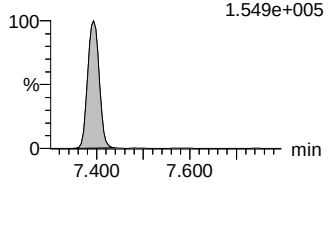
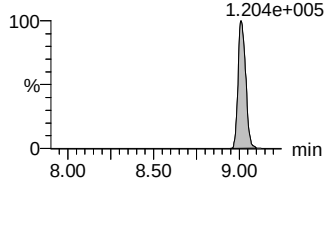
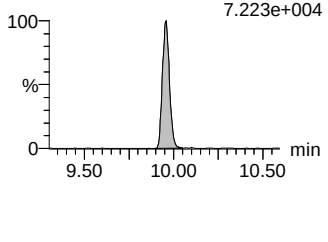



**13C8-PFOSA**




**D3-N-MeFOSA**

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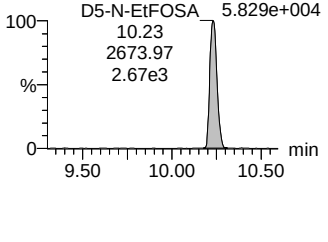
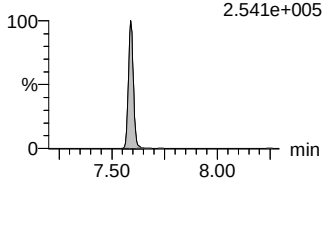



**D3-MeFOSAA**




PVed by GW, SVed by hh 13-Mar-19. NOTE: Unit=ng based on 4 mL extract

**Quantify Sample Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_097-A1.qld

Last Altered: Tuesday, March 12, 2019 17:19:00 Pacific Daylight Time
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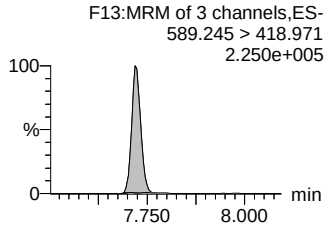
**ID: FC027C-CAL,, /01, Name: FC9W_097S13, Description: 1,,2uL, Date: 08-Mar-2019, Time: 16:27:06**

**D5-EtFOSAA**

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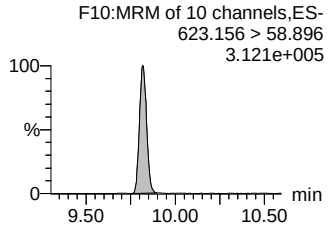
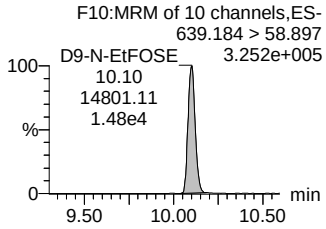



**D9-N-EtFOSE**

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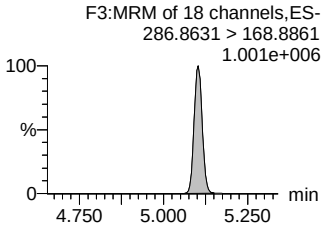


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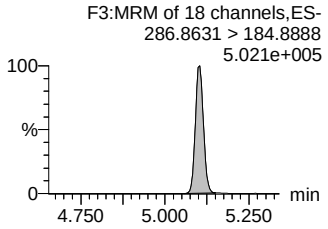
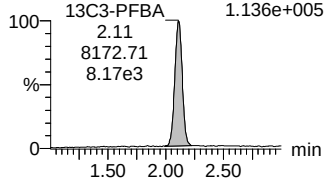



**13C3-PFBA**

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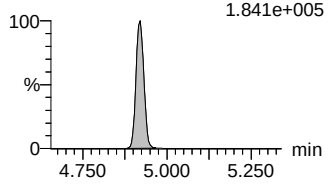


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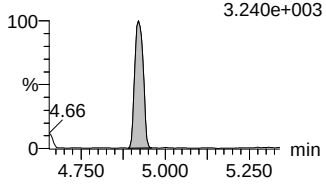
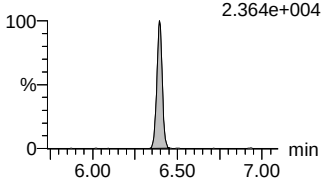



**13C4-PFOA**

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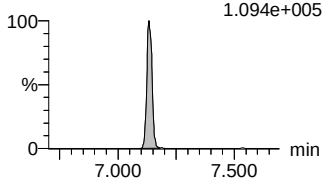


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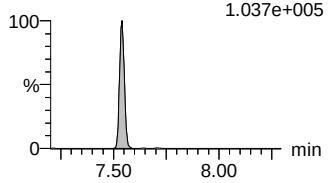
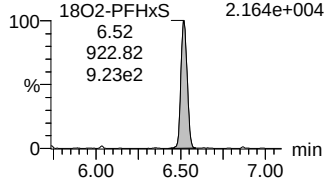



**18O2-PFHxS**

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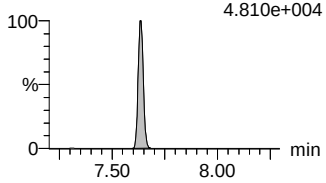


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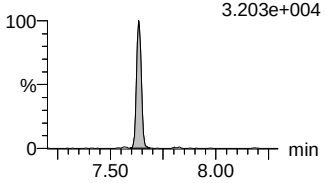


PVed by GW, SVed by hh 13-Mar-19. NOTE: Unit=ng based on 4 mL extract

**Quantify Sample Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_097-A1.qld

Last Altered: Tuesday, March 12, 2019 17:19:00 Pacific Daylight Time
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**ID: FC027C-CAL,, /01, Name: FC9W_097S13, Description: 1,,2uL, Date: 08-Mar-2019, Time: 16:27:06**

| # | Name | IS# | Trace | RT | Area | IS Area | Std. Conc | Conc. | LOD | %Rec | S/N | Noise | Peak Height | IS Height | Sample size | F2 | Flags |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | PFBA | 64 | 212.763 > 168.903 | 2.11 | 4740 | 66113 | 3.280 | 3.256 | | 99.3 | 248 | 264 | 65461 | 922746 | 1.000 | 1.0 | bb |
| 2 | PFPeA-1 | 65 | 262.951 > 218.996 | 4.34 | 2972 | 34707 | 1.630 | 1.591 | | 97.6 | 274 | 384 | 105060 | 1264453 | 1.000 | 1.0 | MM |
| 3 | PFPeA-2 | 65 | 262.951 > 68.925 | 4.34 | 11 | 34707 | 1.630 | 1.853 | 0.4796 | 113.7 | 9 | 34 | 316 | 1264453 | 1.000 | 1.0 | MM |
| 4 | PFHxA-1 | 66 | 313.012 > 269.017 | 4.92 | 1209 | 14702 | 0.820 | 0.811 | | 98.9 | 58 | 774 | 44894 | 561868 | 1.000 | 1.0 | MM |
| 5 | PFHxA-2 | 66 | 313.012 > 118.918 | 4.92 | 148 | 14702 | 0.820 | 0.942 | 0.0108 | 114.9 | 235 | 24 | 5623 | 561868 | 1.000 | 1.0 | bb |
| 6 | PFHpA-1 | 68 | 363.073 > 319.025 | 5.52 | 1384 | 18389 | 0.820 | 0.775 | | 94.5 | 62 | 736 | 45824 | 628015 | 1.000 | 1.0 | MM |
| 7 | PFHpA-2 | 68 | 363.073 > 168.962 | 5.51 | 440 | 18389 | 0.820 | 0.811 | | 98.9 | 2336 | 7 | 15852 | 628015 | 1.000 | 1.0 | MM |
| 8 | PFOA-1 | 69 | 413.006 > 369.03 | 6.40 | 2780 | 21343 | 0.820 | 0.826 | 0.0163 | 100.8 | 22 | 3139 | 70366 | 558230 | 1.000 | 1.0 | MM |
| 9 | PFOA-2 | 69 | 413.006 > 168.963 | 6.40 | 757 | 21343 | 0.820 | 0.749 | | 91.3 | 242 | 78 | 18769 | 558230 | 1.000 | 1.0 | MM |
| 10 | PFNA-1 | 70 | 463.002 > 418.97 | 7.14 | 1979 | 12221 | 0.800 | 0.767 | | 95.9 | 43 | 1714 | 73962 | 472919 | 1.000 | 1.0 | MM |
| 11 | PFNA-2 | 70 | 463.002 > 218.968 | 7.14 | 493 | 12221 | 0.800 | 0.801 | 0.0109 | 100.2 | 98 | 220 | 21612 | 472919 | 1.000 | 1.0 | bb |
| 12 | PFDA-1 | 72 | 512.935 > 469.021 | 7.54 | 1519 | 11437 | 0.800 | 0.726 | | 90.7 | 24 | 2062 | 48863 | 425486 | 1.000 | 1.0 | MM |
| 13 | PFDA-2 | 72 | 512.935 > 218.972 | 7.54 | 354 | 11437 | 0.800 | 0.792 | | 99.0 | 925 | 13 | 12480 | 425486 | 1.000 | 1.0 | bb |
| 14 | PFUnA-1 | 71 | 563.124 > 519.003 | 7.84 | 1439 | 14122 | 0.800 | 0.760 | 0.0059 | 95.0 | 36 | 1462 | 52891 | 586606 | 1.000 | 1.0 | bb |
| 15 | PFUnA-2 | 71 | 563.124 > 269.051 | 7.84 | 295 | 14122 | 0.800 | 0.843 | | 105.4 | 1903 | 6 | 11460 | 586606 | 1.000 | 1.0 | db |
| 16 | PFDoA-1 | 73 | 613.057 > 569.045 | 8.18 | 1867 | 9688 | 0.800 | 0.798 | | 99.7 | 57 | 1139 | 64858 | 333513 | 1.000 | 1.0 | MM |
| 17 | PFDoA-2 | 73 | 613.057 > 318.996 | 8.18 | 179 | 9688 | 0.800 | 0.701 | | 87.7 | 388 | 15 | 5956 | 333513 | 1.000 | 1.0 | MM |
| 18 | PFTrDA-1 | 74 | 663.053 > 619.023 | 8.59 | 1407 | 9318 | 0.800 | 0.738 | | 92.2 | 34 | 1384 | 46850 | 303302 | 1.000 | 1.0 | MM |
| 19 | PFTrDA-2 | 74 | 663.053 > 168.949 | 8.60 | 251 | 9318 | 0.800 | 0.756 | | 94.5 | 76 | 152 | 11533 | 303302 | 1.000 | 1.0 | MM |
| 20 | PFTeDA-1 | 74 | 713.05 > 669. | 9.02 | 1182 | 9318 | 0.800 | 0.742 | | 92.8 | 45 | 802 | 35736 | 303302 | 1.000 | 1.0 | MM |
| 21 | PFTeDA-2 | 74 | 713.05 > 168.94 | 9.02 | 255 | 9318 | 0.800 | 0.837 | | 104.6 | 359 | 19 | 6951 | 303302 | 1.000 | 1.0 | bb |
| 22 | PFBS-1 | 75 | 298.663 > 79.865 | 4.89 | 513 | 5503 | 0.820 | 0.814 | 0.0846 | 99.2 | 32 | 644 | 20835 | 201392 | 1.000 | 1.0 | bb |
| 23 | PFBS-2 | 76 | 298.663 > 98.811 | 4.89 | 226 | 2520 | 0.820 | 0.712 | | 86.9 | 222 | 40 | 8954 | 93369 | 1.000 | 1.0 | db |
| 24 | PFPeS-1 | 77 | 349.107 > 79.857 | 5.57 | 322 | 4389 | 0.760 | 0.694 | | 91.3 | 155 | 63 | 9729 | 112367 | 1.000 | 1.0 | bb |
| 25 | PFPeS-2 | 78 | 349.107 > 98.871 | 5.57 | 198 | 2419 | 0.760 | 0.659 | | 86.8 | 52 | 105 | 5457 | 58922 | 1.000 | 1.0 | MM |
| 26 | PFHxS-1 | 77 | 398.721 > 79.92 | 6.52 | 351 | 4389 | 0.820 | 0.755 | 0.1192 | 92.1 | 284 | 28 | 7870 | 112367 | 1.000 | 1.0 | MM |
| 27 | PFHxS-2 | 78 | 398.721 > 98.863 | 6.52 | 294 | 2419 | 0.820 | 0.908 | | 110.7 | 42 | 137 | 5756 | 58922 | 1.000 | 1.0 | MM |
| 28 | PFHpS-1 | 79 | 449.036 > 79.857 | 7.24 | 334 | 4202 | 0.760 | 0.751 | | 98.9 | 936 | 12 | 11035 | 161044 | 1.000 | 1.0 | bb |
| 29 | PFHpS-2 | 80 | 449.036 > 98.8 | 7.24 | 175 | 2542 | 0.760 | 0.737 | 0.0147 | 97.0 | 305 | 21 | 6346 | 92961 | 1.000 | 1.0 | MM |
| 30 | PFOS-1 | 79 | 498.906 > 79.856 | 7.64 | 404 | 4202 | 0.820 | 0.749 | | 91.4 | 278 | 49 | 13579 | 161044 | 1.000 | 1.0 | MM |
| 31 | PFOS-2 | 80 | 498.906 > 98.801 | 7.64 | 265 | 2542 | 0.820 | 1.011 | | 123.3 | 42 | 188 | 7814 | 92961 | 1.000 | 1.0 | MM |
| 32 | PFNS-1 | 79 | 548.775 > 79.858 | 7.95 | 470 | 4202 | 0.760 | 0.838 | | 110.3 | 949 | 17 | 16512 | 161044 | 1.000 | 1.0 | MM |
| 33 | PFNS-2 | 80 | 548.775 > 98.801 | 7.95 | 205 | 2542 | 0.760 | 0.732 | | 96.3 | 435 | 17 | 7586 | 92961 | 1.000 | 1.0 | db |
| 34 | PFDS-1 | 79 | 599.027 > 79.92 | 8.34 | 251 | 4202 | 0.820 | 0.618 | | 75.3 | 589 | 13 | 7919 | 161044 | 1.000 | 1.0 | MM |
| 35 | PFDS-2 | 80 | 599.027 > 98.8 | 8.33 | 149 | 2542 | 0.820 | 0.788 | 0.1195 | 96.1 | 79 | 62 | 4871 | 92961 | 1.000 | 1.0 | MM |

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Last Altered: Tuesday, March 12, 2019 17:19:00 Pacific Daylight Time
Printed: Wednesday, March 13, 2019 09:12:29 Pacific Daylight Time

**ID: FC027C-CAL,, /01, Name: FC9W_097S13, Description: 1,,2uL, Date: 08-Mar-2019, Time: 16:27:06**

| # | Name | IS# | Trace | RT | Area | IS Area | Std. Conc | Conc. | LOD | %Rec | S/N | Noise | Peak Height | IS Height | Sample size | F2 | Flags |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 36 | PFDoS-1 | 79 | 699.084 > 79.856 | 9.19 | 250 | 4202 | 0.760 | 0.719 | | 94.6 | 659 | 13 | 8370 | 161044 | 1.000 | 1.0 | bb |
| 37 | PFDoS-2 | 80 | 699.084 > 98.8 | 9.19 | 141 | 2542 | 0.760 | 0.705 | | 92.8 | 281 | 15 | 4300 | 92961 | 1.000 | 1.0 | bb |
| 38 | 4:2 FTS-1 | 81 | 327.077 > 307.017 | 4.78 | 774 | 3172 | 3.200 | 3.196 | | 99.9 | 1905 | 16 | 31074 | 123959 | 1.000 | 1.0 | bb |
| 39 | 4:2 FTS-2 | 81 | 327.077 > 80.85 | 4.78 | 463 | 3172 | 3.200 | 3.278 | 0.0653 | 102.4 | 1603 | 11 | 18001 | 123959 | 1.000 | 1.0 | bb |
| 40 | 6:2 FTS-1 | 83 | 427.071 > 407.024 | 6.05 | 687 | 2629 | 2.880 | 2.561 | | 88.9 | 732 | 24 | 17694 | 69809 | 1.000 | 1.0 | MM |
| 41 | 6:2 FTS-2 | 83 | 427.071 > 80.9 | 6.05 | 411 | 2629 | 2.880 | 2.763 | 0.0431 | 96.0 | 713 | 16 | 11730 | 69809 | 1.000 | 1.0 | MM |
| 42 | 8:2 FTS-1 | 85 | 527.065 > 506.997 | 7.39 | 624 | 4001 | 3.200 | 2.647 | | 82.7 | 3923 | 6 | 24024 | 150487 | 1.000 | 1.0 | MM |
| 43 | 8:2 FTS-2 | 85 | 527.065 > 80.75 | 7.39 | 369 | 4001 | 3.200 | 3.353 | | 104.8 | 869 | 17 | 14382 | 150487 | 1.000 | 1.0 | bb |
| 44 | PFOSA-1 | 87 | 498.113 > 77.902 | 9.02 | 416 | 6090 | 0.820 | 0.808 | 0.1842 | 98.5 | 22 | 392 | 8639 | 120247 | 1.000 | 1.0 | MM |
| 45 | PFOSA-2 | 87 | 498.113 > 477.993 | | | 6090 | 0.820 | | 2.0806 | | | 16 | | 120247 | 1.000 | 1.0 | MM- |
| 46 | N-MeFOSA-1 | 88 | 511.937 > 218.985 | 9.96 | 281 | 3250 | 0.920 | 0.874 | | 95.0 | 203 | 32 | 6526 | 72112 | 1.000 | 1.0 | MM |
| 47 | N-MeFOSA-2 | 88 | 511.937 > 168.955 | 9.95 | 480 | 3250 | 0.920 | 0.989 | | 107.5 | 502 | 18 | 9105 | 72112 | 1.000 | 1.0 | MM |
| 48 | N-EtFOSA-1 | 89 | 526.017 > 218.977 | 10.24 | 686 | 2674 | 2.000 | 2.042 | | 102.1 | 94 | 135 | 12628 | 58195 | 1.000 | 1.0 | MM |
| 49 | N-EtFOSA-2 | 89 | 526.017 > 168.95 | 10.24 | 876 | 2674 | 2.000 | 1.879 | 0.0282 | 93.9 | 75 | 219 | 16327 | 58195 | 1.000 | 1.0 | MM |
| 50 | MeFOSAA-1 | 90 | 570.134 > 419.035 | 7.59 | 339 | 6920 | 0.800 | 1.000 | | 124.9 | 546 | 22 | 12212 | 255370 | 1.000 | 1.0 | MM |
| 51 | MeFOSAA-2 | 90 | 570.134 > 482.99 | 7.59 | 124 | 6920 | 0.800 | 0.681 | | 85.1 | 72 | 45 | 3252 | 255370 | 1.000 | 1.0 | MM |
| 52 | EtFOSAA-1 | 91 | 584.15 > 419.062 | 7.72 | 147 | 5888 | 0.800 | 0.709 | 0.0654 | 88.7 | 584 | 11 | 6216 | 223070 | 1.000 | 1.0 | MM |
| 53 | EtFOSAA-2 | 91 | 584.15 > 526.045 | 7.73 | 150 | 5888 | 0.800 | 0.827 | 0.1216 | 103.4 | 469 | 13 | 6243 | 223070 | 1.000 | 1.0 | MM |
| 54 | N-MeFOSE | 92 | 616.112 > 58.894 | 9.84 | 1099 | 14362 | 8.160 | 7.922 | | 97.1 | 369 | 59 | 21729 | 311238 | 1.000 | 1.0 | MM |
| 55 | N-EtFOSE | 93 | 630. > 58.893 | 10.12 | 1194 | 14801 | 6.120 | 6.111 | | 99.9 | 84 | 219 | 18407 | 324180 | 1.000 | 1.0 | MM |
| 56 | HFPO-DA-1 | 94 | 284.8894 > 168.... | 5.10 | 2257 | 27622 | 3.200 | 3.129 | | 97.8 | 421 | 191 | 80334 | 999260 | 1.000 | 1.0 | bb |
| 57 | HFPO-DA-2 | 95 | 284.8894 > 184.... | 5.10 | 1070 | 13733 | 3.200 | 3.330 | 0.0154 | 104.1 | 149 | 259 | 38711 | 501173 | 1.000 | 1.0 | bb |
| 58 | ADONA-1 | 94 | 376.88 > 250.937 | 5.80 | 15126 | 27622 | 3.200 | 3.023 | | 94.5 | 4836 | 86 | 416393 | 999260 | 1.000 | 1.0 | bb |
| 59 | ADONA-2 | 95 | 376.88 > 84.832 | 5.80 | 4602 | 13733 | 3.200 | 3.334 | 0.5260 | 104.2 | 122... | 10 | 125568 | 501173 | 1.000 | 1.0 | bb |
| 60 | 9Cl-PF3ONS-1 | 94 | 530.807 > 350.967 | 7.85 | 6435 | 27622 | 3.200 | 2.983 | | 93.2 | 406 | 632 | 256338 | 999260 | 1.000 | 1.0 | MM |
| 61 | 9Cl-PF3ONS-2 | 95 | 532.804 > 352.947 | 7.85 | 1976 | 13733 | 3.200 | 2.961 | | 92.5 | 104 | 813 | 84974 | 501173 | 1.000 | 1.0 | bb |
| 62 | 11Cl-PF3OUdS-1 | 94 | 630.865 > 450.902 | 8.64 | 3938 | 27622 | 3.200 | 3.010 | | 94.1 | 714 | 190 | 135457 | 999260 | 1.000 | 1.0 | bb |
| 63 | 11Cl-PF3OUdS-2 | 95 | 632.868 > 452.91 | 8.64 | 1362 | 13733 | 3.200 | 3.372 | 0.0153 | 105.4 | 246 | 205 | 50262 | 501173 | 1.000 | 1.0 | bb |
| 64 | 13C4-PFBA | 96 | 216.776 > 171.928 | 2.11 | 66113 | 8173 | 40.000 | 39.510 | 0.0085 | 98.8 | 142... | 65 | 922746 | 111331 | 1.000 | 1.0 | bb |
| 65 | 13C5-PFPeA | 97 | 268.16 > 223.035 | 4.34 | 34707 | 4898 | 20.000 | 21.835 | 0.0051 | 109.2 | 123... | 102 | 1264453 | 183881 | 1.000 | 1.0 | MM |
| 66 | 13C5-PFHxA-1 | 97 | 318.029 > 272.993 | 4.92 | 14702 | 4898 | 10.000 | 10.657 | 0.0109 | 106.6 | 2995 | 188 | 561868 | 183881 | 1.000 | 1.0 | bb |
| 67 | 13C5-PFHxA-2 | 97 | 318.029 > 120.341 | 4.92 | 526 | 4898 | 10.000 | 11.226 | 0.0201 | 112.3 | 1714 | 12 | 20199 | 183881 | 1.000 | 1.0 | bb |
| 68 | 13C4-PFHpA | 99 | 367.086 > 322.004 | 5.51 | 18389 | 876 | 10.000 | 9.654 | 0.0078 | 96.5 | 4734 | 133 | 628015 | 23601 | 1.000 | 1.0 | bb |
| 69 | 13C8-PFOA | 99 | 421.096 > 376.022 | 6.39 | 21343 | 876 | 10.000 | 9.751 | 0.0026 | 97.5 | 108... | 52 | 558230 | 23601 | 1.000 | 1.0 | bb |
| 70 | 13C9-PFNA | 100 | 472.096 > 427.014 | 7.13 | 12221 | 2782 | 5.000 | 5.057 | 0.0640 | 101.1 | 234 | 2024 | 472919 | 109206 | 1.000 | 1.0 | bb |

PVed by GW, SVed by hh 13-Mar-19. NOTE: Unit=ng based on 4 mL extract

**Quantify Sample Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_097-A1.qld

Last Altered: Tuesday, March 12, 2019 17:19:00 Pacific Daylight Time
Printed: Wednesday, March 13, 2019 09:12:29 Pacific Daylight Time

**ID: FC027C-CAL,, /01, Name: FC9W_097S13, Description: 1,,2uL, Date: 08-Mar-2019, Time: 16:27:06**

| # | Name | IS# | Trace | RT | Area | IS Area | Std. Conc | Conc. | LOD | %Rec | S/N | Noise | Peak Height | IS Height | Sample size | F2 | Flags |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 71 | 13C7-PFUnA | 101 | 570.019 > 525.05 | 7.84 | 14122 | 2675 | 5.000 | 5.901 | 0.0055 | 118.0 | 3421 | 171 | 586606 | 103711 | 1.000 | 1.0 | bb |
| 72 | 13C6-PFDA | 101 | 519.147 > 474.058 | 7.54 | 11437 | 2675 | 5.000 | 5.679 | 0.0045 | 113.6 | 3661 | 116 | 425486 | 103711 | 1.000 | 1.0 | bb |
| 73 | 13C2-PFDoA | 101 | 615.127 > 570.013 | 8.18 | 9688 | 2675 | 5.000 | 5.672 | 0.0148 | 113.4 | 1021 | 327 | 333513 | 103711 | 1.000 | 1.0 | bb |
| 74 | 13C2-PFTeDA | 101 | 715.057 > 670.026 | 9.02 | 9318 | 2675 | 5.000 | 5.560 | 0.0071 | 111.2 | 1971 | 154 | 303302 | 103711 | 1.000 | 1.0 | bb |
| 75 | 13C3-PFBS-1 | 102 | 302.056 > 79.865 | 4.89 | 5503 | 923 | 10.000 | 12.387 | 0.0822 | 123.9 | 707 | 285 | 201392 | 21607 | 1.000 | 1.0 | bb |
| 76 | 13C3-PFBS-2 | 102 | 302.056 > 98.875 | 4.89 | 2520 | 923 | 10.000 | 11.732 | 0.0278 | 117.3 | 2007 | 47 | 93369 | 21607 | 1.000 | 1.0 | bb |
| 77 | 13C3-PFHxS-1 | 102 | 402.114 > 79.858 | 6.52 | 4389 | 923 | 10.000 | 11.463 | 0.0195 | 114.6 | 1925 | 58 | 112367 | 21607 | 1.000 | 1.0 | bb |
| 78 | 13C3-PFHxS-2 | 102 | 402.114 > 98.801 | 6.52 | 2419 | 923 | 10.000 | 11.340 | 0.0378 | 113.4 | 935 | 63 | 58922 | 21607 | 1.000 | 1.0 | bb |
| 79 | 13C8-PFOS-1 | 103 | 507.124 > 79.858 | 7.63 | 4202 | 1317 | 10.000 | 10.074 | 0.0175 | 100.7 | 1813 | 89 | 161044 | 48061 | 1.000 | 1.0 | bb |
| 80 | 13C8-PFOS-2 | 104 | 507.124 > 98.867 | 7.63 | 2542 | 843 | 10.000 | 9.603 | 0.0630 | 96.0 | 442 | 210 | 92961 | 31923 | 1.000 | 1.0 | bb |
| 81 | 13C2-4:2 FTS-1 | 102 | 329.084 > 80.9 | 4.78 | 3172 | 923 | 20.000 | 24.192 | 0.0500 | 121.0 | 2425 | 51 | 123959 | 21607 | 1.000 | 1.0 | bb |
| 82 | 13C2-4:2 FTS-2 | 102 | 329.084 > 309.024 | 4.78 | 6387 | 923 | 20.000 | 20.876 | 0.0462 | 104.4 | 2151 | 110 | 237123 | 21607 | 1.000 | 1.0 | bb |
| 83 | 13C2-6:2 FTS-1 | 102 | 429.078 > 80.900 | 6.05 | 2629 | 923 | 20.000 | 24.825 | 0.0090 | 124.1 | 9378 | 7 | 69809 | 21607 | 1.000 | 1.0 | bb |
| 84 | 13C2-6:2 FTS-2 | 102 | 429.078 > 409.031 | 6.05 | 5349 | 923 | 20.000 | 22.059 | 0.0300 | 110.3 | 2393 | 57 | 135716 | 21607 | 1.000 | 1.0 | bb |
| 85 | 13C2-8:2 FTS-1 | 102 | 529.1351 > 80.900 | 7.39 | 4001 | 923 | 20.000 | 25.287 | 0.0623 | 126.4 | 1956 | 77 | 150487 | 21607 | 1.000 | 1.0 | MM |
| 86 | 13C2-8:2 FTS-2 | 102 | 529.135 > 509.003 | 7.39 | 4445 | 923 | 20.000 | 20.883 | 0.0155 | 104.4 | 6005 | 26 | 154422 | 21607 | 1.000 | 1.0 | bb |
| 87 | 13C8-PFOSA | 103 | 506.14 > 77.841 | 9.01 | 6090 | 1317 | 10.000 | 9.235 | 0.0419 | 92.3 | 358 | 336 | 120247 | 48061 | 1.000 | 1.0 | bb |
| 88 | D3-N-MeFOSA | 103 | 514.956 > 218.974 | 9.96 | 3250 | 1317 | 10.000 | 9.545 | 0.1682 | 95.5 | 104 | 697 | 72112 | 48061 | 1.000 | 1.0 | bb |
| 89 | D5-N-EtFOSA | 103 | 531.112 > 218.984 | 10.23 | 2674 | 1317 | 10.000 | 9.302 | 0.0170 | 93.0 | 977 | 60 | 58195 | 48061 | 1.000 | 1.0 | bb |
| 90 | D3-MeFOSAA | 103 | 573.153 > 418.99 | 7.59 | 6920 | 1317 | 20.000 | 18.896 | 0.0298 | 94.5 | 1924 | 133 | 255370 | 48061 | 1.000 | 1.0 | MM |
| 91 | D5-EtFOSAA | 103 | 589.245 > 418.971 | 7.72 | 5888 | 1317 | 20.000 | 19.240 | 0.0608 | 96.2 | 986 | 226 | 223070 | 48061 | 1.000 | 1.0 | MM |
| 92 | D7-N-MeFOSE | 103 | 623.156 > 58.896 | 9.82 | 14362 | 1317 | 100.000 | 91.355 | 0.0809 | 91.4 | 2013 | 155 | 311238 | 48061 | 1.000 | 1.0 | bb |
| 93 | D9-N-EtFOSE | 103 | 639.184 > 58.897 | 10.10 | 14801 | 1317 | 100.000 | 90.897 | 0.1280 | 90.9 | 1279 | 253 | 324180 | 48061 | 1.000 | 1.0 | bb |
| 94 | 13C3-HFPO-DA-1 | 97 | 286.8631 > 168.... | 5.10 | 27622 | 4898 | 40.000 | 43.600 | 0.0254 | 109.0 | 4961 | 201 | 999260 | 183881 | 1.000 | 1.0 | bb |
| 95 | 13C3-HFPO-DA-2 | 97 | 286.8631 > 184.... | 5.10 | 13733 | 4898 | 40.000 | 44.255 | 0.0632 | 110.6 | 2041 | 246 | 501173 | 183881 | 1.000 | 1.0 | bb |
| 96 | 13C3-PFBA | | 216.029 > 171.97 | 2.11 | 8173 | | 5.000 | 5.839 | 0.0650 | 116.8 | 269 | 413 | 111331 | | 1.000 | 1.0 | bb |
| 97 | 13C2-PFHxA-1 | | 315.083 > 269.984 | 4.92 | 4898 | | 2.500 | 2.744 | 0.0005 | 109.7 | 161... | 11 | 183881 | | 1.000 | 1.0 | bb |
| 98 | 13C2-PFHxA-2 | | 315.083 > 119.359 | 4.92 | 94 | | 2.500 | 1.749 | 0.1153 | 70.0 | 46 | 71 | 3229 | | 1.000 | 1.0 | bb |
| 99 | 13C4-PFOA | | 417.083 > 171.95 | 6.40 | 876 | | 2.500 | 2.915 | 0.0216 | 116.6 | 405 | 58 | 23601 | | 1.000 | 1.0 | bb |
| 1... | 13C5-PFNA | | 468.019 > 423.008 | 7.13 | 2782 | | 1.250 | 1.364 | 0.0011 | 109.1 | 3829 | 29 | 109206 | | 1.000 | 1.0 | bb |
| 1... | 13C2-PFDA | | 515.134 > 470.05 | 7.54 | 2675 | | 1.250 | 1.176 | 0.0029 | 94.1 | 1218 | 85 | 103711 | | 1.000 | 1.0 | bb |
| 1... | 18O2-PFHxS | | 402.984 > 83.895 | 6.52 | 923 | | 2.500 | 2.349 | 0.0148 | 94.0 | 477 | 45 | 21607 | | 1.000 | 1.0 | bb |
| 1... | 13C4-PFOS-1 | | 502.791 > 79.856 | 7.64 | 1317 | | 2.500 | 2.707 | 0.0028 | 108.3 | 2952 | 16 | 48061 | | 1.000 | 1.0 | bb |
| 1... | 13C4-PFOS-2 | | 502.791 > 98.864 | 7.63 | 843 | | 2.500 | 2.701 | 0.0163 | 108.0 | 498 | 64 | 31923 | | 1.000 | 1.0 | bb |

PVed by GW, SVed by hh 13-Mar-19. NOTE: Unit=ng based on 4 mL extract

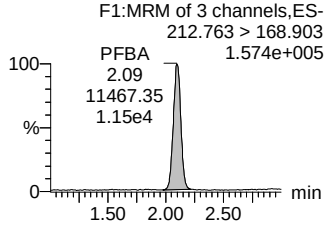
**Quantify Sample Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_097-A1.qld

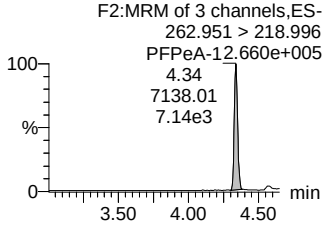
Last Altered: Tuesday, March 12, 2019 17:19:00 Pacific Daylight Time
Printed: Wednesday, March 13, 2019 09:12:29 Pacific Daylight Time

**ID: FC027D-CAL,, /01, Name: FC9W_097S14, Description: 1,,2uL, Date: 08-Mar-2019, Time: 16:40:24**

**PFBA**




**PFPeA-1**

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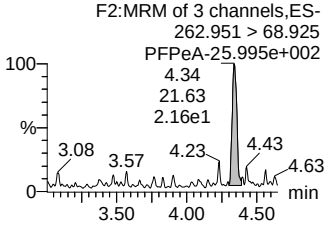


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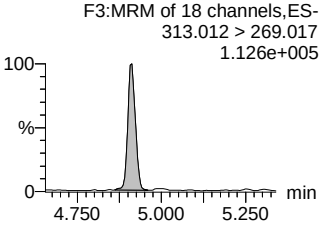


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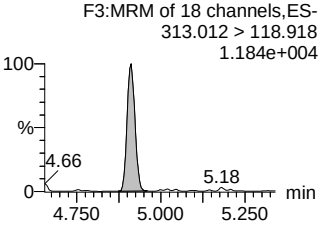


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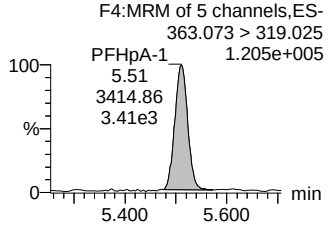


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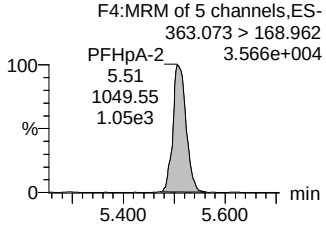


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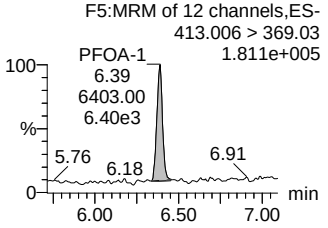


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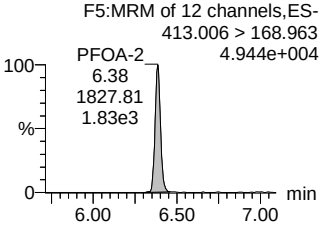


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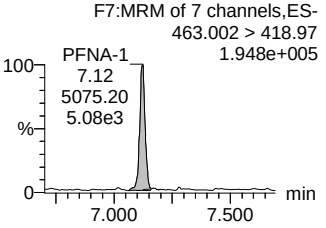


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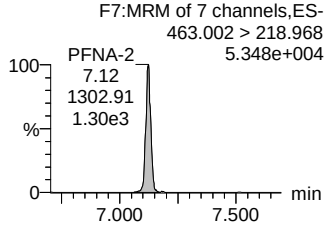


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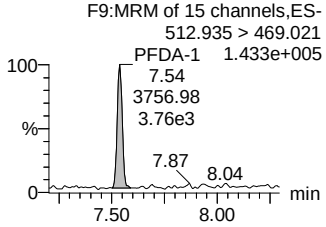


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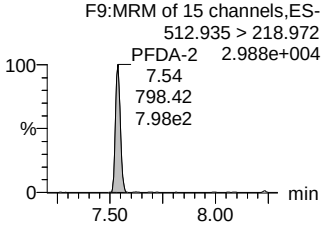


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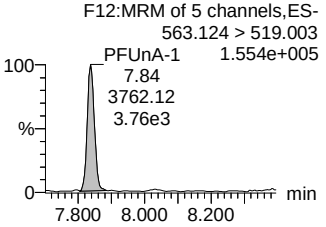
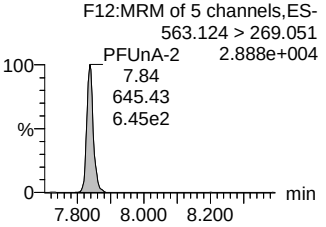



**PFUnA-2**




PVed by GW, SVed by hh 13-Mar-19. NOTE: Unit=ng based on 4 mL extract

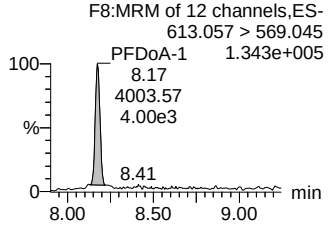
**Quantify Sample Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_097-A1.qld

Last Altered: Tuesday, March 12, 2019 17:19:00 Pacific Daylight Time
Printed: Wednesday, March 13, 2019 09:12:29 Pacific Daylight Time

**ID: FC027D-CAL,, /01, Name: FC9W_097S14, Description: 1,,2uL, Date: 08-Mar-2019, Time: 16:40:24**

**PFDoA-1**

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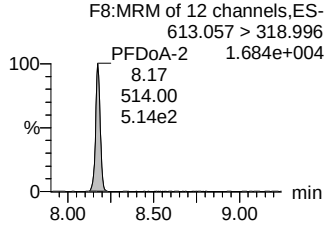
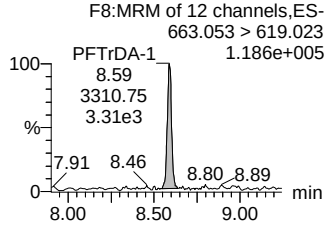



**PFTrDA-1**

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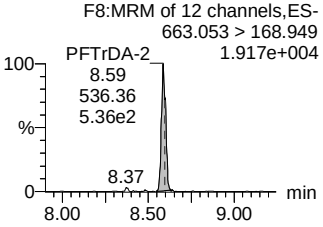


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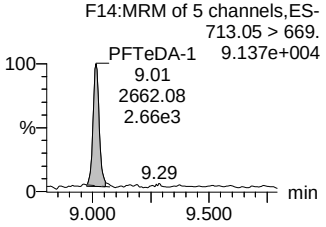


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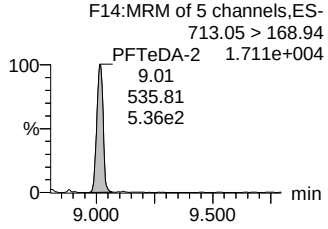


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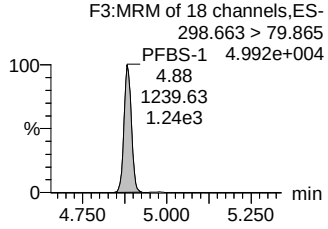


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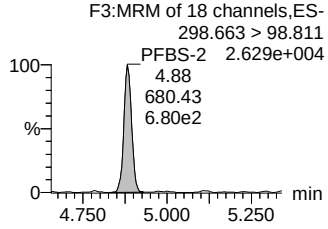


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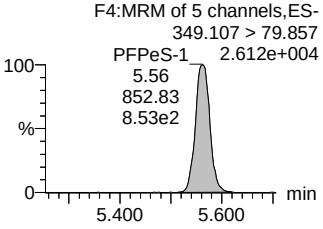


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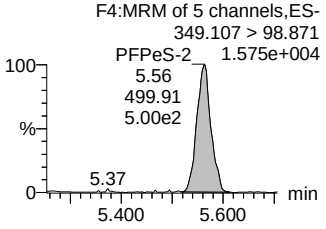


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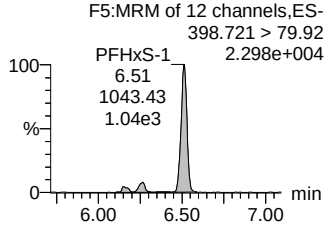


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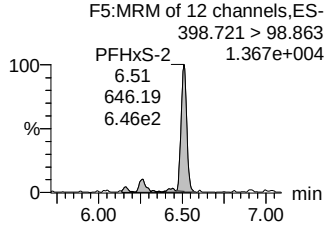


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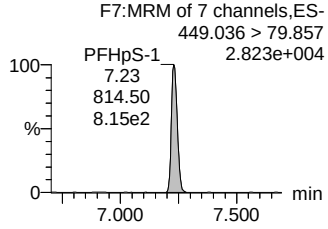


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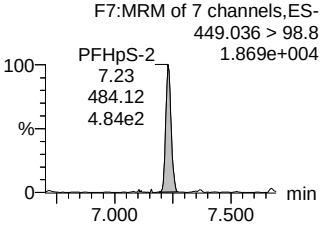


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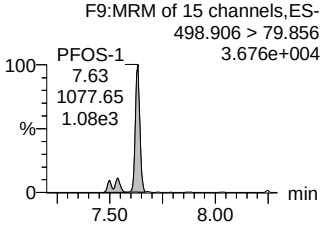


PVed by GW, SVed by hh 13-Mar-19. NOTE: Unit=ng based on 4 mL extract

**Quantify Sample Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_097-A1.qld

Last Altered: Tuesday, March 12, 2019 17:19:00 Pacific Daylight Time
Printed: Wednesday, March 13, 2019 09:12:29 Pacific Daylight Time

**ID: FC027D-CAL,, /01, Name: FC9W_097S14, Description: 1,,2uL, Date: 08-Mar-2019, Time: 16:40:24**

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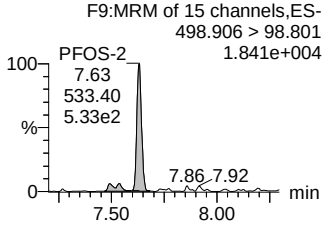


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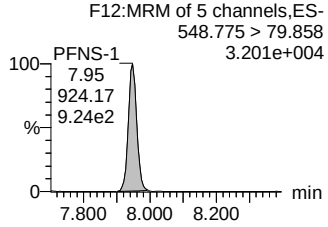


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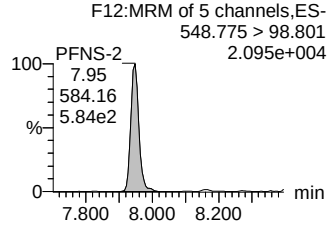


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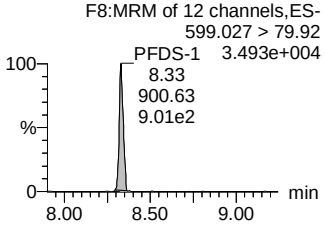


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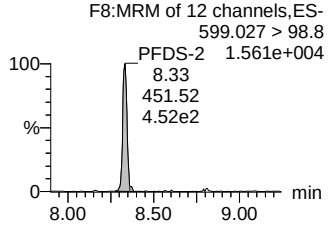


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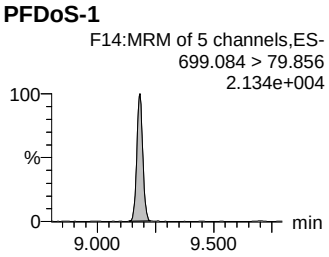


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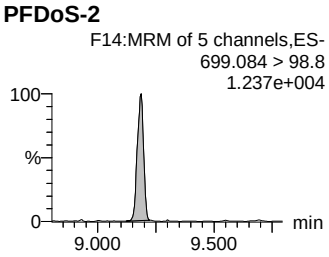


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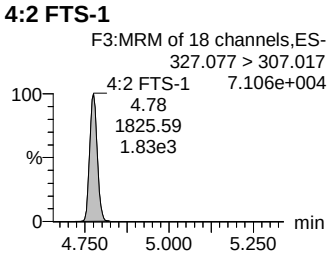


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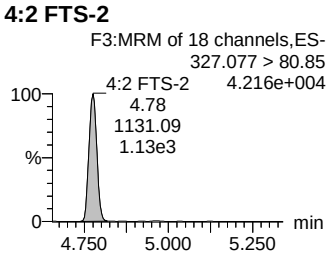


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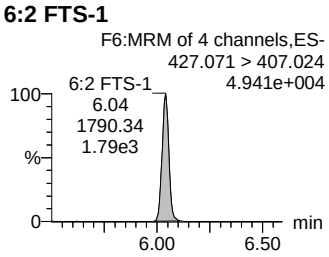


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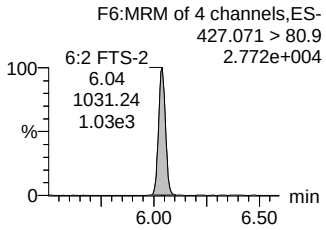


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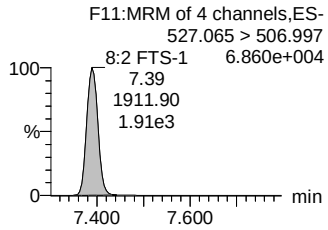


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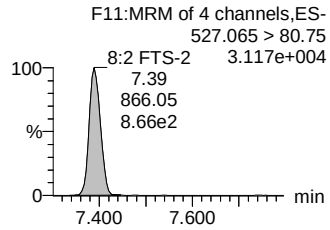


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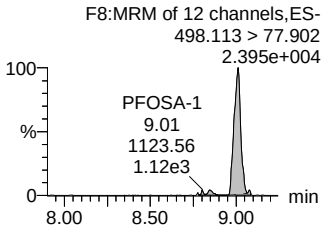


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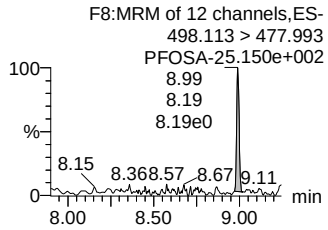



PVed by GW, SVed by hh 13-Mar-19. NOTE: Unit=ng based on 4 mL extract

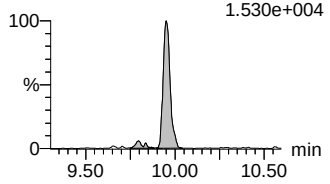
**Quantify Sample Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_097-A1.qld

Last Altered: Tuesday, March 12, 2019 17:19:00 Pacific Daylight Time
Printed: Wednesday, March 13, 2019 09:12:29 Pacific Daylight Time

**ID: FC027D-CAL,, /01, Name: FC9W_097S14, Description: 1,,2uL, Date: 08-Mar-2019, Time: 16:40:24**

**N-MeFOSA-1**

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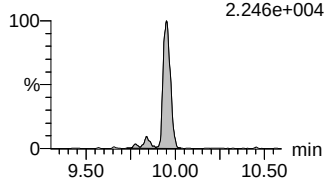


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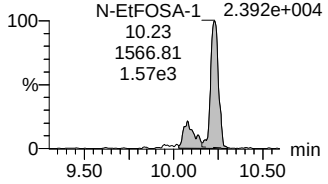


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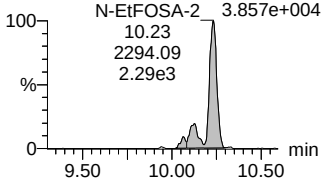


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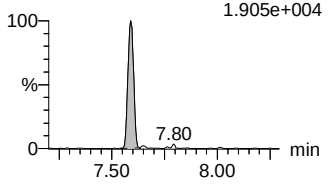


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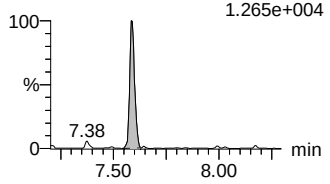


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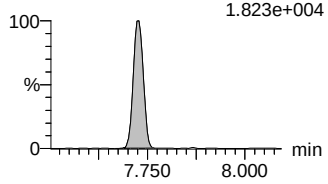


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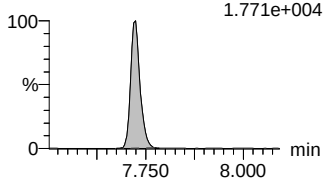


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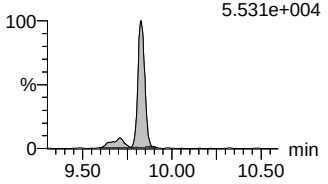


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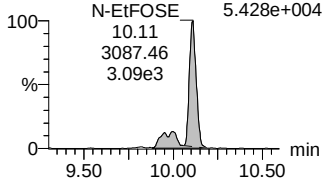


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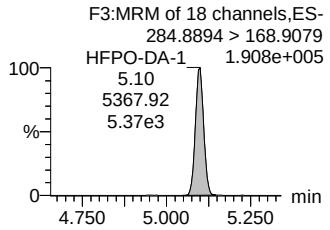


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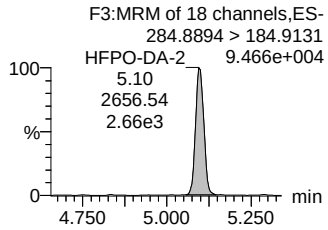


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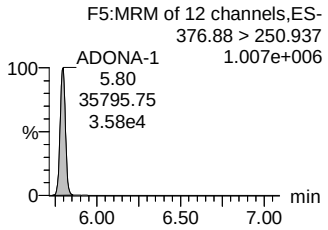


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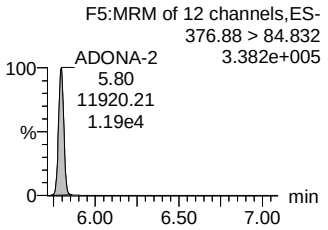
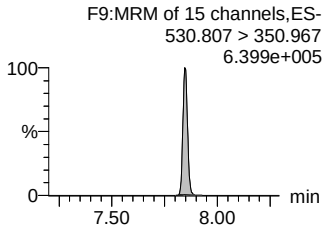



**9Cl-PF3ONS-1**




PVed by GW, SVed by hh 13-Mar-19. NOTE: Unit=ng based on 4 mL extract

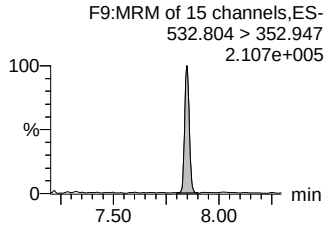
**Quantify Sample Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_097-A1.qld

Last Altered: Tuesday, March 12, 2019 17:19:00 Pacific Daylight Time
Printed: Wednesday, March 13, 2019 09:12:29 Pacific Daylight Time

**ID: FC027D-CAL,, /01, Name: FC9W_097S14, Description: 1,,2uL, Date: 08-Mar-2019, Time: 16:40:24**

**9Cl-PF3ONS-2**

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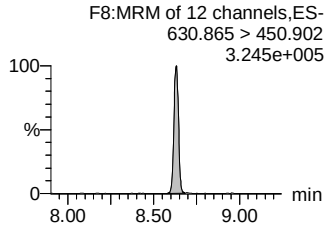


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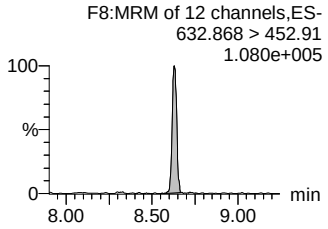


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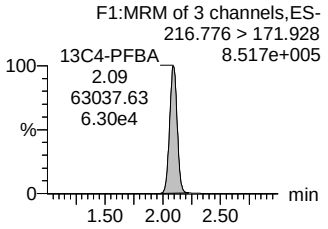


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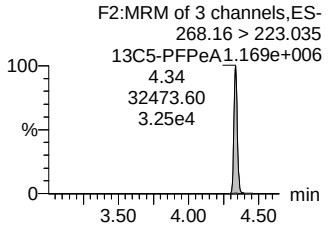


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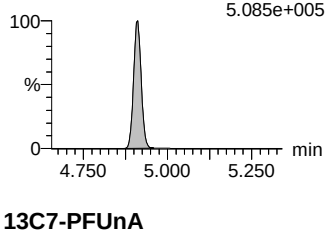


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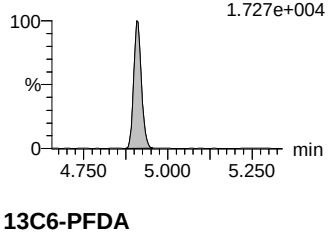
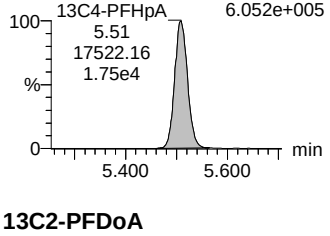
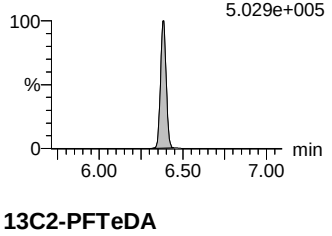


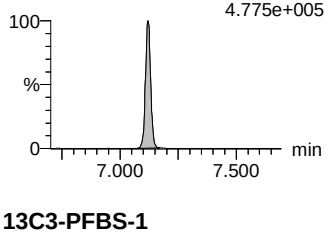

**13C4-PFHpA**



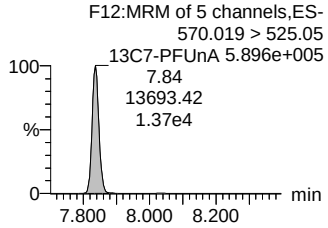

**13C8-PFOA**



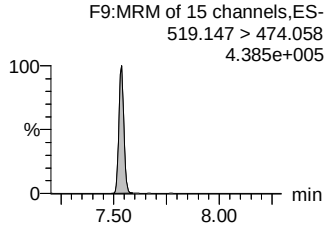

**13C9-PFNA**



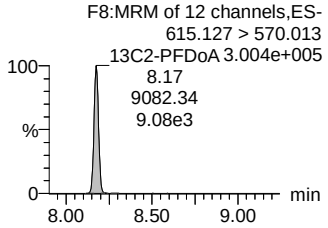

**13C7-PFUnA**



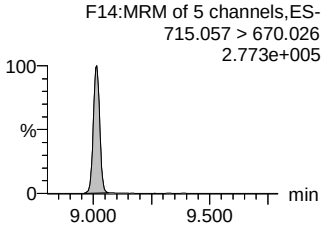

**13C6-PFDA**



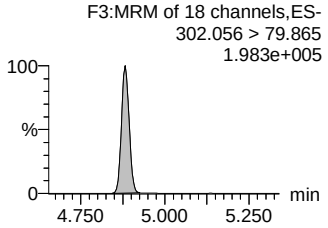

**13C2-PFDoA**




**13C2-PFTeDA**




**13C3-PFBS-1**




PVed by GW, SVed by hh 13-Mar-19. NOTE: Unit=ng based on 4 mL extract

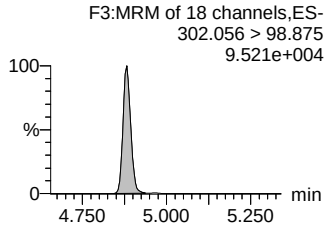
**Quantify Sample Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_097-A1.qld

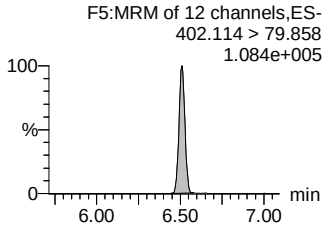
Last Altered: Tuesday, March 12, 2019 17:19:00 Pacific Daylight Time
Printed: Wednesday, March 13, 2019 09:12:29 Pacific Daylight Time

**ID: FC027D-CAL,, /01, Name: FC9W_097S14, Description: 1,,2uL, Date: 08-Mar-2019, Time: 16:40:24**

**13C3-PFBS-2**




**13C3-PFHxS-1**

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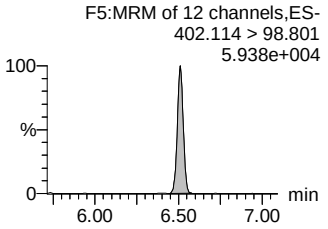
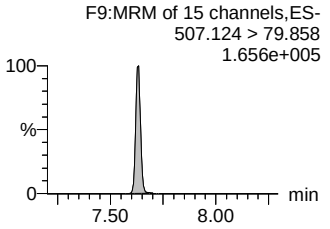



**13C8-PFOS-1**

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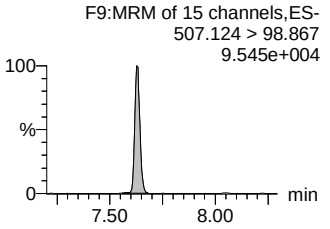
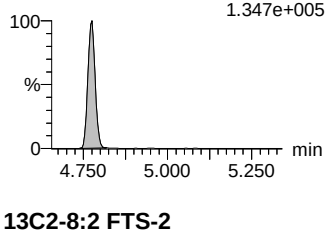
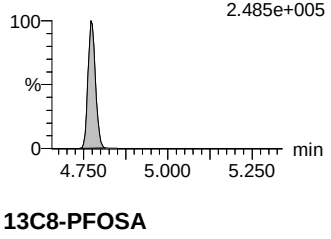


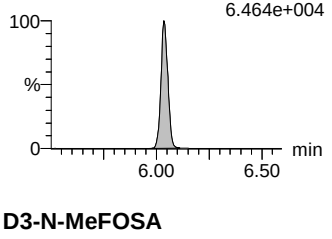

**13C2-4:2 FTS-1**



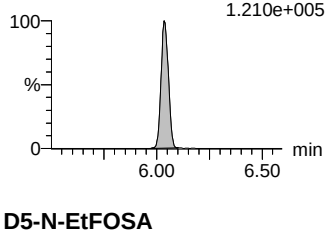

**13C2-4:2 FTS-2**



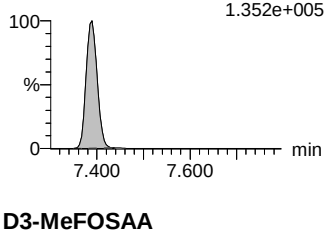

**13C2-6:2 FTS-1**



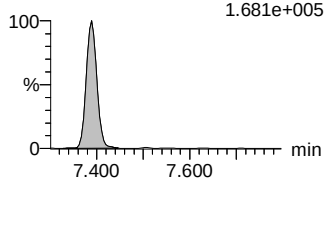

**13C2-6:2 FTS-2**



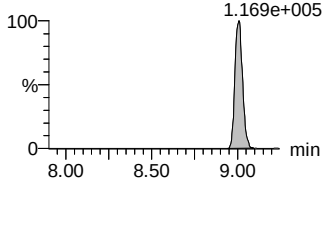

**13C2-8:2 FTS-1**



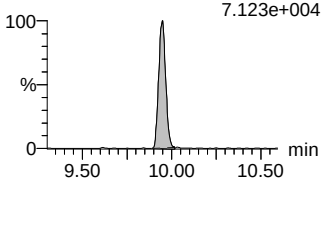

**13C2-8:2 FTS-2**



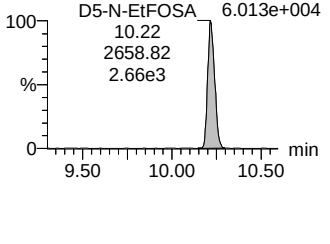

**13C8-PFOSA**



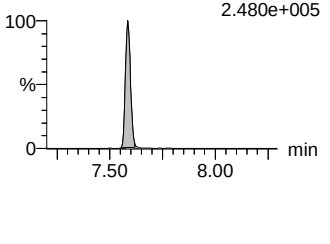

**D3-N-MeFOSA**




**D5-N-EtFOSA**




**D3-MeFOSAA**




PVed by GW, SVed by hh 13-Mar-19. NOTE: Unit=ng based on 4 mL extract

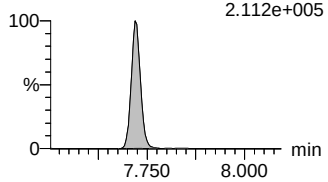
**Quantify Sample Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_097-A1.qld

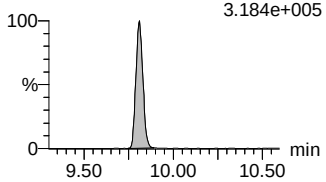
Last Altered: Tuesday, March 12, 2019 17:19:00 Pacific Daylight Time
Printed: Wednesday, March 13, 2019 09:12:29 Pacific Daylight Time

**ID: FC027D-CAL,, /01, Name: FC9W_097S14, Description: 1,,2uL, Date: 08-Mar-2019, Time: 16:40:24**

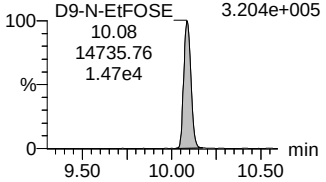
**D5-EtFOSAA**



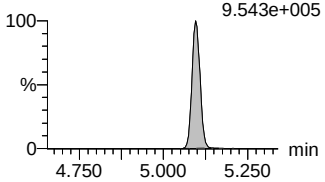

**D7-N-MeFOSE**



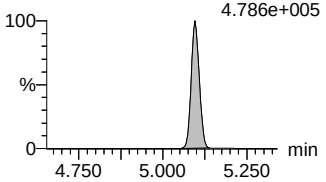

**D9-N-EtFOSE**



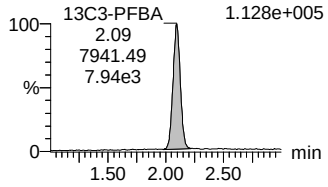

**13C3-HFPO-DA-1**




**13C3-HFPO-DA-2**




**13C3-PFBA**

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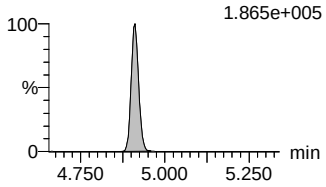
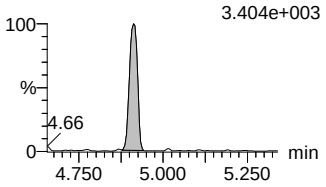
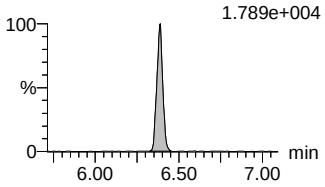


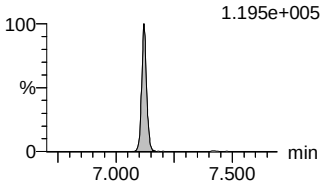

**13C2-PFHxA-2**



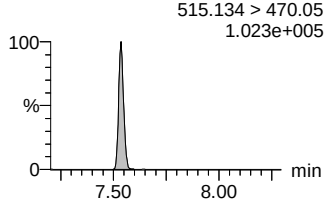

**13C4-PFOA**



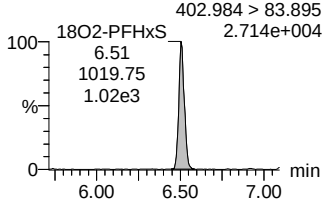

**13C5-PFNA**



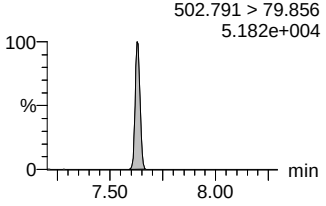

**13C2-PFDA**



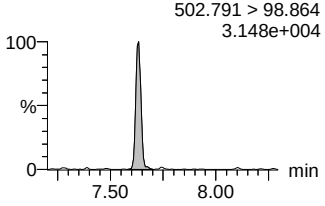

**18O2-PFHxS**




**13C4-PFOS-1**




**13C4-PFOS-2**




PVed by GW, SVed by hh 13-Mar-19. NOTE: Unit=ng based on 4 mL extract

**Quantify Sample Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_097-A1.qld

Last Altered: Tuesday, March 12, 2019 17:19:00 Pacific Daylight Time
Printed: Wednesday, March 13, 2019 09:12:29 Pacific Daylight Time

**ID: FC027D-CAL,, /01, Name: FC9W_097S14, Description: 1,,2uL, Date: 08-Mar-2019, Time: 16:40:24**

| # | Name | IS# | Trace | RT | Area | IS Area | Std. Conc | Conc. | LOD | %Rec | S/N | Noise | Peak Height | IS Height | Sample size | F2 | Flags |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | PFBA | 64 | 212.763 > 168.903 | 2.09 | 11467 | 63038 | 8.200 | 8.516 | | 103.9 | 429 | 361 | 154991 | 849884 | 1.000 | 1.0 | bb |
| 2 | PFPeA-1 | 65 | 262.951 > 218.996 | 4.34 | 7138 | 32474 | 4.090 | 4.357 | | 106.5 | 925 | 284 | 262251 | 1168132 | 1.000 | 1.0 | bb |
| 3 | PFPeA-2 | 65 | 262.951 > 68.925 | 4.34 | 22 | 32474 | 4.090 | 4.078 | 0.3167 | 99.7 | 27 | 21 | 571 | 1168132 | 1.000 | 1.0 | MM |
| 4 | PFHxA-1 | 66 | 313.012 > 269.017 | 4.91 | 2886 | 13102 | 2.050 | 2.327 | | 113.5 | 249 | 446 | 111224 | 507821 | 1.000 | 1.0 | bb |
| 5 | PFHxA-2 | 66 | 313.012 > 118.918 | 4.91 | 319 | 13102 | 2.050 | 2.281 | 0.0522 | 111.3 | 123 | 96 | 11812 | 507821 | 1.000 | 1.0 | bb |
| 6 | PFHpA-1 | 68 | 363.073 > 319.025 | 5.51 | 3415 | 17522 | 2.050 | 2.118 | | 103.3 | 125 | 943 | 117762 | 604112 | 1.000 | 1.0 | bb |
| 7 | PFHpA-2 | 68 | 363.073 > 168.962 | 5.51 | 1050 | 17522 | 2.050 | 2.057 | | 100.4 | 1673 | 21 | 35473 | 604112 | 1.000 | 1.0 | MM |
| 8 | PFOA-1 | 69 | 413.006 > 369.03 | 6.39 | 6403 | 19461 | 2.050 | 2.246 | 0.0001 | 109.6 | 68 | 2440 | 164701 | 501203 | 1.000 | 1.0 | MM |
| 9 | PFOA-2 | 69 | 413.006 > 168.963 | 6.38 | 1828 | 19461 | 2.050 | 2.148 | | 104.8 | 1741 | 28 | 49234 | 501203 | 1.000 | 1.0 | bb |
| 10 | PFNA-1 | 70 | 463.002 > 418.97 | 7.12 | 5075 | 12094 | 2.000 | 2.137 | | 106.9 | 168 | 1141 | 191451 | 476659 | 1.000 | 1.0 | MM |
| 11 | PFNA-2 | 70 | 463.002 > 218.968 | 7.12 | 1303 | 12094 | 2.000 | 2.167 | | 108.3 | 1009 | 53 | 53443 | 476659 | 1.000 | 1.0 | bb |
| 12 | PFDA-1 | 72 | 512.935 > 469.021 | 7.54 | 3757 | 11654 | 2.000 | 1.999 | | 100.0 | 81 | 1708 | 138121 | 438068 | 1.000 | 1.0 | bb |
| 13 | PFDA-2 | 72 | 512.935 > 218.972 | 7.54 | 798 | 11654 | 2.000 | 1.799 | | 89.9 | 2780 | 11 | 29918 | 438068 | 1.000 | 1.0 | MM |
| 14 | PFUnA-1 | 71 | 563.124 > 519.003 | 7.84 | 3762 | 13693 | 2.000 | 2.140 | | 107.0 | 133 | 1154 | 153510 | 589103 | 1.000 | 1.0 | bb |
| 15 | PFUnA-2 | 71 | 563.124 > 269.051 | 7.84 | 645 | 13693 | 2.000 | 2.014 | | 100.7 | 2190 | 13 | 28856 | 589103 | 1.000 | 1.0 | bb |
| 16 | PFDoA-1 | 73 | 613.057 > 569.045 | 8.17 | 4004 | 9082 | 2.000 | 2.039 | | 101.9 | 88 | 1446 | 127292 | 300273 | 1.000 | 1.0 | bb |
| 17 | PFDoA-2 | 73 | 613.057 > 318.996 | 8.17 | 514 | 9082 | 2.000 | 2.267 | | 113.4 | 1138 | 15 | 16815 | 300273 | 1.000 | 1.0 | MM |
| 18 | PFTrDA-1 | 74 | 663.053 > 619.023 | 8.59 | 3311 | 8735 | 2.000 | 2.200 | | 110.0 | 111 | 1042 | 115922 | 276204 | 1.000 | 1.0 | bb |
| 19 | PFTrDA-2 | 74 | 663.053 > 168.949 | 8.59 | 536 | 8735 | 2.000 | 1.978 | | 98.9 | 439 | 43 | 19050 | 276204 | 1.000 | 1.0 | MM |
| 20 | PFTeDA-1 | 74 | 713.05 > 669. | 9.01 | 2662 | 8735 | 2.000 | 2.153 | | 107.7 | 129 | 681 | 87714 | 276204 | 1.000 | 1.0 | MM |
| 21 | PFTeDA-2 | 74 | 713.05 > 168.94 | 9.01 | 536 | 8735 | 2.000 | 2.103 | | 105.1 | 891 | 19 | 17091 | 276204 | 1.000 | 1.0 | bb |
| 22 | PFBS-1 | 75 | 298.663 > 79.865 | 4.88 | 1240 | 5159 | 2.050 | 2.096 | 0.0021 | 102.2 | 5616 | 9 | 49825 | 197665 | 1.000 | 1.0 | bb |
| 23 | PFBS-2 | 76 | 298.663 > 98.811 | 4.88 | 680 | 2490 | 2.050 | 2.266 | 0.0022 | 110.5 | 149 | 177 | 26250 | 95095 | 1.000 | 1.0 | bb |
| 24 | PFPeS-1 | 77 | 349.107 > 79.857 | 5.56 | 853 | 4359 | 1.900 | 1.991 | | 104.8 | 219 | 119 | 26095 | 108184 | 1.000 | 1.0 | bb |
| 25 | PFPeS-2 | 78 | 349.107 > 98.871 | 5.56 | 500 | 2381 | 1.900 | 1.979 | | 104.2 | 210 | 75 | 15688 | 59316 | 1.000 | 1.0 | bb |
| 26 | PFHxS-1 | 77 | 398.721 > 79.92 | 6.51 | 1043 | 4359 | 2.050 | 2.037 | 0.2021 | 99.4 | 58 | 398 | 22941 | 108184 | 1.000 | 1.0 | MM |
| 27 | PFHxS-2 | 78 | 398.721 > 98.863 | 6.51 | 646 | 2381 | 2.050 | 2.113 | 0.0961 | 103.1 | 33 | 413 | 13653 | 59316 | 1.000 | 1.0 | MM |
| 28 | PFHpS-1 | 79 | 449.036 > 79.857 | 7.23 | 815 | 4353 | 1.900 | 1.903 | | 100.1 | 2142 | 13 | 28211 | 165304 | 1.000 | 1.0 | bb |
| 29 | PFHpS-2 | 80 | 449.036 > 98.8 | 7.23 | 484 | 2672 | 1.900 | 1.932 | 0.0414 | 101.7 | 184 | 101 | 18608 | 95220 | 1.000 | 1.0 | bb |
| 30 | PFOS-1 | 79 | 498.906 > 79.856 | 7.63 | 1078 | 4353 | 2.050 | 2.091 | | 102.0 | 2070 | 18 | 36702 | 165304 | 1.000 | 1.0 | MM |
| 31 | PFOS-2 | 80 | 498.906 > 98.801 | 7.63 | 533 | 2672 | 2.050 | 2.027 | | 98.9 | 106 | 174 | 18394 | 95220 | 1.000 | 1.0 | MM |
| 32 | PFNS-1 | 79 | 548.775 > 79.858 | 7.95 | 924 | 4353 | 1.900 | 1.751 | | 92.2 | 4195 | 8 | 31863 | 165304 | 1.000 | 1.0 | MM |
| 33 | PFNS-2 | 80 | 548.775 > 98.801 | 7.95 | 584 | 2672 | 1.900 | 2.042 | | 107.5 | 927 | 23 | 20942 | 95220 | 1.000 | 1.0 | bb |
| 34 | PFDS-1 | 79 | 599.027 > 79.92 | 8.33 | 901 | 4353 | 2.050 | 2.246 | | 109.6 | 649 | 53 | 34583 | 165304 | 1.000 | 1.0 | MM |
| 35 | PFDS-2 | 80 | 599.027 > 98.8 | 8.33 | 452 | 2672 | 2.050 | 2.088 | 0.1411 | 101.9 | 128 | 122 | 15578 | 95220 | 1.000 | 1.0 | MM |

PVed by GW, SVed by hh 13-Mar-19. NOTE: Unit=ng based on 4 mL extract

**Quantify Sample Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_097-A1.qld

Last Altered: Tuesday, March 12, 2019 17:19:00 Pacific Daylight Time
Printed: Wednesday, March 13, 2019 09:12:29 Pacific Daylight Time

**ID: FC027D-CAL,, /01, Name: FC9W_097S14, Description: 1,,2uL, Date: 08-Mar-2019, Time: 16:40:24**

| # | Name | IS# | Trace | RT | Area | IS Area | Std. Conc | Conc. | LOD | %Rec | S/N | Noise | Peak Height | IS Height | Sample size | F2 | Flags |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 36 | PFDoS-1 | 79 | 699.084 > 79.856 | 9.18 | 622 | 4353 | 1.900 | 1.828 | | 96.2 | 1168 | 18 | 21280 | 165304 | 1.000 | 1.0 | bb |
| 37 | PFDoS-2 | 80 | 699.084 > 98.8 | 9.19 | 381 | 2672 | 1.900 | 1.868 | | 98.3 | 258 | 48 | 12277 | 95220 | 1.000 | 1.0 | bb |
| 38 | 4:2 FTS-1 | 81 | 327.077 > 307.017 | 4.78 | 1826 | 3307 | 8.000 | 7.413 | | 92.7 | 9797 | 7 | 71000 | 134445 | 1.000 | 1.0 | bb |
| 39 | 4:2 FTS-2 | 81 | 327.077 > 80.85 | 4.78 | 1131 | 3307 | 8.000 | 7.594 | 0.0812 | 94.9 | 947 | 44 | 42092 | 134445 | 1.000 | 1.0 | bb |
| 40 | 6:2 FTS-1 | 83 | 427.071 > 407.024 | 6.04 | 1790 | 2400 | 7.200 | 7.818 | | 108.6 | 3980 | 12 | 49309 | 64539 | 1.000 | 1.0 | MM |
| 41 | 6:2 FTS-2 | 83 | 427.071 > 80.9 | 6.04 | 1031 | 2400 | 7.200 | 7.545 | 0.0360 | 104.8 | 4317 | 6 | 27657 | 64539 | 1.000 | 1.0 | MM |
| 42 | 8:2 FTS-1 | 85 | 527.065 > 506.997 | 7.39 | 1912 | 3668 | 8.000 | 9.421 | | 117.8 | 3484 | 20 | 68501 | 135109 | 1.000 | 1.0 | MM |
| 43 | 8:2 FTS-2 | 85 | 527.065 > 80.75 | 7.39 | 866 | 3668 | 8.000 | 8.862 | | 110.8 | 642 | 48 | 31129 | 135109 | 1.000 | 1.0 | bb |
| 44 | PFOSA-1 | 87 | 498.113 > 77.902 | 9.01 | 1124 | 5915 | 2.050 | 2.102 | 0.0911 | 102.5 | 589 | 41 | 23897 | 116836 | 1.000 | 1.0 | MM |
| 45 | PFOSA-2 | 87 | 498.113 > 477.993 | 8.99 | 8 | 5915 | 2.050 | 2.583 | 2.1486 | 126.0 | 24 | 21 | 499 | 116836 | 1.000 | 1.0 | MM |
| 46 | N-MeFOSA-1 | 88 | 511.937 > 218.985 | 9.95 | 729 | 3264 | 2.300 | 2.360 | | 102.6 | 263 | 58 | 15270 | 71483 | 1.000 | 1.0 | MM |
| 47 | N-MeFOSA-2 | 88 | 511.937 > 168.955 | 9.95 | 1167 | 3264 | 2.300 | 2.532 | | 110.1 | 357 | 63 | 22440 | 71483 | 1.000 | 1.0 | MM |
| 48 | N-EtFOSA-1 | 89 | 526.017 > 218.977 | 10.23 | 1567 | 2659 | 5.000 | 4.914 | | 98.3 | 67 | 355 | 23887 | 60008 | 1.000 | 1.0 | MM |
| 49 | N-EtFOSA-2 | 89 | 526.017 > 168.95 | 10.23 | 2294 | 2659 | 5.000 | 5.009 | 0.0169 | 100.2 | 205 | 187 | 38426 | 60008 | 1.000 | 1.0 | MM |
| 50 | MeFOSAA-1 | 90 | 570.134 > 419.035 | 7.59 | 602 | 6613 | 2.000 | 1.882 | | 94.1 | 307 | 63 | 19228 | 245885 | 1.000 | 1.0 | MM |
| 51 | MeFOSAA-2 | 90 | 570.134 > 482.99 | 7.58 | 358 | 6613 | 2.000 | 2.358 | | 117.9 | 201 | 64 | 12857 | 245885 | 1.000 | 1.0 | MM |
| 52 | EtFOSAA-1 | 91 | 584.15 > 419.062 | 7.73 | 541 | 5770 | 2.000 | 2.499 | 0.0662 | 124.9 | 1488 | 12 | 18200 | 211486 | 1.000 | 1.0 | MM |
| 53 | EtFOSAA-2 | 91 | 584.15 > 526.045 | 7.72 | 492 | 5770 | 2.000 | 2.498 | 0.1221 | 124.9 | 1259 | 14 | 17706 | 211486 | 1.000 | 1.0 | MM |
| 54 | N-MeFOSE | 92 | 616.112 > 58.894 | 9.83 | 2829 | 14175 | 20.400 | 21.100 | | 103.4 | 325 | 169 | 55049 | 317588 | 1.000 | 1.0 | MM |
| 55 | N-EtFOSE | 93 | 630. > 58.893 | 10.11 | 3087 | 14736 | 15.300 | 16.301 | | 106.5 | 199 | 272 | 54109 | 319590 | 1.000 | 1.0 | MM |
| 56 | HFPO-DA-1 | 94 | 284.8894 > 168.... | 5.10 | 5368 | 26474 | 8.000 | 8.591 | | 107.4 | 111... | 17 | 190618 | 953955 | 1.000 | 1.0 | bb |
| 57 | HFPO-DA-2 | 95 | 284.8894 > 184.... | 5.10 | 2657 | 13144 | 8.000 | 8.724 | | 109.0 | 607 | 155 | 94074 | 477527 | 1.000 | 1.0 | bb |
| 58 | ADONA-1 | 94 | 376.88 > 250.937 | 5.80 | 35796 | 26474 | 8.000 | 8.287 | | 103.6 | 4296 | 234 | 1004388 | 953955 | 1.000 | 1.0 | bb |
| 59 | ADONA-2 | 95 | 376.88 > 84.832 | 5.80 | 11920 | 13144 | 8.000 | 8.126 | 0.5284 | 101.6 | 6112 | 55 | 337160 | 477527 | 1.000 | 1.0 | bb |
| 60 | 9Cl-PF3ONS-1 | 94 | 530.807 > 350.967 | 7.85 | 15707 | 26474 | 8.000 | 9.000 | | 112.5 | 2292 | 277 | 635639 | 953955 | 1.000 | 1.0 | MM |
| 61 | 9Cl-PF3ONS-2 | 95 | 532.804 > 352.947 | 7.85 | 5277 | 13144 | 8.000 | 9.531 | | 119.1 | 358 | 587 | 209896 | 477527 | 1.000 | 1.0 | bb |
| 62 | 11Cl-PF3OUdS-1 | 94 | 630.865 > 450.902 | 8.63 | 9872 | 26474 | 8.000 | 8.508 | | 106.4 | 748 | 433 | 323971 | 953955 | 1.000 | 1.0 | bb |
| 63 | 11Cl-PF3OUdS-2 | 95 | 632.868 > 452.91 | 8.63 | 3216 | 13144 | 8.000 | 8.360 | 0.0358 | 104.5 | 371 | 290 | 107536 | 477527 | 1.000 | 1.0 | bb |
| 64 | 13C4-PFBA | 96 | 216.776 > 171.928 | 2.09 | 63038 | 7941 | 40.000 | 38.769 | 0.0153 | 96.9 | 7377 | 115 | 849884 | 110463 | 1.000 | 1.0 | bb |
| 65 | 13C5-PFPeA | 97 | 268.16 > 223.035 | 4.34 | 32474 | 4723 | 20.000 | 21.187 | 0.0070 | 105.9 | 8333 | 140 | 1168132 | 186198 | 1.000 | 1.0 | MM |
| 66 | 13C5-PFHxA-1 | 97 | 318.029 > 272.993 | 4.91 | 13102 | 4723 | 10.000 | 9.849 | 0.0199 | 98.5 | 1458 | 348 | 507821 | 186198 | 1.000 | 1.0 | bb |
| 67 | 13C5-PFHxA-2 | 97 | 318.029 > 120.341 | 4.91 | 452 | 4723 | 10.000 | 9.995 | 0.0162 | 100.0 | 1793 | 10 | 17247 | 186198 | 1.000 | 1.0 | bb |
| 68 | 13C4-PFHpA | 99 | 367.086 > 322.004 | 5.51 | 17522 | 727 | 10.000 | 11.076 | 0.0115 | 110.8 | 4051 | 149 | 604112 | 17864 | 1.000 | 1.0 | bb |
| 69 | 13C8-PFOA | 99 | 421.096 > 376.022 | 6.38 | 19461 | 727 | 10.000 | 10.707 | 0.0065 | 107.1 | 5176 | 97 | 501203 | 17864 | 1.000 | 1.0 | bb |
| 70 | 13C9-PFNA | 100 | 472.096 > 427.014 | 7.12 | 12094 | 2823 | 5.000 | 4.932 | 0.0087 | 98.6 | 1584 | 301 | 476659 | 119469 | 1.000 | 1.0 | bb |

PVed by GW, SVed by hh 13-Mar-19. NOTE: Unit=ng based on 4 mL extract

**Quantify Sample Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_097-A1.qld

Last Altered: Tuesday, March 12, 2019 17:19:00 Pacific Daylight Time
Printed: Wednesday, March 13, 2019 09:12:29 Pacific Daylight Time

**ID: FC027D-CAL,, /01, Name: FC9W_097S14, Description: 1,,2uL, Date: 08-Mar-2019, Time: 16:40:24**

| # | Name | IS# | Trace | RT | Area | IS Area | Std. Conc | Conc. | LOD | %Rec | S/N | Noise | Peak Height | IS Height | Sample size | F2 | Flags |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 71 | 13C7-PFUnA | 101 | 570.019 > 525.05 | 7.84 | 13693 | 2694 | 5.000 | 5.683 | 0.0050 | 113.7 | 3876 | 152 | 589103 | 102282 | 1.000 | 1.0 | MM |
| 72 | 13C6-PFDA | 101 | 519.147 > 474.058 | 7.54 | 11654 | 2694 | 5.000 | 5.748 | 0.0101 | 115.0 | 1694 | 259 | 438068 | 102282 | 1.000 | 1.0 | bb |
| 73 | 13C2-PFDoA | 101 | 615.127 > 570.013 | 8.17 | 9082 | 2694 | 5.000 | 5.281 | 0.0098 | 105.6 | 1403 | 214 | 300273 | 102282 | 1.000 | 1.0 | MM |
| 74 | 13C2-PFTeDA | 101 | 715.057 > 670.026 | 9.01 | 8735 | 2694 | 5.000 | 5.177 | 0.0205 | 103.5 | 631 | 438 | 276204 | 102282 | 1.000 | 1.0 | bb |
| 75 | 13C3-PFBS-1 | 102 | 302.056 > 79.865 | 4.88 | 5159 | 1020 | 10.000 | 10.509 | 0.0250 | 105.1 | 1815 | 109 | 197665 | 27097 | 1.000 | 1.0 | bb |
| 76 | 13C3-PFBS-2 | 102 | 302.056 > 98.875 | 4.88 | 2490 | 1020 | 10.000 | 10.491 | 0.0081 | 104.9 | 5552 | 17 | 95095 | 27097 | 1.000 | 1.0 | bb |
| 77 | 13C3-PFHxS-1 | 102 | 402.114 > 79.858 | 6.51 | 4359 | 1020 | 10.000 | 10.303 | 0.0025 | 103.0 | 113... | 10 | 108184 | 27097 | 1.000 | 1.0 | bb |
| 78 | 13C3-PFHxS-2 | 102 | 402.114 > 98.801 | 6.51 | 2381 | 1020 | 10.000 | 10.100 | 0.0151 | 101.0 | 1885 | 31 | 59316 | 27097 | 1.000 | 1.0 | bb |
| 79 | 13C8-PFOS-1 | 103 | 507.124 > 79.858 | 7.63 | 4353 | 1342 | 10.000 | 10.247 | 0.0092 | 102.5 | 3273 | 50 | 165304 | 51738 | 1.000 | 1.0 | MM |
| 80 | 13C8-PFOS-2 | 104 | 507.124 > 98.867 | 7.63 | 2672 | 904 | 10.000 | 9.424 | 0.0176 | 94.2 | 1647 | 58 | 95220 | 31459 | 1.000 | 1.0 | bb |
| 81 | 13C2-4:2 FTS-1 | 102 | 329.084 > 80.9 | 4.78 | 3307 | 1020 | 20.000 | 22.830 | 0.0132 | 114.1 | 7934 | 17 | 134445 | 27097 | 1.000 | 1.0 | bb |
| 82 | 13C2-4:2 FTS-2 | 102 | 329.084 > 309.024 | 4.77 | 6288 | 1020 | 20.000 | 18.600 | 0.0560 | 93.0 | 1478 | 168 | 247872 | 27097 | 1.000 | 1.0 | bb |
| 83 | 13C2-6:2 FTS-1 | 102 | 429.078 > 80.900 | 6.03 | 2400 | 1020 | 20.000 | 20.510 | 0.0154 | 102.5 | 4048 | 16 | 64539 | 27097 | 1.000 | 1.0 | bb |
| 84 | 13C2-6:2 FTS-2 | 102 | 429.078 > 409.031 | 6.03 | 4773 | 1020 | 20.000 | 17.812 | 0.0035 | 89.1 | 145... | 8 | 120772 | 27097 | 1.000 | 1.0 | bb |
| 85 | 13C2-8:2 FTS-1 | 102 | 529.1351 > 80.900 | 7.39 | 3668 | 1020 | 20.000 | 20.978 | 0.0713 | 104.9 | 1223 | 110 | 135109 | 27097 | 1.000 | 1.0 | MM |
| 86 | 13C2-8:2 FTS-2 | 102 | 529.135 > 509.003 | 7.39 | 4428 | 1020 | 20.000 | 18.826 | 0.0005 | 94.1 | 167... | 1 | 167897 | 27097 | 1.000 | 1.0 | bb |
| 87 | 13C8-PFOSA | 103 | 506.14 > 77.841 | 9.01 | 5915 | 1342 | 10.000 | 8.807 | 0.0016 | 88.1 | 8334 | 14 | 116836 | 51738 | 1.000 | 1.0 | bb |
| 88 | D3-N-MeFOSA | 103 | 514.956 > 218.974 | 9.95 | 3264 | 1342 | 10.000 | 9.413 | 0.0185 | 94.1 | 868 | 82 | 71483 | 51738 | 1.000 | 1.0 | MM |
| 89 | D5-N-EtFOSA | 103 | 531.112 > 218.984 | 10.22 | 2659 | 1342 | 10.000 | 9.082 | 0.0213 | 90.8 | 749 | 80 | 60008 | 51738 | 1.000 | 1.0 | bb |
| 90 | D3-MeFOSAA | 103 | 573.153 > 418.99 | 7.58 | 6613 | 1342 | 20.000 | 17.729 | 0.1021 | 88.6 | 502 | 490 | 245885 | 51738 | 1.000 | 1.0 | MM |
| 91 | D5-EtFOSAA | 103 | 589.245 > 418.971 | 7.72 | 5770 | 1342 | 20.000 | 18.515 | 0.0692 | 92.6 | 763 | 277 | 211486 | 51738 | 1.000 | 1.0 | MM |
| 92 | D7-N-MeFOSE | 103 | 623.156 > 58.896 | 9.81 | 14175 | 1342 | 100.000 | 88.532 | 0.0805 | 88.5 | 1916 | 166 | 317588 | 51738 | 1.000 | 1.0 | bb |
| 93 | D9-N-EtFOSE | 103 | 639.184 > 58.897 | 10.08 | 14736 | 1342 | 100.000 | 88.856 | 0.0860 | 88.9 | 1743 | 183 | 319590 | 51738 | 1.000 | 1.0 | bb |
| 94 | 13C3-HFPO-DA-1 | 97 | 286.8631 > 168.... | 5.10 | 26474 | 4723 | 40.000 | 43.337 | 0.0387 | 108.3 | 3068 | 311 | 953955 | 186198 | 1.000 | 1.0 | MM |
| 95 | 13C3-HFPO-DA-2 | 97 | 286.8631 > 184.... | 5.10 | 13144 | 4723 | 40.000 | 43.926 | 0.0399 | 109.8 | 3044 | 157 | 477527 | 186198 | 1.000 | 1.0 | bb |
| 96 | 13C3-PFBA | | 216.029 > 171.97 | 2.09 | 7941 | | 5.000 | 5.673 | 0.0375 | 113.5 | 454 | 244 | 110463 | | 1.000 | 1.0 | bb |
| 97 | 13C2-PFHxA-1 | | 315.083 > 269.984 | 4.91 | 4723 | | 2.500 | 2.646 | 0.0033 | 105.8 | 2389 | 78 | 186198 | | 1.000 | 1.0 | bb |
| 98 | 13C2-PFHxA-2 | | 315.083 > 119.359 | 4.91 | 93 | | 2.500 | 1.724 | 0.0196 | 68.9 | 264 | 13 | 3371 | | 1.000 | 1.0 | bb |
| 99 | 13C4-PFOA | | 417.083 > 171.95 | 6.39 | 727 | | 2.500 | 2.421 | 0.0042 | 96.8 | 1745 | 10 | 17864 | | 1.000 | 1.0 | bb |
| 1... | 13C5-PFNA | | 468.019 > 423.008 | 7.12 | 2823 | | 1.250 | 1.384 | 0.0042 | 110.7 | 998 | 120 | 119469 | | 1.000 | 1.0 | bb |
| 1... | 13C2-PFDA | | 515.134 > 470.05 | 7.54 | 2694 | | 1.250 | 1.184 | 0.0013 | 94.7 | 2711 | 38 | 102282 | | 1.000 | 1.0 | bb |
| 1... | 18O2-PFHxS | | 402.984 > 83.895 | 6.51 | 1020 | | 2.500 | 2.596 | 0.0145 | 103.8 | 536 | 51 | 27097 | | 1.000 | 1.0 | bb |
| 1... | 13C4-PFOS-1 | | 502.791 > 79.856 | 7.63 | 1342 | | 2.500 | 2.757 | 0.0022 | 110.3 | 3831 | 14 | 51738 | | 1.000 | 1.0 | bb |
| 1... | 13C4-PFOS-2 | | 502.791 > 98.864 | 7.63 | 904 | | 2.500 | 2.894 | 0.0267 | 115.8 | 326 | 97 | 31459 | | 1.000 | 1.0 | bb |

PVed by GW, SVed by hh 13-Mar-19. NOTE: Unit=ng based on 4 mL extract

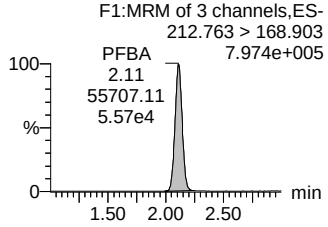
**Quantify Sample Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_097-A1.qld

Last Altered: Tuesday, March 12, 2019 17:19:00 Pacific Daylight Time
Printed: Wednesday, March 13, 2019 09:12:29 Pacific Daylight Time

**ID: FC027E-CAL,, /01, Name: FC9W_097S15, Description: 1,,2uL, Date: 08-Mar-2019, Time: 16:53:43**

**PFBA**

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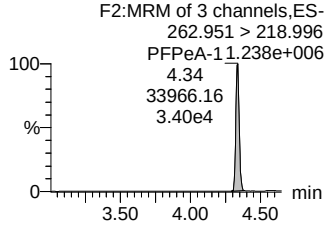
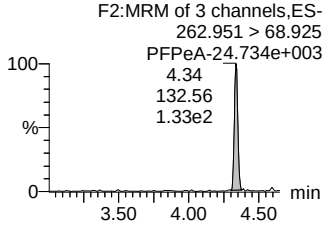



**PFPeA-2**

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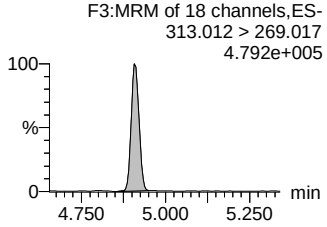


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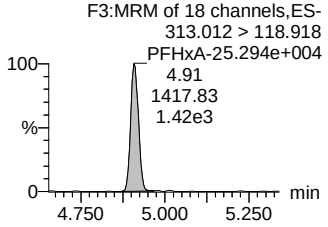


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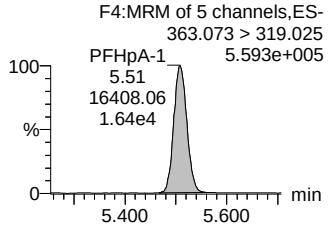


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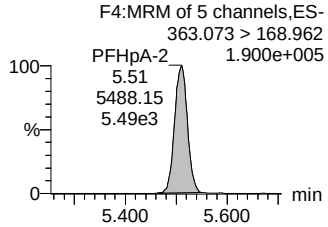


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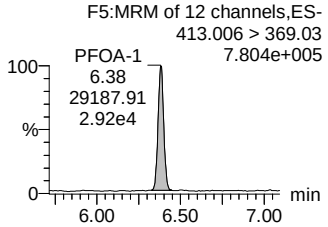


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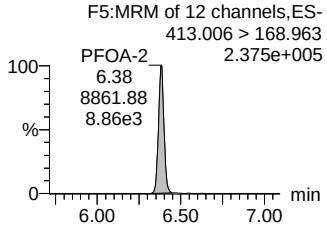


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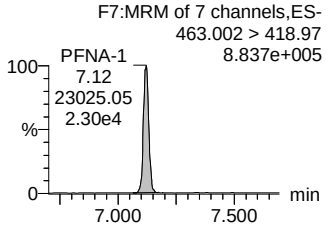


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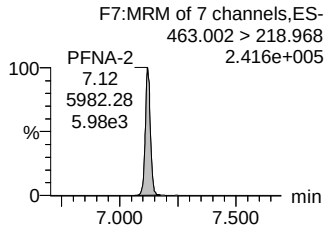


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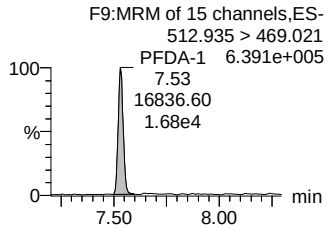


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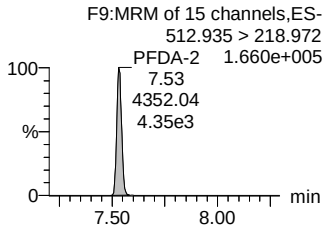


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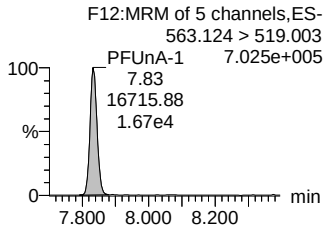


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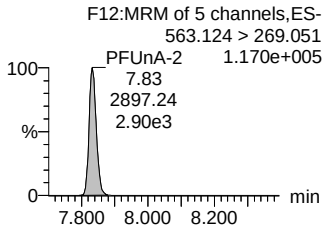


PVed by GW, SVed by hh 13-Mar-19. NOTE: Unit=ng based on 4 mL extract

**Quantify Sample Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_097-A1.qld

Last Altered: Tuesday, March 12, 2019 17:19:00 Pacific Daylight Time
Printed: Wednesday, March 13, 2019 09:12:29 Pacific Daylight Time

**ID: FC027E-CAL,, /01, Name: FC9W_097S15, Description: 1,,2uL, Date: 08-Mar-2019, Time: 16:53:43**

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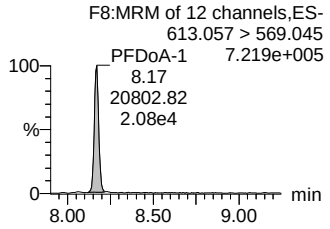


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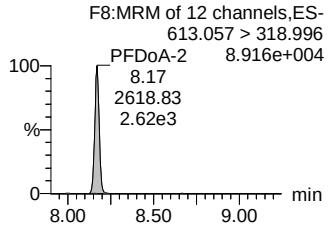


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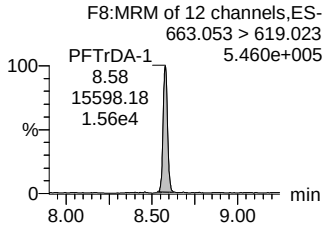


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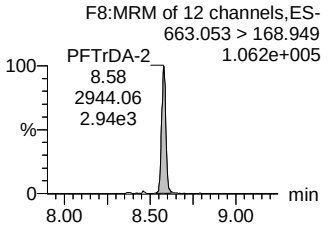


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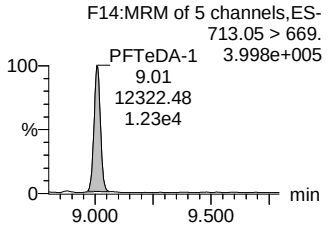


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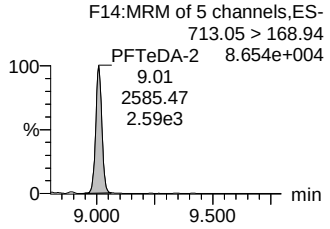


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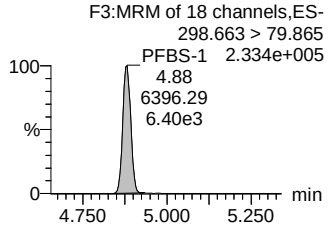


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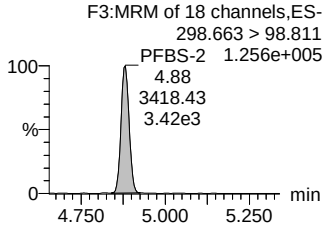


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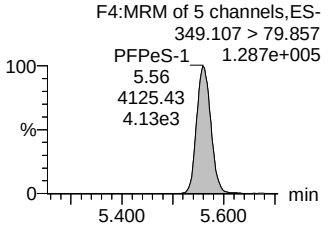


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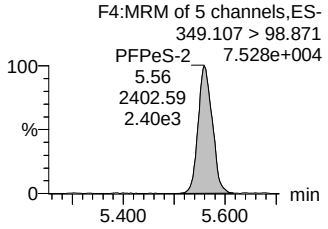


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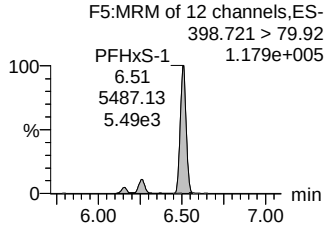


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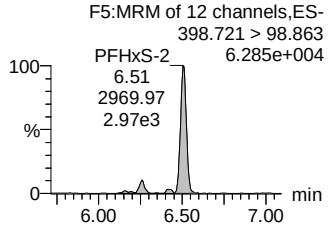


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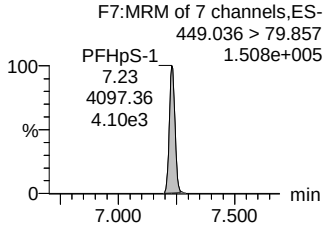


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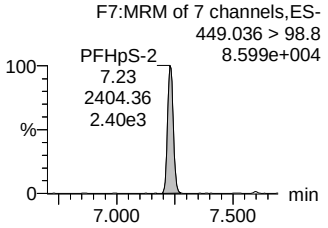


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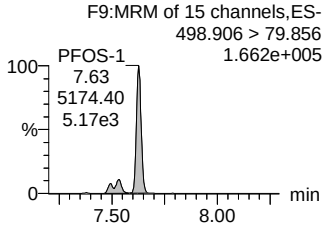


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**Quantify Sample Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

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**ID: FC027E-CAL,, /01, Name: FC9W_097S15, Description: 1,,2uL, Date: 08-Mar-2019, Time: 16:53:43**

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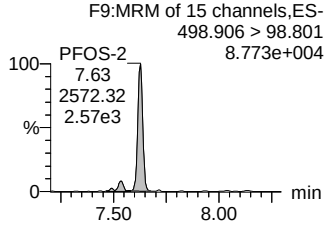


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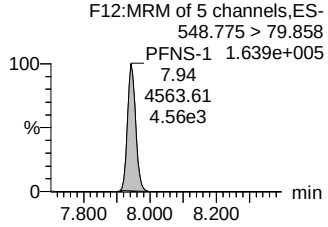


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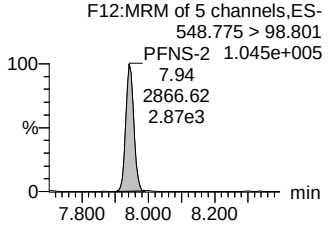


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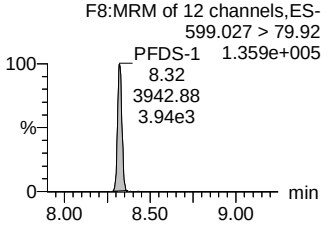


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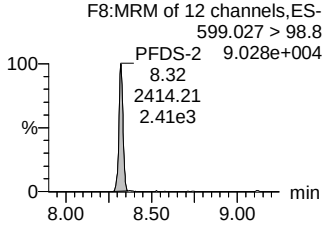


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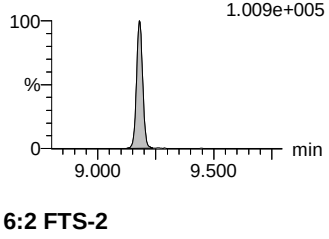


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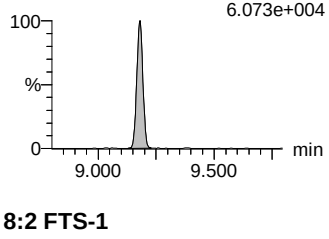


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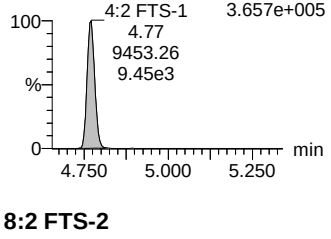


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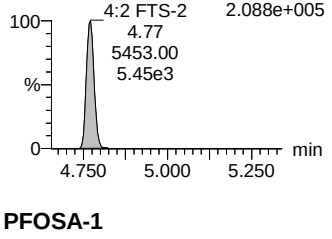


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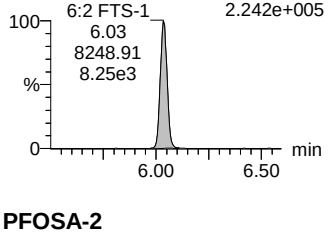


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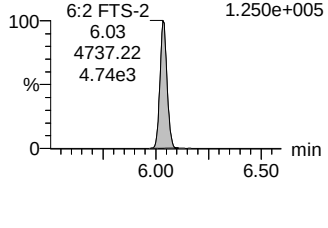


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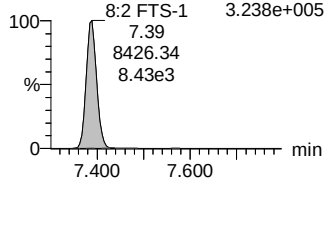


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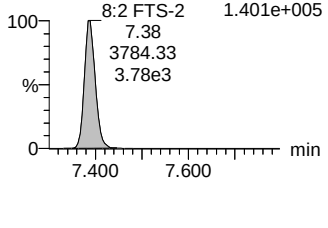


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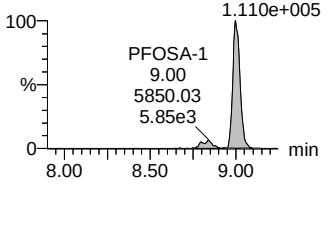


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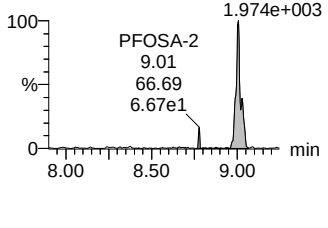


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**Quantify Sample Report** **MassLynx MassLynx V4.1 SCN909**
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**ID: FC027E-CAL,, /01, Name: FC9W_097S15, Description: 1,,2uL, Date: 08-Mar-2019, Time: 16:53:43**

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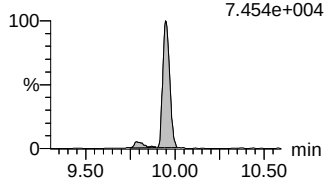


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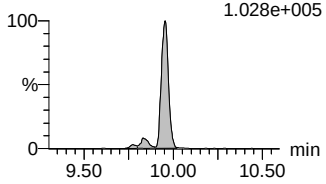


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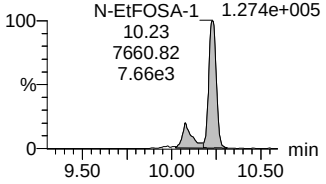


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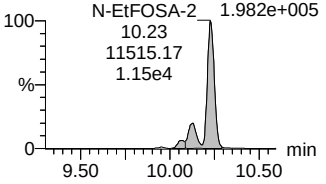


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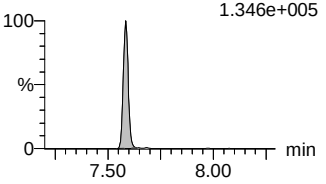


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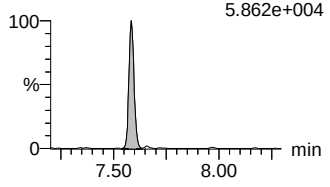


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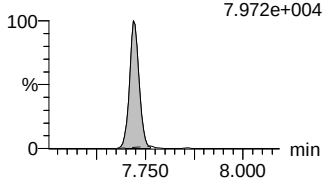


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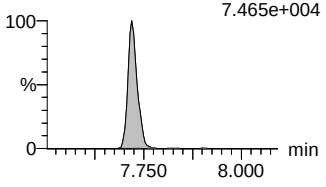


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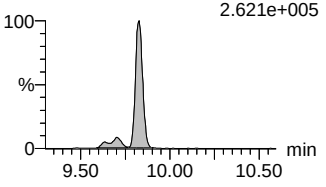


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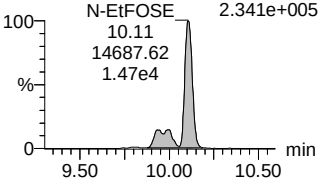


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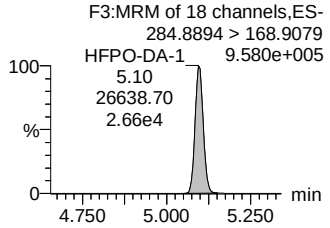


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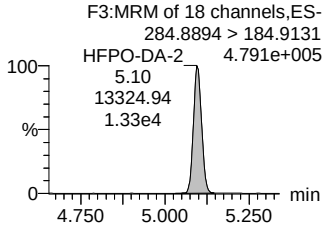


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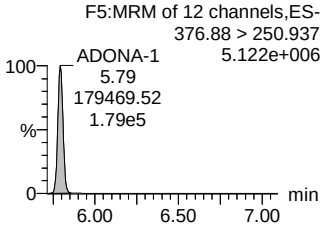


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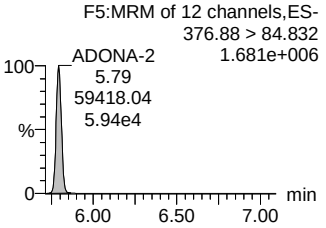


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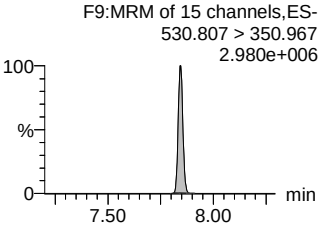


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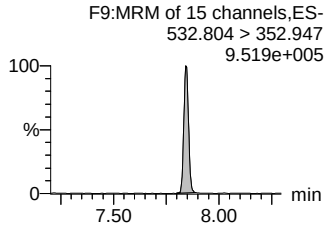
**9Cl-PF3ONS-2**

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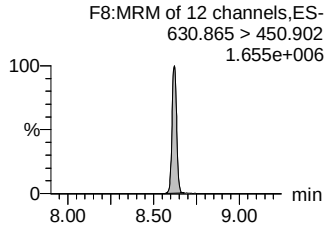


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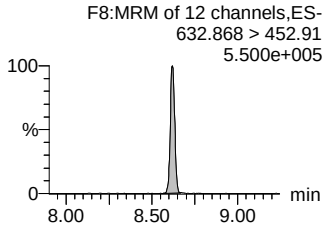


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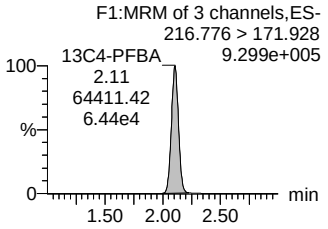
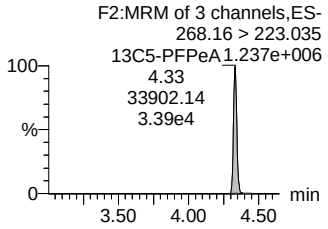
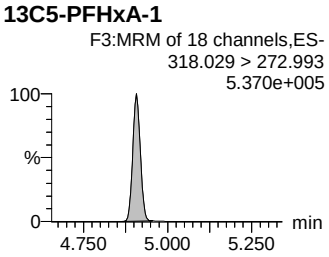



**13C5-PFPeA**




**13C5-PFHxA-1**

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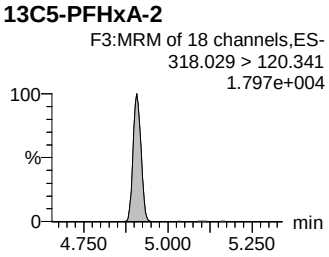
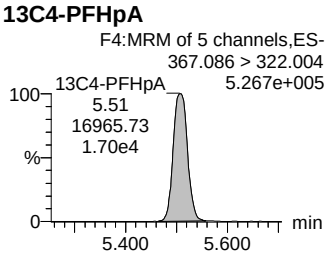
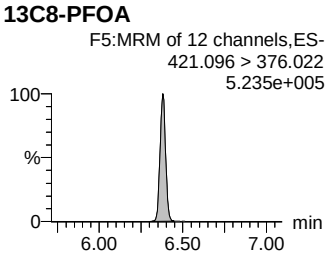


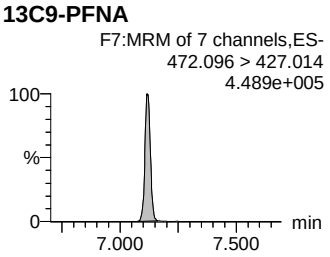

**13C4-PFHpA**



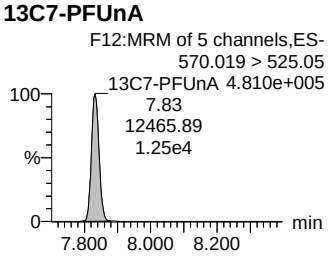

**13C8-PFOA**



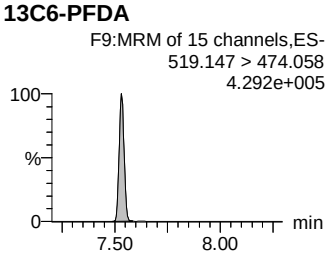

**13C9-PFNA**



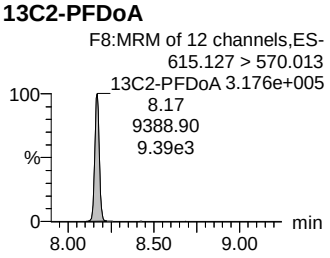

**13C7-PFUnA**



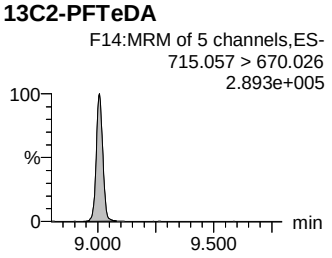

**13C6-PFDA**



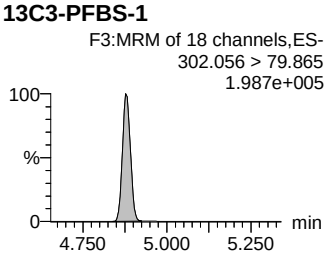

**13C2-PFDoA**




**13C2-PFTeDA**




**13C3-PFBS-1**




PVed by GW, SVed by hh 13-Mar-19. NOTE: Unit=ng based on 4 mL extract

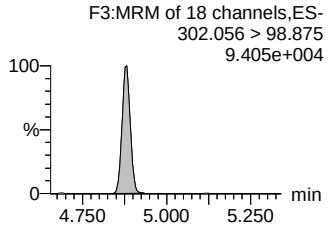
**Quantify Sample Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_097-A1.qld

Last Altered: Tuesday, March 12, 2019 17:19:00 Pacific Daylight Time
Printed: Wednesday, March 13, 2019 09:12:29 Pacific Daylight Time

**ID: FC027E-CAL,, /01, Name: FC9W_097S15, Description: 1,,2uL, Date: 08-Mar-2019, Time: 16:53:43**

**13C3-PFBS-2**

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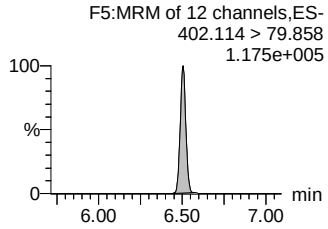


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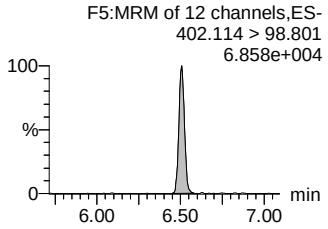


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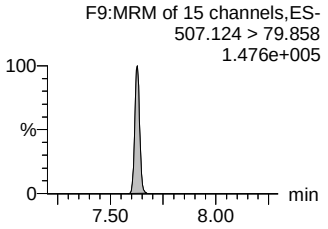


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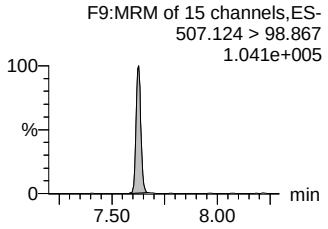


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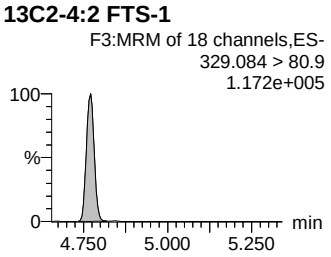
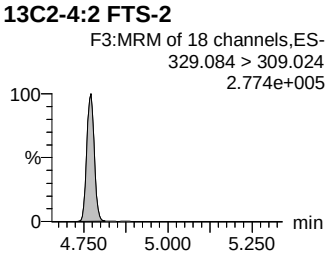



**13C2-4:2 FTS-2**

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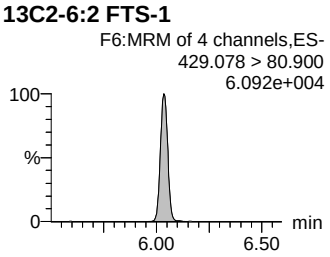
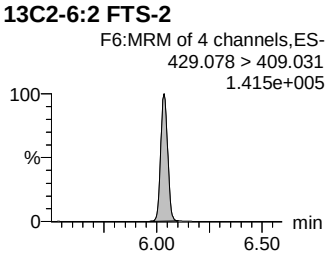
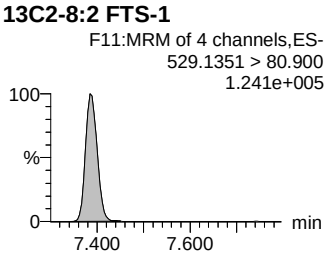



**13C2-6:2 FTS-2**




**13C2-8:2 FTS-1**

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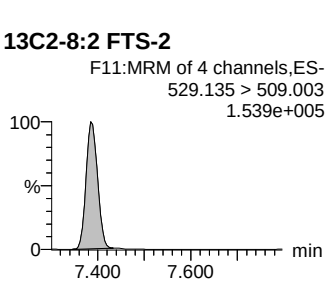
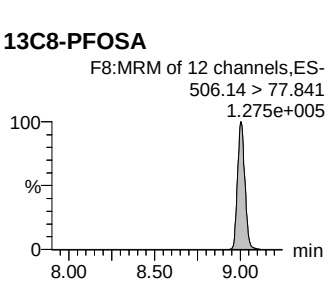
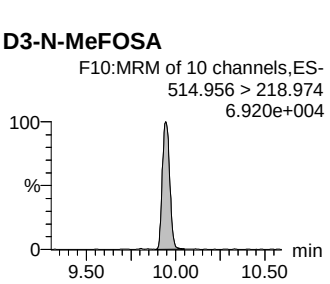


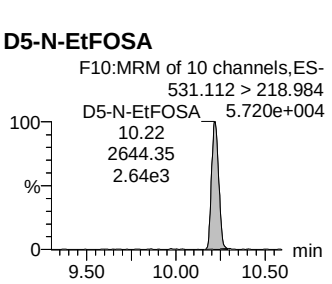

**13C8-PFOSA**



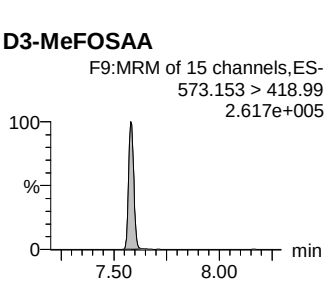

**D3-N-MeFOSA**




**D5-N-EtFOSA**




**D3-MeFOSAA**




PVed by GW, SVed by hh 13-Mar-19. NOTE: Unit=ng based on 4 mL extract

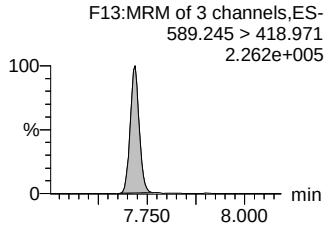
**Quantify Sample Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_097-A1.qld

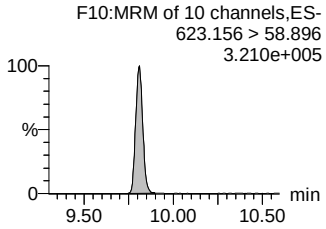
Last Altered: Tuesday, March 12, 2019 17:19:00 Pacific Daylight Time
Printed: Wednesday, March 13, 2019 09:12:29 Pacific Daylight Time

**ID: FC027E-CAL,, /01, Name: FC9W_097S15, Description: 1,,2uL, Date: 08-Mar-2019, Time: 16:53:43**

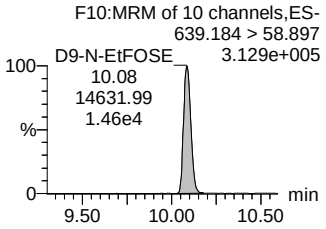
**D5-EtFOSAA**



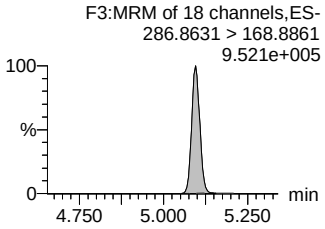

**D7-N-MeFOSE**




**D9-N-EtFOSE**




**13C3-HFPO-DA-1**

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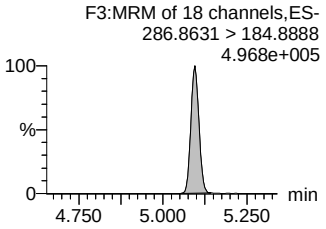


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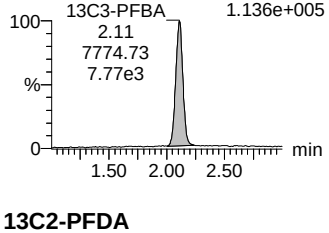
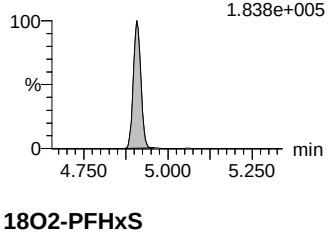



**13C2-PFHxA-1**

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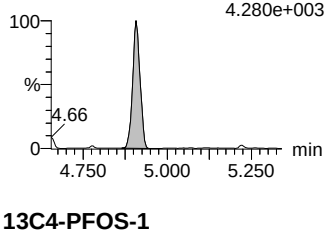
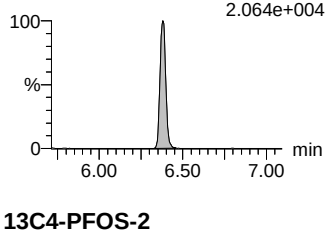
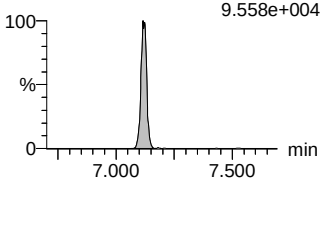


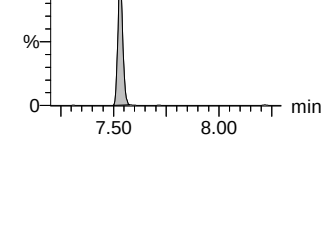

**13C4-PFOA**



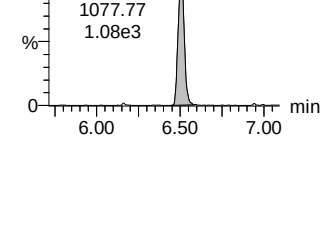

**13C5-PFNA**



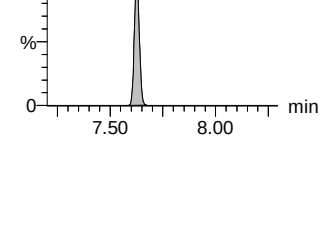

**13C2-PFDA**




**18O2-PFHxS**




**13C4-PFOS-1**

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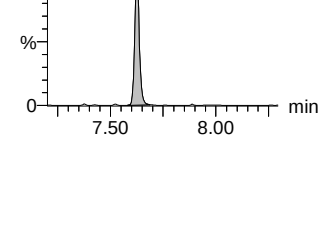



PVed by GW, SVed by hh 13-Mar-19. NOTE: Unit=ng based on 4 mL extract

**Quantify Sample Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_097-A1.qld

Last Altered: Tuesday, March 12, 2019 17:19:00 Pacific Daylight Time
Printed: Wednesday, March 13, 2019 09:12:29 Pacific Daylight Time

**ID: FC027E-CAL,, /01, Name: FC9W_097S15, Description: 1,,2uL, Date: 08-Mar-2019, Time: 16:53:43**

| # | Name | IS# | Trace | RT | Area | IS Area | Std. Conc | Conc. | LOD | %Rec | S/N | Noise | Peak Height | IS Height | Sample size | F2 | Flags |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | PFBA | 64 | 212.763 > 168.903 | 2.11 | 55707 | 64411 | 41.000 | 41.111 | | 100.3 | 2288 | 347 | 793964 | 927374 | 1.000 | 1.0 | bb |
| 2 | PFPeA-1 | 65 | 262.951 > 218.996 | 4.34 | 33966 | 33902 | 20.430 | 20.477 | | 100.2 | 3246 | 380 | 1232139 | 1235852 | 1.000 | 1.0 | bb |
| 3 | PFPeA-2 | 65 | 262.951 > 68.925 | 4.34 | 133 | 33902 | 20.430 | 24.015 | 0.2259 | 117.5 | 290 | 16 | 4682 | 1235852 | 1.000 | 1.0 | bb |
| 4 | PFHxA-1 | 66 | 313.012 > 269.017 | 4.91 | 12727 | 13787 | 10.250 | 10.050 | | 98.0 | 547 | 872 | 477085 | 536172 | 1.000 | 1.0 | bb |
| 5 | PFHxA-2 | 66 | 313.012 > 118.918 | 4.91 | 1418 | 13787 | 10.250 | 9.652 | 0.0494 | 94.2 | 548 | 96 | 52862 | 536172 | 1.000 | 1.0 | bb |
| 6 | PFHpA-1 | 68 | 363.073 > 319.025 | 5.51 | 16408 | 16966 | 10.250 | 10.789 | | 105.3 | 704 | 788 | 555237 | 525307 | 1.000 | 1.0 | bb |
| 7 | PFHpA-2 | 68 | 363.073 > 168.962 | 5.51 | 5488 | 16966 | 10.250 | 11.197 | 0.3527 | 109.2 | 100 | 1881 | 188965 | 525307 | 1.000 | 1.0 | bb |
| 8 | PFOA-1 | 69 | 413.006 > 369.03 | 6.38 | 29188 | 19962 | 10.250 | 10.341 | 0.0113 | 100.9 | 270 | 2818 | 759889 | 522867 | 1.000 | 1.0 | bb |
| 9 | PFOA-2 | 69 | 413.006 > 168.963 | 6.38 | 8862 | 19962 | 10.250 | 10.524 | | 102.7 | 3596 | 66 | 236618 | 522867 | 1.000 | 1.0 | bb |
| 10 | PFNA-1 | 70 | 463.002 > 418.97 | 7.12 | 23025 | 11941 | 10.000 | 10.157 | | 101.6 | 783 | 1122 | 878212 | 448017 | 1.000 | 1.0 | bb |
| 11 | PFNA-2 | 70 | 463.002 > 218.968 | 7.12 | 5982 | 11941 | 10.000 | 10.139 | 0.3476 | 101.4 | 90 | 2689 | 241463 | 448017 | 1.000 | 1.0 | bb |
| 12 | PFDA-1 | 72 | 512.935 > 469.021 | 7.53 | 16837 | 11338 | 10.000 | 9.811 | | 98.1 | 484 | 1307 | 632649 | 428766 | 1.000 | 1.0 | bb |
| 13 | PFDA-2 | 72 | 512.935 > 218.972 | 7.53 | 4352 | 11338 | 10.000 | 10.250 | | 102.5 | 6200 | 27 | 165839 | 428766 | 1.000 | 1.0 | bb |
| 14 | PFUnA-1 | 71 | 563.124 > 519.003 | 7.83 | 16716 | 12466 | 10.000 | 10.653 | 0.0144 | 106.5 | 511 | 1367 | 699020 | 480067 | 1.000 | 1.0 | bb |
| 15 | PFUnA-2 | 71 | 563.124 > 269.051 | 7.83 | 2897 | 12466 | 10.000 | 10.280 | | 102.8 | 2366 | 49 | 116826 | 480067 | 1.000 | 1.0 | bb |
| 16 | PFDoA-1 | 73 | 613.057 > 569.045 | 8.17 | 20803 | 9389 | 10.000 | 10.917 | | 109.2 | 329 | 2169 | 714159 | 317122 | 1.000 | 1.0 | MM |
| 17 | PFDoA-2 | 73 | 613.057 > 318.996 | 8.17 | 2619 | 9389 | 10.000 | 11.401 | | 114.0 | 4272 | 21 | 89178 | 317122 | 1.000 | 1.0 | MM |
| 18 | PFTrDA-1 | 74 | 663.053 > 619.023 | 8.58 | 15598 | 9242 | 10.000 | 10.593 | | 105.9 | 382 | 1412 | 539350 | 288734 | 1.000 | 1.0 | MM |
| 19 | PFTrDA-2 | 74 | 663.053 > 168.949 | 8.58 | 2944 | 9242 | 10.000 | 11.105 | | 111.1 | 479 | 221 | 105955 | 288734 | 1.000 | 1.0 | MM |
| 20 | PFTeDA-1 | 74 | 713.05 > 669. | 9.01 | 12322 | 9242 | 10.000 | 10.313 | | 103.1 | 406 | 969 | 392955 | 288734 | 1.000 | 1.0 | MM |
| 21 | PFTeDA-2 | 74 | 713.05 > 168.94 | 9.01 | 2585 | 9242 | 10.000 | 10.255 | | 102.5 | 636 | 136 | 86337 | 288734 | 1.000 | 1.0 | bb |
| 22 | PFBS-1 | 75 | 298.663 > 79.865 | 4.88 | 6396 | 5423 | 10.250 | 10.284 | 0.0045 | 100.3 | 8372 | 28 | 233006 | 198535 | 1.000 | 1.0 | bb |
| 23 | PFBS-2 | 76 | 298.663 > 98.811 | 4.88 | 3418 | 2629 | 10.250 | 10.949 | 0.0111 | 106.8 | 604 | 208 | 125274 | 93986 | 1.000 | 1.0 | bb |
| 24 | PFPeS-1 | 77 | 349.107 > 79.857 | 5.56 | 4125 | 4457 | 9.500 | 9.722 | 0.6045 | 102.3 | 51 | 2530 | 128675 | 117114 | 1.000 | 1.0 | bb |
| 25 | PFPeS-2 | 78 | 349.107 > 98.871 | 5.56 | 2403 | 2603 | 9.500 | 9.312 | | 98.0 | 413 | 182 | 75193 | 68491 | 1.000 | 1.0 | bb |
| 26 | PFHxS-1 | 77 | 398.721 > 79.92 | 6.51 | 5487 | 4457 | 10.250 | 10.008 | 0.2264 | 97.6 | 215 | 549 | 117947 | 117114 | 1.000 | 1.0 | MM |
| 27 | PFHxS-2 | 78 | 398.721 > 98.863 | 6.51 | 2970 | 2603 | 10.250 | 9.115 | | 88.9 | 382 | 165 | 62892 | 68491 | 1.000 | 1.0 | MM |
| 28 | PFHpS-1 | 79 | 449.036 > 79.857 | 7.23 | 4097 | 3918 | 9.500 | 11.091 | | 116.7 | 189... | 8 | 150164 | 147418 | 1.000 | 1.0 | MM |
| 29 | PFHpS-2 | 80 | 449.036 > 98.8 | 7.23 | 2404 | 2728 | 9.500 | 9.370 | 0.0403 | 98.6 | 808 | 106 | 85883 | 103683 | 1.000 | 1.0 | bb |
| 30 | PFOS-1 | 79 | 498.906 > 79.856 | 7.63 | 5174 | 3918 | 10.250 | 11.606 | | 113.2 | 3309 | 50 | 165908 | 147418 | 1.000 | 1.0 | MM |
| 31 | PFOS-2 | 80 | 498.906 > 98.801 | 7.63 | 2572 | 2728 | 10.250 | 9.937 | | 96.9 | 408 | 215 | 87586 | 103683 | 1.000 | 1.0 | MM |
| 32 | PFNS-1 | 79 | 548.775 > 79.858 | 7.94 | 4564 | 3918 | 9.500 | 10.400 | | 109.5 | 153... | 11 | 163064 | 147418 | 1.000 | 1.0 | MM |
| 33 | PFNS-2 | 80 | 548.775 > 98.801 | 7.94 | 2867 | 2728 | 9.500 | 9.947 | 0.0353 | 104.7 | 414 | 252 | 104236 | 103683 | 1.000 | 1.0 | bb |
| 34 | PFDS-1 | 79 | 599.027 > 79.92 | 8.32 | 3943 | 3918 | 10.250 | 11.087 | | 108.2 | 9868 | 14 | 135302 | 147418 | 1.000 | 1.0 | MM |
| 35 | PFDS-2 | 80 | 599.027 > 98.8 | 8.32 | 2414 | 2728 | 10.250 | 10.533 | 0.1245 | 102.8 | 1072 | 84 | 90035 | 103683 | 1.000 | 1.0 | bb |

PVed by GW, SVed by hh 13-Mar-19. NOTE: Unit=ng based on 4 mL extract

**Quantify Sample Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_097-A1.qld

Last Altered: Tuesday, March 12, 2019 17:19:00 Pacific Daylight Time
Printed: Wednesday, March 13, 2019 09:12:29 Pacific Daylight Time

**ID: FC027E-CAL,, /01, Name: FC9W_097S15, Description: 1,,2uL, Date: 08-Mar-2019, Time: 16:53:43**

| # | Name | IS# | Trace | RT | Area | IS Area | Std. Conc | Conc. | LOD | %Rec | S/N | Noise | Peak Height | IS Height | Sample size | F2 | Flags |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 36 | PFDoS-1 | 79 | 699.084 > 79.856 | 9.18 | 3063 | 3918 | 9.500 | 10.314 | | 108.6 | 1649 | 61 | 100698 | 147418 | 1.000 | 1.0 | bb |
| 37 | PFDoS-2 | 80 | 699.084 > 98.8 | 9.18 | 1823 | 2728 | 9.500 | 8.914 | | 93.8 | 838 | 72 | 60627 | 103683 | 1.000 | 1.0 | bb |
| 38 | 4:2 FTS-1 | 81 | 327.077 > 307.017 | 4.77 | 9453 | 3141 | 40.000 | 41.064 | | 102.7 | 5564 | 66 | 365448 | 117432 | 1.000 | 1.0 | MM |
| 39 | 4:2 FTS-2 | 81 | 327.077 > 80.85 | 4.77 | 5453 | 3141 | 40.000 | 38.311 | 0.0938 | 95.8 | 3412 | 61 | 208665 | 117432 | 1.000 | 1.0 | bb |
| 40 | 6:2 FTS-1 | 83 | 427.071 > 407.024 | 6.03 | 8249 | 2425 | 36.000 | 36.635 | | 101.8 | 157... | 14 | 224066 | 60910 | 1.000 | 1.0 | MM |
| 41 | 6:2 FTS-2 | 83 | 427.071 > 80.9 | 6.03 | 4737 | 2425 | 36.000 | 34.202 | 0.0751 | 95.0 | 2429 | 51 | 124912 | 60910 | 1.000 | 1.0 | MM |
| 42 | 8:2 FTS-1 | 85 | 527.065 > 506.997 | 7.39 | 8426 | 3557 | 40.000 | 43.695 | | 109.2 | 1580 | 205 | 323839 | 124063 | 1.000 | 1.0 | MM |
| 43 | 8:2 FTS-2 | 85 | 527.065 > 80.75 | 7.38 | 3784 | 3557 | 40.000 | 40.548 | | 101.4 | 101... | 14 | 139957 | 124063 | 1.000 | 1.0 | MM |
| 44 | PFOSA-1 | 87 | 498.113 > 77.902 | 9.00 | 5850 | 6212 | 10.250 | 10.102 | 0.1159 | 98.6 | 773 | 143 | 110783 | 127496 | 1.000 | 1.0 | MM |
| 45 | PFOSA-2 | 87 | 498.113 > 477.993 | 9.01 | 67 | 6212 | 10.250 | 7.321 | 2.5768 | 71.4 | 34 | 58 | 1979 | 127496 | 1.000 | 1.0 | MM |
| 46 | N-MeFOSA-1 | 88 | 511.937 > 218.985 | 9.95 | 3516 | 3296 | 11.500 | 11.515 | 0.0128 | 100.1 | 451 | 164 | 74056 | 69139 | 1.000 | 1.0 | MM |
| 47 | N-MeFOSA-2 | 88 | 511.937 > 168.955 | 9.95 | 5245 | 3296 | 11.500 | 11.619 | | 101.0 | 1550 | 66 | 102683 | 69139 | 1.000 | 1.0 | MM |
| 48 | N-EtFOSA-1 | 89 | 526.017 > 218.977 | 10.23 | 7661 | 2644 | 25.000 | 24.828 | 0.6406 | 99.3 | 71 | 1795 | 126949 | 57275 | 1.000 | 1.0 | MM |
| 49 | N-EtFOSA-2 | 89 | 526.017 > 168.95 | 10.23 | 11515 | 2644 | 25.000 | 25.434 | 0.0975 | 101.7 | 449 | 442 | 198503 | 57275 | 1.000 | 1.0 | MM |
| 50 | MeFOSAA-1 | 90 | 570.134 > 419.035 | 7.58 | 3603 | 7165 | 10.000 | 10.509 | | 105.1 | 3008 | 45 | 134995 | 261364 | 1.000 | 1.0 | MM |
| 51 | MeFOSAA-2 | 90 | 570.134 > 482.99 | 7.58 | 1679 | 7165 | 10.000 | 10.722 | | 107.2 | 541 | 109 | 58986 | 261364 | 1.000 | 1.0 | MM |
| 52 | EtFOSAA-1 | 91 | 584.15 > 419.062 | 7.72 | 2270 | 5917 | 10.000 | 10.029 | 0.0706 | 100.3 | 3094 | 26 | 79865 | 224834 | 1.000 | 1.0 | MM |
| 53 | EtFOSAA-2 | 91 | 584.15 > 526.045 | 7.72 | 2045 | 5917 | 10.000 | 9.775 | 0.1250 | 97.7 | 3306 | 23 | 74675 | 224834 | 1.000 | 1.0 | MM |
| 54 | N-MeFOSE | 92 | 616.112 > 58.894 | 9.83 | 13841 | 14452 | 102.000 | 102.301 | | 100.3 | 1343 | 194 | 260641 | 320458 | 1.000 | 1.0 | MM |
| 55 | N-EtFOSE | 93 | 630. > 58.893 | 10.11 | 14688 | 14632 | 76.500 | 79.127 | | 103.4 | 691 | 337 | 232987 | 312498 | 1.000 | 1.0 | MM |
| 56 | HFPO-DA-1 | 94 | 284.8894 > 168.... | 5.10 | 26639 | 26660 | 40.000 | 44.528 | | 111.3 | 103... | 92 | 956526 | 952058 | 1.000 | 1.0 | bb |
| 57 | HFPO-DA-2 | 95 | 284.8894 > 184.... | 5.10 | 13325 | 13690 | 40.000 | 42.211 | 0.0361 | 105.5 | 1428 | 335 | 478146 | 495777 | 1.000 | 1.0 | bb |
| 58 | ADONA-1 | 94 | 376.88 > 250.937 | 5.79 | 179470 | 26660 | 40.000 | 43.491 | | 108.7 | 152... | 334 | 5110671 | 952058 | 1.000 | 1.0 | bb |
| 59 | ADONA-2 | 95 | 376.88 > 84.832 | 5.79 | 59418 | 13690 | 40.000 | 36.904 | 0.5358 | 92.3 | 8237 | 204 | 1678634 | 495777 | 1.000 | 1.0 | bb |
| 60 | 9Cl-PF3ONS-1 | 94 | 530.807 > 350.967 | 7.85 | 74023 | 26660 | 40.000 | 45.454 | | 113.6 | 4681 | 633 | 2961312 | 952058 | 1.000 | 1.0 | MM |
| 61 | 9Cl-PF3ONS-2 | 95 | 532.804 > 352.947 | 7.84 | 24035 | 13690 | 40.000 | 44.068 | | 110.2 | 1109 | 855 | 948320 | 495777 | 1.000 | 1.0 | bb |
| 62 | 11Cl-PF3OUdS-1 | 94 | 630.865 > 450.902 | 8.62 | 50056 | 26660 | 40.000 | 44.427 | | 111.1 | 3115 | 530 | 1652539 | 952058 | 1.000 | 1.0 | bb |
| 63 | 11Cl-PF3OUdS-2 | 95 | 632.868 > 452.91 | 8.62 | 16133 | 13690 | 40.000 | 40.364 | 0.4842 | 100.9 | 223 | 2463 | 548573 | 495777 | 1.000 | 1.0 | bb |
| 64 | 13C4-PFBA | 96 | 216.776 > 171.928 | 2.11 | 64411 | 7775 | 40.000 | 40.464 | 0.0155 | 101.2 | 7909 | 117 | 927374 | 11116( | 1.000 | 1.0 | bb |
| 65 | 13C5-PFPeA | 97 | 268.16 > 223.035 | 4.33 | 33902 | 4708 | 20.000 | 22.190 | 0.0055 | 111.0 | 114... | 108 | 1235852 | 183511 | 1.000 | 1.0 | MM |
| 66 | 13C5-PFHxA-1 | 97 | 318.029 > 272.993 | 4.91 | 13787 | 4708 | 10.000 | 10.397 | 0.0106 | 104.0 | 2928 | 183 | 536172 | 183511 | 1.000 | 1.0 | bb |
| 67 | 13C5-PFHxA-2 | 97 | 318.029 > 120.341 | 4.91 | 486 | 4708 | 10.000 | 10.792 | 0.0167 | 107.9 | 1841 | 10 | 17967 | 183511 | 1.000 | 1.0 | bb |
| 68 | 13C4-PFHpA | 99 | 367.086 > 322.004 | 5.51 | 16966 | 814 | 10.000 | 9.585 | 0.0598 | 95.9 | 587 | 894 | 525307 | 20616 | 1.000 | 1.0 | bb |
| 69 | 13C8-PFOA | 99 | 421.096 > 376.022 | 6.38 | 19962 | 814 | 10.000 | 9.816 | 0.0028 | 98.2 | 110... | 47 | 522867 | 20616 | 1.000 | 1.0 | bb |
| 70 | 13C9-PFNA | 100 | 472.096 > 427.014 | 7.11 | 11941 | 2683 | 5.000 | 5.124 | 0.0071 | 102.5 | 2283 | 196 | 448017 | 95555 | 1.000 | 1.0 | bb |

PVed by GW, SVed by hh 13-Mar-19. NOTE: Unit=ng based on 4 mL extract

**Quantify Sample Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_097-A1.qld

Last Altered: Tuesday, March 12, 2019 17:19:00 Pacific Daylight Time
Printed: Wednesday, March 13, 2019 09:12:29 Pacific Daylight Time

**ID: FC027E-CAL,, /01, Name: FC9W_097S15, Description: 1,,2uL, Date: 08-Mar-2019, Time: 16:53:43**

| # | Name | IS# | Trace | RT | Area | IS Area | Std. Conc | Conc. | LOD | %Rec | S/N | Noise | Peak Height | IS Height | Sample size | F2 | Flags |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 71 | 13C7-PFUnA | 101 | 570.019 > 525.05 | 7.83 | 12466 | 2627 | 5.000 | 5.305 | 0.0027 | 106.1 | 5936 | 81 | 480067 | 99207 | 1.000 | 1.0 | bb |
| 72 | 13C6-PFDA | 101 | 519.147 > 474.058 | 7.53 | 11338 | 2627 | 5.000 | 5.734 | 0.0027 | 114.7 | 6357 | 67 | 428766 | 99207 | 1.000 | 1.0 | bb |
| 73 | 13C2-PFDoA | 101 | 615.127 > 570.013 | 8.17 | 9389 | 2627 | 5.000 | 5.598 | 0.0040 | 112.0 | 3776 | 84 | 317122 | 99207 | 1.000 | 1.0 | bb |
| 74 | 13C2-PFTeDA | 101 | 715.057 > 670.026 | 9.01 | 9242 | 2627 | 5.000 | 5.616 | 0.0099 | 112.3 | 1410 | 205 | 288734 | 99207 | 1.000 | 1.0 | bb |
| 75 | 13C3-PFBS-1 | 102 | 302.056 > 79.865 | 4.88 | 5423 | 1078 | 10.000 | 10.451 | 0.0016 | 104.5 | 308... | 6 | 198535 | 25420 | 1.000 | 1.0 | bb |
| 76 | 13C3-PFBS-2 | 102 | 302.056 > 98.875 | 4.88 | 2629 | 1078 | 10.000 | 10.480 | 0.0054 | 104.8 | 8840 | 11 | 93986 | 25420 | 1.000 | 1.0 | bb |
| 77 | 13C3-PFHxS-1 | 102 | 402.114 > 79.858 | 6.51 | 4457 | 1078 | 10.000 | 9.968 | 0.0068 | 99.7 | 4888 | 24 | 117114 | 25420 | 1.000 | 1.0 | bb |
| 78 | 13C3-PFHxS-2 | 102 | 402.114 > 98.801 | 6.51 | 2603 | 1078 | 10.000 | 10.448 | 0.0104 | 104.5 | 3360 | 20 | 68491 | 25420 | 1.000 | 1.0 | bb |
| 79 | 13C8-PFOS-1 | 103 | 507.124 > 79.858 | 7.63 | 3918 | 1259 | 10.000 | 9.825 | 0.0054 | 98.3 | 5657 | 26 | 147418 | 45962 | 1.000 | 1.0 | bb |
| 80 | 13C8-PFOS-2 | 104 | 507.124 > 98.867 | 7.63 | 2728 | 852 | 10.000 | 10.196 | 0.0082 | 102.0 | 3680 | 28 | 103683 | 32912 | 1.000 | 1.0 | bb |
| 81 | 13C2-4:2 FTS-1 | 102 | 329.084 > 80.9 | 4.77 | 3141 | 1078 | 20.000 | 20.513 | 0.0702 | 102.6 | 1389 | 85 | 117432 | 25420 | 1.000 | 1.0 | MM |
| 82 | 13C2-4:2 FTS-2 | 102 | 329.084 > 309.024 | 4.77 | 7063 | 1078 | 20.000 | 19.767 | 0.0727 | 98.8 | 1358 | 204 | 277116 | 25420 | 1.000 | 1.0 | bb |
| 83 | 13C2-6:2 FTS-1 | 102 | 429.078 > 80.900 | 6.03 | 2425 | 1078 | 20.000 | 19.604 | 0.0426 | 98.0 | 1470 | 41 | 60910 | 25420 | 1.000 | 1.0 | bb |
| 84 | 13C2-6:2 FTS-2 | 102 | 429.078 > 409.031 | 6.03 | 5322 | 1078 | 20.000 | 18.791 | 0.0629 | 94.0 | 1008 | 140 | 141198 | 25420 | 1.000 | 1.0 | bb |
| 85 | 13C2-8:2 FTS-1 | 102 | 529.1351 > 80.900 | 7.38 | 3557 | 1078 | 20.000 | 19.245 | 0.0420 | 96.2 | 2033 | 61 | 124063 | 25420 | 1.000 | 1.0 | bb |
| 86 | 13C2-8:2 FTS-2 | 102 | 529.135 > 509.003 | 7.38 | 4373 | 1078 | 20.000 | 17.592 | 0.2685 | 88.0 | 292 | 525 | 153170 | 25420 | 1.000 | 1.0 | bb |
| 87 | 13C8-PFOSA | 103 | 506.14 > 77.841 | 9.00 | 6212 | 1259 | 10.000 | 9.854 | 0.1881 | 98.5 | 88 | 1443 | 127496 | 45962 | 1.000 | 1.0 | bb |
| 88 | D3-N-MeFOSA | 103 | 514.956 > 218.974 | 9.94 | 3296 | 1259 | 10.000 | 10.129 | 0.0376 | 101.3 | 464 | 149 | 69139 | 45962 | 1.000 | 1.0 | bb |
| 89 | D5-N-EtFOSA | 103 | 531.112 > 218.984 | 10.22 | 2644 | 1259 | 10.000 | 9.623 | 0.0326 | 96.2 | 525 | 109 | 57275 | 45962 | 1.000 | 1.0 | MM |
| 90 | D3-MeFOSAA | 103 | 573.153 > 418.99 | 7.58 | 7165 | 1259 | 20.000 | 20.468 | 0.0151 | 102.3 | 4051 | 65 | 261364 | 45962 | 1.000 | 1.0 | MM |
| 91 | D5-EtFOSAA | 103 | 589.245 > 418.971 | 7.72 | 5917 | 1259 | 20.000 | 20.228 | 0.0163 | 101.1 | 3884 | 58 | 224834 | 45962 | 1.000 | 1.0 | MM |
| 92 | D7-N-MeFOSE | 103 | 623.156 > 58.896 | 9.81 | 14452 | 1259 | 100.000 | 96.172 | 0.1583 | 96.2 | 1107 | 289 | 320458 | 45962 | 1.000 | 1.0 | bb |
| 93 | D9-N-EtFOSE | 103 | 639.184 > 58.897 | 10.08 | 14632 | 1259 | 100.000 | 94.003 | 0.1175 | 94.0 | 1404 | 223 | 312498 | 45962 | 1.000 | 1.0 | bb |
| 94 | 13C3-HFPO-DA-1 | 97 | 286.8631 > 168.... | 5.10 | 26660 | 4708 | 40.000 | 43.783 | 0.0156 | 109.5 | 7700 | 124 | 952058 | 183511 | 1.000 | 1.0 | MM |
| 95 | 13C3-HFPO-DA-2 | 97 | 286.8631 > 184.... | 5.10 | 13690 | 4708 | 40.000 | 45.898 | 0.0178 | 114.7 | 7177 | 69 | 495777 | 183511 | 1.000 | 1.0 | bb |
| 96 | 13C3-PFBA | | 216.029 > 171.97 | 2.11 | 7775 | | 5.000 | 5.554 | 0.0422 | 111.1 | 395 | 282 | 11116( | | 1.000 | 1.0 | bb |
| 97 | 13C2-PFHxA-1 | | 315.083 > 269.984 | 4.91 | 4708 | | 2.500 | 2.637 | 0.0102 | 105.5 | 776 | 236 | 183511 | | 1.000 | 1.0 | bb |
| 98 | 13C2-PFHxA-2 | | 315.083 > 119.359 | 4.91 | 108 | | 2.500 | 2.007 | 0.0085 | 80.3 | 707 | 6 | 4275 | | 1.000 | 1.0 | bb |
| 99 | 13C4-PFOA | | 417.083 > 171.95 | 6.38 | 814 | | 2.500 | 2.709 | 0.0261 | 108.3 | 311 | 66 | 20616 | | 1.000 | 1.0 | bb |
| 1... | 13C5-PFNA | | 468.019 > 423.008 | 7.11 | 2683 | | 1.250 | 1.315 | 0.0030 | 105.2 | 1304 | 73 | 95555 | | 1.000 | 1.0 | bb |
| 1... | 13C2-PFDA | | 515.134 > 470.05 | 7.53 | 2627 | | 1.250 | 1.155 | 0.0005 | 92.4 | 6481 | 15 | 99207 | | 1.000 | 1.0 | bb |
| 1... | 18O2-PFHxS | | 402.984 > 83.895 | 6.51 | 1078 | | 2.500 | 2.744 | 0.0382 | 109.8 | 215 | 118 | 25420 | | 1.000 | 1.0 | bb |
| 1... | 13C4-PFOS-1 | | 502.791 > 79.856 | 7.63 | 1259 | | 2.500 | 2.588 | 0.0019 | 103.5 | 4193 | 11 | 45962 | | 1.000 | 1.0 | bb |
| 1... | 13C4-PFOS-2 | | 502.791 > 98.864 | 7.62 | 852 | | 2.500 | 2.730 | 0.0113 | 109.2 | 723 | 46 | 32912 | | 1.000 | 1.0 | bb |

PVed by GW, SVed by hh 13-Mar-19. NOTE: Unit=ng based on 4 mL extract

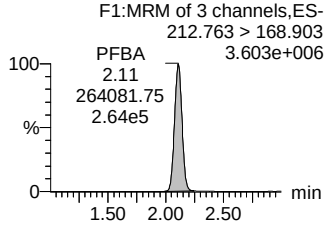
**Quantify Sample Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_097-A1.qld

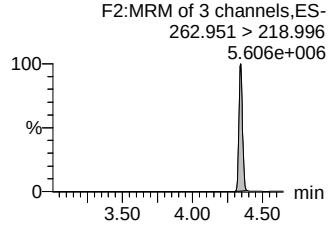
Last Altered: Tuesday, March 12, 2019 17:19:00 Pacific Daylight Time
Printed: Wednesday, March 13, 2019 09:12:29 Pacific Daylight Time

**ID: FC027F-CAL,, /01, Name: FC9W_097S16, Description: 1,,2uL, Date: 08-Mar-2019, Time: 18:12:07**

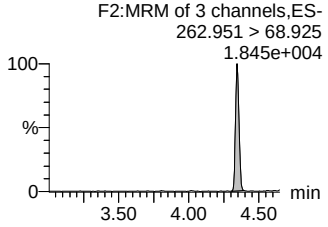
**PFBA**




**PFPeA-1**




**PFPeA-2**

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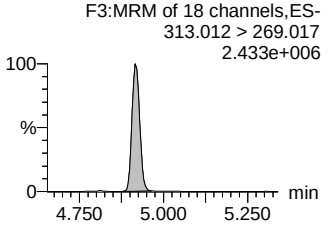


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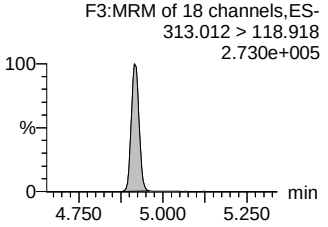


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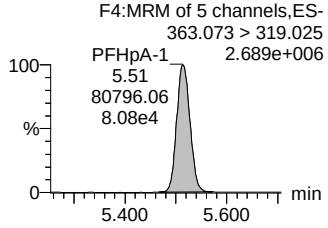


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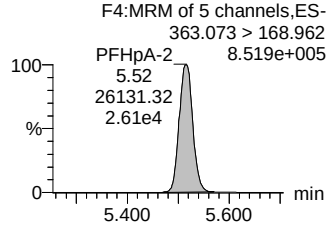


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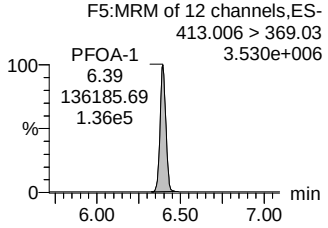


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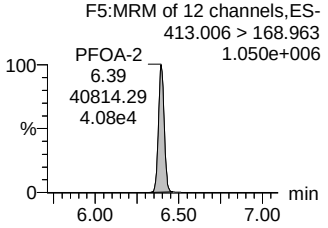


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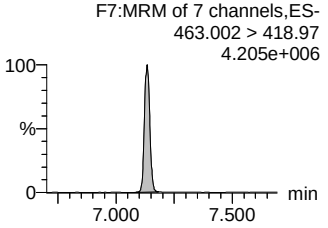


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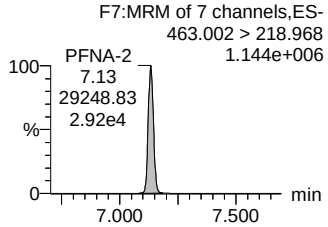


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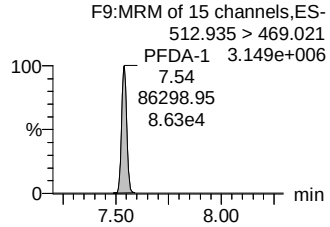


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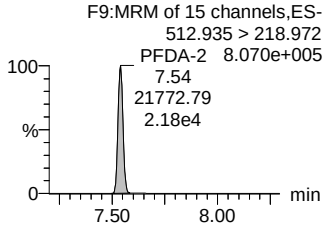


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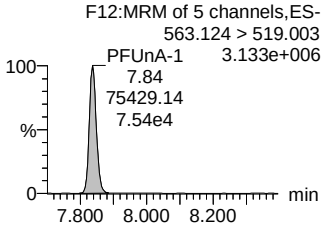


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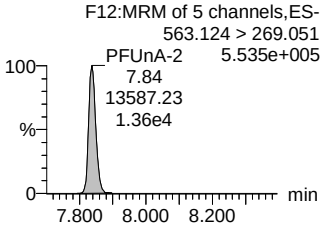


PVed by GW, SVed by hh 13-Mar-19. NOTE: Unit=ng based on 4 mL extract

**Quantify Sample Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_097-A1.qld

Last Altered: Tuesday, March 12, 2019 17:19:00 Pacific Daylight Time
Printed: Wednesday, March 13, 2019 09:12:29 Pacific Daylight Time

**ID: FC027F-CAL,, /01, Name: FC9W_097S16, Description: 1,,2uL, Date: 08-Mar-2019, Time: 18:12:07**

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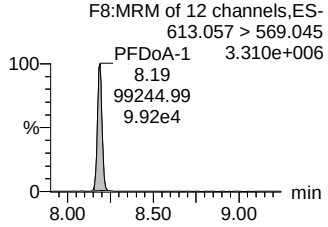


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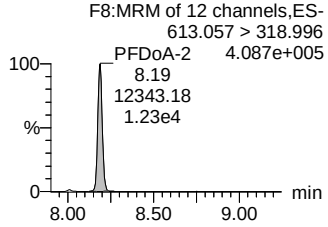


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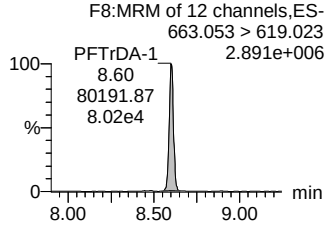


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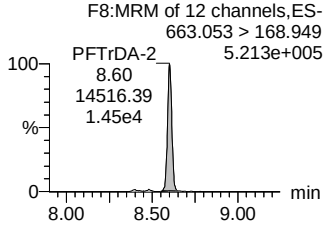


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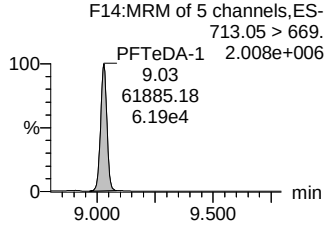


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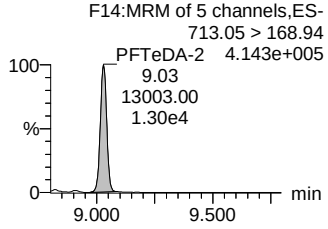


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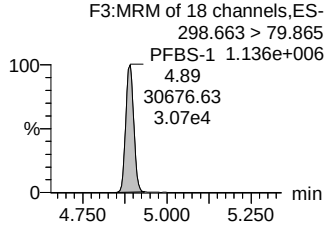


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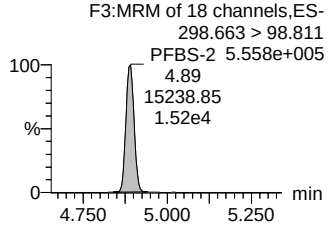


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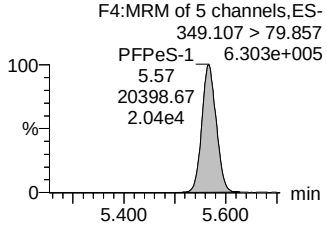


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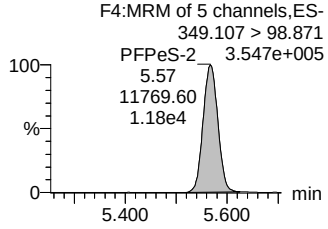


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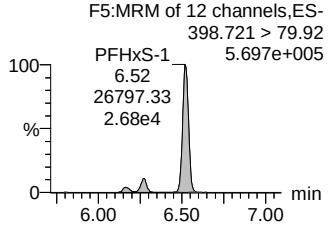


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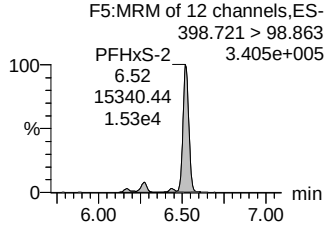


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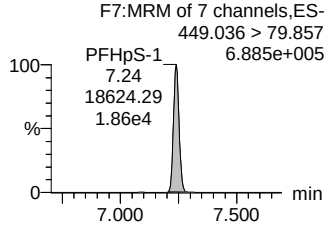


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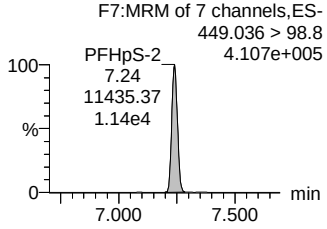


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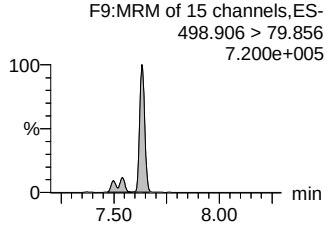


PVed by GW, SVed by hh 13-Mar-19. NOTE: Unit=ng based on 4 mL extract

**Quantify Sample Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_097-A1.qld

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**ID: FC027F-CAL,, /01, Name: FC9W_097S16, Description: 1,,2uL, Date: 08-Mar-2019, Time: 18:12:07**

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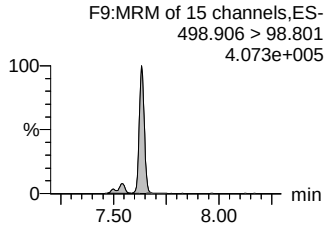


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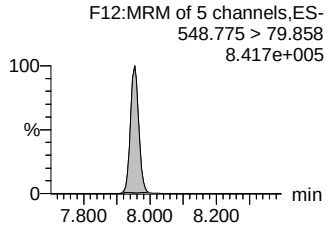


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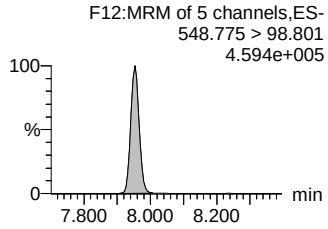


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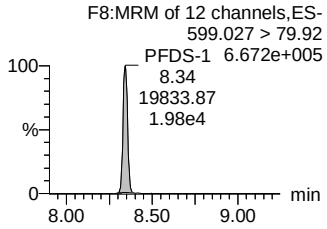


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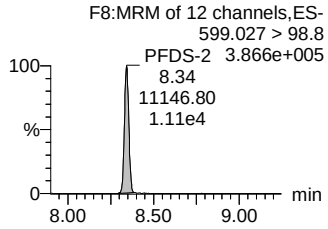


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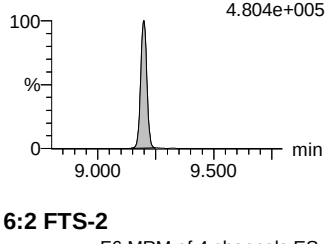


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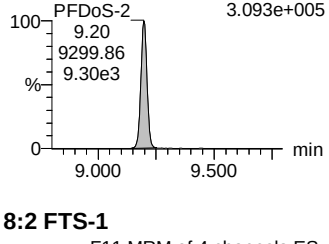


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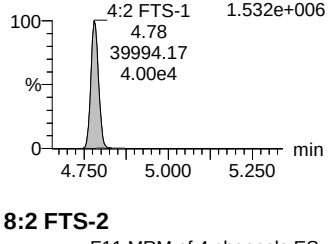


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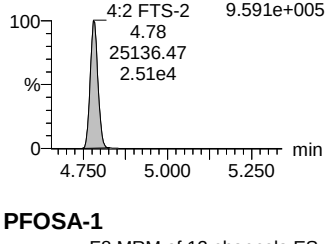


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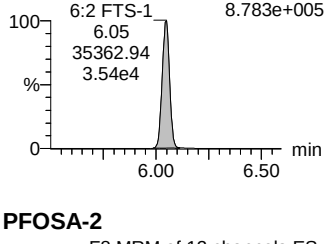


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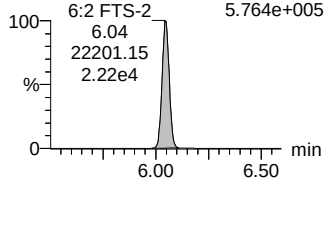


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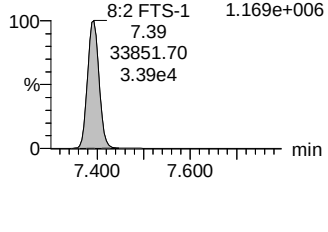


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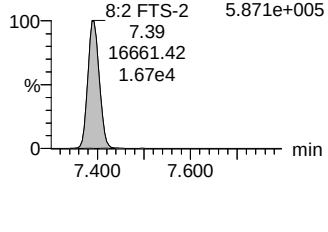


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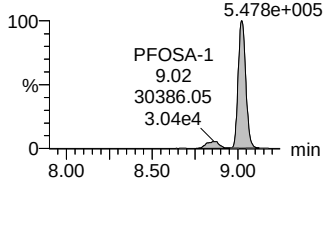


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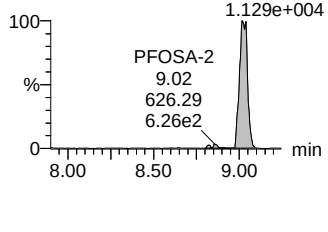


PVed by GW, SVed by hh 13-Mar-19. NOTE: Unit=ng based on 4 mL extract

**Quantify Sample Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_097-A1.qld

Last Altered: Tuesday, March 12, 2019 17:19:00 Pacific Daylight Time
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**ID: FC027F-CAL,, /01, Name: FC9W_097S16, Description: 1,,2uL, Date: 08-Mar-2019, Time: 18:12:07**

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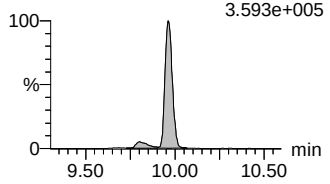


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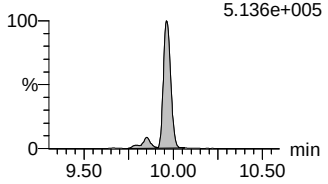


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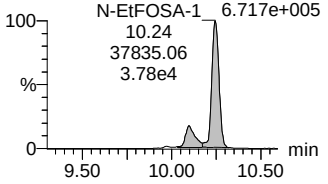


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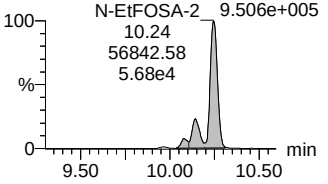


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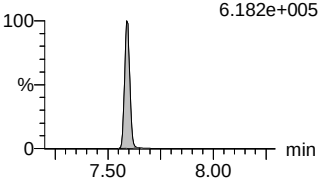


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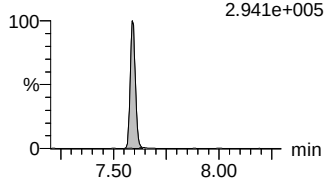


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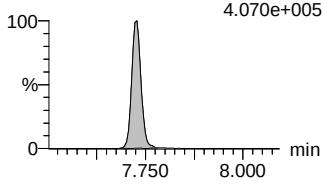


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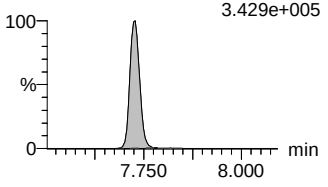


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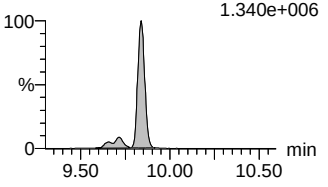


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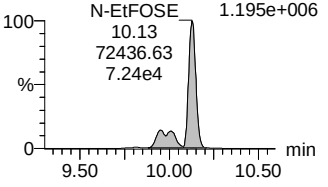


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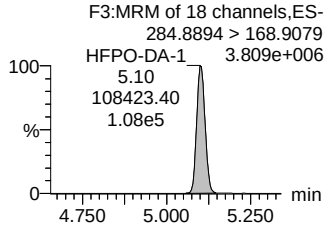


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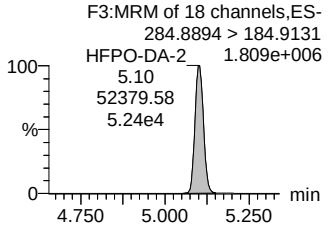


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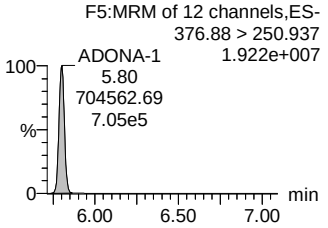


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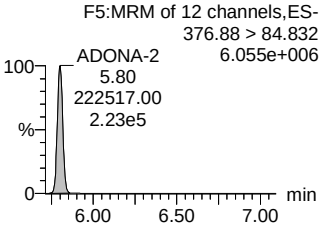


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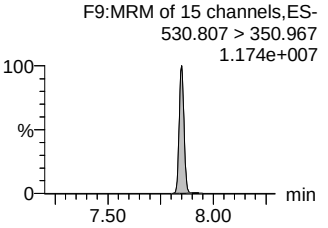


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**Quantify Sample Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

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Last Altered: Tuesday, March 12, 2019 17:19:00 Pacific Daylight Time
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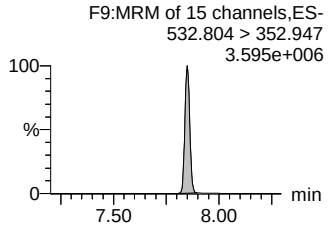
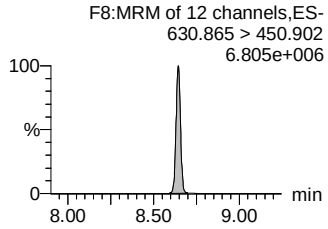
**ID: FC027F-CAL,, /01, Name: FC9W_097S16, Description: 1,,2uL, Date: 08-Mar-2019, Time: 18:12:07**

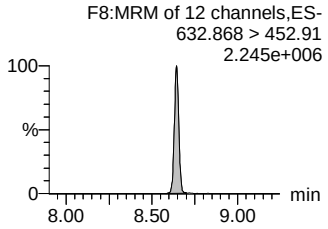
**9Cl-PF3ONS-2**



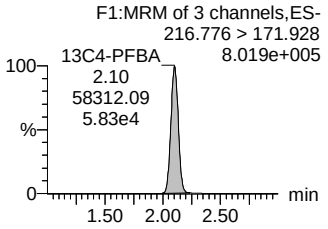

**11Cl-PF3OUdS-1**



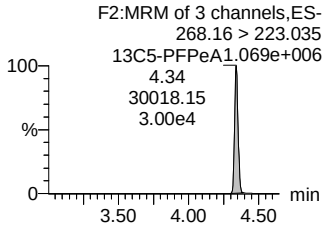

**11Cl-PF3OUdS-2**



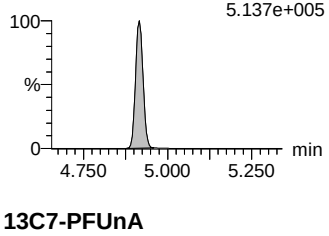

**13C4-PFBA**




**13C5-PFPeA**




**13C5-PFHxA-1**

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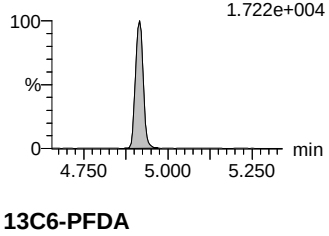


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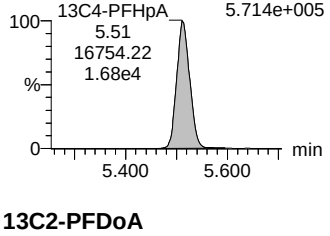
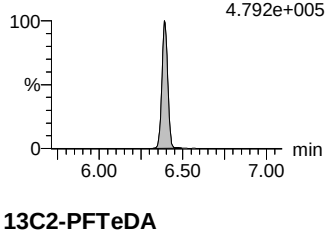
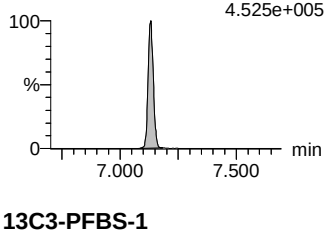


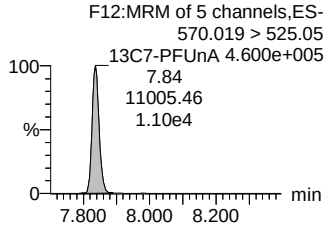

**13C8-PFOA**



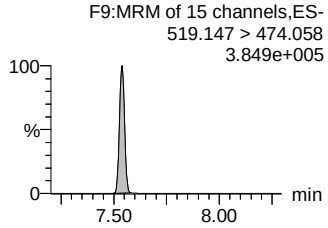

**13C9-PFNA**



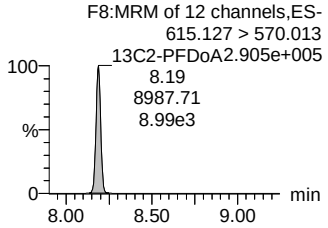

**13C7-PFUnA**



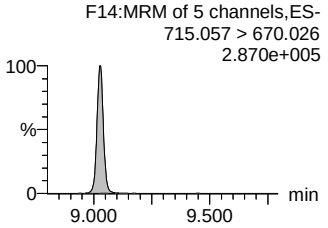

**13C6-PFDA**



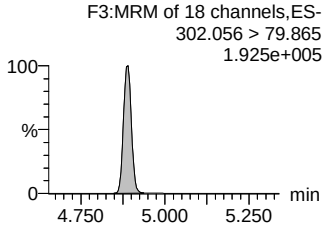

**13C2-PFDoA**




**13C2-PFTeDA**




**13C3-PFBS-1**




PVed by GW, SVed by hh 13-Mar-19. NOTE: Unit=ng based on 4 mL extract

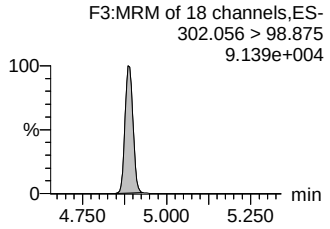
**Quantify Sample Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_097-A1.qld

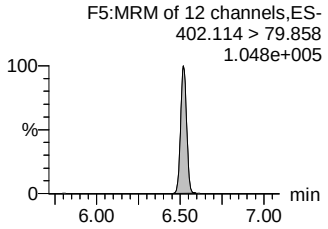
Last Altered: Tuesday, March 12, 2019 17:19:00 Pacific Daylight Time
Printed: Wednesday, March 13, 2019 09:12:29 Pacific Daylight Time

**ID: FC027F-CAL,, /01, Name: FC9W_097S16, Description: 1,,2uL, Date: 08-Mar-2019, Time: 18:12:07**

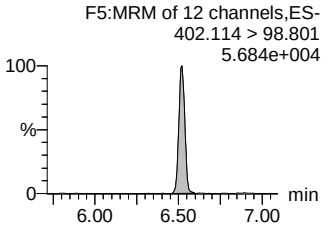
**13C3-PFBS-2**



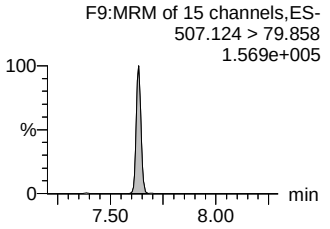

**13C3-PFHxS-1**




**13C3-PFHxS-2**




**13C8-PFOS-1**

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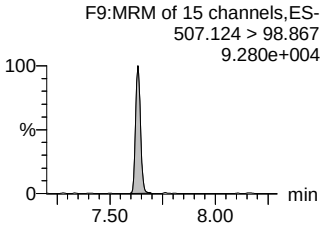
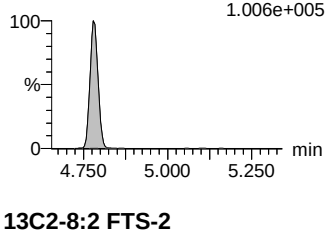
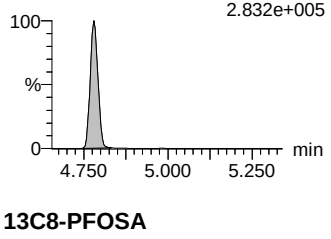


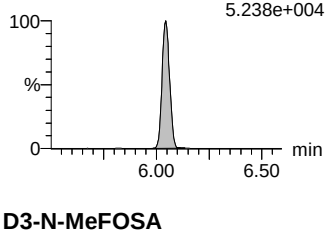

**13C2-4:2 FTS-1**



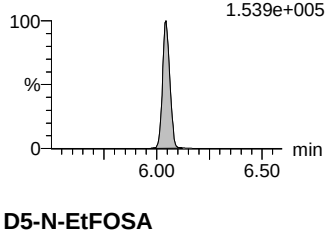

**13C2-4:2 FTS-2**




**13C2-6:2 FTS-1**




**13C2-6:2 FTS-2**

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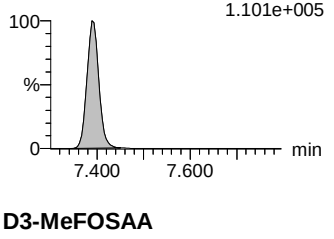


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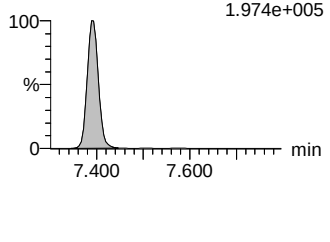
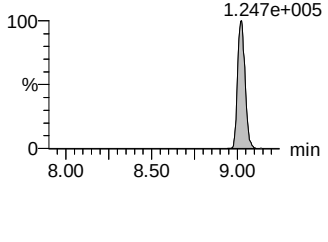
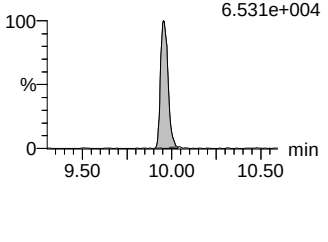


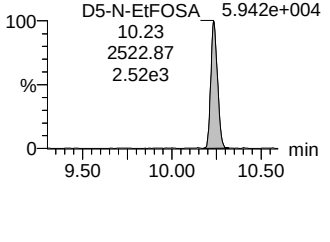

**13C8-PFOSA**



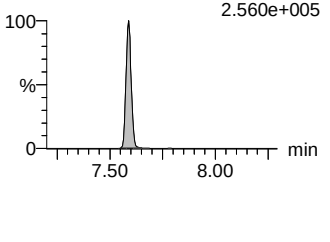

**D3-N-MeFOSA**




**D5-N-EtFOSA**




**D3-MeFOSAA**




PVed by GW, SVed by hh 13-Mar-19. NOTE: Unit=ng based on 4 mL extract

**Quantify Sample Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_097-A1.qld

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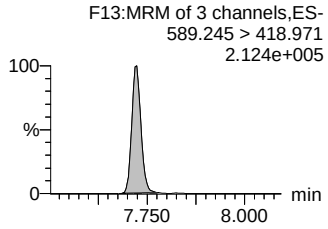
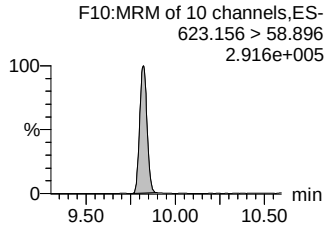
**ID: FC027F-CAL,, /01, Name: FC9W_097S16, Description: 1,,2uL, Date: 08-Mar-2019, Time: 18:12:07**

**D5-EtFOSAA**




**D7-N-MeFOSE**

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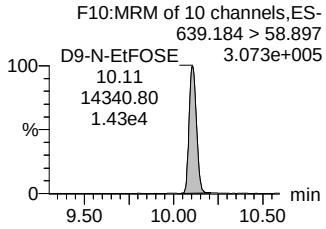
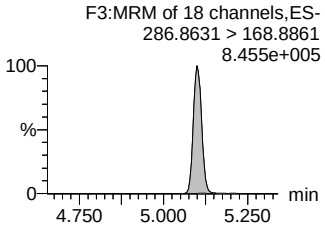



**13C3-HFPO-DA-1**

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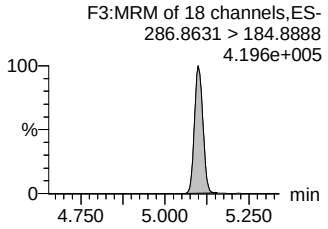


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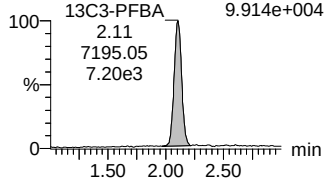
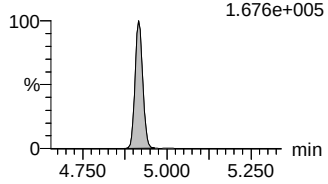



**13C2-PFHxA-1**

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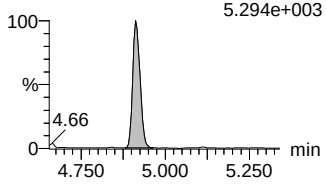
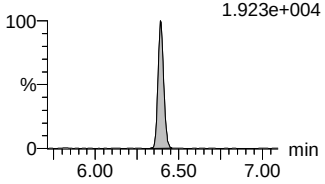
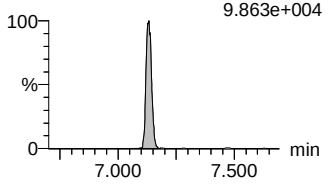


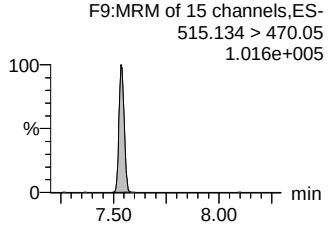

**13C4-PFOA**



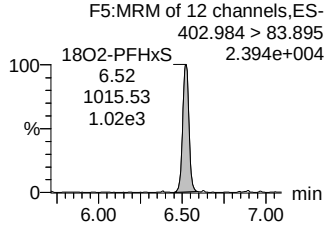

**13C5-PFNA**



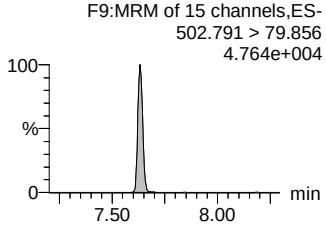

**13C2-PFDA**



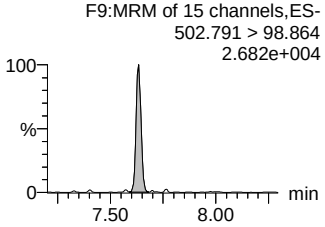

**18O2-PFHxS**




**13C4-PFOS-1**




**13C4-PFOS-2**




PVed by GW, SVed by hh 13-Mar-19. NOTE: Unit=ng based on 4 mL extract

**Quantify Sample Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_097-A1.qld

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**ID: FC027F-CAL,, /01, Name: FC9W_097S16, Description: 1,,2uL, Date: 08-Mar-2019, Time: 18:12:07**

| # | Name | IS# | Trace | RT | Area | IS Area | Std. Conc | Conc. | LOD | %Rec | S/N | Noise | Peak Height | IS Height | Sample size | F2 | Flags |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | PFBA | 64 | 212.763 > 168.903 | 2.11 | 264082 | 58312 | 204.900 | 215.975 | | 105.4 | 116... | 309 | 3593568 | 800293 | 1.000 | 1.0 | bb |
| 2 | PFPeA-1 | 65 | 262.951 > 218.996 | 4.34 | 157750 | 30018 | 102.100 | 108.144 | | 105.9 | 140... | 398 | 5587817 | 1066579 | 1.000 | 1.0 | bb |
| 3 | PFPeA-2 | 65 | 262.951 > 68.925 | 4.34 | 511 | 30018 | 102.100 | 104.561 | 0.5102 | 102.4 | 604 | 30 | 18352 | 1066579 | 1.000 | 1.0 | bb |
| 4 | PFHxA-1 | 66 | 313.012 > 269.017 | 4.92 | 63473 | 13055 | 51.250 | 53.322 | | 104.0 | 2837 | 855 | 2425996 | 512467 | 1.000 | 1.0 | bb |
| 5 | PFHxA-2 | 66 | 313.012 > 118.918 | 4.92 | 7189 | 13055 | 51.250 | 51.688 | 0.0598 | 100.9 | 2451 | 111 | 272353 | 512467 | 1.000 | 1.0 | bb |
| 6 | PFHpA-1 | 68 | 363.073 > 319.025 | 5.51 | 80796 | 16754 | 51.250 | 54.079 | | 105.5 | 3385 | 792 | 2682308 | 571186 | 1.000 | 1.0 | bb |
| 7 | PFHpA-2 | 68 | 363.073 > 168.962 | 5.52 | 26131 | 16754 | 51.250 | 54.063 | | 105.5 | 146... | 58 | 850058 | 571186 | 1.000 | 1.0 | bb |
| 8 | PFOA-1 | 69 | 413.006 > 369.03 | 6.39 | 136186 | 19060 | 51.250 | 50.935 | 0.0839 | 99.4 | 833 | 4203 | 3503100 | 478932 | 1.000 | 1.0 | bb |
| 9 | PFOA-2 | 69 | 413.006 > 168.963 | 6.39 | 40814 | 19060 | 51.250 | 51.143 | | 99.8 | 6051 | 173 | 1047243 | 478932 | 1.000 | 1.0 | bb |
| 10 | PFNA-1 | 70 | 463.002 > 418.97 | 7.13 | 110947 | 11481 | 50.000 | 51.277 | | 102.6 | 3039 | 1379 | 4192465 | 451717 | 1.000 | 1.0 | bb |
| 11 | PFNA-2 | 70 | 463.002 > 218.968 | 7.13 | 29249 | 11481 | 50.000 | 51.631 | 0.0545 | 103.3 | 2136 | 534 | 1141094 | 451717 | 1.000 | 1.0 | bb |
| 12 | PFDA-1 | 72 | 512.935 > 469.021 | 7.54 | 86299 | 10569 | 50.000 | 54.700 | | 109.4 | 1412 | 2222 | 3136250 | 383336 | 1.000 | 1.0 | bb |
| 13 | PFDA-2 | 72 | 512.935 > 218.972 | 7.54 | 21773 | 10569 | 50.000 | 55.173 | | 110.3 | 6037 | 133 | 805252 | 383336 | 1.000 | 1.0 | bb |
| 14 | PFUnA-1 | 71 | 563.124 > 519.003 | 7.84 | 75429 | 11005 | 50.000 | 54.671 | | 109.3 | 3534 | 884 | 3123871 | 458790 | 1.000 | 1.0 | bb |
| 15 | PFUnA-2 | 71 | 563.124 > 269.051 | 7.84 | 13587 | 11005 | 50.000 | 54.990 | | 110.0 | 148... | 37 | 553235 | 458790 | 1.000 | 1.0 | bb |
| 16 | PFDoA-1 | 73 | 613.057 > 569.045 | 8.19 | 99245 | 8988 | 50.000 | 55.068 | | 110.1 | 2070 | 1588 | 3286685 | 289576 | 1.000 | 1.0 | MM |
| 17 | PFDoA-2 | 73 | 613.057 > 318.996 | 8.19 | 12343 | 8988 | 50.000 | 56.360 | | 112.7 | 4633 | 88 | 408772 | 289576 | 1.000 | 1.0 | MM |
| 18 | PFTrDA-1 | 74 | 663.053 > 619.023 | 8.60 | 80192 | 9100 | 50.000 | 56.276 | | 112.6 | 1270 | 2253 | 2862217 | 286881 | 1.000 | 1.0 | MM |
| 19 | PFTrDA-2 | 74 | 663.053 > 168.949 | 8.60 | 14516 | 9100 | 50.000 | 56.413 | 0.0144 | 112.8 | 890 | 582 | 518387 | 286881 | 1.000 | 1.0 | MM |
| 20 | PFTeDA-1 | 74 | 713.05 > 669. | 9.03 | 61885 | 9100 | 50.000 | 53.678 | | 107.4 | 1912 | 1045 | 1998637 | 286881 | 1.000 | 1.0 | bb |
| 21 | PFTeDA-2 | 74 | 713.05 > 168.94 | 9.03 | 13003 | 9100 | 50.000 | 53.139 | | 106.3 | 2150 | 192 | 412166 | 286881 | 1.000 | 1.0 | bb |
| 22 | PFBS-1 | 75 | 298.663 > 79.865 | 4.89 | 30677 | 5186 | 51.250 | 51.566 | 0.0362 | 100.6 | 4370 | 259 | 1133610 | 192152 | 1.000 | 1.0 | bb |
| 23 | PFBS-2 | 76 | 298.663 > 98.811 | 4.89 | 15239 | 2445 | 51.250 | 52.655 | | 102.7 | 6312 | 88 | 554203 | 91117 | 1.000 | 1.0 | bb |
| 24 | PFPeS-1 | 77 | 349.107 > 79.857 | 5.57 | 20399 | 4259 | 47.500 | 50.649 | | 106.6 | 5327 | 118 | 629524 | 104696 | 1.000 | 1.0 | bb |
| 25 | PFPeS-2 | 78 | 349.107 > 98.871 | 5.57 | 11770 | 2323 | 47.500 | 51.923 | 0.0721 | 109.3 | 761 | 465 | 353875 | 56801 | 1.000 | 1.0 | bb |
| 26 | PFHxS-1 | 77 | 398.721 > 79.92 | 6.52 | 26797 | 4259 | 51.250 | 50.686 | 0.1404 | 98.9 | 4834 | 118 | 569229 | 104696 | 1.000 | 1.0 | MM |
| 27 | PFHxS-2 | 78 | 398.721 > 98.863 | 6.52 | 15340 | 2323 | 51.250 | 53.098 | 0.0276 | 103.6 | 1452 | 234 | 339849 | 56801 | 1.000 | 1.0 | MM |
| 28 | PFHpS-1 | 79 | 449.036 > 79.857 | 7.24 | 18624 | 4063 | 47.500 | 48.949 | | 103.1 | 2729 | 251 | 685048 | 156818 | 1.000 | 1.0 | MM |
| 29 | PFHpS-2 | 80 | 449.036 > 98.8 | 7.24 | 11435 | 2490 | 47.500 | 48.776 | 0.0642 | 102.7 | 2485 | 165 | 409578 | 92736 | 1.000 | 1.0 | bb |
| 30 | PFOS-1 | 79 | 498.906 > 79.856 | 7.63 | 23586 | 4063 | 51.250 | 51.367 | | 100.2 | 237... | 30 | 717898 | 156818 | 1.000 | 1.0 | MM |
| 31 | PFOS-2 | 80 | 498.906 > 98.801 | 7.63 | 12190 | 2490 | 51.250 | 51.985 | 0.0439 | 101.4 | 994 | 409 | 406790 | 92736 | 1.000 | 1.0 | MM |
| 32 | PFNS-1 | 79 | 548.775 > 79.858 | 7.95 | 23850 | 4063 | 47.500 | 53.125 | | 111.8 | 101... | 83 | 835721 | 156818 | 1.000 | 1.0 | MM |
| 33 | PFNS-2 | 80 | 548.775 > 98.801 | 7.95 | 13328 | 2490 | 47.500 | 50.790 | 0.0403 | 106.9 | 1899 | 241 | 458648 | 92736 | 1.000 | 1.0 | bb |
| 34 | PFDS-1 | 79 | 599.027 > 79.92 | 8.34 | 19834 | 4063 | 51.250 | 53.937 | | 105.2 | 3472 | 191 | 662930 | 156818 | 1.000 | 1.0 | MM |
| 35 | PFDS-2 | 80 | 599.027 > 98.8 | 8.34 | 11147 | 2490 | 51.250 | 52.879 | 0.2965 | 103.2 | 732 | 526 | 384885 | 92736 | 1.000 | 1.0 | bb |

PVed by GW, SVed by hh 13-Mar-19. NOTE: Unit=ng based on 4 mL extract

**Quantify Sample Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_097-A1.qld

Last Altered: Tuesday, March 12, 2019 17:19:00 Pacific Daylight Time
Printed: Wednesday, March 13, 2019 09:12:29 Pacific Daylight Time

**ID: FC027F-CAL,, /01, Name: FC9W_097S16, Description: 1,,2uL, Date: 08-Mar-2019, Time: 18:12:07**

| # | Name | IS# | Trace | RT | Area | IS Area | Std. Conc | Conc. | LOD | %Rec | S/N | Noise | Peak Height | IS Height | Sample size | F2 | Flags |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 36 | PFDoS-1 | 79 | 699.084 > 79.856 | 9.20 | 14615 | 4063 | 47.500 | 47.717 | | 100.5 | 2346 | 204 | 478821 | 156818 | 1.000 | 1.0 | bb |
| 37 | PFDoS-2 | 80 | 699.084 > 98.8 | 9.20 | 9300 | 2490 | 47.500 | 49.980 | 0.0054 | 105.2 | 2960 | 104 | 308708 | 92736 | 1.000 | 1.0 | bb |
| 38 | 4:2 FTS-1 | 81 | 327.077 > 307.017 | 4.78 | 39994 | 2744 | 200.000 | 199.445 | | 99.7 | 6992 | 219 | 1531680 | 100682 | 1.000 | 1.0 | MM |
| 39 | 4:2 FTS-2 | 81 | 327.077 > 80.85 | 4.78 | 25136 | 2744 | 200.000 | 201.922 | 0.1941 | 101.0 | 4664 | 205 | 957214 | 100682 | 1.000 | 1.0 | bb |
| 40 | 6:2 FTS-1 | 83 | 427.071 > 407.024 | 6.05 | 35363 | 2140 | 180.000 | 179.047 | | 99.5 | 2931 | 299 | 876908 | 52309 | 1.000 | 1.0 | MM |
| 41 | 6:2 FTS-2 | 83 | 427.071 > 80.9 | 6.04 | 22201 | 2140 | 180.000 | 181.520 | 0.1856 | 100.8 | 3727 | 154 | 575374 | 52309 | 1.000 | 1.0 | MM |
| 42 | 8:2 FTS-1 | 85 | 527.065 > 506.997 | 7.39 | 33852 | 3206 | 200.000 | 195.557 | | 97.8 | 6636 | 176 | 1170320 | 109910 | 1.000 | 1.0 | MM |
| 43 | 8:2 FTS-2 | 85 | 527.065 > 80.75 | 7.39 | 16661 | 3206 | 200.000 | 198.698 | | 99.3 | 8902 | 66 | 587060 | 109910 | 1.000 | 1.0 | MM |
| 44 | PFOSA-1 | 87 | 498.113 > 77.902 | 9.02 | 30386 | 6192 | 51.250 | 52.299 | 0.1501 | 102.0 | 2002 | 273 | 546781 | 124593 | 1.000 | 1.0 | MM |
| 45 | PFOSA-2 | 87 | 498.113 > 477.993 | 9.02 | 626 | 6192 | 51.250 | 53.119 | 3.9097 | 103.6 | 68 | 166 | 11274 | 124593 | 1.000 | 1.0 | MM |
| 46 | N-MeFOSA-1 | 88 | 511.937 > 218.985 | 9.96 | 18258 | 3171 | 57.500 | 62.436 | 0.0641 | 108.6 | 1390 | 258 | 358529 | 65281 | 1.000 | 1.0 | MM |
| 47 | N-MeFOSA-2 | 88 | 511.937 > 168.955 | 9.96 | 26771 | 3171 | 57.500 | 62.074 | 0.1704 | 108.0 | 641 | 799 | 512111 | 65281 | 1.000 | 1.0 | MM |
| 48 | N-EtFOSA-1 | 89 | 526.017 > 218.977 | 10.24 | 37835 | 2523 | 125.000 | 129.236 | | 103.4 | 1883 | 354 | 666389 | 59344 | 1.000 | 1.0 | MM |
| 49 | N-EtFOSA-2 | 89 | 526.017 > 168.95 | 10.24 | 56843 | 2523 | 125.000 | 131.753 | 0.0308 | 105.4 | 4083 | 232 | 947132 | 59344 | 1.000 | 1.0 | MM |
| 50 | MeFOSAA-1 | 90 | 570.134 > 419.035 | 7.59 | 17577 | 7011 | 50.000 | 52.495 | 0.0632 | 105.0 | 1714 | 362 | 620324 | 255031 | 1.000 | 1.0 | MM |
| 51 | MeFOSAA-2 | 90 | 570.134 > 482.99 | 7.59 | 8240 | 7011 | 50.000 | 54.399 | | 108.8 | 2292 | 129 | 294676 | 255031 | 1.000 | 1.0 | MM |
| 52 | EtFOSAA-1 | 91 | 584.15 > 419.062 | 7.73 | 11174 | 5701 | 50.000 | 50.978 | 0.1602 | 102.0 | 1524 | 267 | 406819 | 211233 | 1.000 | 1.0 | MM |
| 53 | EtFOSAA-2 | 91 | 584.15 > 526.045 | 7.73 | 9937 | 5701 | 50.000 | 48.839 | 0.1234 | 97.7 | 199... | 17 | 343182 | 211233 | 1.000 | 1.0 | MM |
| 54 | N-MeFOSE | 92 | 616.112 > 58.894 | 9.84 | 68899 | 13749 | 510.000 | 536.472 | 0.3314 | 105.2 | 2419 | 551 | 1333619 | 290732 | 1.000 | 1.0 | MM |
| 55 | N-EtFOSE | 93 | 630. > 58.893 | 10.13 | 72437 | 14341 | 382.500 | 399.260 | 0.9570 | 104.4 | 750 | 1588 | 1190389 | 306779 | 1.000 | 1.0 | MM |
| 56 | HFPO-DA-1 | 94 | 284.8894 > 168.... | 5.10 | 108423 | 24136 | 200.000 | 202.145 | | 101.1 | 256... | 148 | 3798791 | 845479 | 1.000 | 1.0 | bb |
| 57 | HFPO-DA-2 | 95 | 284.8894 > 184.... | 5.10 | 52380 | 12012 | 200.000 | 189.288 | 0.0997 | 94.6 | 3700 | 487 | 1803838 | 418943 | 1.000 | 1.0 | bb |
| 58 | ADONA-1 | 94 | 376.88 > 250.937 | 5.80 | 704563 | 24136 | 188.000 | 190.466 | | 101.3 | 652... | 294 | 19173316 | 845479 | 1.000 | 1.0 | bb |
| 59 | ADONA-2 | 95 | 376.88 > 84.832 | 5.80 | 222517 | 12012 | 188.000 | 155.789 | 0.5393 | 82.9 | 262... | 230 | 6036280 | 418943 | 1.000 | 1.0 | bb |
| 60 | 9Cl-PF3ONS-1 | 94 | 530.807 > 350.967 | 7.85 | 303338 | 24136 | 188.000 | 208.945 | | 111.1 | 217... | 540 | 11729813 | 845479 | 1.000 | 1.0 | MM |
| 61 | 9Cl-PF3ONS-2 | 95 | 532.804 > 352.947 | 7.85 | 94198 | 12012 | 188.000 | 199.292 | | 106.0 | 2419 | 1483 | 3586545 | 418943 | 1.000 | 1.0 | bb |
| 62 | 11Cl-PF3OUdS-1 | 94 | 630.865 > 450.902 | 8.64 | 201363 | 24136 | 188.000 | 198.770 | | 105.7 | 130... | 520 | 6792415 | 845479 | 1.000 | 1.0 | bb |
| 63 | 11Cl-PF3OUdS-2 | 95 | 632.868 > 452.91 | 8.64 | 65605 | 12012 | 188.000 | 187.166 | 0.1390 | 99.6 | 3319 | 675 | 2240904 | 418943 | 1.000 | 1.0 | bb |
| 64 | 13C4-PFBA | 96 | 216.776 > 171.928 | 2.10 | 58312 | 7195 | 40.000 | 39.583 | 0.0132 | 99.0 | 9181 | 87 | 800293 | 97093 | 1.000 | 1.0 | bb |
| 65 | 13C5-PFPeA | 97 | 268.16 > 223.035 | 4.34 | 30018 | 4322 | 20.000 | 21.401 | 0.0060 | 107.0 | 9825 | 109 | 1066579 | 167386 | 1.000 | 1.0 | bb |
| 66 | 13C5-PFHxA-1 | 97 | 318.029 > 272.993 | 4.92 | 13055 | 4322 | 10.000 | 10.724 | 0.0071 | 107.2 | 4608 | 111 | 512467 | 167386 | 1.000 | 1.0 | bb |
| 67 | 13C5-PFHxA-2 | 97 | 318.029 > 120.341 | 4.92 | 453 | 4322 | 10.000 | 10.954 | 0.0895 | 109.5 | 360 | 48 | 17193 | 167386 | 1.000 | 1.0 | bb |
| 68 | 13C4-PFHpA | 99 | 367.086 > 322.004 | 5.51 | 16754 | 748 | 10.000 | 10.295 | 0.0281 | 102.9 | 1463 | 390 | 571186 | 19194 | 1.000 | 1.0 | bb |
| 69 | 13C8-PFOA | 99 | 421.096 > 376.022 | 6.39 | 19060 | 748 | 10.000 | 10.193 | 0.0094 | 101.9 | 3192 | 150 | 478932 | 19194 | 1.000 | 1.0 | bb |
| 70 | 13C9-PFNA | 100 | 472.096 > 427.014 | 7.13 | 11481 | 2679 | 5.000 | 4.934 | 0.0092 | 98.7 | 1728 | 261 | 451717 | 98594 | 1.000 | 1.0 | bb |

PVed by GW, SVed by hh 13-Mar-19. NOTE: Unit=ng based on 4 mL extract

**Quantify Sample Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_097-A1.qld

Last Altered: Tuesday, March 12, 2019 17:19:00 Pacific Daylight Time
Printed: Wednesday, March 13, 2019 09:12:29 Pacific Daylight Time

**ID: FC027F-CAL,, /01, Name: FC9W_097S16, Description: 1,,2uL, Date: 08-Mar-2019, Time: 18:12:07**

| # | Name | IS# | Trace | RT | Area | IS Area | Std. Conc | Conc. | LOD | %Rec | S/N | Noise | Peak Height | IS Height | Sample size | F2 | Flags |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 71 | 13C7-PFUnA | 101 | 570.019 > 525.05 | 7.84 | 11005 | 2801 | 5.000 | 4.392 | 0.0122 | 87.8 | 1242 | 369 | 458790 | 101404 | 1.000 | 1.0 | bb |
| 72 | 13C6-PFDA | 101 | 519.147 > 474.058 | 7.54 | 10569 | 2801 | 5.000 | 5.012 | 0.0012 | 100.2 | 129... | 30 | 383336 | 101404 | 1.000 | 1.0 | bb |
| 73 | 13C2-PFDoA | 101 | 615.127 > 570.013 | 8.19 | 8988 | 2801 | 5.000 | 5.025 | 0.0011 | 100.5 | 116... | 25 | 289576 | 101404 | 1.000 | 1.0 | bb |
| 74 | 13C2-PFTeDA | 101 | 715.057 > 670.026 | 9.03 | 9100 | 2801 | 5.000 | 5.186 | 0.0052 | 103.7 | 2625 | 109 | 286881 | 101404 | 1.000 | 1.0 | MM |
| 75 | 13C3-PFBS-1 | 102 | 302.056 > 79.865 | 4.89 | 5186 | 1016 | 10.000 | 10.609 | 0.0149 | 106.1 | 3368 | 57 | 192152 | 23831 | 1.000 | 1.0 | bb |
| 76 | 13C3-PFBS-2 | 102 | 302.056 > 98.875 | 4.89 | 2445 | 1016 | 10.000 | 10.344 | 0.0108 | 103.4 | 4545 | 20 | 91117 | 23831 | 1.000 | 1.0 | bb |
| 77 | 13C3-PFHxS-1 | 102 | 402.114 > 79.858 | 6.52 | 4259 | 1016 | 10.000 | 10.109 | 0.0023 | 101.1 | 136... | 8 | 104696 | 23831 | 1.000 | 1.0 | bb |
| 78 | 13C3-PFHxS-2 | 102 | 402.114 > 98.801 | 6.52 | 2323 | 1016 | 10.000 | 9.896 | 0.0170 | 99.0 | 1818 | 31 | 56801 | 23831 | 1.000 | 1.0 | bb |
| 79 | 13C8-PFOS-1 | 103 | 507.124 > 79.858 | 7.63 | 4063 | 1243 | 10.000 | 10.323 | 0.0120 | 103.2 | 2602 | 60 | 156818 | 47623 | 1.000 | 1.0 | bb |
| 80 | 13C8-PFOS-2 | 104 | 507.124 > 98.867 | 7.63 | 2490 | 736 | 10.000 | 10.784 | 0.0363 | 107.8 | 912 | 102 | 92736 | 26774 | 1.000 | 1.0 | bb |
| 81 | 13C2-4:2 FTS-1 | 102 | 329.084 > 80.9 | 4.78 | 2744 | 1016 | 20.000 | 19.016 | 0.0836 | 95.1 | 1067 | 94 | 100682 | 23831 | 1.000 | 1.0 | MM |
| 82 | 13C2-4:2 FTS-2 | 102 | 329.084 > 309.024 | 4.78 | 7458 | 1016 | 20.000 | 22.149 | 0.1553 | 110.7 | 691 | 409 | 282588 | 23831 | 1.000 | 1.0 | bb |
| 83 | 13C2-6:2 FTS-1 | 102 | 429.078 > 80.900 | 6.04 | 2140 | 1016 | 20.000 | 18.359 | 0.0260 | 91.8 | 2208 | 24 | 52309 | 23831 | 1.000 | 1.0 | bb |
| 84 | 13C2-6:2 FTS-2 | 102 | 429.078 > 409.031 | 6.04 | 6040 | 1016 | 20.000 | 22.634 | 0.0171 | 113.2 | 4297 | 36 | 153612 | 23831 | 1.000 | 1.0 | bb |
| 85 | 13C2-8:2 FTS-1 | 102 | 529.1351 > 80.900 | 7.39 | 3206 | 1016 | 20.000 | 18.413 | 0.0084 | 92.1 | 9611 | 11 | 109910 | 23831 | 1.000 | 1.0 | bb |
| 86 | 13C2-8:2 FTS-2 | 102 | 529.135 > 509.003 | 7.39 | 5473 | 1016 | 20.000 | 23.367 | 0.0263 | 116.8 | 4093 | 48 | 196961 | 23831 | 1.000 | 1.0 | bb |
| 87 | 13C8-PFOSA | 103 | 506.14 > 77.841 | 9.02 | 6192 | 1243 | 10.000 | 9.952 | 0.0015 | 99.5 | 102... | 12 | 124593 | 47623 | 1.000 | 1.0 | bb |
| 88 | D3-N-MeFOSA | 103 | 514.956 > 218.974 | 9.95 | 3171 | 1243 | 10.000 | 9.871 | 0.0748 | 98.7 | 213 | 307 | 65281 | 47623 | 1.000 | 1.0 | MM |
| 89 | D5-N-EtFOSA | 103 | 531.112 > 218.984 | 10.23 | 2523 | 1243 | 10.000 | 9.301 | 0.0390 | 93.0 | 439 | 135 | 59344 | 47623 | 1.000 | 1.0 | bb |
| 90 | D3-MeFOSAA | 103 | 573.153 > 418.99 | 7.59 | 7011 | 1243 | 20.000 | 20.291 | 0.0032 | 101.5 | 182... | 14 | 255031 | 47623 | 1.000 | 1.0 | MM |
| 91 | D5-EtFOSAA | 103 | 589.245 > 418.971 | 7.72 | 5701 | 1243 | 20.000 | 19.744 | 0.0093 | 98.7 | 6177 | 34 | 211233 | 47623 | 1.000 | 1.0 | MM |
| 92 | D7-N-MeFOSE | 103 | 623.156 > 58.896 | 9.82 | 13749 | 1243 | 100.000 | 92.691 | 0.1330 | 92.7 | 1154 | 252 | 290732 | 47623 | 1.000 | 1.0 | bb |
| 93 | D9-N-EtFOSE | 103 | 639.184 > 58.897 | 10.11 | 14341 | 1243 | 100.000 | 93.340 | 0.0970 | 93.3 | 1612 | 190 | 306779 | 47623 | 1.000 | 1.0 | bb |
| 94 | 13C3-HFPO-DA-1 | 97 | 286.8631 > 168.... | 5.10 | 24136 | 4322 | 40.000 | 43.174 | 0.0076 | 107.9 | 154... | 55 | 845479 | 167386 | 1.000 | 1.0 | MM |
| 95 | 13C3-HFPO-DA-2 | 97 | 286.8631 > 184.... | 5.10 | 12012 | 4322 | 40.000 | 43.866 | 0.0183 | 109.7 | 6481 | 65 | 418943 | 167386 | 1.000 | 1.0 | bb |
| 96 | 13C3-PFBA | | 216.029 > 171.97 | 2.11 | 7195 | | 5.000 | 5.140 | 0.0518 | 102.8 | 298 | 326 | 97093 | | 1.000 | 1.0 | bb |
| 97 | 13C2-PFHxA-1 | | 315.083 > 269.984 | 4.92 | 4322 | | 2.500 | 2.421 | 0.0031 | 96.8 | 2369 | 71 | 167386 | | 1.000 | 1.0 | bb |
| 98 | 13C2-PFHxA-2 | | 315.083 > 119.359 | 4.91 | 132 | | 2.500 | 2.443 | 0.0112 | 97.7 | 652 | 8 | 5268 | | 1.000 | 1.0 | bb |
| 99 | 13C4-PFOA | | 417.083 > 171.95 | 6.39 | 748 | | 2.500 | 2.491 | 0.1199 | 99.6 | 62 | 308 | 19194 | | 1.000 | 1.0 | bb |
| 1... | 13C5-PFNA | | 468.019 > 423.008 | 7.13 | 2679 | | 1.250 | 1.313 | 0.0447 | 105.1 | 88 | 1119 | 98594 | | 1.000 | 1.0 | bb |
| 1... | 13C2-PFDA | | 515.134 > 470.05 | 7.54 | 2801 | | 1.250 | 1.232 | 0.0023 | 98.5 | 1581 | 64 | 101404 | | 1.000 | 1.0 | bb |
| 1... | 18O2-PFHxS | | 402.984 > 83.895 | 6.52 | 1016 | | 2.500 | 2.585 | 0.0203 | 103.4 | 382 | 62 | 23831 | | 1.000 | 1.0 | bb |
| 1... | 13C4-PFOS-1 | | 502.791 > 79.856 | 7.63 | 1243 | | 2.500 | 2.555 | 0.0025 | 102.2 | 3008 | 16 | 47623 | | 1.000 | 1.0 | bb |
| 1... | 13C4-PFOS-2 | | 502.791 > 98.864 | 7.63 | 736 | | 2.500 | 2.357 | 0.0274 | 94.3 | 258 | 104 | 26774 | | 1.000 | 1.0 | bb |

PVed by GW, SVed by hh 13-Mar-19. NOTE: Unit=ng based on 4 mL extract

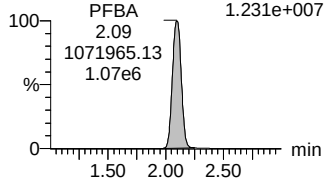
**Quantify Sample Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_097-A1.qld

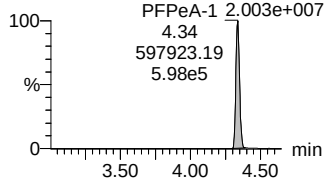
Last Altered: Tuesday, March 12, 2019 17:19:00 Pacific Daylight Time
Printed: Wednesday, March 13, 2019 09:12:29 Pacific Daylight Time

**ID: FC027G-CAL,, /01, Name: FC9W_097S17, Description: 1,,2uL, Date: 08-Mar-2019, Time: 18:25:24**

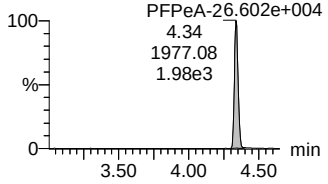
**PFBA**




**PFPeA-1**




**PFPeA-2**

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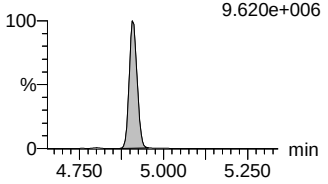
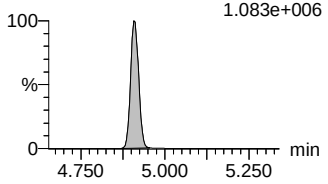
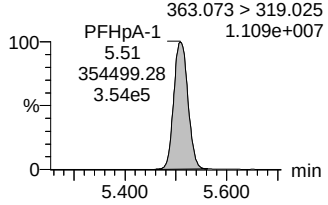



**PFHxA-2**




**PFHpA-1**

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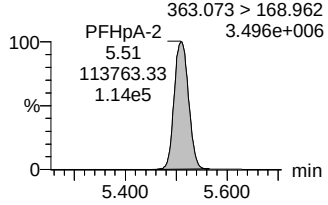


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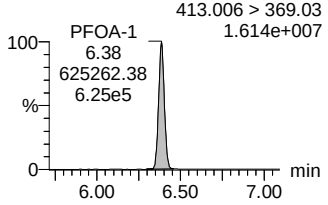


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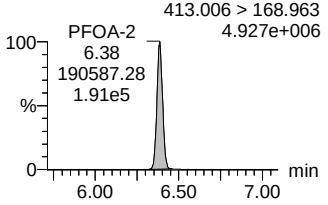


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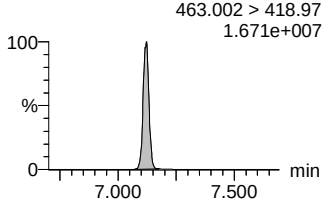


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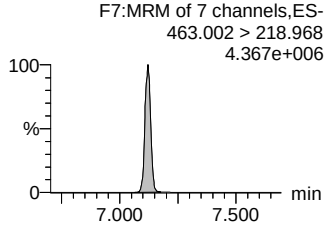


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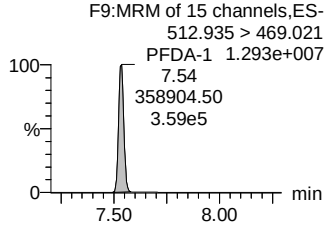


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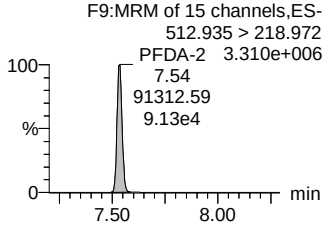


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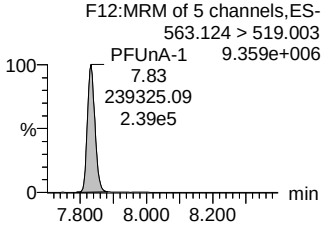


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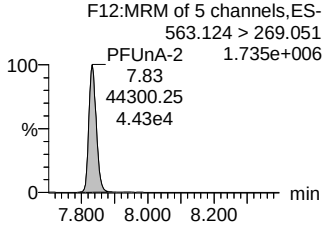


PVed by GW, SVed by hh 13-Mar-19. NOTE: Unit=ng based on 4 mL extract

**Quantify Sample Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_097-A1.qld

Last Altered: Tuesday, March 12, 2019 17:19:00 Pacific Daylight Time
Printed: Wednesday, March 13, 2019 09:12:29 Pacific Daylight Time

**ID: FC027G-CAL,, /01, Name: FC9W_097S17, Description: 1,,2uL, Date: 08-Mar-2019, Time: 18:25:24**

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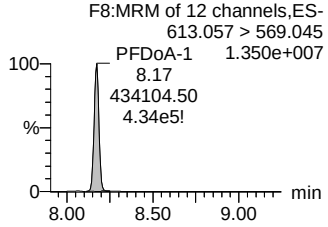


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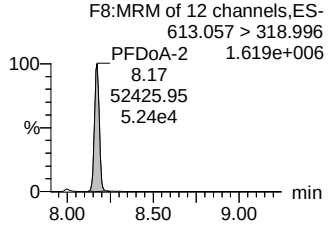


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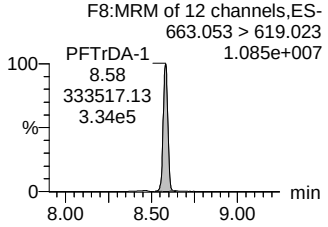


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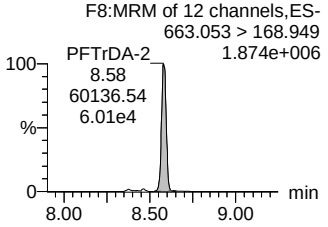


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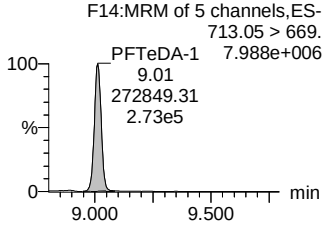


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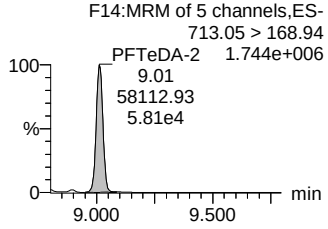


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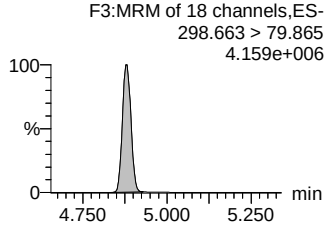


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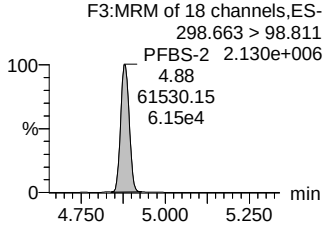


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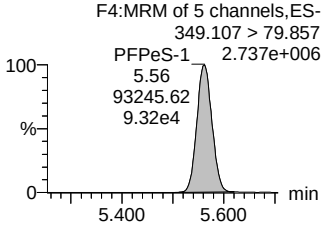


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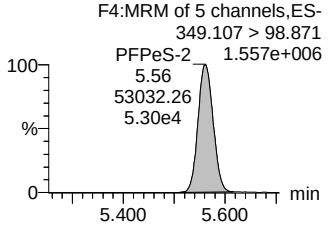


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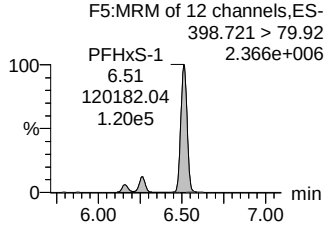


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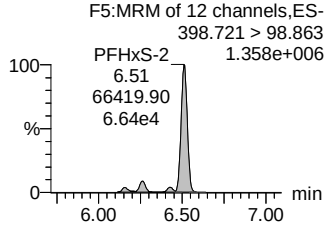


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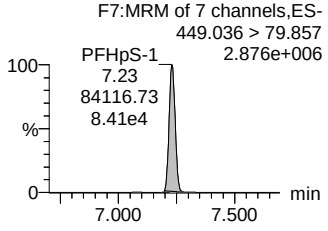


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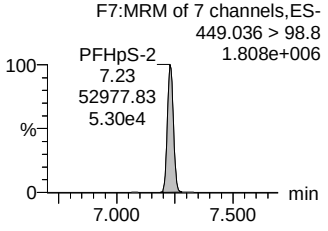


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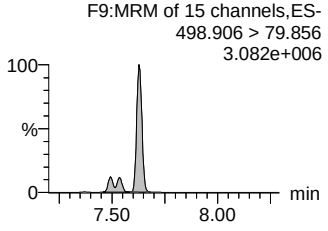


PVed by GW, SVed by hh 13-Mar-19. NOTE: Unit=ng based on 4 mL extract

**Quantify Sample Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_097-A1.qld

Last Altered: Tuesday, March 12, 2019 17:19:00 Pacific Daylight Time
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**ID: FC027G-CAL,, /01, Name: FC9W_097S17, Description: 1,,2uL, Date: 08-Mar-2019, Time: 18:25:24**

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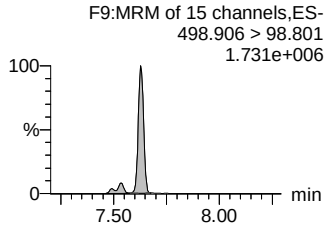


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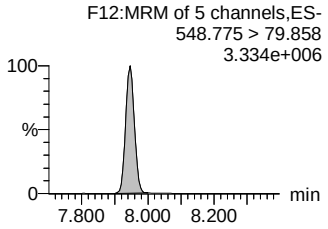


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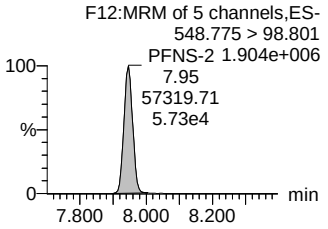


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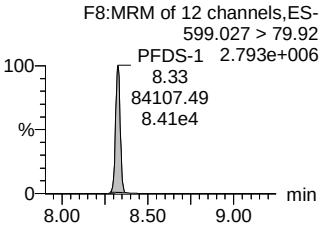


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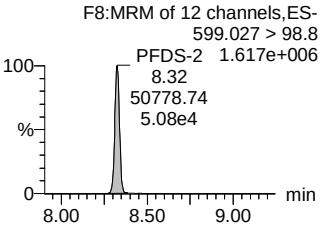


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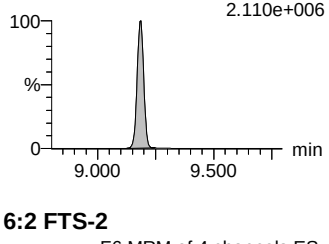


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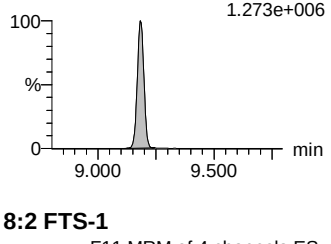


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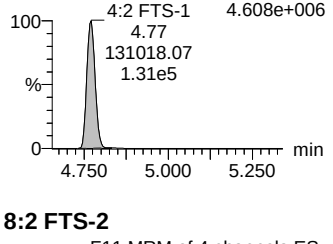


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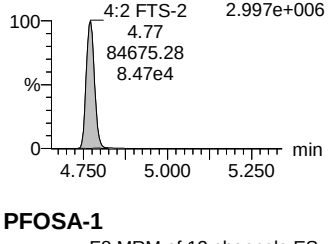


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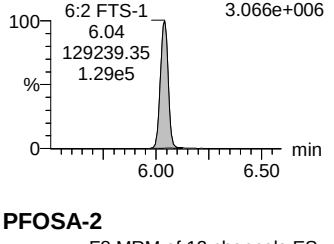


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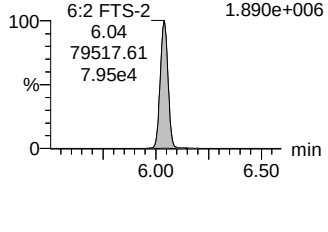


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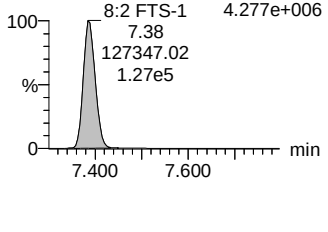


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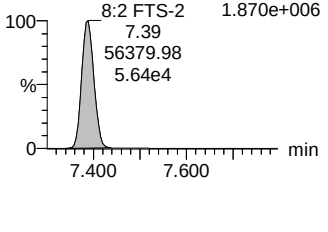


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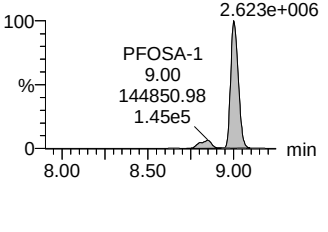


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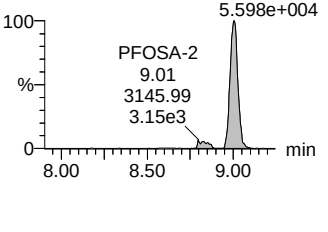


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**Quantify Sample Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

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**ID: FC027G-CAL,, /01, Name: FC9W_097S17, Description: 1,,2uL, Date: 08-Mar-2019, Time: 18:25:24**

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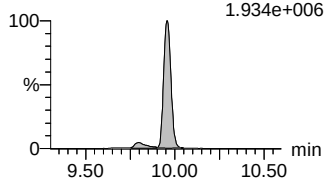


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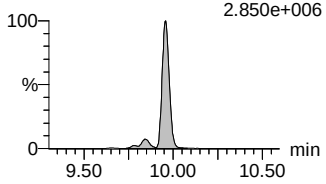


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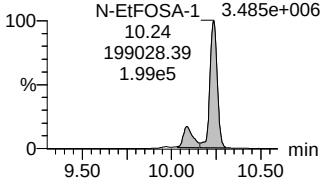


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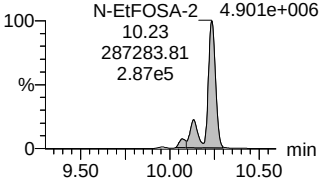


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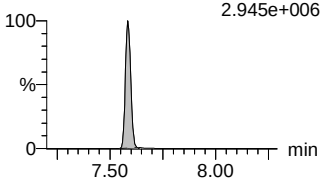


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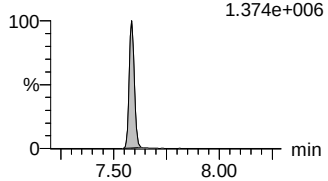


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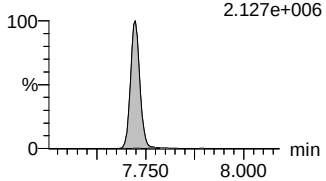


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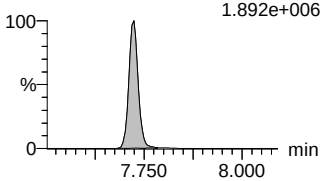


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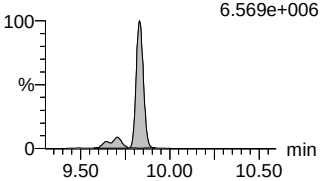


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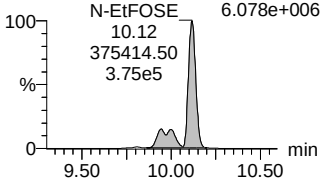
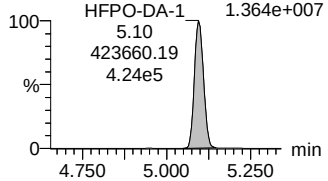



**HFPO-DA-1**

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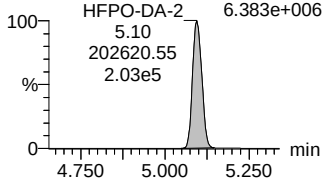


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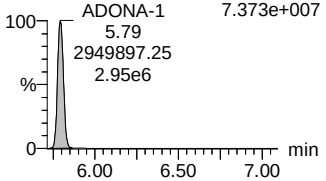


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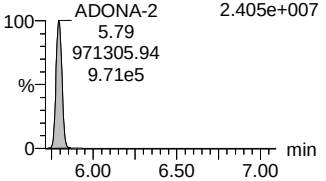
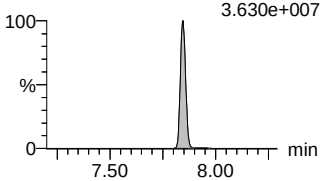



**9Cl-PF3ONS-1**




PVed by GW, SVed by hh 13-Mar-19. NOTE: Unit=ng based on 4 mL extract

**Quantify Sample Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_097-A1.qld

Last Altered: Tuesday, March 12, 2019 17:19:00 Pacific Daylight Time
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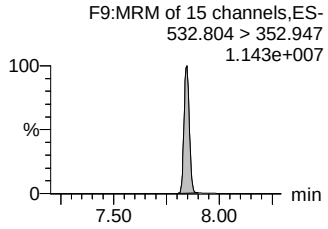
**ID: FC027G-CAL,, /01, Name: FC9W_097S17, Description: 1,,2uL, Date: 08-Mar-2019, Time: 18:25:24**

**9Cl-PF3ONS-2**

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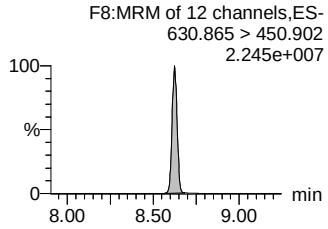


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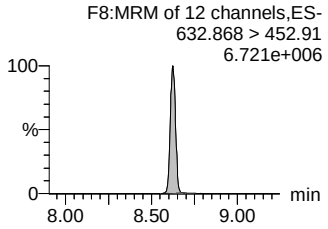


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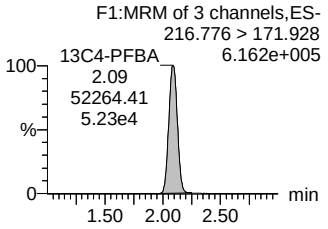


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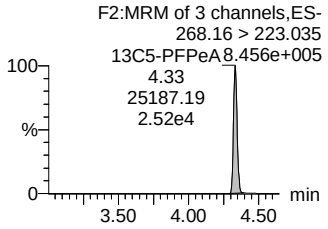


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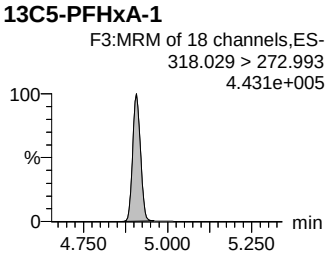


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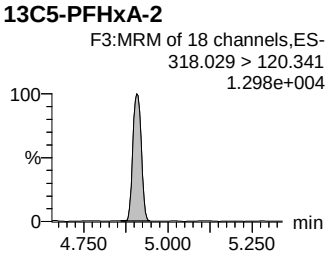


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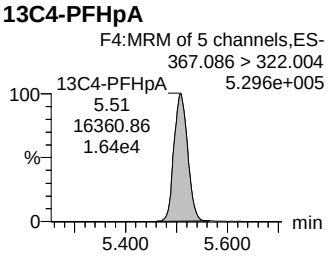


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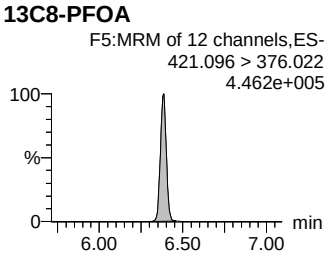


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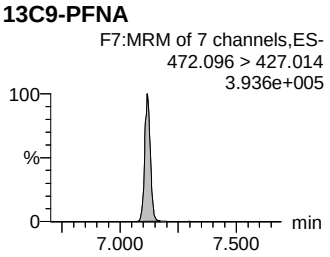


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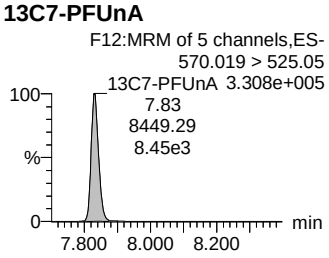


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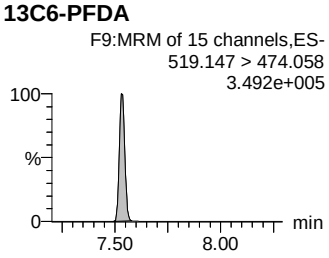


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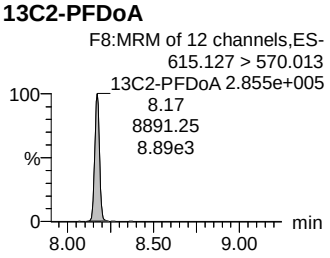
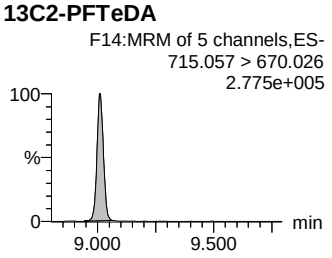



**13C2-PFTeDA**

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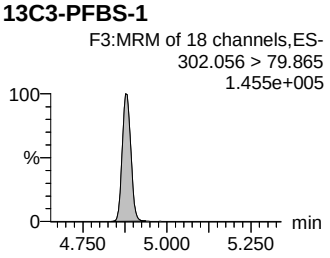


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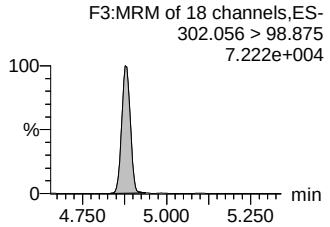


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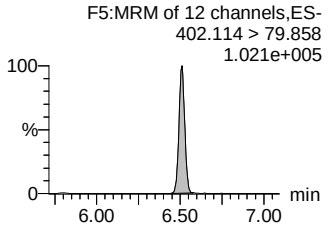


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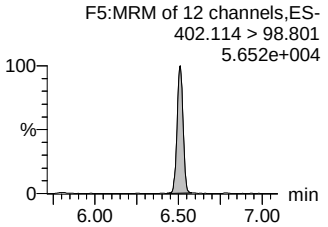


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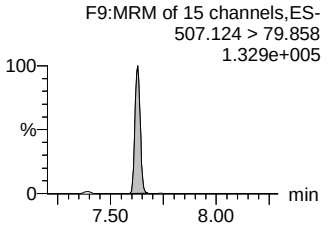


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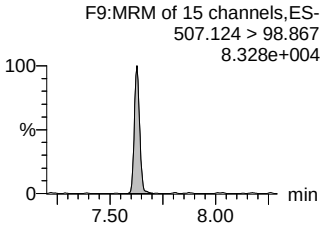


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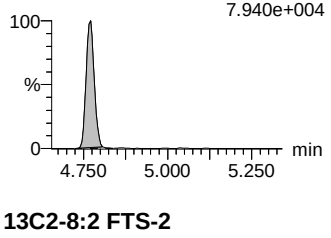


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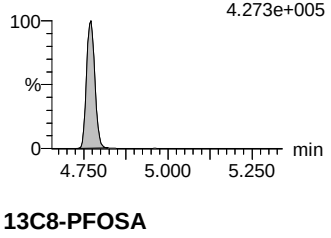


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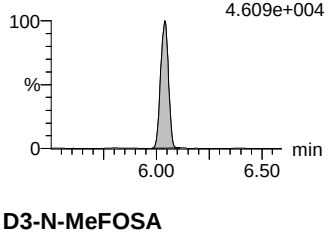


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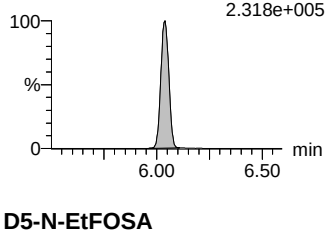


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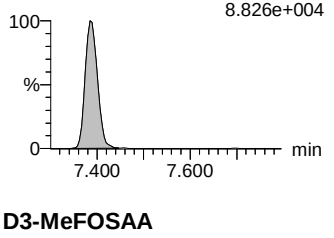


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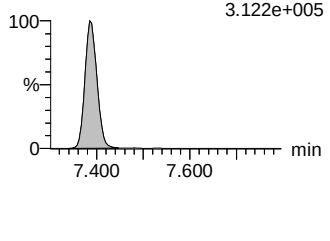


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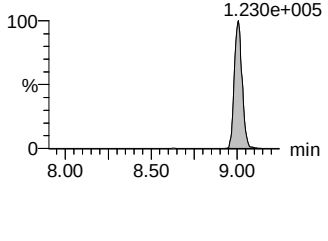
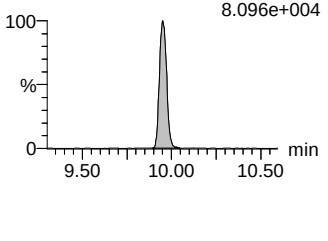



**D3-N-MeFOSA**

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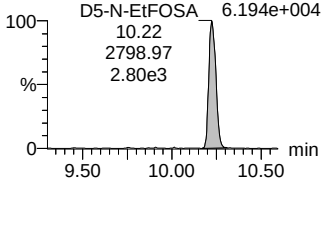


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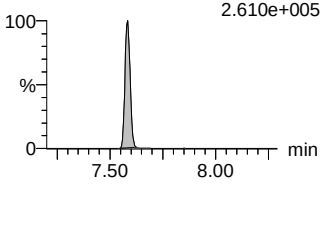


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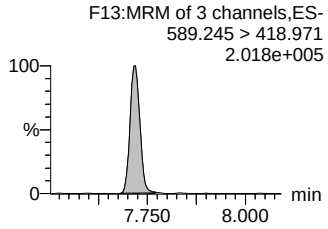


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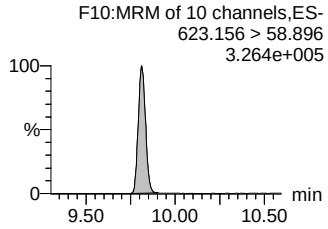


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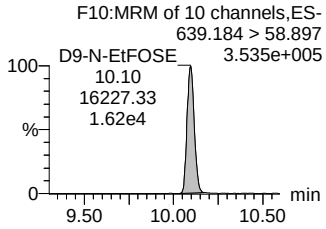


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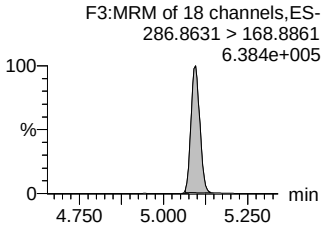


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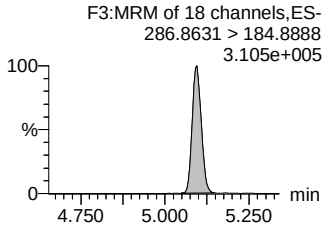


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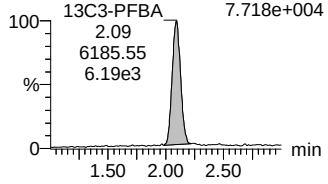


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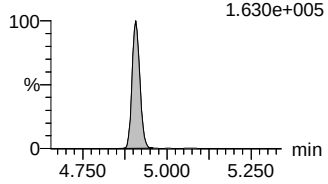


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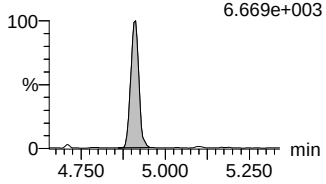


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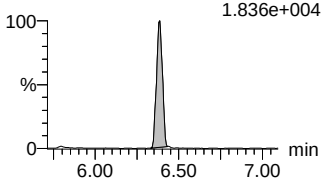


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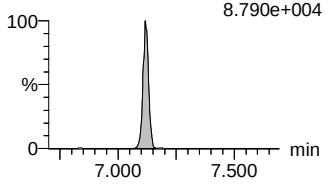


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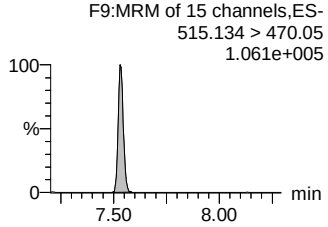


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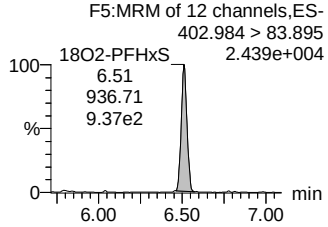


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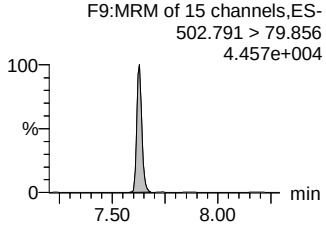


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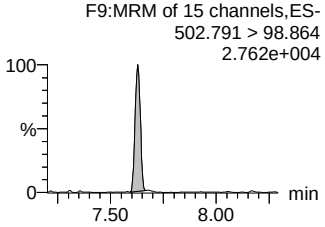


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Last Altered: Tuesday, March 12, 2019 17:19:00 Pacific Daylight Time
Printed: Wednesday, March 13, 2019 09:12:29 Pacific Daylight Time

**ID: FC027G-CAL,, /01, Name: FC9W_097S17, Description: 1,,2uL, Date: 08-Mar-2019, Time: 18:25:24**

| # | Name | IS# | Trace | RT | Area | IS Area | Std. Conc | Conc. | LOD | %Rec | S/N | Noise | Peak Height | IS Height | Sample size | F2 | Flags |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | PFBA | 64 | 212.763 > 168.903 | 2.09 | 1071965 | 52264 | 1024.500 | 978.722 | | 95.5 | 279... | 439 | 12279234 | 615187 | 1.000 | 1.0 | bb |
| 2 | PFPeA-1 | 65 | 262.951 > 218.996 | 4.34 | 597923 | 25187 | 510.700 | 489.129 | | 95.8 | 419... | 476 | 19981420 | 843652 | 1.000 | 1.0 | bb |
| 3 | PFPeA-2 | 65 | 262.951 > 68.925 | 4.34 | 1977 | 25187 | 510.700 | 482.388 | 0.4643 | 94.5 | 3006 | 22 | 65899 | 843652 | 1.000 | 1.0 | MM |
| 4 | PFHxA-1 | 66 | 313.012 > 269.017 | 4.91 | 257638 | 11729 | 256.250 | 241.241 | 0.0647 | 94.1 | 4550 | 2109 | 9597298 | 442367 | 1.000 | 1.0 | bb |
| 5 | PFHxA-2 | 66 | 313.012 > 118.918 | 4.91 | 29845 | 11729 | 256.250 | 238.859 | 0.1293 | 93.2 | 5273 | 205 | 1081161 | 442367 | 1.000 | 1.0 | bb |
| 6 | PFHpA-1 | 68 | 363.073 > 319.025 | 5.51 | 354499 | 16361 | 256.250 | 243.226 | 0.0654 | 94.9 | 5206 | 2124 | 11059423 | 528437 | 1.000 | 1.0 | bb |
| 7 | PFHpA-2 | 68 | 363.073 > 168.962 | 5.51 | 113763 | 16361 | 256.250 | 241.093 | 0.0397 | 94.1 | 115... | 302 | 3489602 | 528437 | 1.000 | 1.0 | bb |
| 8 | PFOA-1 | 69 | 413.006 > 369.03 | 6.38 | 625262 | 18051 | 256.250 | 247.340 | 0.0573 | 96.5 | 4787 | 3358 | 16077455 | 445480 | 1.000 | 1.0 | bb |
| 9 | PFOA-2 | 69 | 413.006 > 168.963 | 6.38 | 190587 | 18051 | 256.250 | 252.574 | | 98.6 | 113... | 432 | 4916925 | 445480 | 1.000 | 1.0 | bb |
| 10 | PFNA-1 | 70 | 463.002 > 418.97 | 7.12 | 474330 | 10760 | 250.000 | 234.258 | 7.9783 | 93.7 | 84 | 199... | 16669668 | 393197 | 1.000 | 1.0 | bb |
| 11 | PFNA-2 | 70 | 463.002 > 218.968 | 7.12 | 122593 | 10760 | 250.000 | 230.973 | 0.0408 | 92.4 | 115... | 376 | 4359604 | 393197 | 1.000 | 1.0 | bb |
| 12 | PFDA-1 | 72 | 512.935 > 469.021 | 7.54 | 358905 | 10146 | 250.000 | 237.535 | | 95.0 | 5509 | 2339 | 12882881 | 348196 | 1.000 | 1.0 | bb |
| 13 | PFDA-2 | 72 | 512.935 > 218.972 | 7.54 | 91313 | 10146 | 250.000 | 241.166 | 0.1172 | 96.5 | 4945 | 668 | 3302701 | 348196 | 1.000 | 1.0 | bb |
| 14 | PFUnA-1 | 71 | 563.124 > 519.003 | 7.83 | 239325 | 8449 | 250.000 | 226.109 | 0.1095 | 90.4 | 4131 | 2257 | 9325595 | 331010 | 1.000 | 1.0 | bb |
| 15 | PFUnA-2 | 71 | 563.124 > 269.051 | 7.83 | 44300 | 8449 | 250.000 | 233.821 | 0.4465 | 93.5 | 1308 | 1324 | 1731151 | 331010 | 1.000 | 1.0 | MM |
| 16 | PFDoA-1 | 73 | 613.057 > 569.045 | 8.17 | 434105 | 8891 | 250.000 | 244.053 | | 97.6 | 8165 | 1655 | 13510385 | 284806 | 1.000 | 1.0 | MM! |
| 17 | PFDoA-2 | 73 | 613.057 > 318.996 | 8.17 | 52426 | 8891 | 250.000 | 242.169 | 0.0179 | 96.9 | 9308 | 174 | 1622231 | 284806 | 1.000 | 1.0 | MM |
| 18 | PFTrDA-1 | 74 | 663.053 > 619.023 | 8.58 | 333517 | 8791 | 250.000 | 243.065 | 5.5607 | 97.2 | 131 | 83108 | 10864608 | 276087 | 1.000 | 1.0 | MM |
| 19 | PFTrDA-2 | 74 | 663.053 > 168.949 | 8.58 | 60137 | 8791 | 250.000 | 242.605 | 0.4118 | 97.0 | 1184 | 1591 | 1883640 | 276087 | 1.000 | 1.0 | MM |
| 20 | PFTeDA-1 | 74 | 713.05 > 669. | 9.01 | 272849 | 8791 | 250.000 | 245.951 | | 98.4 | 6966 | 1147 | 7992159 | 276087 | 1.000 | 1.0 | MM |
| 21 | PFTeDA-2 | 74 | 713.05 > 168.94 | 9.01 | 58113 | 8791 | 250.000 | 246.536 | | 98.6 | 8711 | 200 | 1744749 | 276087 | 1.000 | 1.0 | MM |
| 22 | PFBS-1 | 75 | 298.663 > 79.865 | 4.88 | 121994 | 4275 | 256.250 | 248.795 | 0.0702 | 97.1 | 107... | 385 | 4149261 | 145351 | 1.000 | 1.0 | bb |
| 23 | PFBS-2 | 76 | 298.663 > 98.811 | 4.88 | 61530 | 2115 | 256.250 | 245.869 | 0.1956 | 95.9 | 3105 | 683 | 2122339 | 72077 | 1.000 | 1.0 | bb |
| 24 | PFPeS-1 | 77 | 349.107 > 79.857 | 5.56 | 93246 | 3998 | 237.500 | 246.991 | 0.0684 | 104.0 | 5677 | 481 | 2730865 | 101753 | 1.000 | 1.0 | bb |
| 25 | PFPeS-2 | 78 | 349.107 > 98.871 | 5.56 | 53032 | 2295 | 237.500 | 237.383 | | 100.0 | 144... | 108 | 1551901 | 56364 | 1.000 | 1.0 | bb |
| 26 | PFHxS-1 | 77 | 398.721 > 79.92 | 6.51 | 120182 | 3998 | 256.250 | 241.768 | 0.1693 | 94.3 | 100... | 236 | 2364791 | 101753 | 1.000 | 1.0 | MM |
| 27 | PFHxS-2 | 78 | 398.721 > 98.863 | 6.51 | 66420 | 2295 | 256.250 | 232.878 | 0.0077 | 90.9 | 7290 | 186 | 1354264 | 56364 | 1.000 | 1.0 | MM |
| 28 | PFHpS-1 | 79 | 449.036 > 79.857 | 7.23 | 84117 | 3748 | 237.500 | 240.022 | | 101.1 | 111... | 254 | 2847055 | 132785 | 1.000 | 1.0 | MM |
| 29 | PFHpS-2 | 80 | 449.036 > 98.8 | 7.23 | 52978 | 2381 | 237.500 | 236.280 | 0.2439 | 99.5 | 2922 | 617 | 1803576 | 83245 | 1.000 | 1.0 | bb |
| 30 | PFOS-1 | 79 | 498.906 > 79.856 | 7.63 | 106955 | 3748 | 256.250 | 252.885 | 0.0790 | 98.7 | 3368 | 912 | 3073324 | 132785 | 1.000 | 1.0 | MM |
| 31 | PFOS-2 | 80 | 498.906 > 98.801 | 7.63 | 54896 | 2381 | 256.250 | 245.165 | 0.0841 | 95.7 | 3661 | 472 | 1728165 | 83245 | 1.000 | 1.0 | MM |
| 32 | PFNS-1 | 79 | 548.775 > 79.858 | 7.95 | 100551 | 3748 | 237.500 | 243.409 | | 102.5 | 361... | 92 | 3326157 | 132785 | 1.000 | 1.0 | bb |
| 33 | PFNS-2 | 80 | 548.775 > 98.801 | 7.95 | 57320 | 2381 | 237.500 | 228.548 | 0.0842 | 96.2 | 5511 | 345 | 1901056 | 83245 | 1.000 | 1.0 | bb |
| 34 | PFDS-1 | 79 | 599.027 > 79.92 | 8.33 | 84107 | 3748 | 256.250 | 248.073 | 0.0354 | 96.8 | 8983 | 308 | 2765623 | 132785 | 1.000 | 1.0 | MM |
| 35 | PFDS-2 | 80 | 599.027 > 98.8 | 8.32 | 50779 | 2381 | 256.250 | 251.548 | 0.2067 | 98.2 | 6189 | 261 | 1614546 | 83245 | 1.000 | 1.0 | bb |

PVed by GW, SVed by hh 13-Mar-19. NOTE: Unit=ng based on 4 mL extract

**Quantify Sample Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_097-A1.qld

Last Altered: Tuesday, March 12, 2019 17:19:00 Pacific Daylight Time
Printed: Wednesday, March 13, 2019 09:12:29 Pacific Daylight Time

**ID: FC027G-CAL,, /01, Name: FC9W_097S17, Description: 1,,2uL, Date: 08-Mar-2019, Time: 18:25:24**

| # | Name | IS# | Trace | RT | Area | IS Area | Std. Conc | Conc. | LOD | %Rec | S/N | Noise | Peak Height | IS Height | Sample size | F2 | Flags |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 36 | PFDoS-1 | 79 | 699.084 > 79.856 | 9.19 | 69022 | 3748 | 237.500 | 244.564 | 0.0915 | 103.0 | 3868 | 544 | 2104773 | 132785 | 1.000 | 1.0 | bb |
| 37 | PFDoS-2 | 80 | 699.084 > 98.8 | 9.18 | 41360 | 2381 | 237.500 | 232.594 | 0.0532 | 97.9 | 6598 | 193 | 1270365 | 83245 | 1.000 | 1.0 | bb |
| 38 | 4:2 FTS-1 | 81 | 327.077 > 307.017 | 4.77 | 131018 | 2158 | 1000.000 | 831.034 | 0.1867 | 83.1 | 7260 | 635 | 4613263 | 78842 | 1.000 | 1.0 | MMX |
| 39 | 4:2 FTS-2 | 81 | 327.077 > 80.85 | 4.77 | 84675 | 2158 | 1000.000 | 864.490 | 0.3045 | 86.4 | 102... | 292 | 3002396 | 78842 | 1.000 | 1.0 | MMX |
| 40 | 6:2 FTS-1 | 83 | 427.071 > 407.024 | 6.04 | 129239 | 1965 | 900.000 | 713.274 | | 79.3 | 120... | 254 | 3068683 | 45979 | 1.000 | 1.0 | MMX |
| 41 | 6:2 FTS-2 | 83 | 427.071 > 80.9 | 6.04 | 79518 | 1965 | 900.000 | 707.786 | 0.2858 | 78.6 | 8458 | 223 | 1890110 | 45979 | 1.000 | 1.0 | MMX |
| 42 | 8:2 FTS-1 | 85 | 527.065 > 506.997 | 7.38 | 127347 | 2666 | 1000.000 | 885.653 | 0.0385 | 88.6 | 9507 | 449 | 4272852 | 88196 | 1.000 | 1.0 | MMX |
| 43 | 8:2 FTS-2 | 85 | 527.065 > 80.75 | 7.39 | 56380 | 2666 | 1000.000 | 809.192 | 0.3548 | 80.9 | 4587 | 406 | 1863876 | 88196 | 1.000 | 1.0 | bbX |
| 44 | PFOSA-1 | 87 | 498.113 > 77.902 | 9.00 | 144851 | 6363 | 256.250 | 242.339 | 0.3706 | 94.6 | 2334 | 1119 | 2612393 | 122985 | 1.000 | 1.0 | MM |
| 45 | PFOSA-2 | 87 | 498.113 > 477.993 | 9.01 | 3146 | 6363 | 256.250 | 252.363 | 3.4081 | 98.5 | 453 | 124 | 55958 | 122985 | 1.000 | 1.0 | MM |
| 46 | N-MeFOSA-1 | 88 | 511.937 > 218.985 | 9.95 | 97684 | 3752 | 287.500 | 282.556 | 0.1784 | 98.3 | 3202 | 603 | 1931688 | 80827 | 1.000 | 1.0 | MM |
| 47 | N-MeFOSA-2 | 88 | 511.937 > 168.955 | 9.96 | 144032 | 3752 | 287.500 | 282.621 | 0.0881 | 98.3 | 4143 | 688 | 2849377 | 80827 | 1.000 | 1.0 | MM |
| 48 | N-EtFOSA-1 | 89 | 526.017 > 218.977 | 10.24 | 199028 | 2799 | 625.000 | 613.413 | 0.1868 | 98.1 | 4063 | 854 | 3468746 | 61773 | 1.000 | 1.0 | MM |
| 49 | N-EtFOSA-2 | 89 | 526.017 > 168.95 | 10.23 | 287284 | 2799 | 625.000 | 600.334 | 0.0383 | 96.1 | 182... | 268 | 4876984 | 61773 | 1.000 | 1.0 | MM |
| 50 | MeFOSAA-1 | 90 | 570.134 > 419.035 | 7.58 | 85199 | 7124 | 250.000 | 250.523 | 0.0813 | 100.2 | 6674 | 443 | 2956190 | 259444 | 1.000 | 1.0 | MM |
| 51 | MeFOSAA-2 | 90 | 570.134 > 482.99 | 7.58 | 38180 | 7124 | 250.000 | 248.601 | 0.0602 | 99.4 | 3460 | 396 | 1368923 | 259444 | 1.000 | 1.0 | MM |
| 52 | EtFOSAA-1 | 91 | 584.15 > 419.062 | 7.72 | 58785 | 5815 | 250.000 | 262.688 | 0.1900 | 105.1 | 6437 | 331 | 2130987 | 201051 | 1.000 | 1.0 | MM |
| 53 | EtFOSAA-2 | 91 | 584.15 > 526.045 | 7.72 | 52181 | 5815 | 250.000 | 250.958 | 0.4042 | 100.4 | 2744 | 690 | 1891835 | 201051 | 1.000 | 1.0 | MM |
| 54 | N-MeFOSE | 92 | 616.112 > 58.894 | 9.83 | 358206 | 15263 | 2550.000 | 2513.426 | 0.4539 | 98.6 | 8836 | 742 | 6556298 | 325818 | 1.000 | 1.0 | MM |
| 55 | N-EtFOSE | 93 | 630. > 58.893 | 10.12 | 375415 | 16227 | 1912.500 | 1829.640 | 0.2734 | 95.7 | 7477 | 809 | 6047585 | 352288 | 1.000 | 1.0 | MM |
| 56 | HFPO-DA-1 | 94 | 284.8894 > 168.... | 5.10 | 423660 | 19239 | 1000.000 | 993.077 | | 99.3 | 403... | 337 | 13601916 | 634034 | 1.000 | 1.0 | bb |
| 57 | HFPO-DA-2 | 95 | 284.8894 > 184.... | 5.10 | 202621 | 9647 | 1000.000 | 911.915 | 0.1520 | 91.2 | 131... | 485 | 6363732 | 309653 | 1.000 | 1.0 | bb |
| 58 | ADONA-1 | 94 | 376.88 > 250.937 | 5.79 | 2949897 | 19239 | 940.000 | 1002.790 | | 106.7 | 509... | 1442 | 73540400 | 634034 | 1.000 | 1.0 | bb |
| 59 | ADONA-2 | 95 | 376.88 > 84.832 | 5.79 | 971306 | 9647 | 940.000 | 844.402 | 0.5606 | 89.8 | 554... | 433 | 23986456 | 309653 | 1.000 | 1.0 | bb |
| 60 | 9Cl-PF3ONS-1 | 94 | 530.807 > 350.967 | 7.85 | 1053342 | 19239 | 940.000 | 913.261 | | 97.2 | 156... | 2326 | 36326112 | 634034 | 1.000 | 1.0 | MM |
| 61 | 9Cl-PF3ONS-2 | 95 | 532.804 > 352.947 | 7.85 | 331477 | 9647 | 940.000 | 875.600 | | 93.1 | 7318 | 1558 | 11398781 | 309653 | 1.000 | 1.0 | bb |
| 62 | 11Cl-PF3OUdS-1 | 94 | 630.865 > 450.902 | 8.62 | 745589 | 19239 | 940.000 | 924.735 | | 98.4 | 122... | 1831 | 22389728 | 634034 | 1.000 | 1.0 | bb |
| 63 | 11Cl-PF3OUdS-2 | 95 | 632.868 > 452.91 | 8.62 | 239356 | 9647 | 940.000 | 850.353 | 0.2608 | 90.5 | 7792 | 866 | 6746537 | 309653 | 1.000 | 1.0 | MM |
| 64 | 13C4-PFBA | 96 | 216.776 > 171.928 | 2.09 | 52264 | 6186 | 40.000 | 41.268 | 0.0179 | 103.2 | 6732 | 91 | 615187 | 74705 | 1.000 | 1.0 | bb |
| 65 | 13C5-PFPeA | 97 | 268.16 > 223.035 | 4.33 | 25187 | 4329 | 20.000 | 17.930 | 0.0061 | 89.6 | 7820 | 108 | 843652 | 162777 | 1.000 | 1.0 | bb |
| 66 | 13C5-PFHxA-1 | 97 | 318.029 > 272.993 | 4.91 | 11729 | 4329 | 10.000 | 9.619 | 0.0103 | 96.2 | 2798 | 158 | 442367 | 162777 | 1.000 | 1.0 | bb |
| 67 | 13C5-PFHxA-2 | 97 | 318.029 > 120.341 | 4.91 | 374 | 4329 | 10.000 | 9.041 | 0.0404 | 90.4 | 617 | 21 | 12925 | 162777 | 1.000 | 1.0 | bb |
| 68 | 13C4-PFHpA | 99 | 367.086 > 322.004 | 5.51 | 16361 | 739 | 10.000 | 10.175 | 0.0425 | 101.7 | 942 | 561 | 528437 | 18188 | 1.000 | 1.0 | bb |
| 69 | 13C8-PFOA | 99 | 421.096 > 376.022 | 6.38 | 18051 | 739 | 10.000 | 9.770 | 0.0011 | 97.7 | 273... | 16 | 445480 | 18188 | 1.000 | 1.0 | bb |
| 70 | 13C9-PFNA | 100 | 472.096 > 427.014 | 7.12 | 10760 | 2396 | 5.000 | 5.169 | 0.0052 | 103.4 | 2987 | 132 | 393197 | 87843 | 1.000 | 1.0 | bb |

PVed by GW, SVed by hh 13-Mar-19. NOTE: Unit=ng based on 4 mL extract

**Quantify Sample Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_097-A1.qld

Last Altered: Tuesday, March 12, 2019 17:19:00 Pacific Daylight Time
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**ID: FC027G-CAL,, /01, Name: FC9W_097S17, Description: 1,,2uL, Date: 08-Mar-2019, Time: 18:25:24**

| # | Name | IS# | Trace | RT | Area | IS Area | Std. Conc | Conc. | LOD | %Rec | S/N | Noise | Peak Height | IS Height | Sample size | F2 | Flags |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 71 | 13C7-PFUnA | 101 | 570.019 > 525.05 | 7.83 | 8449 | 2980 | 5.000 | 3.170 | 0.0036 | 63.4 | 2887 | 115 | 331010 | 106022 | 1.000 | 1.0 | MM |
| 72 | 13C6-PFDA | 101 | 519.147 > 474.058 | 7.53 | 10146 | 2980 | 5.000 | 4.524 | 0.0009 | 90.5 | 141... | 25 | 348196 | 106022 | 1.000 | 1.0 | bb |
| 73 | 13C2-PFDoA | 101 | 615.127 > 570.013 | 8.17 | 8891 | 2980 | 5.000 | 4.674 | 0.0037 | 93.5 | 3380 | 84 | 284806 | 106022 | 1.000 | 1.0 | MM |
| 74 | 13C2-PFTeDA | 101 | 715.057 > 670.026 | 9.01 | 8791 | 2980 | 5.000 | 4.710 | 0.0087 | 94.2 | 1441 | 192 | 276087 | 106022 | 1.000 | 1.0 | bb |
| 75 | 13C3-PFBS-1 | 102 | 302.056 > 79.865 | 4.88 | 4275 | 937 | 10.000 | 9.480 | 0.0098 | 94.8 | 3817 | 38 | 145351 | 24151 | 1.000 | 1.0 | bb |
| 76 | 13C3-PFBS-2 | 102 | 302.056 > 98.875 | 4.88 | 2115 | 937 | 10.000 | 9.703 | 0.0202 | 97.0 | 1906 | 38 | 72077 | 24151 | 1.000 | 1.0 | bb |
| 77 | 13C3-PFHxS-1 | 102 | 402.114 > 79.858 | 6.51 | 3998 | 937 | 10.000 | 10.286 | 0.0114 | 102.9 | 2674 | 38 | 101753 | 24151 | 1.000 | 1.0 | bb |
| 78 | 13C3-PFHxS-2 | 102 | 402.114 > 98.801 | 6.51 | 2295 | 937 | 10.000 | 10.602 | 0.0169 | 106.0 | 1790 | 31 | 56364 | 24151 | 1.000 | 1.0 | bb |
| 79 | 13C8-PFOS-1 | 103 | 507.124 > 79.858 | 7.63 | 3748 | 1215 | 10.000 | 9.745 | 0.0608 | 97.4 | 465 | 286 | 132785 | 44502 | 1.000 | 1.0 | bb |
| 80 | 13C8-PFOS-2 | 104 | 507.124 > 98.867 | 7.63 | 2381 | 768 | 10.000 | 9.880 | 0.0472 | 98.8 | 616 | 135 | 83245 | 27362 | 1.000 | 1.0 | bb |
| 81 | 13C2-4:2 FTS-1 | 102 | 329.084 > 80.9 | 4.77 | 2158 | 937 | 20.000 | 16.218 | 0.0519 | 81.1 | 1328 | 59 | 78842 | 24151 | 1.000 | 1.0 | MM |
| 82 | 13C2-4:2 FTS-2 | 102 | 329.084 > 309.024 | 4.77 | 12109 | 937 | 20.000 | 38.993 | 0.0219 | 195.0 | 7289 | 59 | 426493 | 24151 | 1.000 | 1.0 | bbX |
| 83 | 13C2-6:2 FTS-1 | 102 | 429.078 > 80.900 | 6.04 | 1965 | 937 | 20.000 | 18.280 | 0.0181 | 91.4 | 2753 | 17 | 45979 | 24151 | 1.000 | 1.0 | MM |
| 84 | 13C2-6:2 FTS-2 | 102 | 429.078 > 409.031 | 6.04 | 9975 | 937 | 20.000 | 40.525 | 0.0650 | 202.6 | 1680 | 137 | 230878 | 24151 | 1.000 | 1.0 | bbX |
| 85 | 13C2-8:2 FTS-1 | 102 | 529.1351 > 80.900 | 7.38 | 2666 | 937 | 20.000 | 16.598 | 0.0089 | 83.0 | 7140 | 12 | 88196 | 24151 | 1.000 | 1.0 | bb |
| 86 | 13C2-8:2 FTS-2 | 102 | 529.135 > 509.003 | 7.38 | 9272 | 937 | 20.000 | 42.921 | 0.2043 | 214.6 | 821 | 379 | 311655 | 24151 | 1.000 | 1.0 | bbX |
| 87 | 13C8-PFOSA | 103 | 506.14 > 77.841 | 9.01 | 6363 | 1215 | 10.000 | 10.464 | 0.0020 | 104.6 | 8441 | 15 | 122985 | 44502 | 1.000 | 1.0 | bb |
| 88 | D3-N-MeFOSA | 103 | 514.956 > 218.974 | 9.95 | 3752 | 1215 | 10.000 | 11.951 | 0.0220 | 119.5 | 957 | 84 | 80827 | 44502 | 1.000 | 1.0 | bb |
| 89 | D5-N-EtFOSA | 103 | 531.112 > 218.984 | 10.22 | 2799 | 1215 | 10.000 | 10.559 | 0.0562 | 105.6 | 340 | 182 | 61773 | 44502 | 1.000 | 1.0 | bb |
| 90 | D3-MeFOSAA | 103 | 573.153 > 418.99 | 7.58 | 7124 | 1215 | 20.000 | 21.097 | 0.0268 | 105.5 | 2346 | 111 | 259444 | 44502 | 1.000 | 1.0 | MM |
| 91 | D5-EtFOSAA | 103 | 589.245 > 418.971 | 7.72 | 5815 | 1215 | 20.000 | 20.606 | 0.1688 | 103.0 | 346 | 582 | 201051 | 44502 | 1.000 | 1.0 | MM |
| 92 | D7-N-MeFOSE | 103 | 623.156 > 58.896 | 9.81 | 15263 | 1215 | 100.000 | 105.293 | 0.1367 | 105.3 | 1346 | 242 | 325818 | 44502 | 1.000 | 1.0 | bb |
| 93 | D9-N-EtFOSE | 103 | 639.184 > 58.897 | 10.10 | 16227 | 1215 | 100.000 | 108.075 | 0.1058 | 108.1 | 1815 | 194 | 352288 | 44502 | 1.000 | 1.0 | bb |
| 94 | 13C3-HFPO-DA-1 | 97 | 286.8631 > 168.... | 5.10 | 19239 | 4329 | 40.000 | 34.363 | 0.0078 | 85.9 | 116... | 54 | 634034 | 162777 | 1.000 | 1.0 | MM |
| 95 | 13C3-HFPO-DA-2 | 97 | 286.8631 > 184.... | 5.10 | 9647 | 4329 | 40.000 | 35.176 | 0.0497 | 87.9 | 1814 | 171 | 309653 | 162777 | 1.000 | 1.0 | bb |
| 96 | 13C3-PFBA | | 216.029 > 171.97 | 2.09 | 6186 | | 5.000 | 4.419 | 0.0503 | 88.4 | 263 | 284 | 74705 | | 1.000 | 1.0 | bb |
| 97 | 13C2-PFHxA-1 | | 315.083 > 269.984 | 4.91 | 4329 | | 2.500 | 2.425 | 0.0004 | 97.0 | 170... | 10 | 162777 | | 1.000 | 1.0 | bb |
| 98 | 13C2-PFHxA-2 | | 315.083 > 119.359 | 4.91 | 184 | | 2.500 | 3.408 | 0.3075 | 136.3 | 33 | 199 | 6621 | | 1.000 | 1.0 | bb |
| 99 | 13C4-PFOA | | 417.083 > 171.95 | 6.38 | 739 | | 2.500 | 2.461 | 0.0136 | 98.4 | 544 | 33 | 18188 | | 1.000 | 1.0 | bb |
| 1... | 13C5-PFNA | | 468.019 > 423.008 | 7.12 | 2396 | | 1.250 | 1.175 | 0.0396 | 94.0 | 89 | 988 | 87843 | | 1.000 | 1.0 | bb |
| 1... | 13C2-PFDA | | 515.134 > 470.05 | 7.53 | 2980 | | 1.250 | 1.310 | 0.0009 | 104.8 | 4410 | 24 | 106022 | | 1.000 | 1.0 | bb |
| 1... | 18O2-PFHxS | | 402.984 > 83.895 | 6.51 | 937 | | 2.500 | 2.385 | 0.0148 | 95.4 | 484 | 50 | 24151 | | 1.000 | 1.0 | bb |
| 1... | 13C4-PFOS-1 | | 502.791 > 79.856 | 7.63 | 1215 | | 2.500 | 2.496 | 0.0031 | 99.9 | 2398 | 19 | 44502 | | 1.000 | 1.0 | bb |
| 1... | 13C4-PFOS-2 | | 502.791 > 98.864 | 7.63 | 768 | | 2.500 | 2.460 | 0.0152 | 98.4 | 487 | 56 | 27362 | | 1.000 | 1.0 | bb |

PVed by GW, SVed by hh 13-Mar-19. NOTE: Unit=ng based on 4 mL extract

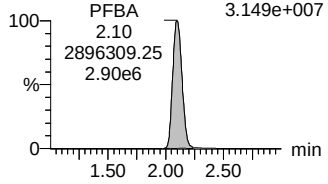
**Quantify Sample Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_097-A1.qld

Last Altered: Tuesday, March 12, 2019 17:19:00 Pacific Daylight Time
Printed: Wednesday, March 13, 2019 09:12:29 Pacific Daylight Time

**ID: FC027H-CAL,, /01, Name: FC9W_097S18, Description: 1,,2uL, Date: 08-Mar-2019, Time: 18:38:44**

**PFBA**

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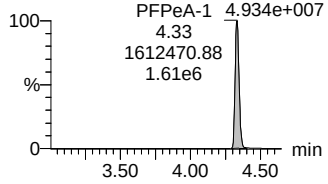


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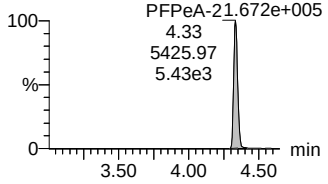


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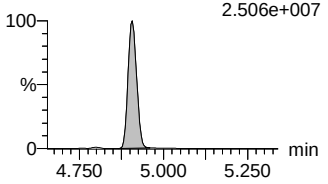


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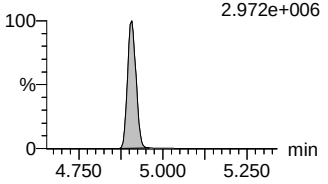


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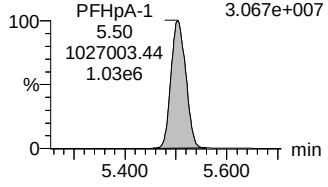


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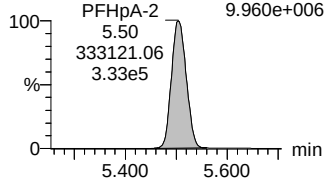


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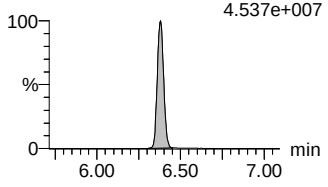


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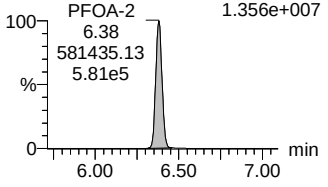


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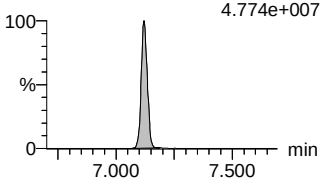


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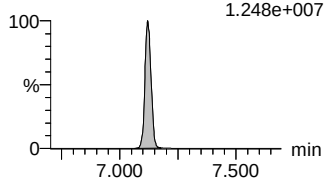


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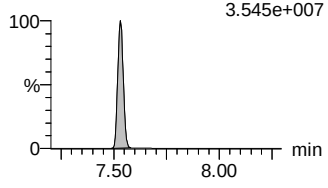


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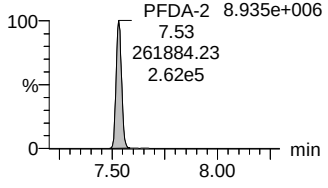


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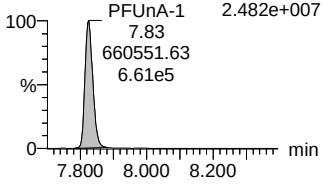


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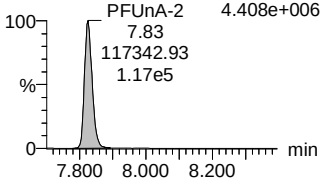


PVed by GW, SVed by hh 13-Mar-19. NOTE: Unit=ng based on 4 mL extract

**Quantify Sample Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_097-A1.qld

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**ID: FC027H-CAL,, /01, Name: FC9W_097S18, Description: 1,,2uL, Date: 08-Mar-2019, Time: 18:38:44**

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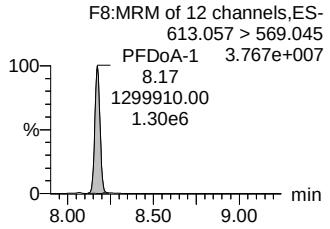


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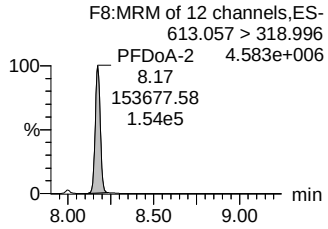


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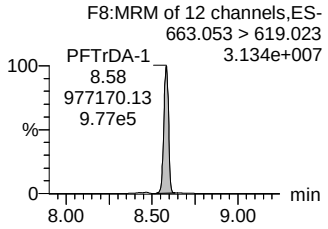


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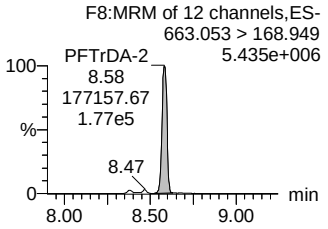


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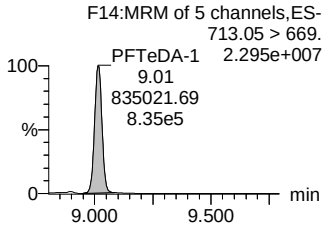


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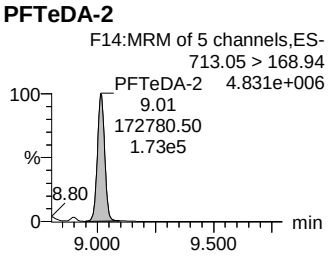


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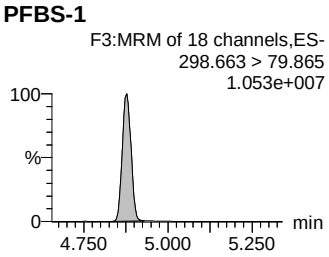


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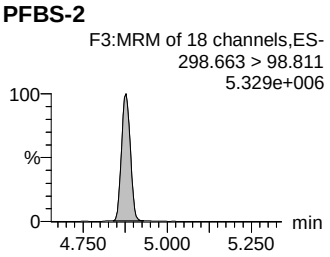


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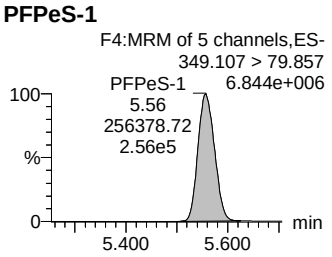


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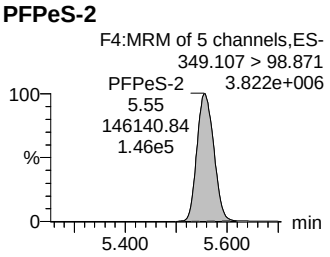


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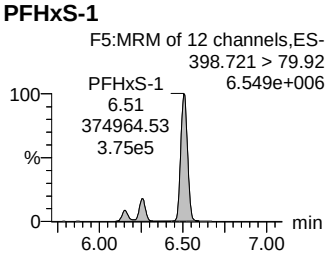


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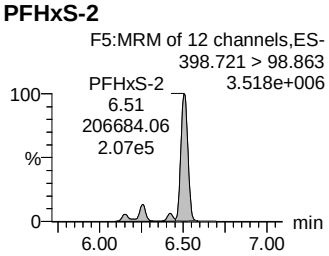


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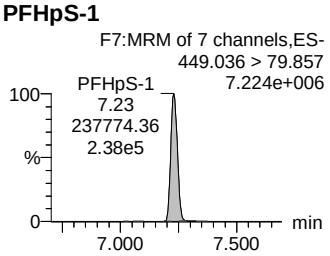


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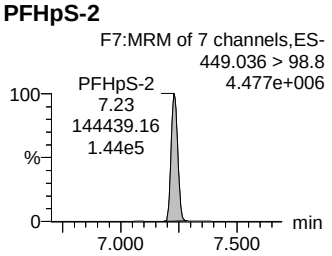


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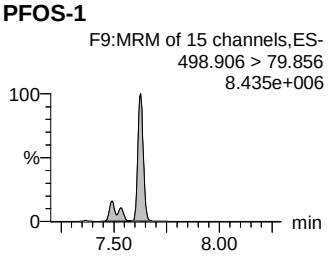


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**Quantify Sample Report** **MassLynx MassLynx V4.1 SCN909**
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**ID: FC027H-CAL,, /01, Name: FC9W_097S18, Description: 1,,2uL, Date: 08-Mar-2019, Time: 18:38:44**

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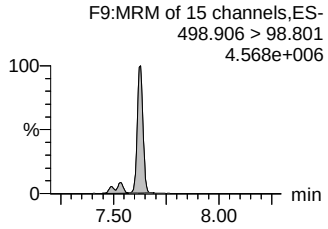


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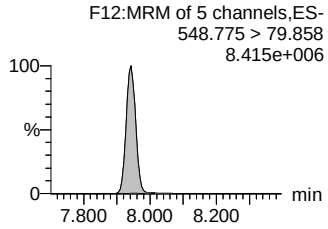


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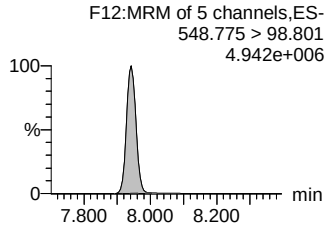


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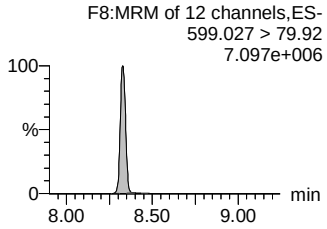


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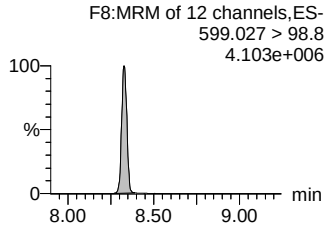


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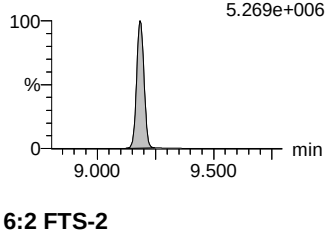


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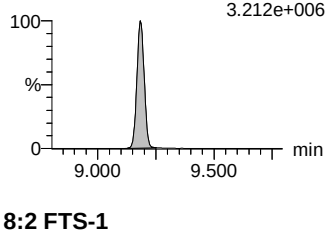


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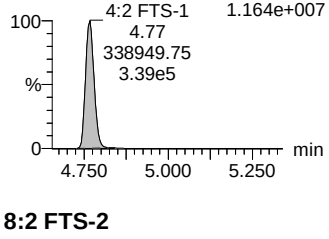


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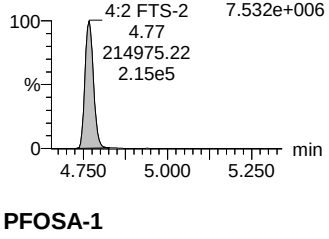


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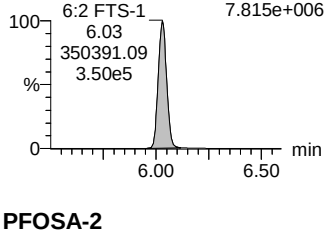


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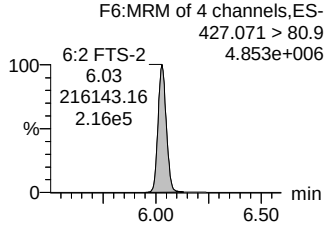


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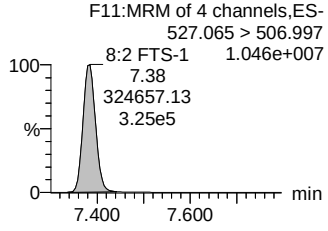


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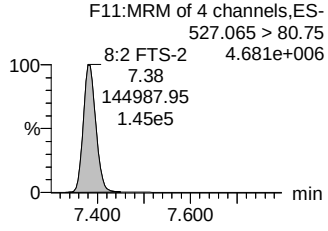


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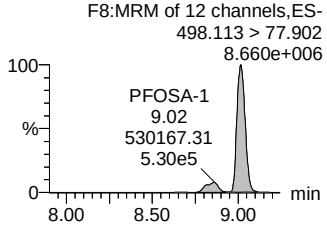


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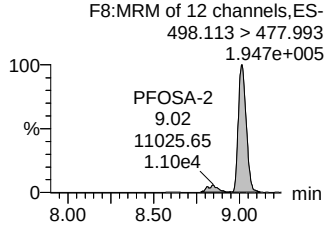


PVed by GW, SVed by hh 13-Mar-19. NOTE: Unit=ng based on 4 mL extract

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SGS Axys Analytical Services, Ltd.

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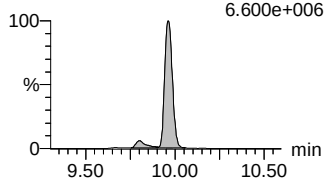


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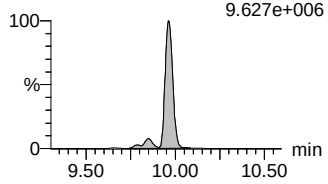


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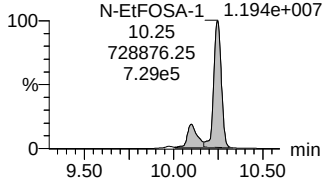


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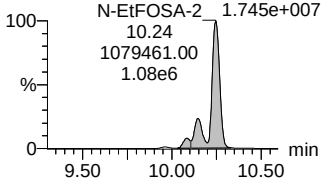


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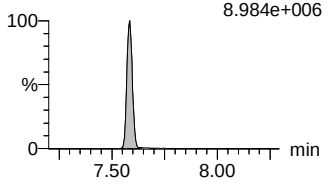


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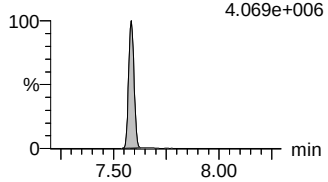


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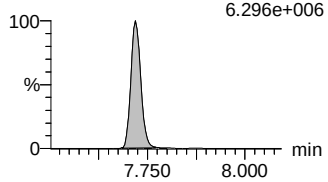


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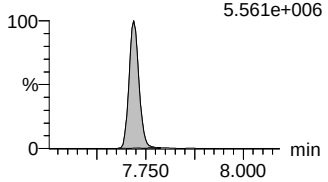


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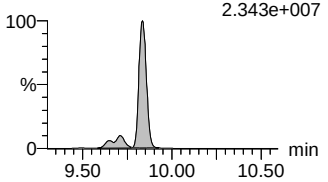


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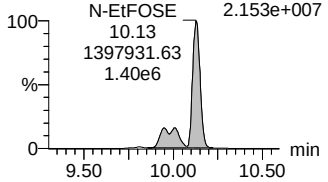


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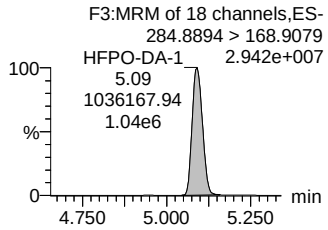


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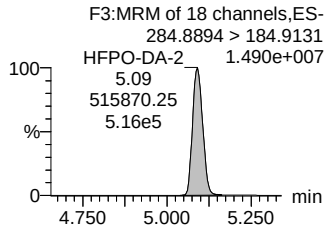


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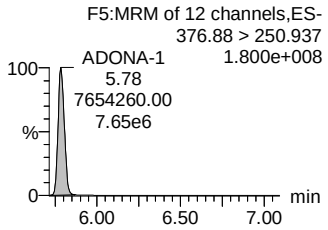


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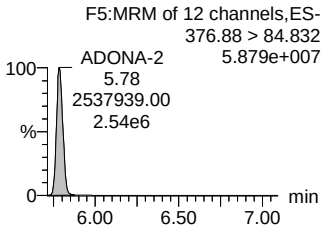
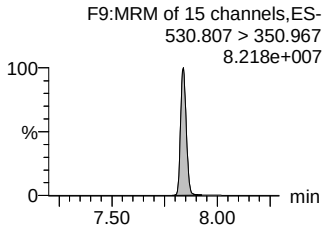



**9Cl-PF3ONS-1**




PVed by GW, SVed by hh 13-Mar-19. NOTE: Unit=ng based on 4 mL extract

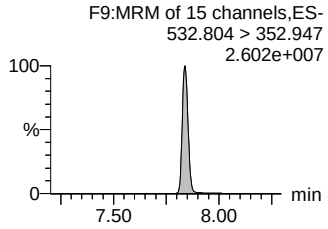
**Quantify Sample Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_097-A1.qld

Last Altered: Tuesday, March 12, 2019 17:19:00 Pacific Daylight Time
Printed: Wednesday, March 13, 2019 09:12:29 Pacific Daylight Time

**ID: FC027H-CAL,, /01, Name: FC9W_097S18, Description: 1,,2uL, Date: 08-Mar-2019, Time: 18:38:44**

**9Cl-PF3ONS-2**

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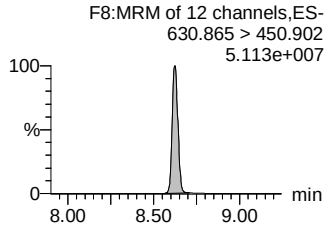


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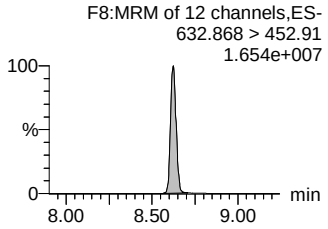


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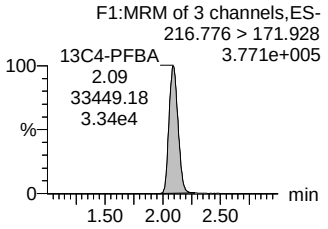


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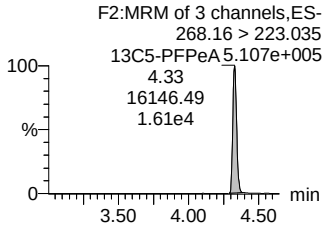


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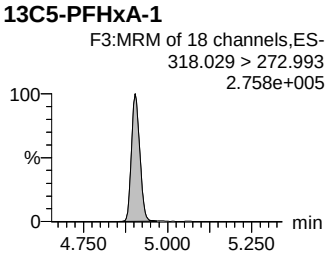


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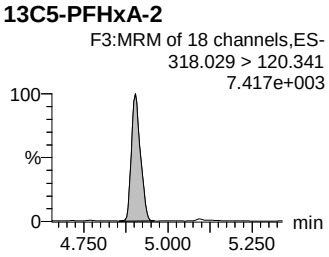


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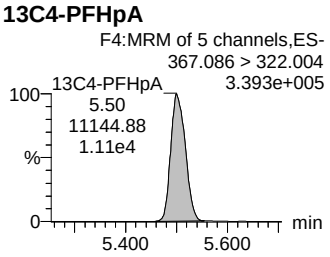


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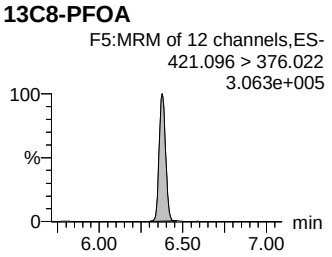


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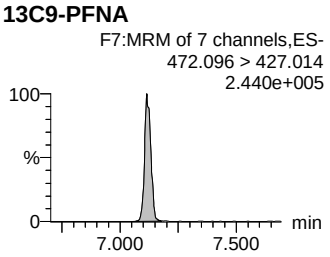
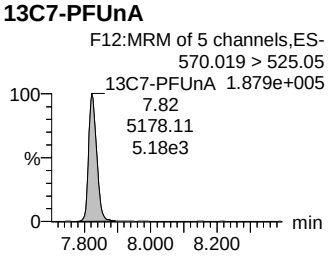



**13C7-PFUnA**

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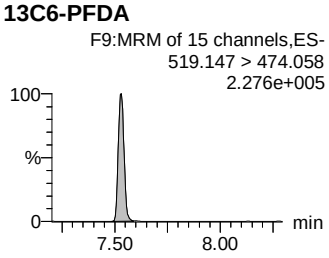
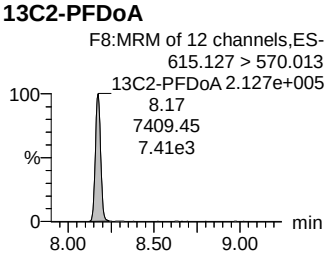



**13C2-PFDoA**

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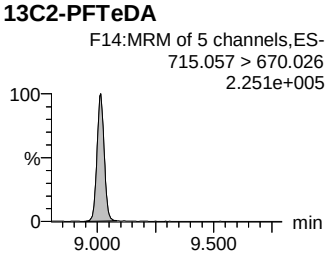
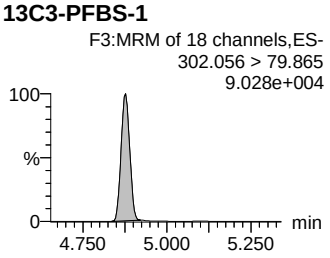



**13C3-PFBS-1**




PVed by GW, SVed by hh 13-Mar-19. NOTE: Unit=ng based on 4 mL extract

**Quantify Sample Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_097-A1.qld

Last Altered: Tuesday, March 12, 2019 17:19:00 Pacific Daylight Time
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**ID: FC027H-CAL,, /01, Name: FC9W_097S18, Description: 1,,2uL, Date: 08-Mar-2019, Time: 18:38:44**

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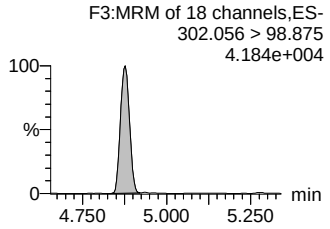


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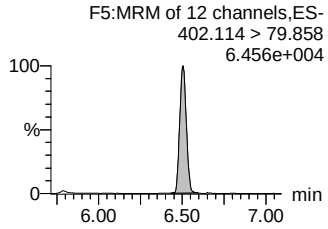


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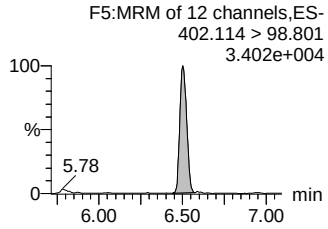


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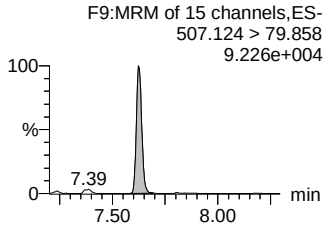


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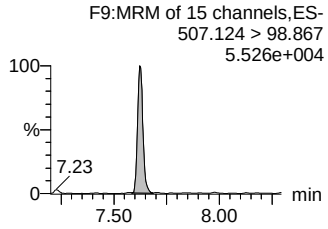


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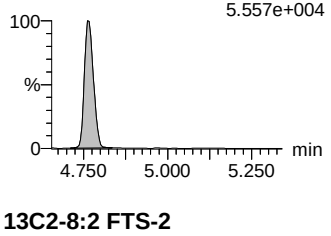


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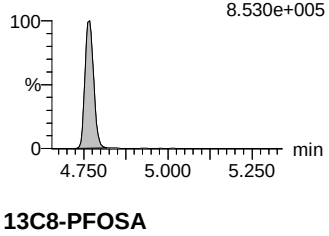


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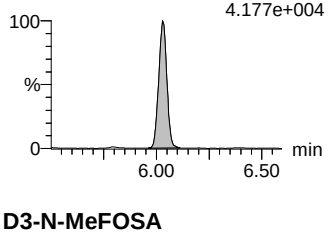


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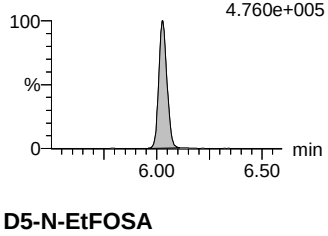


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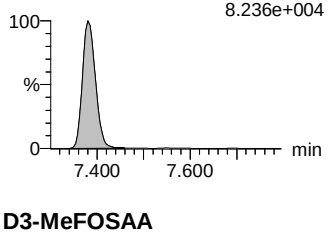
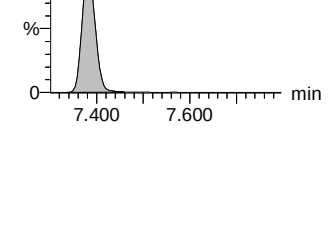
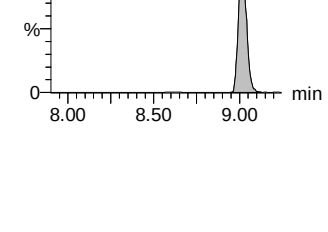


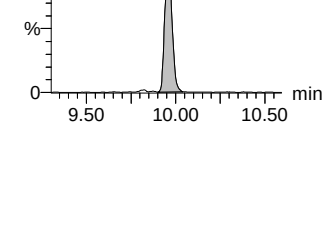

**13C2-8:2 FTS-2**



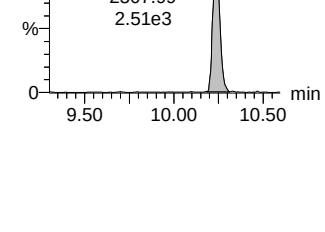

**13C8-PFOSA**




**D3-N-MeFOSA**




**D5-N-EtFOSA**

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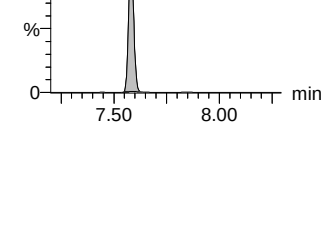


PVed by GW, SVed by hh 13-Mar-19. NOTE: Unit=ng based on 4 mL extract

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SGS Axys Analytical Services, Ltd.

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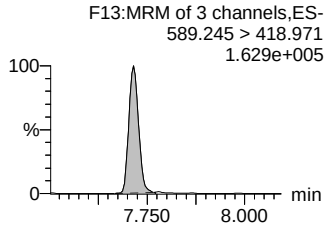
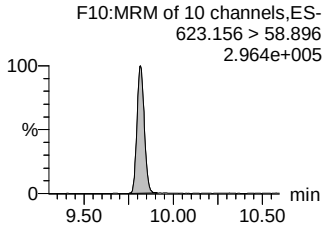
**D5-EtFOSAA**




**D7-N-MeFOSE**

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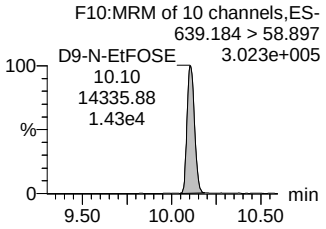


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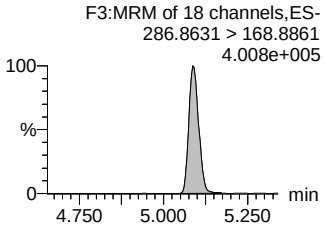


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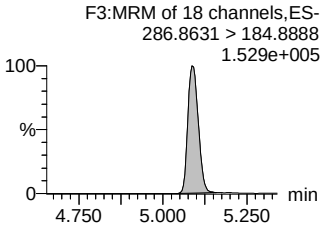


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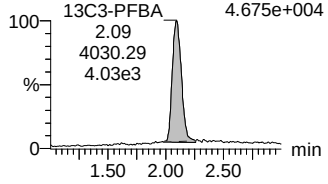


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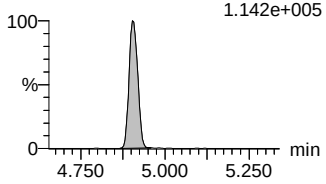


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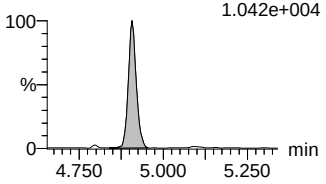


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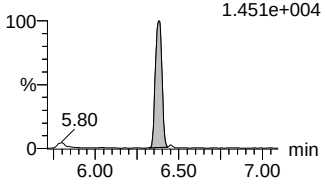


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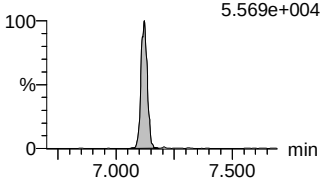
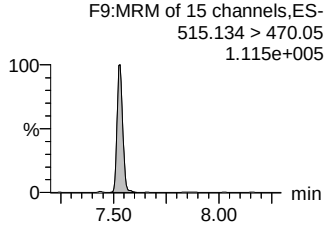
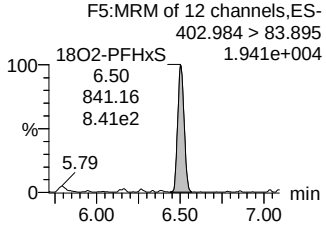


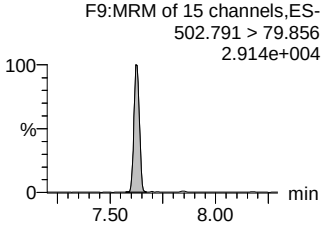

**13C2-PFDA**



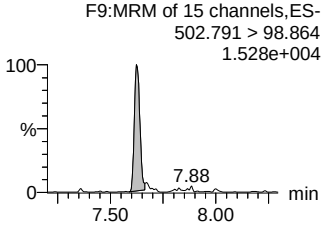

**18O2-PFHxS**




**13C4-PFOS-1**




**13C4-PFOS-2**




PVed by GW, SVed by hh 13-Mar-19. NOTE: Unit=ng based on 4 mL extract

**Quantify Sample Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_097-A1.qld

Last Altered: Tuesday, March 12, 2019 17:19:00 Pacific Daylight Time
Printed: Wednesday, March 13, 2019 09:12:29 Pacific Daylight Time

**ID: FC027H-CAL,, /01, Name: FC9W_097S18, Description: 1,,2uL, Date: 08-Mar-2019, Time: 18:38:44**

| # | Name | IS# | Trace | RT | Area | IS Area | Std. Conc | Conc. | LOD | %Rec | S/N | Noise | Peak Height | IS Height | Sample size | F2 | Flags |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | PFBA | 64 | 212.763 > 168.903 | 2.10 | 2896309 | 33449 | 4098.000 | 4132.385 | 0.0929 | 100.8 | 462... | 682 | 31494354 | 376488 | 1.000 | 1.0 | MM |
| 2 | PFPeA-1 | 65 | 262.951 > 218.996 | 4.33 | 1612471 | 16146 | 2042.900 | 2058.209 | | 100.7 | 142... | 346 | 49333388 | 508680 | 1.000 | 1.0 | MM |
| 3 | PFPeA-2 | 65 | 262.951 > 68.925 | 4.33 | 5426 | 16146 | 2042.900 | 2065.192 | 0.8024 | 101.1 | 7417 | 23 | 167244 | 508680 | 1.000 | 1.0 | MM |
| 4 | PFHxA-1 | 66 | 313.012 > 269.017 | 4.91 | 735044 | 7780 | 1025.000 | 1037.910 | 0.0331 | 101.3 | 238... | 1049 | 24998606 | 275490 | 1.000 | 1.0 | bb |
| 5 | PFHxA-2 | 66 | 313.012 > 118.918 | 4.91 | 86383 | 7780 | 1025.000 | 1042.264 | 0.2371 | 101.7 | 127... | 233 | 2964904 | 275490 | 1.000 | 1.0 | bb |
| 6 | PFHpA-1 | 68 | 363.073 > 319.025 | 5.50 | 1027003 | 11145 | 1025.000 | 1034.650 | 0.0576 | 100.9 | 238... | 1283 | 30606332 | 338502 | 1.000 | 1.0 | bb |
| 7 | PFHpA-2 | 68 | 363.073 > 168.962 | 5.50 | 333121 | 11145 | 1025.000 | 1036.436 | 0.2005 | 101.1 | 138... | 717 | 9939632 | 338502 | 1.000 | 1.0 | bb |
| 8 | PFOA-1 | 69 | 413.006 > 369.03 | 6.38 | 1958249 | 13528 | 1025.000 | 1033.964 | 0.0759 | 100.9 | 175... | 2570 | 45206380 | 305663 | 1.000 | 1.0 | bb |
| 9 | PFOA-2 | 69 | 413.006 > 168.963 | 6.38 | 581435 | 13528 | 1025.000 | 1028.472 | 0.0679 | 100.3 | 189... | 715 | 13523933 | 305663 | 1.000 | 1.0 | bb |
| 10 | PFNA-1 | 70 | 463.002 > 418.97 | 7.12 | 1418445 | 7434 | 1000.000 | 1014.211 | 0.1757 | 101.4 | 115... | 4117 | 47647156 | 243695 | 1.000 | 1.0 | bb |
| 11 | PFNA-2 | 70 | 463.002 > 218.968 | 7.12 | 372975 | 7434 | 1000.000 | 1017.118 | 0.2061 | 101.7 | 138... | 896 | 12446314 | 243695 | 1.000 | 1.0 | bb |
| 12 | PFDA-1 | 72 | 512.935 > 469.021 | 7.53 | 1049200 | 6993 | 1000.000 | 1008.004 | 0.3207 | 100.8 | 6433 | 5494 | 35344448 | 227154 | 1.000 | 1.0 | bb |
| 13 | PFDA-2 | 72 | 512.935 > 218.972 | 7.53 | 261884 | 6993 | 1000.000 | 1003.615 | 0.2837 | 100.4 | 9837 | 906 | 8912349 | 227154 | 1.000 | 1.0 | bb |
| 14 | PFUnA-1 | 71 | 563.124 > 519.003 | 7.83 | 660552 | 5178 | 1000.000 | 1018.508 | 0.4068 | 101.9 | 6851 | 3609 | 24724132 | 187697 | 1.000 | 1.0 | bb |
| 15 | PFUnA-2 | 71 | 563.124 > 269.051 | 7.83 | 117343 | 5178 | 1000.000 | 1010.905 | 0.2671 | 101.1 | 8814 | 499 | 4397890 | 187697 | 1.000 | 1.0 | bb |
| 16 | PFDoA-1 | 73 | 613.057 > 569.045 | 8.17 | 1299910 | 7409 | 1000.000 | 877.392 | 0.0041 | 87.7 | 156... | 2410 | 37661328 | 212309 | 1.000 | 1.0 | MMX |
| 17 | PFDoA-2 | 73 | 613.057 > 318.996 | 8.17 | 153678 | 7409 | 1000.000 | 851.986 | 0.2403 | 85.2 | 8900 | 513 | 4566280 | 212309 | 1.000 | 1.0 | bbX |
| 18 | PFTrDA-1 | 74 | 663.053 > 619.023 | 8.58 | 977170 | 7947 | 1000.000 | 788.296 | 0.0781 | 78.8 | 8693 | 3596 | 31257848 | 224336 | 1.000 | 1.0 | bbX |
| 19 | PFTrDA-2 | 74 | 663.053 > 168.949 | 8.58 | 177158 | 7947 | 1000.000 | 791.047 | 9.7468 | 79.1 | 259 | 20960 | 5419335 | 224336 | 1.000 | 1.0 | bbX |
| 20 | PFTeDA-1 | 74 | 713.05 > 669. | 9.01 | 835022 | 7947 | 1000.000 | 833.263 | | 83.3 | 197... | 1158 | 22871924 | 224336 | 1.000 | 1.0 | bbX |
| 21 | PFTeDA-2 | 74 | 713.05 > 168.94 | 9.01 | 172781 | 7947 | 1000.000 | 811.261 | 0.0296 | 81.1 | 111... | 432 | 4816400 | 224336 | 1.000 | 1.0 | bbX |
| 22 | PFBS-1 | 75 | 298.663 > 79.865 | 4.88 | 314636 | 2658 | 1025.000 | 1032.066 | 0.1607 | 100.7 | 191... | 549 | 10502428 | 89807 | 1.000 | 1.0 | bb |
| 23 | PFBS-2 | 76 | 298.663 > 98.811 | 4.88 | 158117 | 1294 | 1025.000 | 1033.185 | 0.2208 | 100.8 | 121... | 437 | 5299372 | 41725 | 1.000 | 1.0 | bb |
| 24 | PFPeS-1 | 77 | 349.107 > 79.857 | 5.56 | 256379 | 2898 | 950.000 | 937.143 | 0.2197 | 98.6 | 111... | 611 | 6827368 | 64380 | 1.000 | 1.0 | bb |
| 25 | PFPeS-2 | 78 | 349.107 > 98.871 | 5.55 | 146141 | 1588 | 950.000 | 945.895 | 0.1673 | 99.6 | 100... | 382 | 3820472 | 33885 | 1.000 | 1.0 | MM |
| 26 | PFHxS-1 | 77 | 398.721 > 79.92 | 6.51 | 374965 | 2898 | 1025.000 | 1040.299 | 0.3168 | 101.5 | 120... | 543 | 6535352 | 64380 | 1.000 | 1.0 | MM |
| 27 | PFHxS-2 | 78 | 398.721 > 98.863 | 6.51 | 206684 | 1588 | 1025.000 | 1047.505 | 0.7791 | 102.2 | 2938 | 1194 | 3508028 | 33885 | 1.000 | 1.0 | MM |
| 28 | PFHpS-1 | 79 | 449.036 > 79.857 | 7.23 | 237774 | 2693 | 950.000 | 944.517 | 0.2262 | 99.4 | 7735 | 934 | 7226032 | 92081 | 1.000 | 1.0 | MM |
| 29 | PFHpS-2 | 80 | 449.036 > 98.8 | 7.23 | 144439 | 1615 | 950.000 | 950.063 | 0.4125 | 100.0 | 6380 | 700 | 4463033 | 55052 | 1.000 | 1.0 | bb |
| 30 | PFOS-1 | 79 | 498.906 > 79.856 | 7.63 | 311996 | 2693 | 1025.000 | 1026.945 | 0.0835 | 100.2 | 129... | 648 | 8395914 | 92081 | 1.000 | 1.0 | MM |
| 31 | PFOS-2 | 80 | 498.906 > 98.801 | 7.63 | 157173 | 1615 | 1025.000 | 1035.566 | 0.1434 | 101.0 | 109... | 414 | 4553609 | 55052 | 1.000 | 1.0 | MM |
| 32 | PFNS-1 | 79 | 548.775 > 79.858 | 7.94 | 278199 | 2693 | 950.000 | 937.732 | 0.0679 | 98.7 | 101... | 826 | 8415758 | 92081 | 1.000 | 1.0 | MM |
| 33 | PFNS-2 | 80 | 548.775 > 98.801 | 7.94 | 162406 | 1615 | 950.000 | 955.147 | 0.2985 | 100.5 | 7691 | 642 | 4939283 | 55052 | 1.000 | 1.0 | MM |
| 34 | PFDS-1 | 79 | 599.027 > 79.92 | 8.33 | 250810 | 2693 | 1025.000 | 1029.641 | 0.3876 | 100.5 | 5960 | 1191 | 7098797 | 92081 | 1.000 | 1.0 | MM |
| 35 | PFDS-2 | 80 | 599.027 > 98.8 | 8.33 | 140717 | 1615 | 1025.000 | 1027.793 | 0.6631 | 100.3 | 4635 | 883 | 4091745 | 55052 | 1.000 | 1.0 | bb |

PVed by GW, SVed by hh 13-Mar-19. NOTE: Unit=ng based on 4 mL extract

**Quantify Sample Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_097-A1.qld

Last Altered: Tuesday, March 12, 2019 17:19:00 Pacific Daylight Time
Printed: Wednesday, March 13, 2019 09:12:29 Pacific Daylight Time

**ID: FC027H-CAL,, /01, Name: FC9W_097S18, Description: 1,,2uL, Date: 08-Mar-2019, Time: 18:38:44**

| # | Name | IS# | Trace | RT | Area | IS Area | Std. Conc | Conc. | LOD | %Rec | S/N | Noise | Peak Height | IS Height | Sample size | F2 | Flags |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 36 | PFDoS-1 | 79 | 699.084 > 79.856 | 9.18 | 190995 | 2693 | 950.000 | 942.026 | 0.3469 | 99.2 | 5427 | 967 | 5249473 | 92081 | 1.000 | 1.0 | bb |
| 37 | PFDoS-2 | 80 | 699.084 > 98.8 | 9.18 | 114894 | 1615 | 950.000 | 953.056 | 0.1719 | 100.3 | 110... | 290 | 3200919 | 55052 | 1.000 | 1.0 | bb |
| 38 | 4:2 FTS-1 | 81 | 327.077 > 307.017 | 4.77 | 338950 | 1716 | 4000.000 | 2704.976 | 0.8079 | 67.6 | 9055 | 1285 | 11636494 | 55430 | 1.000 | 1.0 | MMX |
| 39 | 4:2 FTS-2 | 81 | 327.077 > 80.85 | 4.77 | 214975 | 1716 | 4000.000 | 2760.956 | 0.9625 | 69.0 | 9917 | 757 | 7510965 | 55430 | 1.000 | 1.0 | bbX |
| 40 | 6:2 FTS-1 | 83 | 427.071 > 407.024 | 6.03 | 350391 | 1832 | 3600.000 | 2074.975 | 0.2215 | 57.6 | 122... | 635 | 7789399 | 41637 | 1.000 | 1.0 | bbX |
| 41 | 6:2 FTS-2 | 83 | 427.071 > 80.9 | 6.03 | 216143 | 1832 | 3600.000 | 2063.744 | 89.5329 | 57.3 | 68 | 71019 | 4842334 | 41637 | 1.000 | 1.0 | bbX |
| 42 | 8:2 FTS-1 | 85 | 527.065 > 506.997 | 7.38 | 324657 | 2616 | 4000.000 | 2301.872 | 0.6509 | 57.5 | 7866 | 1325 | 10421580 | 82270 | 1.000 | 1.0 | bbX |
| 43 | 8:2 FTS-2 | 85 | 527.065 > 80.75 | 7.38 | 144988 | 2616 | 4000.000 | 2121.405 | 0.4176 | 53.0 | 110... | 424 | 4672066 | 82270 | 1.000 | 1.0 | bbX |
| 44 | PFOSA-1 | 87 | 498.113 > 77.902 | 9.02 | 530167 | 5436 | 1025.000 | 1037.959 | 0.2511 | 101.3 | 160... | 539 | 8626170 | 100547 | 1.000 | 1.0 | MM |
| 45 | PFOSA-2 | 87 | 498.113 > 477.993 | 9.02 | 11026 | 5436 | 1025.000 | 1029.414 | 9.4693 | 100.4 | 387 | 502 | 194360 | 100547 | 1.000 | 1.0 | MM |
| 46 | N-MeFOSA-1 | 88 | 511.937 > 218.985 | 9.96 | 350237 | 3856 | 1150.000 | 985.748 | 0.8050 | 85.7 | 3051 | 2153 | 6570889 | 80636 | 1.000 | 1.0 | MMX |
| 47 | N-MeFOSA-2 | 88 | 511.937 > 168.955 | 9.96 | 518622 | 3856 | 1150.000 | 990.284 | 0.1492 | 86.1 | 105... | 909 | 9607758 | 80636 | 1.000 | 1.0 | MMX |
| 48 | N-EtFOSA-1 | 89 | 526.017 > 218.977 | 10.25 | 728876 | 2508 | 2500.000 | 2507.583 | 0.3658 | 100.3 | 105... | 1128 | 11893907 | 54432 | 1.000 | 1.0 | MM |
| 49 | N-EtFOSA-2 | 89 | 526.017 > 168.95 | 10.24 | 1079461 | 2508 | 2500.000 | 2517.571 | 0.3089 | 100.7 | 161... | 1075 | 17389192 | 54432 | 1.000 | 1.0 | MM |
| 50 | MeFOSAA-1 | 90 | 570.134 > 419.035 | 7.58 | 264521 | 5561 | 1000.000 | 996.507 | 0.1879 | 99.7 | 133... | 674 | 8998746 | 197964 | 1.000 | 1.0 | MM |
| 51 | MeFOSAA-2 | 90 | 570.134 > 482.99 | 7.58 | 119364 | 5561 | 1000.000 | 996.110 | 0.0919 | 99.6 | 116... | 347 | 4054046 | 197964 | 1.000 | 1.0 | MM |
| 52 | EtFOSAA-1 | 91 | 584.15 > 419.062 | 7.72 | 183455 | 4834 | 1000.000 | 985.975 | 0.2624 | 98.6 | 148... | 422 | 6273415 | 163838 | 1.000 | 1.0 | MM |
| 53 | EtFOSAA-2 | 91 | 584.15 > 526.045 | 7.72 | 162149 | 4834 | 1000.000 | 937.756 | 1.1333 | 93.8 | 2797 | 1987 | 5556960 | 163838 | 1.000 | 1.0 | MMX |
| 54 | N-MeFOSE | 92 | 616.112 > 58.894 | 9.83 | 1326227 | 13913 | 10200.000 | 10209.529 | 1.1916 | 100.1 | 172... | 1353 | 23342314 | 295888 | 1.000 | 1.0 | MM |
| 55 | N-EtFOSE | 93 | 630. > 58.893 | 10.13 | 1397932 | 14336 | 7650.000 | 7712.808 | 0.2944 | 100.8 | 298... | 719 | 21445112 | 301550 | 1.000 | 1.0 | MM |
| 56 | HFPO-DA-1 | 94 | 284.8894 > 168.... | 5.09 | 1036168 | 13567 | 4000.000 | 3445.653 | | 86.1 | 599... | 49 | 29341458 | 400344 | 1.000 | 1.0 | bbX |
| 57 | HFPO-DA-2 | 95 | 284.8894 > 184.... | 5.09 | 515870 | 5469 | 4000.000 | 4095.842 | 0.5793 | 102.4 | 201... | 739 | 14862860 | 152435 | 1.000 | 1.0 | bb |
| 58 | ADONA-1 | 94 | 376.88 > 250.937 | 5.78 | 7654260 | 13567 | 3760.000 | 3691.351 | | 98.2 | 968... | 1853 | 179506032 | 400344 | 1.000 | 1.0 | bb |
| 59 | ADONA-2 | 95 | 376.88 > 84.832 | 5.78 | 2537939 | 5469 | 3760.000 | 3890.232 | 0.7845 | 103.5 | 373... | 1570 | 58652320 | 152435 | 1.000 | 1.0 | bb |
| 60 | 9Cl-PF3ONS-1 | 94 | 530.807 > 350.967 | 7.84 | 2510741 | 13567 | 3760.000 | 3089.107 | | 82.2 | 376... | 2182 | 82078816 | 400344 | 1.000 | 1.0 | bbX |
| 61 | 9Cl-PF3ONS-2 | 95 | 532.804 > 352.947 | 7.84 | 816721 | 5469 | 3760.000 | 3808.104 | 0.2263 | 101.3 | 139... | 1860 | 26011092 | 152435 | 1.000 | 1.0 | bb |
| 62 | 11Cl-PF3OUdS-1 | 94 | 630.865 > 450.902 | 8.62 | 1939444 | 13567 | 3760.000 | 3412.180 | 0.2320 | 90.7 | 145... | 3498 | 51005812 | 400344 | 1.000 | 1.0 | bbX |
| 63 | 11Cl-PF3OUdS-2 | 95 | 632.868 > 452.91 | 8.62 | 614244 | 5469 | 3760.000 | 3849.636 | 1.4878 | 102.4 | 7352 | 2245 | 16507368 | 152435 | 1.000 | 1.0 | bb |
| 64 | 13C4-PFBA | 96 | 216.776 > 171.928 | 2.09 | 33449 | 4030 | 40.000 | 40.536 | 0.0231 | 101.3 | 5365 | 70 | 376488 | 44425 | 1.000 | 1.0 | bb |
| 65 | 13C5-PFPeA | 97 | 268.16 > 223.035 | 4.33 | 16146 | 3400 | 20.000 | 14.635 | 0.0094 | 73.2 | 4403 | 116 | 508680 | 113974 | 1.000 | 1.0 | MM |
| 66 | 13C5-PFHxA-1 | 97 | 318.029 > 272.993 | 4.90 | 7780 | 3400 | 10.000 | 8.124 | 0.0093 | 81.2 | 2781 | 99 | 275490 | 113974 | 1.000 | 1.0 | bb |
| 67 | 13C5-PFHxA-2 | 97 | 318.029 > 120.341 | 4.90 | 229 | 3400 | 10.000 | 7.046 | 0.0460 | 70.5 | 442 | 17 | 7397 | 113974 | 1.000 | 1.0 | bb |
| 68 | 13C4-PFHpA | 99 | 367.086 > 322.004 | 5.50 | 11145 | 658 | 10.000 | 7.784 | 0.0387 | 77.8 | 839 | 404 | 338502 | 14399 | 1.000 | 1.0 | bb |
| 69 | 13C8-PFOA | 99 | 421.096 > 376.022 | 6.38 | 13528 | 658 | 10.000 | 8.224 | 0.0063 | 82.2 | 4018 | 76 | 305663 | 14399 | 1.000 | 1.0 | bb |
| 70 | 13C9-PFNA | 100 | 472.096 > 427.014 | 7.11 | 7434 | 1732 | 5.000 | 4.941 | 0.0499 | 98.8 | 303 | 804 | 243695 | 55641 | 1.000 | 1.0 | bb |

PVed by GW, SVed by hh 13-Mar-19. NOTE: Unit=ng based on 4 mL extract

**Quantify Sample Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_097-A1.qld

Last Altered: Tuesday, March 12, 2019 17:19:00 Pacific Daylight Time
Printed: Wednesday, March 13, 2019 09:12:29 Pacific Daylight Time

**ID: FC027H-CAL,, /01, Name: FC9W_097S18, Description: 1,,2uL, Date: 08-Mar-2019, Time: 18:38:44**

| # | Name | IS# | Trace | RT | Area | IS Area | Std. Conc | Conc. | LOD | %Rec | S/N | Noise | Peak Height | IS Height | Sample size | F2 | Flags |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 71 | 13C7-PFUnA | 101 | 570.019 > 525.05 | 7.82 | 5178 | 3370 | 5.000 | 1.718 | 0.0079 | 34.4 | 715 | 263 | 187697 | 111434 | 1.000 | 1.0 | bbX |
| 72 | 13C6-PFDA | 101 | 519.147 > 474.058 | 7.53 | 6993 | 3370 | 5.000 | 2.757 | 0.0035 | 55.1 | 2333 | 97 | 227154 | 111434 | 1.000 | 1.0 | bb |
| 73 | 13C2-PFDoA | 101 | 615.127 > 570.013 | 8.17 | 7409 | 3370 | 5.000 | 3.444 | 0.0050 | 68.9 | 1797 | 118 | 212309 | 111434 | 1.000 | 1.0 | bb |
| 74 | 13C2-PFTeDA | 101 | 715.057 > 670.026 | 9.01 | 7947 | 3370 | 5.000 | 3.765 | 0.0097 | 75.3 | 992 | 226 | 224336 | 111434 | 1.000 | 1.0 | bb |
| 75 | 13C3-PFBS-1 | 102 | 302.056 > 79.865 | 4.88 | 2658 | 841 | 10.000 | 6.563 | 0.0424 | 65.6 | 682 | 132 | 89807 | 19333 | 1.000 | 1.0 | bb |
| 76 | 13C3-PFBS-2 | 102 | 302.056 > 98.875 | 4.88 | 1294 | 841 | 10.000 | 6.609 | 0.0239 | 66.1 | 1166 | 36 | 41725 | 19333 | 1.000 | 1.0 | bb |
| 77 | 13C3-PFHxS-1 | 102 | 402.114 > 79.858 | 6.51 | 2898 | 841 | 10.000 | 8.303 | 0.0110 | 83.0 | 2192 | 29 | 64380 | 19333 | 1.000 | 1.0 | bb |
| 78 | 13C3-PFHxS-2 | 102 | 402.114 > 98.801 | 6.50 | 1588 | 841 | 10.000 | 8.170 | 0.0277 | 81.7 | 820 | 41 | 33885 | 19333 | 1.000 | 1.0 | bb |
| 79 | 13C8-PFOS-1 | 103 | 507.124 > 79.858 | 7.62 | 2693 | 861 | 10.000 | 9.880 | 0.1239 | 98.8 | 242 | 380 | 92081 | 29073 | 1.000 | 1.0 | MM |
| 80 | 13C8-PFOS-2 | 104 | 507.124 > 98.867 | 7.62 | 1615 | 454 | 10.000 | 11.326 | 0.0573 | 113.3 | 610 | 90 | 55052 | 15077 | 1.000 | 1.0 | bb |
| 81 | 13C2-4:2 FTS-1 | 102 | 329.084 > 80.9 | 4.76 | 1716 | 841 | 20.000 | 14.356 | 0.1086 | 71.8 | 557 | 99 | 55430 | 19333 | 1.000 | 1.0 | bb |
| 82 | 13C2-4:2 FTS-2 | 102 | 329.084 > 309.024 | 4.77 | 25099 | 841 | 20.000 | 90.000 | 0.0929 | 450.0 | 4282 | 199 | 850272 | 19333 | 1.000 | 1.0 | bbX |
| 83 | 13C2-6:2 FTS-1 | 102 | 429.078 > 80.900 | 6.03 | 1832 | 841 | 20.000 | 18.977 | 0.2199 | 94.9 | 256 | 163 | 41637 | 19333 | 1.000 | 1.0 | bb |
| 84 | 13C2-6:2 FTS-2 | 102 | 429.078 > 409.031 | 6.03 | 20980 | 841 | 20.000 | 94.913 | 0.0608 | 474.6 | 4603 | 103 | 474314 | 19333 | 1.000 | 1.0 | bbX |
| 85 | 13C2-8:2 FTS-1 | 102 | 529.1351 > 80.900 | 7.38 | 2616 | 841 | 20.000 | 18.134 | 0.2577 | 90.7 | 289 | 285 | 82270 | 19333 | 1.000 | 1.0 | bb |
| 86 | 13C2-8:2 FTS-2 | 102 | 529.135 > 509.003 | 7.38 | 17840 | 841 | 20.000 | 91.960 | 0.1835 | 459.8 | 2061 | 273 | 562201 | 19333 | 1.000 | 1.0 | bbX |
| 87 | 13C8-PFOSA | 103 | 506.14 > 77.841 | 9.02 | 5436 | 861 | 10.000 | 12.613 | 0.0048 | 126.1 | 4325 | 23 | 100547 | 29073 | 1.000 | 1.0 | bb |
| 88 | D3-N-MeFOSA | 103 | 514.956 > 218.974 | 9.96 | 3856 | 861 | 10.000 | 17.332 | 0.0815 | 173.3 | 395 | 204 | 80636 | 29073 | 1.000 | 1.0 | bbX |
| 89 | D5-N-EtFOSA | 103 | 531.112 > 218.984 | 10.24 | 2508 | 861 | 10.000 | 13.350 | 0.0488 | 133.5 | 527 | 103 | 54432 | 29073 | 1.000 | 1.0 | bb |
| 90 | D3-MeFOSAA | 103 | 573.153 > 418.99 | 7.58 | 5561 | 861 | 20.000 | 23.235 | 0.0158 | 116.2 | 4650 | 43 | 197964 | 29073 | 1.000 | 1.0 | MM |
| 91 | D5-EtFOSAA | 103 | 589.245 > 418.971 | 7.72 | 4834 | 861 | 20.000 | 24.170 | 0.1433 | 120.8 | 508 | 323 | 163838 | 29073 | 1.000 | 1.0 | MM |
| 92 | D7-N-MeFOSE | 103 | 623.156 > 58.896 | 9.82 | 13913 | 861 | 100.000 | 135.422 | 0.4392 | 135.4 | 582 | 508 | 295888 | 29073 | 1.000 | 1.0 | bb |
| 93 | D9-N-EtFOSE | 103 | 639.184 > 58.897 | 10.10 | 14336 | 861 | 100.000 | 134.713 | 0.2048 | 134.7 | 1229 | 245 | 301550 | 29073 | 1.000 | 1.0 | bb |
| 94 | 13C3-HFPO-DA-1 | 97 | 286.8631 > 168.... | 5.09 | 13567 | 3400 | 40.000 | 30.853 | 0.0456 | 77.1 | 1787 | 224 | 400344 | 113974 | 1.000 | 1.0 | bb |
| 95 | 13C3-HFPO-DA-2 | 97 | 286.8631 > 184.... | 5.09 | 5469 | 3400 | 40.000 | 25.389 | 0.1374 | 63.5 | 461 | 331 | 152435 | 113974 | 1.000 | 1.0 | bb |
| 96 | 13C3-PFBA | | 216.029 > 171.97 | 2.09 | 4030 | | 5.000 | 2.879 | 0.0519 | 57.6 | 166 | 267 | 44425 | | 1.000 | 1.0 | MM |
| 97 | 13C2-PFHxA-1 | | 315.083 > 269.984 | 4.90 | 3400 | | 2.500 | 1.904 | 0.0072 | 76.2 | 795 | 143 | 113974 | | 1.000 | 1.0 | bb |
| 98 | 13C2-PFHxA-2 | | 315.083 > 119.359 | 4.91 | 284 | | 2.500 | 5.277 | 0.0205 | 211.1 | 771 | 13 | 10388 | | 1.000 | 1.0 | bb |
| 99 | 13C4-PFOA | | 417.083 > 171.95 | 6.38 | 658 | | 2.500 | 2.191 | 0.0092 | 87.6 | 712 | 20 | 14399 | | 1.000 | 1.0 | bb |
| 1... | 13C5-PFNA | | 468.019 > 423.008 | 7.12 | 1732 | | 1.250 | 0.849 | 0.0178 | 67.9 | 143 | 389 | 55641 | | 1.000 | 1.0 | bb |
| 1... | 13C2-PFDA | | 515.134 > 470.05 | 7.53 | 3370 | | 1.250 | 1.481 | 0.0021 | 118.5 | 2148 | 52 | 111434 | | 1.000 | 1.0 | bb |
| 1... | 18O2-PFHxS | | 402.984 > 83.895 | 6.50 | 841 | | 2.500 | 2.141 | 0.0304 | 85.7 | 211 | 92 | 19333 | | 1.000 | 1.0 | bb |
| 1... | 13C4-PFOS-1 | | 502.791 > 79.856 | 7.62 | 861 | | 2.500 | 1.769 | 0.0114 | 70.8 | 465 | 63 | 29073 | | 1.000 | 1.0 | bb |
| 1... | 13C4-PFOS-2 | | 502.791 > 98.864 | 7.62 | 454 | | 2.500 | 1.455 | 0.0394 | 58.2 | 111 | 136 | 15077 | | 1.000 | 1.0 | bd |

PVed by GW, SVed by hh 13-Mar-19. NOTE: Unit=ng based on 4 mL extract

**Quantify Sample Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_097-A1.qld

Last Altered: Tuesday, March 12, 2019 17:19:00 Pacific Daylight Time
Printed: Wednesday, March 13, 2019 15:25:06 Pacific Daylight Time

**Method: G:\Masslynx\Master Methods\MassLynx SCN 909\UPLC\FC_110_UPLC_06.mdb 10 Mar 2019 18:18:03**
**Calibration: G:\Masslynx\Inst_W\PFC.PRO\Curve\FC9W_097-a1.cdb 12 Mar 2019 11:26:10**

**ID: FC005A-SSV,,/01, Name: FC9W_097S21, Description: 1,,2uL, Date: 08-Mar-2019, Time: 19:18:44**

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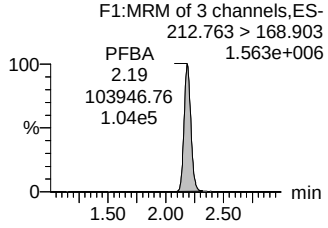


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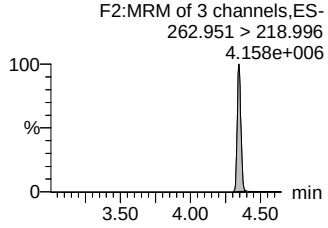


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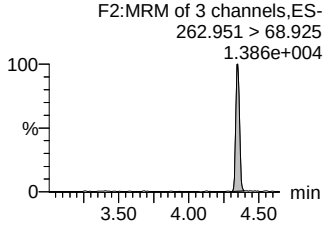


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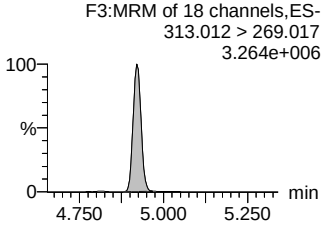


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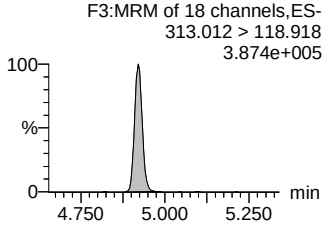


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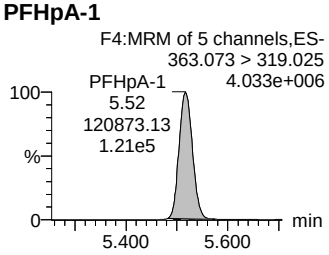


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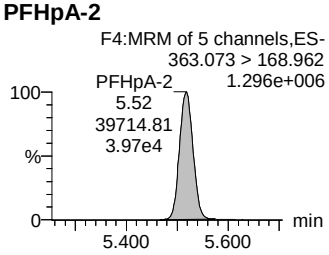


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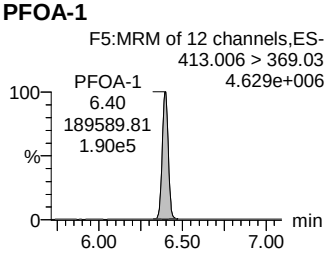


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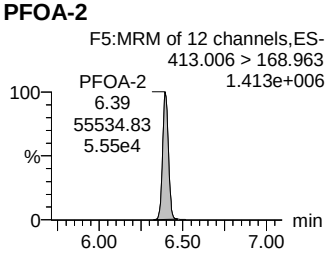


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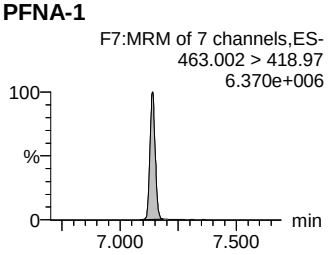


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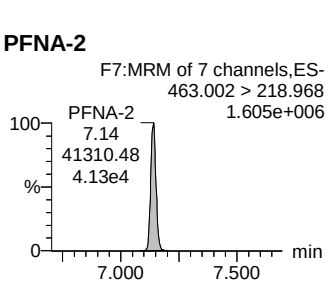


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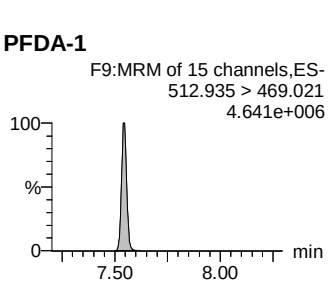


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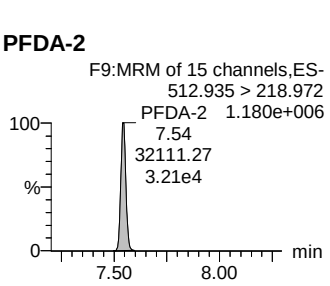


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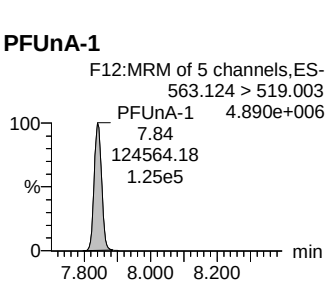


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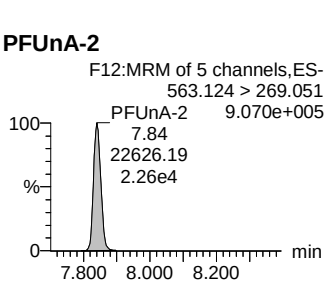


PVed by GW, SVed by hh 13-Mar-19. NOTE: Unit=ng based on 4 mL

**Quantify Sample Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_097-A1.qld

Last Altered: Tuesday, March 12, 2019 17:19:00 Pacific Daylight Time
Printed: Wednesday, March 13, 2019 15:25:06 Pacific Daylight Time

**ID: FC005A-SSV,,/01, Name: FC9W_097S21, Description: 1,,2uL, Date: 08-Mar-2019, Time: 19:18:44**

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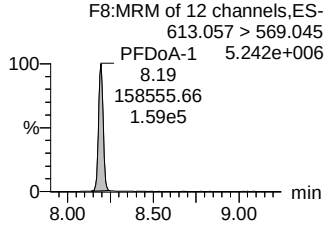


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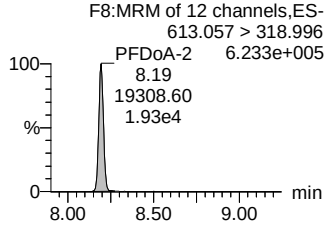


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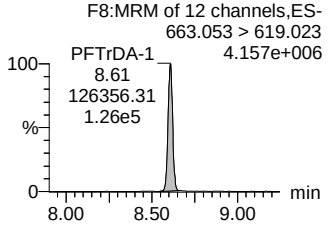


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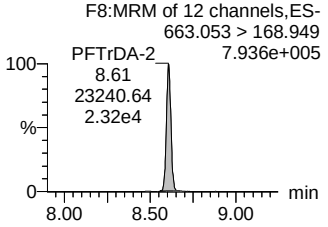


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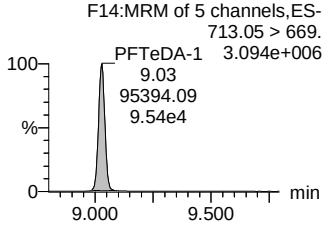


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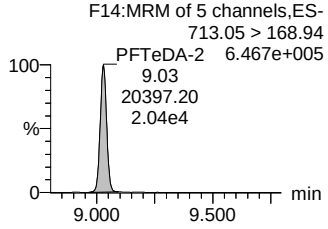


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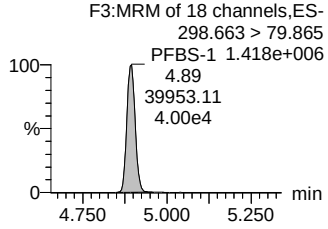


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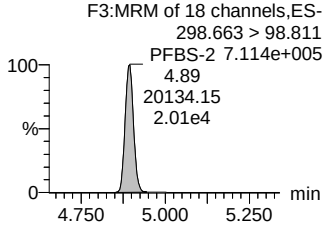


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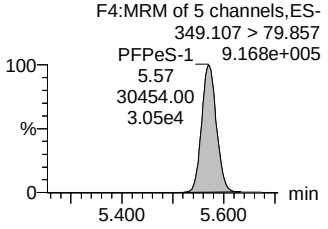


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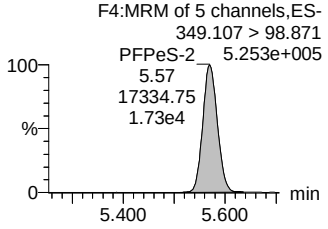


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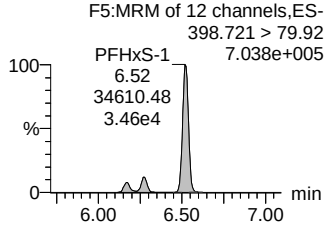


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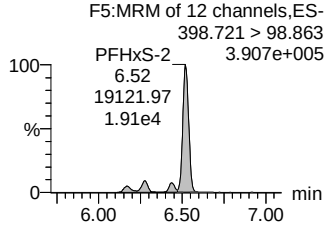


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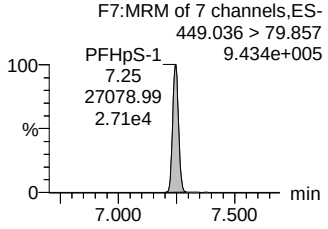


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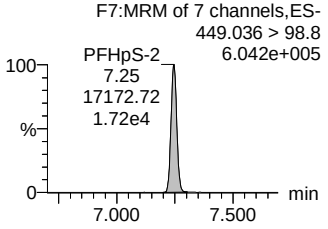


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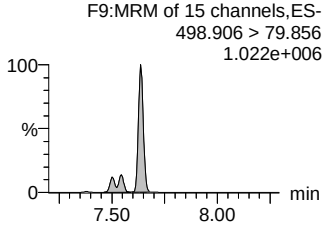


PVed by GW, SVed by hh 13-Mar-19. NOTE: Unit=ng based on 4 mL

**Quantify Sample Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_097-A1.qld

Last Altered: Tuesday, March 12, 2019 17:19:00 Pacific Daylight Time
Printed: Wednesday, March 13, 2019 15:25:06 Pacific Daylight Time

**ID: FC005A-SSV,,/01, Name: FC9W_097S21, Description: 1,,2uL, Date: 08-Mar-2019, Time: 19:18:44**

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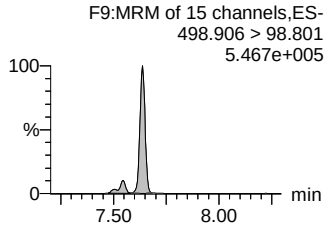


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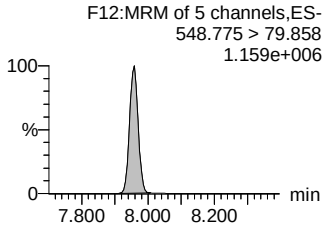


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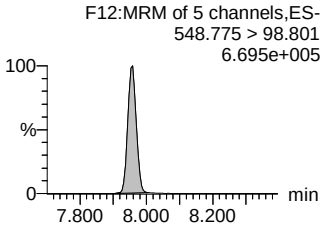


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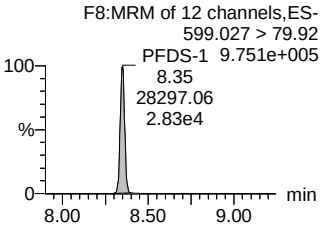


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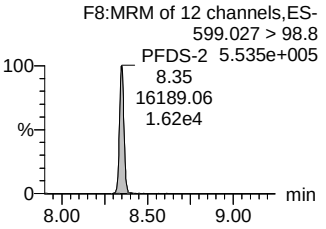


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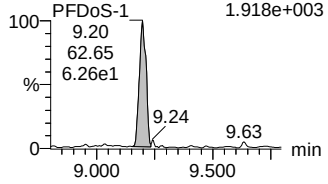


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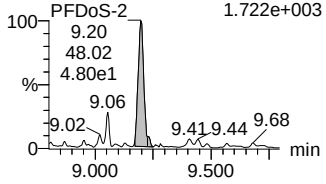


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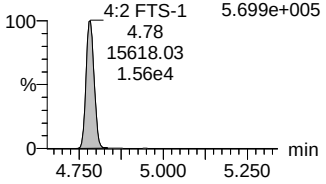


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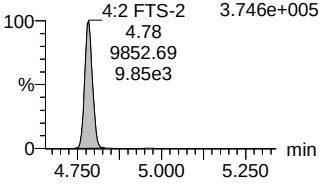


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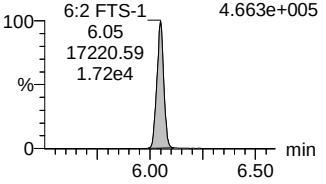


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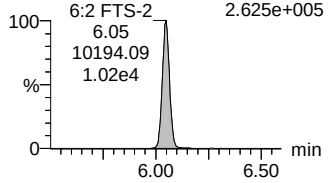


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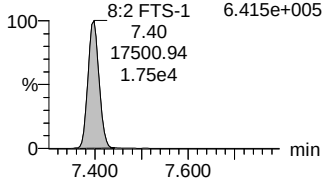


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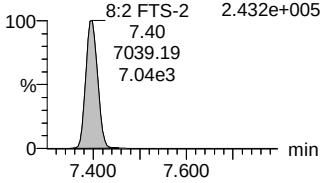


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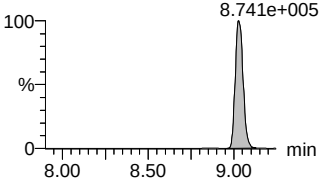
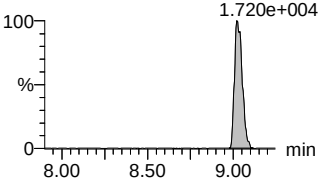



**PFOSA-2**




PVed by GW, SVed by hh 13-Mar-19. NOTE: Unit=ng based on 4 mL

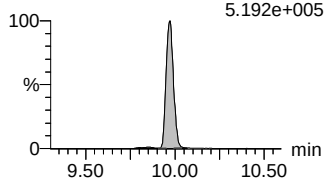
**Quantify Sample Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_097-A1.qld

Last Altered: Tuesday, March 12, 2019 17:19:00 Pacific Daylight Time
Printed: Wednesday, March 13, 2019 15:25:06 Pacific Daylight Time

**ID: FC005A-SSV,,/01, Name: FC9W_097S21, Description: 1,,2uL, Date: 08-Mar-2019, Time: 19:18:44**

**N-MeFOSA-1**

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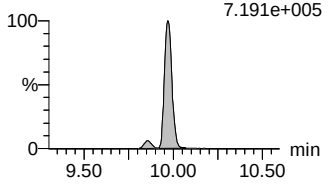
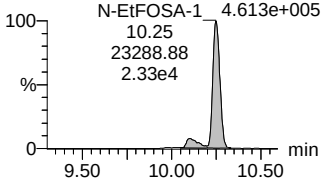



**N-EtFOSA-1**

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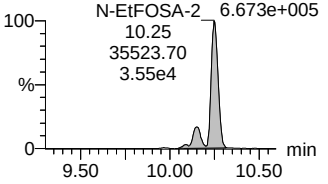
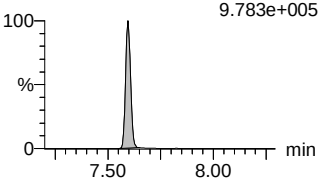
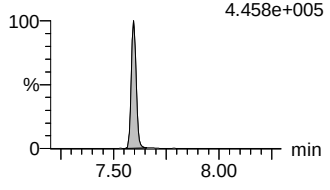



**MeFOSAA-1**




**MeFOSAA-2**

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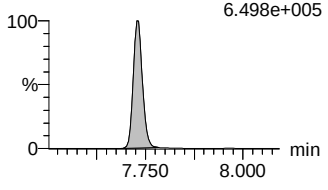


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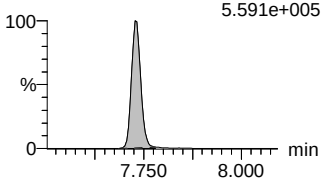
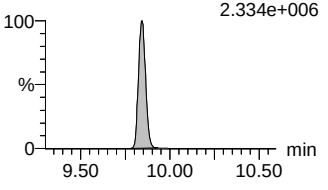



**N-MeFOSE**

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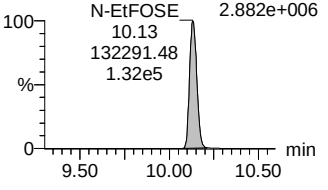
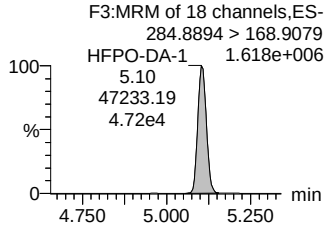



**HFPO-DA-1**

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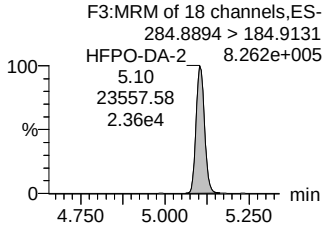
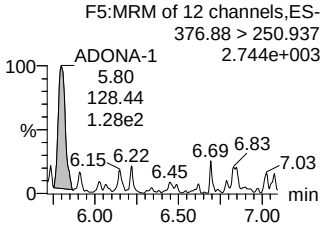



**ADONA-1**

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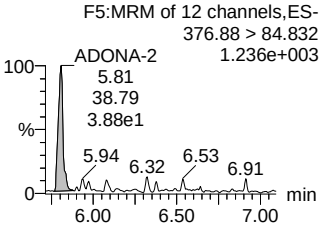
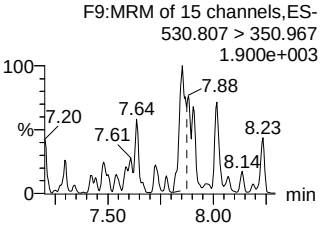



**9Cl-PF3ONS-1**




PVed by GW, SVed by hh 13-Mar-19. NOTE: Unit=ng based on 4 mL

**Quantify Sample Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_097-A1.qld

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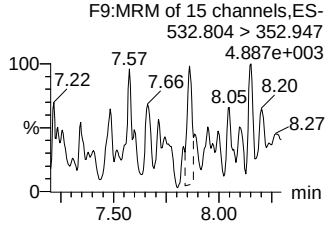
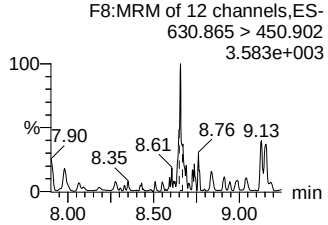
**ID: FC005A-SSV,,/01, Name: FC9W_097S21, Description: 1,,2uL, Date: 08-Mar-2019, Time: 19:18:44**

**9Cl-PF3ONS-2**




**11Cl-PF3OUdS-1**

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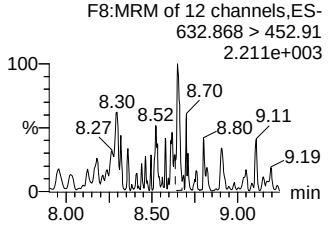
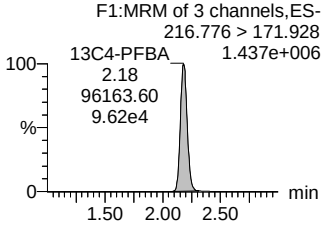
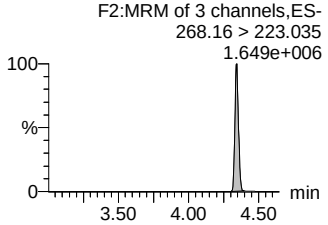


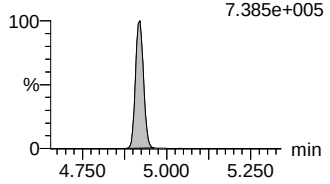

**13C4-PFBA**




**13C5-PFPeA**




**13C5-PFHxA-1**

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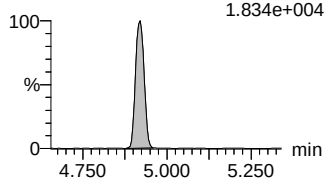
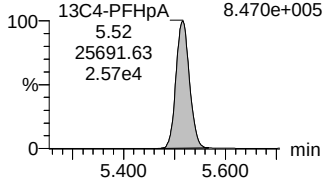
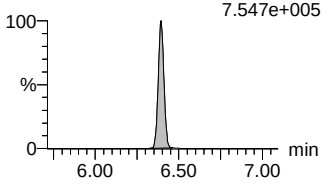


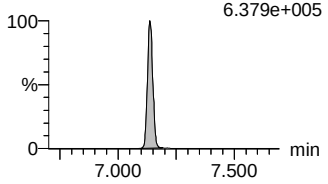

**13C4-PFHpA**



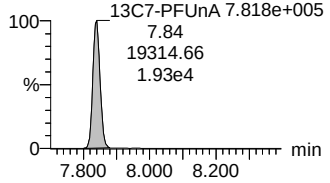

**13C8-PFOA**



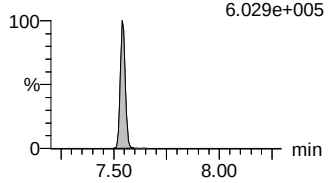

**13C9-PFNA**



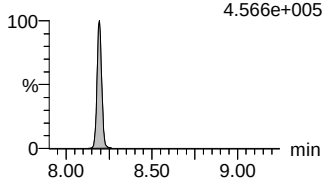

**13C7-PFUnA**



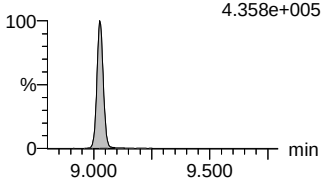

**13C6-PFDA**



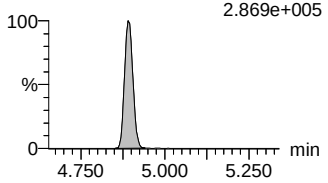

**13C2-PFDoA**




**13C2-PFTeDA**




**13C3-PFBS-1**

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**Quantify Sample Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_097-A1.qld

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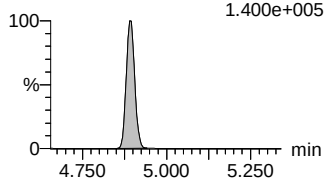
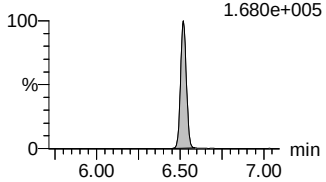
**ID: FC005A-SSV,,/01, Name: FC9W_097S21, Description: 1,,2uL, Date: 08-Mar-2019, Time: 19:18:44**

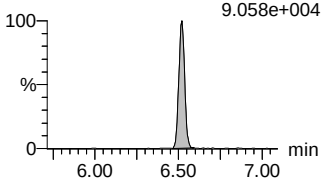
**13C3-PFBS-2**
F3:MRM of 18 channels,ES-
302.056 > 98.875
1.400e+005



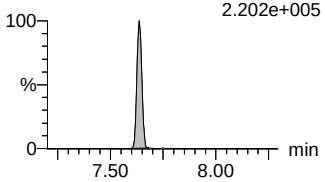

**13C3-PFHxS-1**
F5:MRM of 12 channels,ES-
402.114 > 79.858
1.680e+005



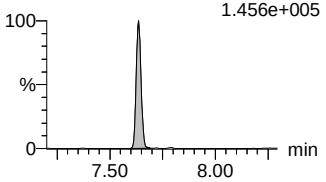

**13C3-PFHxS-2**
F5:MRM of 12 channels,ES-
402.114 > 98.801
9.058e+004



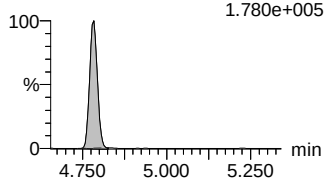

**13C8-PFOS-1**
F9:MRM of 15 channels,ES-
507.124 > 79.858
2.202e+005



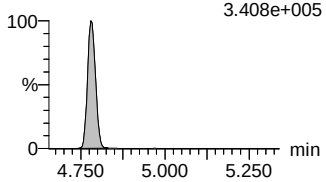

**13C8-PFOS-2**
F9:MRM of 15 channels,ES-
507.124 > 98.867
1.456e+005



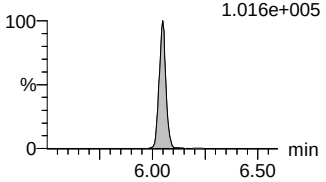

**13C2-4:2 FTS-1**
F3:MRM of 18 channels,ES-
329.084 > 80.9
1.780e+005



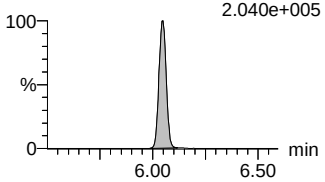

**13C2-4:2 FTS-2**
F3:MRM of 18 channels,ES-
329.084 > 309.024
3.408e+005



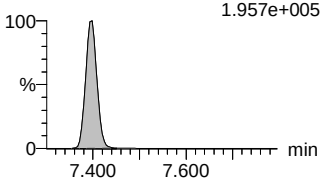

**13C2-6:2 FTS-1**
F6:MRM of 4 channels,ES-
429.078 > 80.900
1.016e+005



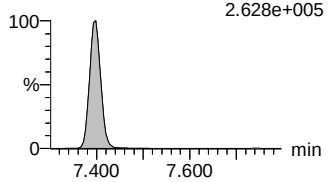

**13C2-6:2 FTS-2**
F6:MRM of 4 channels,ES-
429.078 > 409.031
2.040e+005



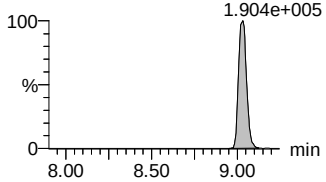

**13C2-8:2 FTS-1**
F11:MRM of 4 channels,ES-
529.1351 > 80.900
1.957e+005



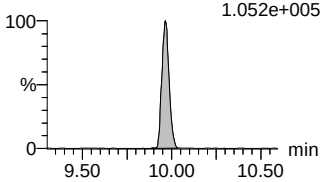

**13C2-8:2 FTS-2**
F11:MRM of 4 channels,ES-
529.135 > 509.003
2.628e+005



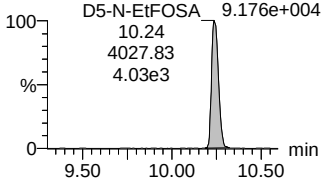

**13C8-PFOSA**
F8:MRM of 12 channels,ES-
506.14 > 77.841
1.904e+005



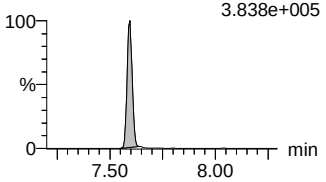

**D3-N-MeFOSA**
F10:MRM of 10 channels,ES-
514.956 > 218.974
1.052e+005




**D5-N-EtFOSA**
F10:MRM of 10 channels,ES-
531.112 > 218.984
9.176e+004




**D3-MeFOSAA**
F9:MRM of 15 channels,ES-
573.153 > 418.99
3.838e+005

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SGS Axys Analytical Services, Ltd.

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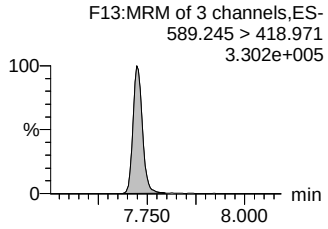
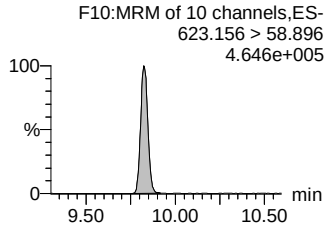
**ID: FC005A-SSV,,/01, Name: FC9W_097S21, Description: 1,,2uL, Date: 08-Mar-2019, Time: 19:18:44**

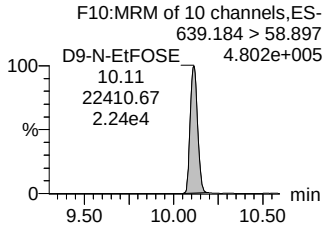
**D5-EtFOSAA**



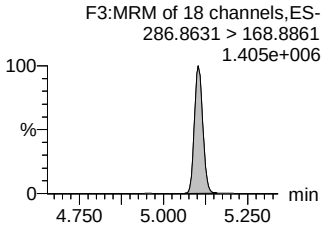

**D7-N-MeFOSE**



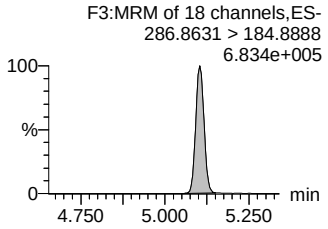

**D9-N-EtFOSE**



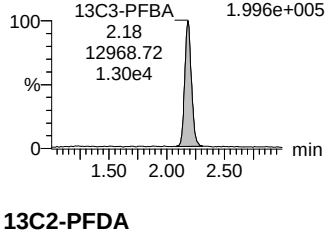

**13C3-HFPO-DA-1**



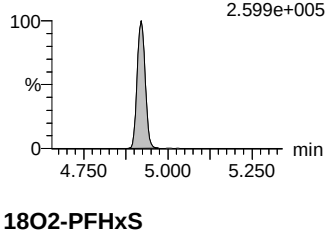

**13C3-HFPO-DA-2**



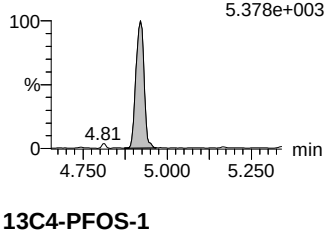

**13C3-PFBA**



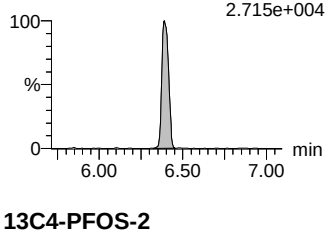

**13C2-PFHxA-1**



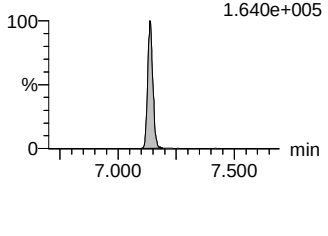

**13C2-PFHxA-2**



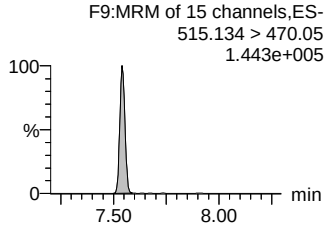

**13C4-PFOA**



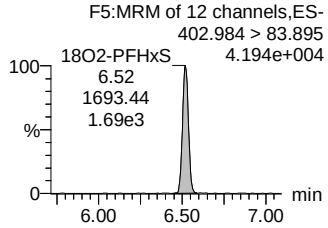

**13C5-PFNA**



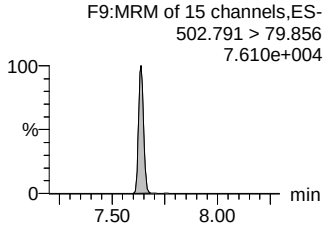

**13C2-PFDA**



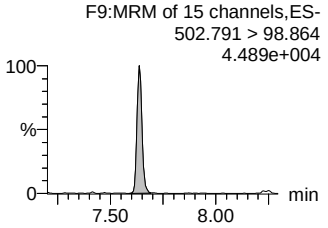

**18O2-PFHxS**




**13C4-PFOS-1**




**13C4-PFOS-2**




PVed by GW, SVed by hh 13-Mar-19. NOTE: Unit=ng based on 4 mL

**Quantify Sample Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_097-A1.qld

Last Altered: Tuesday, March 12, 2019 17:19:00 Pacific Daylight Time
Printed: Wednesday, March 13, 2019 15:25:06 Pacific Daylight Time

**ID: FC005A-SSV,,/01, Name: FC9W_097S21, Description: 1,,2uL, Date: 08-Mar-2019, Time: 19:18:44**

| # | Name | IS# | Trace | RT | Area | IS Area | Std. Conc | Conc. | LOD | %Rec | S/N | Noise | Peak Height | IS Height | Sample size | F2 | Flags |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | PFBA | 64 | 212.763 > 168.903 | 2.19 | 103947 | 96164 | 0.000 | 51.423 | | | 4407 | 354 | 1557922 | 1434339 | 1.000 | 0.0 | bb |
| 2 | PFPeA-1 | 65 | 262.951 > 218.996 | 4.34 | 119498 | 47465 | 0.000 | 51.718 | | | 129... | 319 | 4146737 | 1645042 | 1.000 | 0.0 | bb |
| 3 | PFPeA-2 | 65 | 262.951 > 68.925 | 4.35 | 411 | 47465 | 0.000 | 53.146 | 0.2432 | | 599 | 23 | 13782 | 1645042 | 1.000 | 0.0 | bb |
| 4 | PFHxA-1 | 66 | 313.012 > 269.017 | 4.92 | 87606 | 20132 | 0.000 | 47.715 | | | 3570 | 914 | 3262395 | 737108 | 1.000 | 0.0 | MM |
| 5 | PFHxA-2 | 66 | 313.012 > 118.918 | 4.92 | 10101 | 20132 | 0.000 | 47.095 | 0.0738 | | 1968 | 197 | 386799 | 737108 | 1.000 | 0.0 | bb |
| 6 | PFHpA-1 | 68 | 363.073 > 319.025 | 5.52 | 120873 | 25692 | 0.000 | 52.758 | | | 3597 | 1112 | 3999331 | 845149 | 1.000 | 0.0 | MM |
| 7 | PFHpA-2 | 68 | 363.073 > 168.962 | 5.52 | 39715 | 25692 | 0.000 | 53.583 | 0.0421 | | 2572 | 503 | 1293657 | 845149 | 1.000 | 0.0 | bb |
| 8 | PFOA-1 | 69 | 413.006 > 369.03 | 6.40 | 189590 | 29253 | 0.000 | 46.193 | | | 1812 | 2543 | 4607460 | 752975 | 1.000 | 0.0 | MM |
| 9 | PFOA-2 | 69 | 413.006 > 168.963 | 6.39 | 55535 | 29253 | 0.000 | 45.331 | | | 7743 | 182 | 1409806 | 752975 | 1.000 | 0.0 | bb |
| 10 | PFNA-1 | 70 | 463.002 > 418.97 | 7.14 | 162006 | 16637 | 0.000 | 51.673 | | | 5130 | 1238 | 6349534 | 636826 | 1.000 | 0.0 | bb |
| 11 | PFNA-2 | 70 | 463.002 > 218.968 | 7.14 | 41310 | 16637 | 0.000 | 50.324 | 1.5111 | | 100 | 16004 | 1601728 | 636826 | 1.000 | 0.0 | bb |
| 12 | PFDA-1 | 72 | 512.935 > 469.021 | 7.55 | 127389 | 16167 | 0.000 | 52.780 | | | 1889 | 2448 | 4625506 | 601541 | 1.000 | 0.0 | bb |
| 13 | PFDA-2 | 72 | 512.935 > 218.972 | 7.54 | 32111 | 16167 | 0.000 | 53.195 | | | 6134 | 192 | 1178423 | 601541 | 1.000 | 0.0 | bb |
| 14 | PFUnA-1 | 71 | 563.124 > 519.003 | 7.84 | 124564 | 19315 | 0.000 | 51.440 | | | 6494 | 751 | 4874188 | 779167 | 1.000 | 0.0 | bb |
| 15 | PFUnA-2 | 71 | 563.124 > 269.051 | 7.84 | 22626 | 19315 | 0.000 | 52.173 | | | 197... | 46 | 905326 | 779167 | 1.000 | 0.0 | bb |
| 16 | PFDoA-1 | 73 | 613.057 > 569.045 | 8.19 | 158556 | 14142 | 0.000 | 55.916 | | | 3071 | 1700 | 5221749 | 456321 | 1.000 | 0.0 | bb |
| 17 | PFDoA-2 | 73 | 613.057 > 318.996 | 8.19 | 19309 | 14142 | 0.000 | 56.032 | | | 4719 | 132 | 622656 | 456321 | 1.000 | 0.0 | bb |
| 18 | PFTrDA-1 | 74 | 663.053 > 619.023 | 8.61 | 126356 | 13710 | 0.000 | 58.869 | | | 2562 | 1615 | 4136828 | 435734 | 1.000 | 0.0 | bb |
| 19 | PFTrDA-2 | 74 | 663.053 > 168.949 | 8.61 | 23241 | 13710 | 0.000 | 59.962 | | | 1469 | 538 | 790182 | 435734 | 1.000 | 0.0 | MM |
| 20 | PFTeDA-1 | 74 | 713.05 > 669. | 9.03 | 95394 | 13710 | 0.000 | 54.928 | | | 2028 | 1515 | 3072098 | 435734 | 1.000 | 0.0 | MM |
| 21 | PFTeDA-2 | 74 | 713.05 > 168.94 | 9.03 | 20397 | 13710 | 0.000 | 55.337 | | | 4081 | 158 | 644616 | 435734 | 1.000 | 0.0 | bb |
| 22 | PFBS-1 | 75 | 298.663 > 79.865 | 4.89 | 39953 | 8194 | 0.000 | 42.511 | 0.0168 | | 8108 | 174 | 1414205 | 286475 | 1.000 | 0.0 | MM |
| 23 | PFBS-2 | 76 | 298.663 > 98.811 | 4.89 | 20134 | 3979 | 0.000 | 42.738 | 0.0202 | | 1980 | 359 | 710217 | 139852 | 1.000 | 0.0 | bb |
| 24 | PFPeS-1 | 77 | 349.107 > 79.857 | 5.57 | 30454 | 6613 | 0.000 | 48.694 | | | 3922 | 233 | 915373 | 167638 | 1.000 | 0.0 | bb |
| 25 | PFPeS-2 | 78 | 349.107 > 98.871 | 5.57 | 17335 | 3594 | 0.000 | 49.413 | | | 3711 | 141 | 524779 | 90362 | 1.000 | 0.0 | bb |
| 26 | PFHxS-1 | 77 | 398.721 > 79.92 | 6.52 | 34610 | 6613 | 0.000 | 42.178 | 0.1351 | | 4645 | 152 | 704314 | 167638 | 1.000 | 0.0 | MM |
| 27 | PFHxS-2 | 78 | 398.721 > 98.863 | 6.52 | 19122 | 3594 | 0.000 | 42.760 | | | 2126 | 183 | 389290 | 90362 | 1.000 | 0.0 | MM |
| 28 | PFHpS-1 | 79 | 449.036 > 79.857 | 7.25 | 27079 | 5957 | 0.000 | 48.542 | | | 4214 | 223 | 941144 | 219744 | 1.000 | 0.0 | bb |
| 29 | PFHpS-2 | 80 | 449.036 > 98.8 | 7.25 | 17173 | 3812 | 0.000 | 47.858 | 0.0819 | | 1778 | 339 | 603288 | 145401 | 1.000 | 0.0 | bb |
| 30 | PFOS-1 | 79 | 498.906 > 79.856 | 7.64 | 34006 | 5957 | 0.000 | 50.511 | | | 7270 | 140 | 1020840 | 219744 | 1.000 | 0.0 | MM |
| 31 | PFOS-2 | 80 | 498.906 > 98.801 | 7.64 | 17302 | 3812 | 0.000 | 48.199 | | | 1958 | 279 | 546001 | 145401 | 1.000 | 0.0 | MM |
| 32 | PFNS-1 | 79 | 548.775 > 79.858 | 7.96 | 34100 | 5957 | 0.000 | 51.805 | | | 118... | 98 | 1156880 | 219744 | 1.000 | 0.0 | bb |
| 33 | PFNS-2 | 80 | 548.775 > 98.801 | 7.96 | 19663 | 3812 | 0.000 | 48.956 | 0.0837 | | 1112 | 600 | 667406 | 145401 | 1.000 | 0.0 | bb |
| 34 | PFDS-1 | 79 | 599.027 > 79.92 | 8.35 | 28297 | 5957 | 0.000 | 52.486 | 0.0416 | | 1768 | 550 | 972298 | 219744 | 1.000 | 0.0 | bb |
| 35 | PFDS-2 | 80 | 599.027 > 98.8 | 8.35 | 16189 | 3812 | 0.000 | 50.182 | 0.1294 | | 4012 | 138 | 553440 | 145401 | 1.000 | 0.0 | MM |

PVed by GW, SVed by hh 13-Mar-19. NOTE: Unit=ng based on 4 mL

**Quantify Sample Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_097-A1.qld

Last Altered: Tuesday, March 12, 2019 17:19:00 Pacific Daylight Time
Printed: Wednesday, March 13, 2019 15:25:06 Pacific Daylight Time

**ID: FC005A-SSV,,/01, Name: FC9W_097S21, Description: 1,,2uL, Date: 08-Mar-2019, Time: 19:18:44**

| # | Name | IS# | Trace | RT | Area | IS Area | Std. Conc | Conc. | LOD | %Rec | S/N | Noise | Peak Height | IS Height | Sample size | F2 | Flags |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 36 | PFDoS-1 | 79 | 699.084 > 79.856 | 9.20 | 63 | 5957 | 0.000 | 0.068 | | | 82 | 23 | 1889 | 219744 | 1.000 | 0.0 | bd |
| 37 | PFDoS-2 | 80 | 699.084 > 98.8 | 9.20 | 48 | 3812 | 0.000 | 0.129 | | | 121 | 14 | 1695 | 145401 | 1.000 | 0.0 | MM |
| 38 | 4:2 FTS-1 | 81 | 327.077 > 307.017 | 4.78 | 15618 | 4743 | 0.000 | 44.936 | | | 2280 | 250 | 569053 | 178605 | 1.000 | 0.0 | bb |
| 39 | 4:2 FTS-2 | 81 | 327.077 > 80.85 | 4.78 | 9853 | 4743 | 0.000 | 45.824 | 0.3202 | | 531 | 705 | 373998 | 178605 | 1.000 | 0.0 | bb |
| 40 | 6:2 FTS-1 | 83 | 427.071 > 407.024 | 6.05 | 17221 | 3730 | 0.000 | 49.811 | | | 7503 | 62 | 464857 | 101633 | 1.000 | 0.0 | MM |
| 41 | 6:2 FTS-2 | 83 | 427.071 > 80.9 | 6.05 | 10194 | 3730 | 0.000 | 47.828 | 0.0703 | | 3424 | 77 | 262414 | 101633 | 1.000 | 0.0 | bb |
| 42 | 8:2 FTS-1 | 85 | 527.065 > 506.997 | 7.40 | 17501 | 5523 | 0.000 | 58.522 | | | 1600 | 400 | 639790 | 196036 | 1.000 | 0.0 | MM |
| 43 | 8:2 FTS-2 | 85 | 527.065 > 80.75 | 7.40 | 7039 | 5523 | 0.000 | 48.603 | | | 8758 | 28 | 242868 | 196036 | 1.000 | 0.0 | bb |
| 44 | PFOSA-1 | 87 | 498.113 > 77.902 | 9.03 | 45940 | 10249 | 0.000 | 47.783 | 0.1220 | | 3495 | 250 | 872864 | 190165 | 1.000 | 0.0 | bb |
| 45 | PFOSA-2 | 87 | 498.113 > 477.993 | 9.02 | 895 | 10249 | 0.000 | 46.121 | 2.4611 | | 237 | 72 | 17177 | 190165 | 1.000 | 0.0 | bb |
| 46 | N-MeFOSA-1 | 88 | 511.937 > 218.985 | 9.97 | 25061 | 4873 | 0.000 | 55.758 | | | 2627 | 198 | 518979 | 104855 | 1.000 | 0.0 | MM |
| 47 | N-MeFOSA-2 | 88 | 511.937 > 168.955 | 9.97 | 36496 | 4873 | 0.000 | 55.054 | | | 2353 | 305 | 717946 | 104855 | 1.000 | 0.0 | MM |
| 48 | N-EtFOSA-1 | 89 | 526.017 > 218.977 | 10.25 | 23289 | 4028 | 0.000 | 49.721 | | | 806 | 571 | 459993 | 91497 | 1.000 | 0.0 | MM |
| 49 | N-EtFOSA-2 | 89 | 526.017 > 168.95 | 10.25 | 35524 | 4028 | 0.000 | 51.551 | | | 4037 | 165 | 665615 | 91497 | 1.000 | 0.0 | MM |
| 50 | MeFOSAA-1 | 90 | 570.134 > 419.035 | 7.59 | 26506 | 10521 | 0.000 | 52.756 | 0.0279 | | 2985 | 327 | 975368 | 380987 | 1.000 | 0.0 | bb |
| 51 | MeFOSAA-2 | 90 | 570.134 > 482.99 | 7.59 | 11974 | 10521 | 0.000 | 52.673 | | | 3922 | 113 | 444719 | 380987 | 1.000 | 0.0 | bb |
| 52 | EtFOSAA-1 | 91 | 584.15 > 419.062 | 7.73 | 17499 | 9132 | 0.000 | 49.840 | 0.2562 | | 786 | 823 | 647532 | 329839 | 1.000 | 0.0 | bb |
| 53 | EtFOSAA-2 | 91 | 584.15 > 526.045 | 7.73 | 15388 | 9132 | 0.000 | 47.217 | 0.1763 | | 2382 | 235 | 559866 | 329839 | 1.000 | 0.0 | MM |
| 54 | N-MeFOSE | 92 | 616.112 > 58.894 | 9.84 | 107642 | 21615 | 0.000 | 533.122 | | | 6580 | 354 | 2329729 | 464107 | 1.000 | 0.0 | bb |
| 55 | N-EtFOSE | 93 | 630. > 58.893 | 10.13 | 132291 | 22411 | 0.000 | 466.649 | | | 7311 | 393 | 2876582 | 479013 | 1.000 | 0.0 | bb |
| 56 | HFPO-DA-1 | 94 | 284.8894 > 168.... | 5.10 | 47233 | 39956 | 0.000 | 52.783 | | | 123... | 131 | 1615551 | 1402864 | 1.000 | 0.0 | bb |
| 57 | HFPO-DA-2 | 95 | 284.8894 > 184.... | 5.10 | 23558 | 19254 | 0.000 | 53.071 | 0.0120 | | 2467 | 334 | 824566 | 681641 | 1.000 | 0.0 | bb |
| 58 | ADONA-1 | 94 | 376.88 > 250.937 | 5.80 | 128 | 39956 | 0.000 | | | | 25 | 105 | 2636 | 1402864 | 1.000 | 0.0 | bbI |
| 59 | ADONA-2 | 95 | 376.88 > 84.832 | 5.81 | 39 | 19254 | 0.000 | 0.542 | 0.5266 | | 40 | 30 | 1211 | 681641 | 1.000 | 0.0 | bb |
| 60 | 9Cl-PF3ONS-1 | 94 | 530.807 > 350.967 | | | 39956 | 0.000 | | | | | 292 | | 1402864 | 1.000 | 0.0 | MM-I |
| 61 | 9Cl-PF3ONS-2 | 95 | 532.804 > 352.947 | | | 19254 | 0.000 | | | | | 963 | | 681641 | 1.000 | 0.0 | MM-I |
| 62 | 11Cl-PF3OUdS-1 | 94 | 630.865 > 450.902 | | | 39956 | 0.000 | | | | | 157 | | 1402864 | 1.000 | 0.0 | MM-I |
| 63 | 11Cl-PF3OUdS-2 | 95 | 632.868 > 452.91 | | | 19254 | 0.000 | | | | | 395 | | 681641 | 1.000 | 0.0 | MM-I |
| 64 | 13C4-PFBA | 96 | 216.776 > 171.928 | 2.18 | 96164 | 12969 | 40.000 | 36.216 | 0.0067 | 90.5 | 160... | 90 | 1434339 | 196256 | 1.000 | 0.0 | bb |
| 65 | 13C5-PFPeA | 97 | 268.16 > 223.035 | 4.34 | 47465 | 7077 | 20.000 | 20.668 | 0.0034 | 103.3 | 172... | 95 | 1645042 | 259723 | 1.000 | 0.0 | bb |
| 66 | 13C5-PFHxA-1 | 97 | 318.029 > 272.993 | 4.92 | 20132 | 7077 | 10.000 | 10.100 | 0.0135 | 101.0 | 2237 | 330 | 737108 | 259723 | 1.000 | 0.0 | bb |
| 67 | 13C5-PFHxA-2 | 97 | 318.029 > 120.341 | 4.92 | 535 | 7077 | 10.000 | 7.904 | 0.0304 | 79.0 | 725 | 25 | 18280 | 259723 | 1.000 | 0.0 | bb |
| 68 | 13C4-PFHpA | 99 | 367.086 > 322.004 | 5.52 | 25692 | 1257 | 10.000 | 9.398 | 0.0057 | 94.0 | 7595 | 111 | 845149 | 27108 | 1.000 | 0.0 | bb |
| 69 | 13C8-PFOA | 99 | 421.096 > 376.022 | 6.39 | 29253 | 1257 | 10.000 | 9.313 | 0.0025 | 93.1 | 131... | 57 | 752975 | 27108 | 1.000 | 0.0 | bb |
| 70 | 13C9-PFNA | 100 | 472.096 > 427.014 | 7.14 | 16637 | 4101 | 5.000 | 4.670 | 0.0073 | 93.4 | 1841 | 346 | 636826 | 163775 | 1.000 | 0.0 | bb |

PVed by GW, SVed by hh 13-Mar-19. NOTE: Unit=ng based on 4 mL

**Quantify Sample Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_097-A1.qld

Last Altered: Tuesday, March 12, 2019 17:19:00 Pacific Daylight Time
Printed: Wednesday, March 13, 2019 15:25:06 Pacific Daylight Time

**ID: FC005A-SSV,,/01, Name: FC9W_097S21, Description: 1,,2uL, Date: 08-Mar-2019, Time: 19:18:44**

| # | Name | IS# | Trace | RT | Area | IS Area | Std. Conc | Conc. | LOD | %Rec | S/N | Noise | Peak Height | IS Height | Sample size | F2 | Flags |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 71 | 13C7-PFUnA | 101 | 570.019 > 525.05 | 7.84 | 19315 | 3916 | 5.000 | 5.514 | 0.0016 | 110.3 | 114... | 68 | 779167 | 143935 | 1.000 | 0.0 | bb |
| 72 | 13C6-PFDA | 101 | 519.147 > 474.058 | 7.54 | 16167 | 3916 | 5.000 | 5.484 | 0.0020 | 109.7 | 8171 | 74 | 601541 | 143935 | 1.000 | 0.0 | bb |
| 73 | 13C2-PFDoA | 101 | 615.127 > 570.013 | 8.19 | 14142 | 3916 | 5.000 | 5.656 | 0.0012 | 113.1 | 120... | 38 | 456321 | 143935 | 1.000 | 0.0 | bb |
| 74 | 13C2-PFTeDA | 101 | 715.057 > 670.026 | 9.03 | 13710 | 3916 | 5.000 | 5.589 | 0.0076 | 111.8 | 1899 | 229 | 435734 | 143935 | 1.000 | 0.0 | MM |
| 75 | 13C3-PFBS-1 | 102 | 302.056 > 79.865 | 4.89 | 8194 | 1693 | 10.000 | 10.050 | 0.0246 | 100.5 | 1731 | 165 | 286475 | 41889 | 1.000 | 0.0 | bb |
| 76 | 13C3-PFBS-2 | 102 | 302.056 > 98.875 | 4.89 | 3979 | 1693 | 10.000 | 10.095 | 0.0209 | 101.0 | 2060 | 68 | 139852 | 41889 | 1.000 | 0.0 | bb |
| 77 | 13C3-PFHxS-1 | 102 | 402.114 > 79.858 | 6.52 | 6613 | 1693 | 10.000 | 9.413 | 0.0214 | 94.1 | 1349 | 124 | 167638 | 41889 | 1.000 | 0.0 | bb |
| 78 | 13C3-PFHxS-2 | 102 | 402.114 > 98.801 | 6.52 | 3594 | 1693 | 10.000 | 9.183 | 0.0168 | 91.8 | 1668 | 54 | 90362 | 41889 | 1.000 | 0.0 | bb |
| 79 | 13C8-PFOS-1 | 103 | 507.124 > 79.858 | 7.64 | 5957 | 2000 | 10.000 | 9.407 | 0.0030 | 94.1 | 9231 | 24 | 219744 | 75930 | 1.000 | 0.0 | bb |
| 80 | 13C8-PFOS-2 | 104 | 507.124 > 98.867 | 7.64 | 3812 | 1220 | 10.000 | 9.960 | 0.0223 | 99.6 | 1392 | 104 | 145401 | 44775 | 1.000 | 0.0 | bb |
| 81 | 13C2-4:2 FTS-1 | 102 | 329.084 > 80.9 | 4.78 | 4743 | 1693 | 20.000 | 19.716 | 0.0271 | 98.6 | 3325 | 54 | 178605 | 41889 | 1.000 | 0.0 | MM |
| 82 | 13C2-4:2 FTS-2 | 102 | 329.084 > 309.024 | 4.78 | 9314 | 1693 | 20.000 | 16.589 | 0.0057 | 82.9 | 129... | 26 | 340299 | 41889 | 1.000 | 0.0 | bb |
| 83 | 13C2-6:2 FTS-1 | 102 | 429.078 > 80.900 | 6.05 | 3730 | 1693 | 20.000 | 19.195 | 0.0286 | 96.0 | 2216 | 46 | 101633 | 41889 | 1.000 | 0.0 | MM |
| 84 | 13C2-6:2 FTS-2 | 102 | 429.078 > 409.031 | 6.05 | 8026 | 1693 | 20.000 | 18.034 | 0.0247 | 90.2 | 2246 | 91 | 203530 | 41889 | 1.000 | 0.0 | bb |
| 85 | 13C2-8:2 FTS-1 | 102 | 529.1351 > 80.900 | 7.40 | 5523 | 1693 | 20.000 | 19.021 | 0.0240 | 95.1 | 3418 | 57 | 196036 | 41889 | 1.000 | 0.0 | MM |
| 86 | 13C2-8:2 FTS-2 | 102 | 529.135 > 509.003 | 7.40 | 7324 | 1693 | 20.000 | 18.752 | 0.0107 | 93.8 | 7646 | 34 | 262833 | 41889 | 1.000 | 0.0 | bb |
| 87 | 13C8-PFOSA | 103 | 506.14 > 77.841 | 9.03 | 10249 | 2000 | 10.000 | 10.237 | 0.0440 | 102.4 | 341 | 558 | 190165 | 75930 | 1.000 | 0.0 | bb |
| 88 | D3-N-MeFOSA | 103 | 514.956 > 218.974 | 9.96 | 4873 | 2000 | 10.000 | 9.429 | 0.0215 | 94.3 | 745 | 141 | 104855 | 75930 | 1.000 | 0.0 | bb |
| 89 | D5-N-EtFOSA | 103 | 531.112 > 218.984 | 10.24 | 4028 | 2000 | 10.000 | 9.230 | 0.0274 | 92.3 | 604 | 152 | 91497 | 75930 | 1.000 | 0.0 | bb |
| 90 | D3-MeFOSAA | 103 | 573.153 > 418.99 | 7.59 | 10521 | 2000 | 20.000 | 18.924 | 0.0083 | 94.6 | 6558 | 58 | 380987 | 75930 | 1.000 | 0.0 | bb |
| 91 | D5-EtFOSAA | 103 | 589.245 > 418.971 | 7.72 | 9132 | 2000 | 20.000 | 19.658 | 0.0852 | 98.3 | 658 | 501 | 329839 | 75930 | 1.000 | 0.0 | bb |
| 92 | D7-N-MeFOSE | 103 | 623.156 > 58.896 | 9.82 | 21615 | 2000 | 100.000 | 90.572 | 0.1220 | 90.6 | 1259 | 368 | 464107 | 75930 | 1.000 | 0.0 | bb |
| 93 | D9-N-EtFOSE | 103 | 639.184 > 58.897 | 10.11 | 22411 | 2000 | 100.000 | 90.661 | 0.0734 | 90.7 | 2087 | 230 | 479013 | 75930 | 1.000 | 0.0 | bb |
| 94 | 13C3-HFPO-DA-1 | 97 | 286.8631 > 168.... | 5.10 | 39956 | 7077 | 40.000 | 43.654 | 0.0161 | 109.1 | 7787 | 180 | 1402864 | 259723 | 1.000 | 0.0 | bb |
| 95 | 13C3-HFPO-DA-2 | 97 | 286.8631 > 184.... | 5.10 | 19254 | 7077 | 40.000 | 42.947 | 0.0389 | 107.4 | 3194 | 213 | 681641 | 259723 | 1.000 | 0.0 | bb |
| 96 | 13C3-PFBA | | 216.029 > 171.97 | 2.18 | 12969 | | 5.000 | 9.265 | 0.0615 | 185.3 | 452 | 434 | 196256 | | 1.000 | 0.0 | bb |
| 97 | 13C2-PFHxA-1 | | 315.083 > 269.984 | 4.92 | 7077 | | 2.500 | 3.964 | 0.0018 | 158.6 | 6619 | 39 | 259723 | | 1.000 | 0.0 | bb |
| 98 | 13C2-PFHxA-2 | | 315.083 > 119.359 | 4.92 | 149 | | 2.500 | 2.773 | 0.1000 | 110.9 | 83 | 64 | 5359 | | 1.000 | 0.0 | bb |
| 99 | 13C4-PFOA | | 417.083 > 171.95 | 6.39 | 1257 | | 2.500 | 4.183 | 0.0059 | 167.3 | 2116 | 13 | 27108 | | 1.000 | 0.0 | bb |
| 1... | 13C5-PFNA | | 468.019 > 423.008 | 7.14 | 4101 | | 1.250 | 2.010 | 0.0050 | 160.8 | 1214 | 135 | 163775 | | 1.000 | 0.0 | bb |
| 1... | 13C2-PFDA | | 515.134 > 470.05 | 7.54 | 3916 | | 1.250 | 1.722 | 0.0018 | 137.7 | 2918 | 49 | 143935 | | 1.000 | 0.0 | bb |
| 1... | 18O2-PFHxS | | 402.984 > 83.895 | 6.52 | 1693 | | 2.500 | 4.311 | 0.0100 | 172.4 | 1298 | 32 | 41889 | | 1.000 | 0.0 | bb |
| 1... | 13C4-PFOS-1 | | 502.791 > 79.856 | 7.64 | 2000 | | 2.500 | 4.110 | 0.0217 | 164.4 | 569 | 133 | 75930 | | 1.000 | 0.0 | bb |
| 1... | 13C4-PFOS-2 | | 502.791 > 98.864 | 7.64 | 1220 | | 2.500 | 3.905 | 0.0158 | 156.2 | 741 | 60 | 44775 | | 1.000 | 0.0 | bb |

PVed by GW, SVed by hh 13-Mar-19. NOTE: Unit=ng based on 4 mL

**Sample List Report** **MassLynx MassLynx V4.1 SCN945 SCN960**

Sample List: G:\Masslynx\Inst_W_Master.PRO\Sample DB\FC9W_130.SPL
Last Modified: Sunday, March 31, 2019 00:37:55 Pacific Daylight Time
Printed: Sunday, March 31, 2019 00:38:01 Pacific Daylight Time



Page Position (1, 1)

| | File Name | Sample ID | File Text | Bottle | SignIn | SignOut | Inj VoL | EXP |
|---|---|---|---|---|---|---|---|---|
| 1 | FC9W_130S01 | MeOH,, MLA110 UPLC option | 1,,2uL | 1:8,A | GW | SS | 2.0 | GW |
| 2 | FC9W_130S02 | MeOH,, more Targets for EPA | 1,,2uL | 1:8,A | --- | --- | 2.0 | --- |
| 3 | FC9W_130S03 | MeOH,, A new format | 1,,2uL | 1:8,A | --- | --- | 2.0 | --- |
| 4 | FC9W_130S04 | MeOH,, MLA110-PFAS UPLC_02 | 1,,2uL | 1:8,A | --- | --- | 2.0 | --- |
| 5 | FC9W_130S05 | MeOH,, new MS Exp name | 1,,2uL | 1:8,A | --- | --- | 2.0 | --- |
| 6 | FC9W_130S06 | MeOH,, MLA 110 new version | 1,,2uL | 1:8,A | --- | --- | 2.0 | --- |
| 7 | FC9W_130S07 | MeOH,, quan method _06 | 1,,2uL | 1:8,A | --- | --- | 2.0 | --- |
| 8 | FC9W_130S08 | MeOH,, MLA110 column | 1,,2uL | 1:8,A | --- | --- | 2.0 | --- |
| 9 | FC9W_130S09 | MeOH,, 2ul | 1,,2uL | 1:8,A | --- | --- | 2.0 | --- |
| 10 | FC9W_130S10 | MeOH,, 097-a1 | 1,,2uL | 1:8,A | --- | --- | 2.0 | --- |
| 11 | FC9W_130S11 | FC027B-CAL,, /01 | 1,,2uL | 2:1,B | --- | --- | 2.0 | --- |
| 12 | FC9W_130S12 | FC027B-CAL,, /01 | 1,,2uL | 2:1,B | --- | --- | 2.0 | --- |
| 13 | FC9W_130S13 | MeOH,,stopped,batch not come | 1,,2uL | 1:8,A | --- | --- | 2.0 | --- |
| 14 | FC9W_130S14 | MeOH,, | 1,,2uL | 1:8,A | --- | --- | 2.0 | --- |
| 15 | FC9W_130S15 | MeOH,, | 1,,2uL | 1:8,A | --- | --- | 2.0 | --- |
| 16 | FC9W_130S16 | FC027B-CAL,, /01 | 1,,2uL | 2:1,B | --- | --- | 2.0 | --- |
| 17 | FC9W_130S17 | FC027B-CAL,, /01 | 1,,2uL | 2:1,B | --- | --- | 3.0 | --- |
| 18 | FC9W_130S18 | FC027E-CAL,, /01 | 1,,2uL | 2:1,E | --- | --- | 2.0 | --- |
| 19 | FC9W_130S19 | FC027E-CAL,, /01 | 1,,2uL | 2:1,E | --- | --- | 2.0 | --- |
| 20 | FC9W_130S20 | WG67438-106,,SAR | 1,WG67438,2/4000uL | 2:3,A | --- | --- | 2.0 | --- |
| 21 | FC9W_130S21 | WG67438-103,,SPM | 1,WG67438,2/4000uL | 2:3,B | --- | --- | 2.0 | --- |
| 22 | FC9W_130S22 | WG67438-104,,SPM | 1,WG67438,2/4000uL | 2:3,C | --- | --- | 2.0 | --- |
| 23 | FC9W_130S23 | MeOH,, | 1,,2uL | 2:8,A | --- | --- | 2.0 | --- |
| 24 | FC9W_130S24 | WG67438-101,,BLK | 1,WG67438,2/4000uL | 2:3,D | --- | --- | 2.0 | --- |
| 25 | FC9W_130S25 | WG67438-102,,BLK | 1,WG67438,2/4000uL | 2:3,E | --- | --- | 2.0 | --- |
| 26 | FC9W_130S26 | L30820-1,, | 1,WG67438,2/4000uL | 2:3,F | --- | --- | 2.0 | --- |
| 27 | FC9W_130S27 | L30820-2,, | 1,WG67438,2/4000uL | 2:4,A | --- | --- | 2.0 | --- |
| 28 | FC9W_130S28 | L30821-1,, | 1,WG67438,2/4000uL | 2:4,B | --- | --- | 2.0 | --- |
| 29 | FC9W_130S29 | WG67438-105,,dup | 1,WG67438,2/4000uL | 2:4,C | --- | --- | 2.0 | --- |
| 30 | FC9W_130S30 | L30821-2,, | 1,WG67438,2/4000uL | 2:4,D | --- | --- | 2.0 | --- |
| 31 | FC9W_130S31 | L30821-4,, | 1,WG67438,2/4000uL | 2:4,E | --- | --- | 2.0 | --- |
| 32 | FC9W_130S32 | L30821-5,, | 1,WG67438,2/4000uL | 2:4,F | --- | --- | 2.0 | --- |
| 33 | FC9W_130S33 | L30821-6,, | 1,WG67438,2/4000uL | 2:5,A | --- | --- | 2.0 | --- |
| 34 | FC9W_130S34 | FC027E-CAL,, /01 | 1,,2uL | 2:1,E | --- | --- | 2.0 | --- |
| 35 | FC9W_130S35 | FC027E-CAL,, /01 | 1,,2uL | 2:1,E | --- | --- | 2.0 | --- |

**Quantify Sample Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_130-b.qld

Last Altered: Tuesday, April 16, 2019 12:33:52 Pacific Daylight Time
Printed: Tuesday, April 16, 2019 12:38:54 Pacific Daylight Time

**Method: G:\Masslynx\Master Methods\MassLynx SCN 909\UPLC\FC_110_UPLC_06.mdb 10 Mar 2019 18:18:03**
**Calibration: G:\Masslynx\Inst_W\PFC.PRO\Curve\FC9W_097-a1.cdb 12 Mar 2019 11:26:10**

**ID: FC027E-CAL,, /01, Name: FC9W_130S18, Description: 1,,2uL, Date: 31-Mar-2019, Time: 00:17:57**

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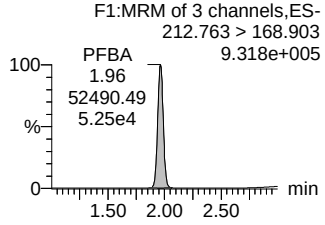


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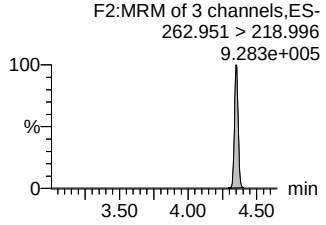


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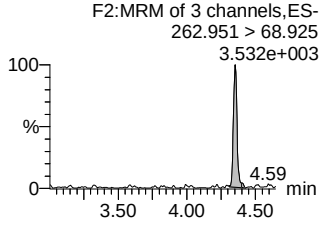


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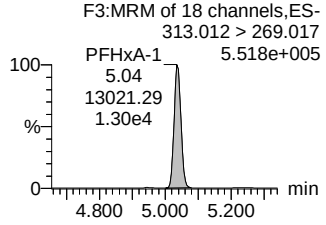


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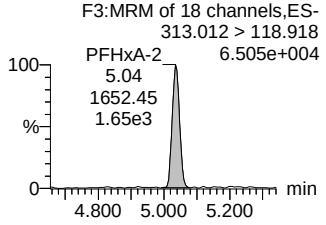


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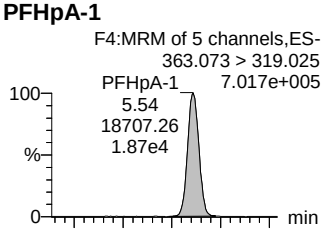


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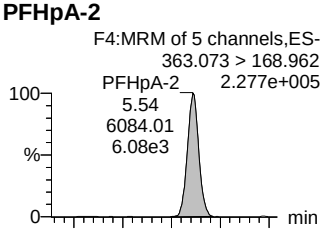


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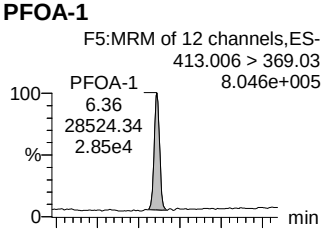


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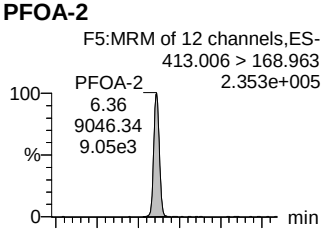


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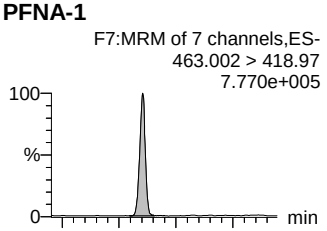


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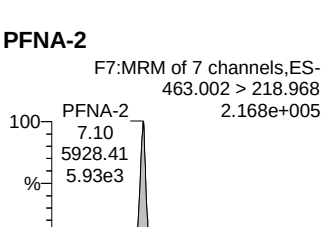


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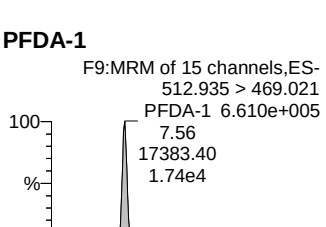


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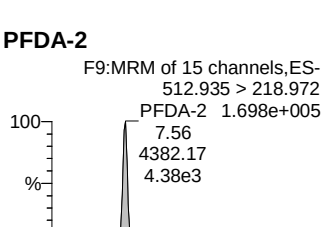


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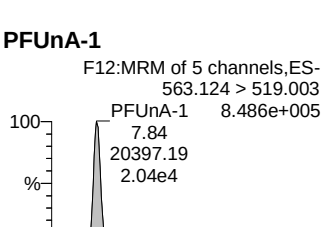


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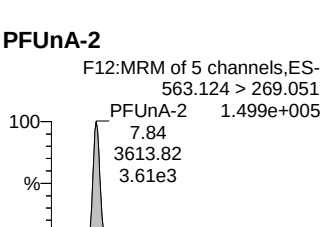


PVed by WANGG 13-Apr-19, SVed by AP 16-Apr-19. NOTE: Units = ng/L for BLK and FIeld Samples.

**Quantify Sample Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_130-b.qld

Last Altered: Tuesday, April 16, 2019 12:33:52 Pacific Daylight Time
Printed: Tuesday, April 16, 2019 12:38:54 Pacific Daylight Time

**ID: FC027E-CAL,, /01, Name: FC9W_130S18, Description: 1,,2uL, Date: 31-Mar-2019, Time: 00:17:57**

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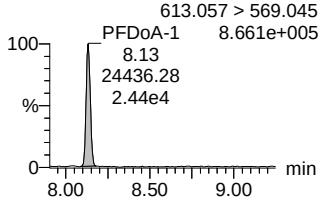


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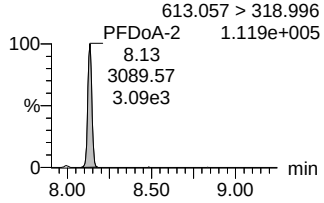


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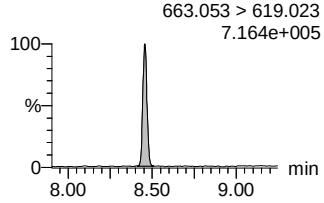


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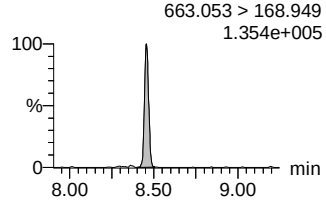


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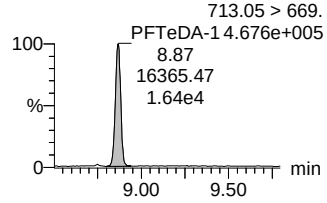


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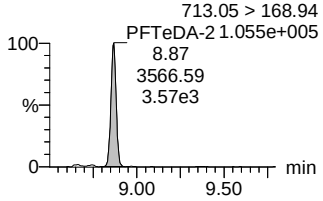


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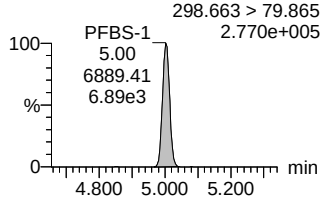


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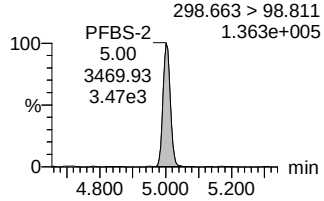


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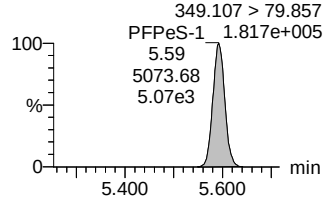


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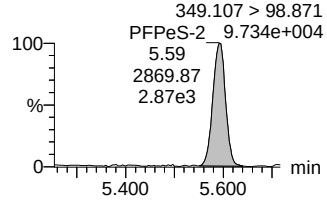


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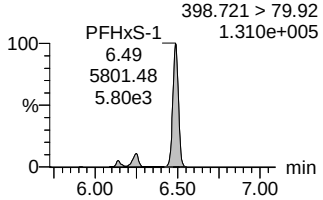


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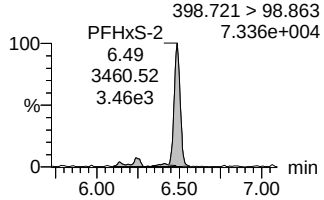


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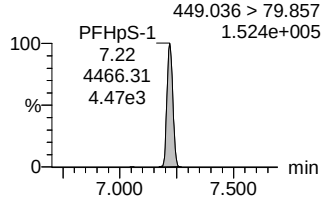


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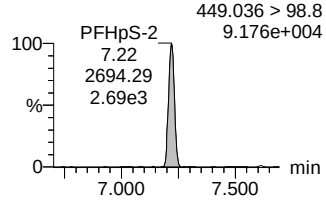


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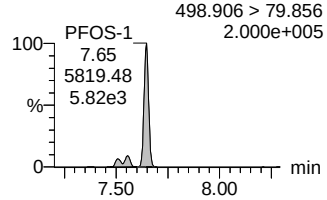


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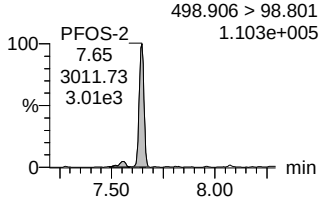


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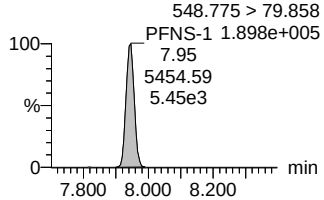


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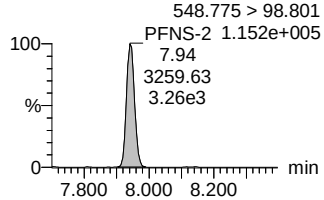


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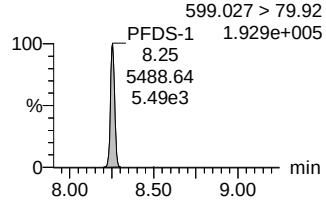


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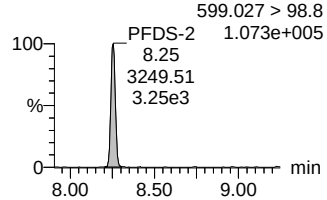


PVed by WANGG 13-Apr-19, SVed by AP 16-Apr-19. NOTE: Units = ng/L for BLK and FIeld Samples.

**Quantify Sample Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_130-b.qld

Last Altered: Tuesday, April 16, 2019 12:33:52 Pacific Daylight Time
Printed: Tuesday, April 16, 2019 12:38:54 Pacific Daylight Time

**ID: FC027E-CAL,, /01, Name: FC9W_130S18, Description: 1,,2uL, Date: 31-Mar-2019, Time: 00:17:57**

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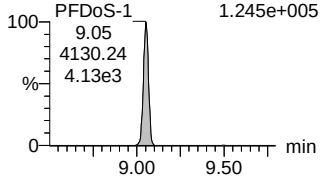


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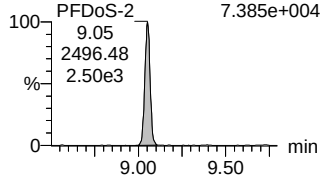


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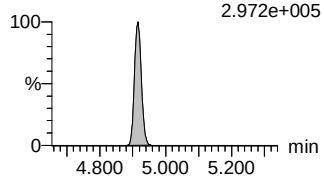


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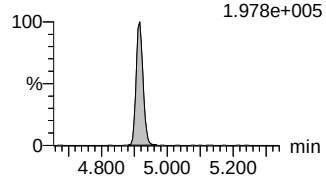


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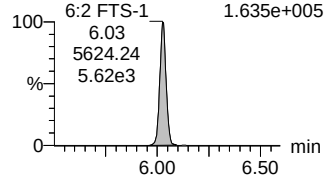
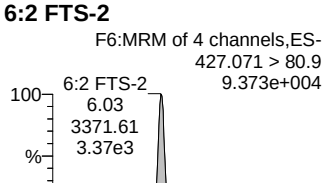



**6:2 FTS-2**
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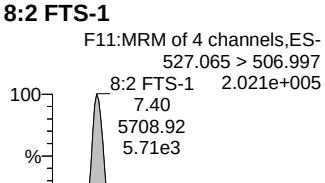


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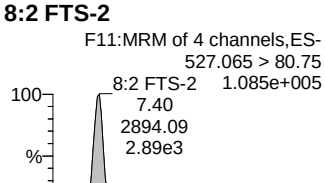


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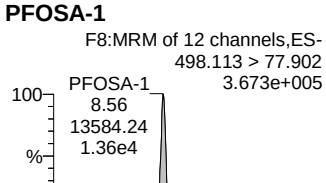


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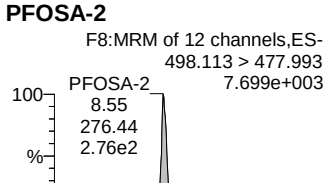


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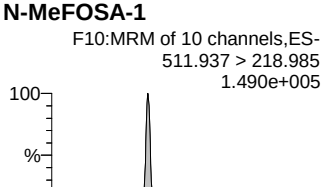


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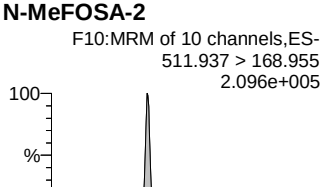


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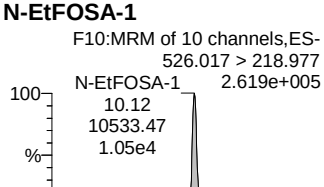


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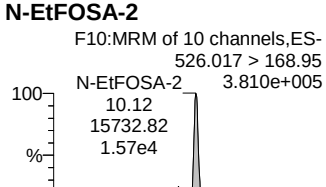


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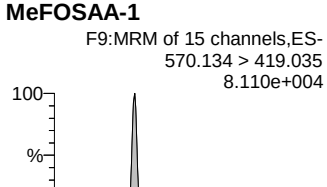


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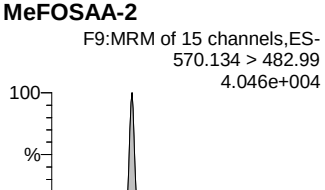


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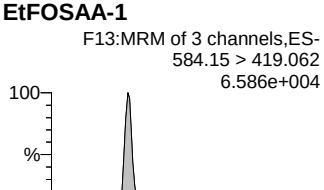


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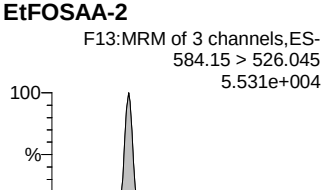


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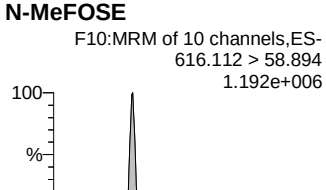


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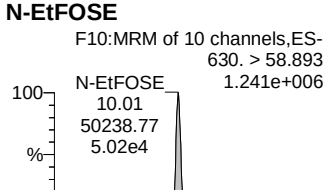


PVed by WANGG 13-Apr-19, SVed by AP 16-Apr-19. NOTE: Units = ng/L for BLK and FIeld Samples.

**Quantify Sample Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_130-b.qld

Last Altered: Tuesday, April 16, 2019 12:33:52 Pacific Daylight Time
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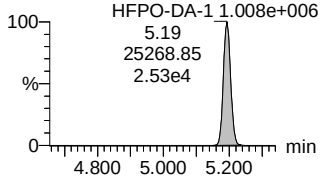
**ID: FC027E-CAL,, /01, Name: FC9W_130S18, Description: 1,,2uL, Date: 31-Mar-2019, Time: 00:17:57**

**HFPO-DA-1**

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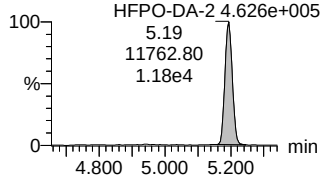


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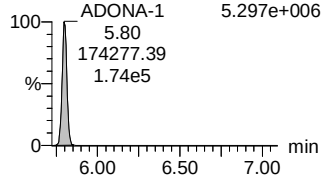


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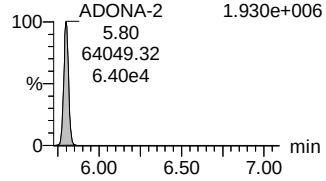
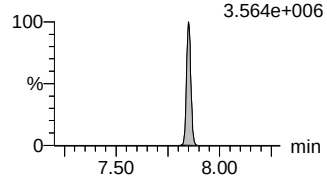
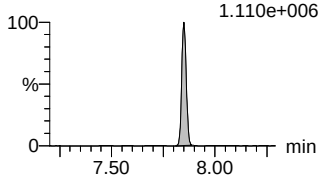



**9Cl-PF3ONS-1**




**9Cl-PF3ONS-2**

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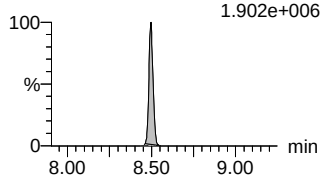


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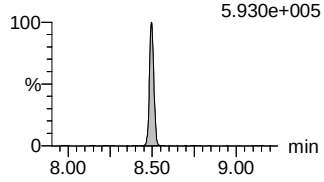
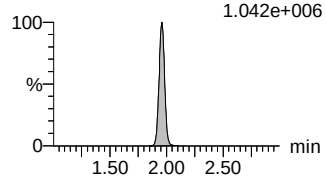
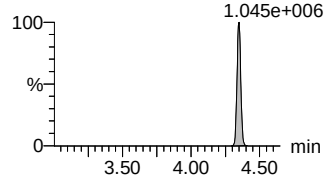



**13C4-PFBA**




**13C5-PFPeA**

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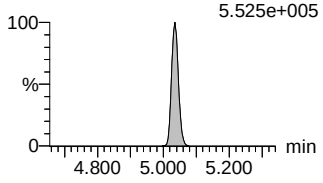


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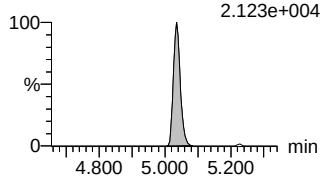
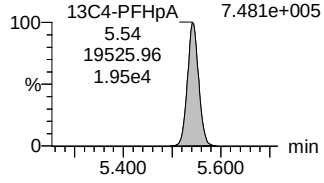
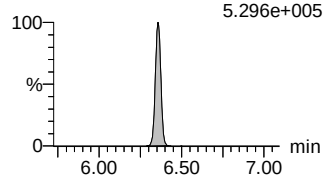



**13C4-PFHpA**




**13C8-PFOA**

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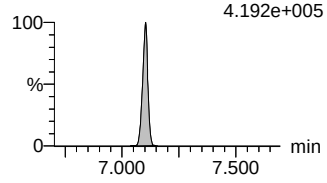
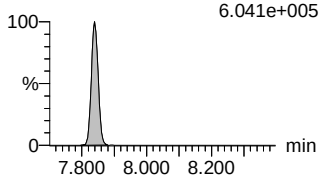
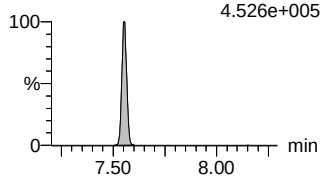


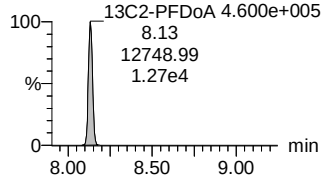

**13C7-PFUnA**



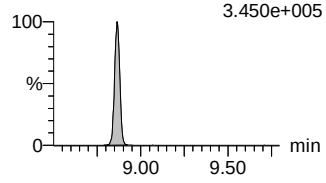

**13C6-PFDA**




**13C2-PFDoA**




**13C2-PFTeDA**

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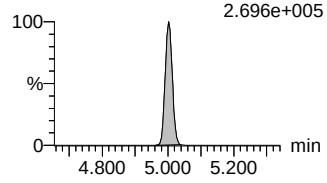


PVed by WANGG 13-Apr-19, SVed by AP 16-Apr-19. NOTE: Units = ng/L for BLK and FIeld Samples.

**Quantify Sample Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_130-b.qld

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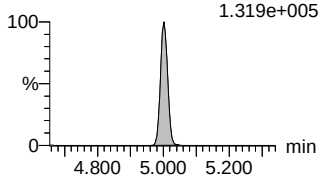
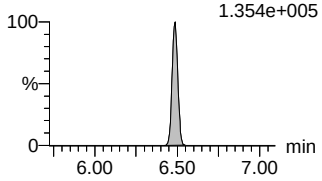
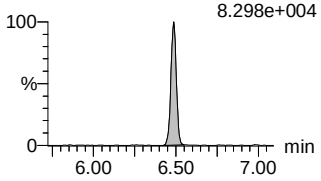
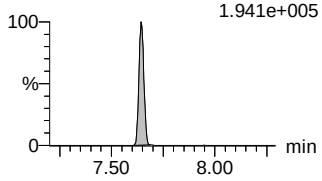
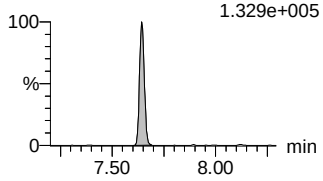
**ID: FC027E-CAL,, /01, Name: FC9W_130S18, Description: 1,,2uL, Date: 31-Mar-2019, Time: 00:17:57**

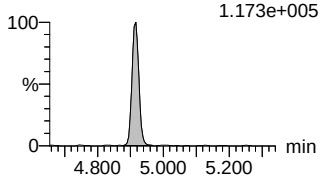
**13C3-PFBS-2**
F3:MRM of 18 channels,ES-
302.056 > 98.875
1.319e+005


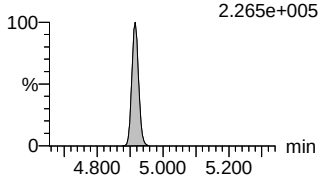

**13C3-PFHxS-1**
F5:MRM of 12 channels,ES-
402.114 > 79.858
1.354e+005


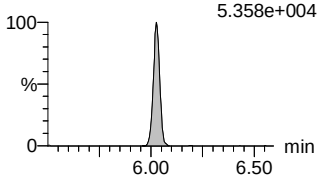

**13C3-PFHxS-2**
F5:MRM of 12 channels,ES-
402.114 > 98.801
8.298e+004


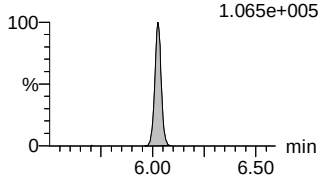

**13C8-PFOS-1**
F9:MRM of 15 channels,ES-
507.124 > 79.858
1.941e+005


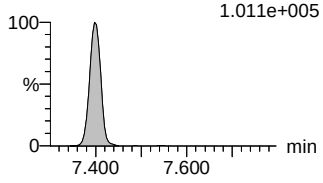

**13C8-PFOS-2**
F9:MRM of 15 channels,ES-
507.124 > 98.867
1.329e+005


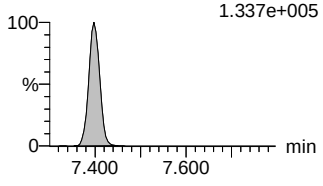

**13C2-4:2 FTS-1**
F3:MRM of 18 channels,ES-
329.084 > 80.9
1.173e+005


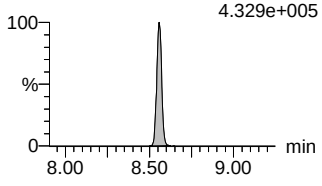

**13C2-4:2 FTS-2**
F3:MRM of 18 channels,ES-
329.084 > 309.024
2.265e+005


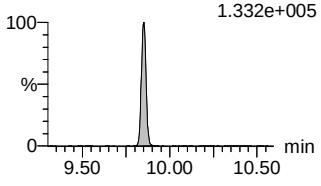

**13C2-6:2 FTS-1**
F6:MRM of 4 channels,ES-
429.078 > 80.900
5.358e+004


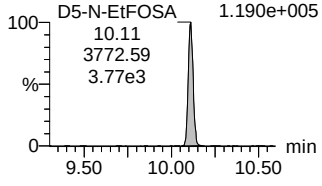

**13C2-6:2 FTS-2**
F6:MRM of 4 channels,ES-
429.078 > 409.031
1.065e+005


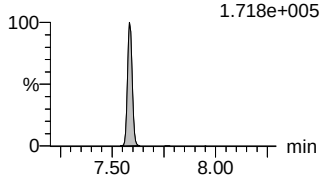

**13C2-8:2 FTS-1**
F11:MRM of 4 channels,ES-
529.1351 > 80.900
1.011e+005


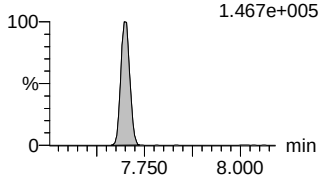

**13C2-8:2 FTS-2**
F11:MRM of 4 channels,ES-
529.135 > 509.003
1.337e+005


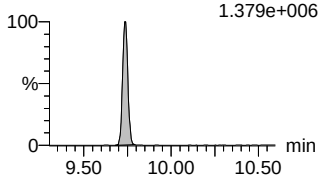

**13C8-PFOSA**
F8:MRM of 12 channels,ES-
506.14 > 77.841
4.329e+005


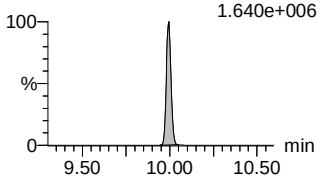

**D3-N-MeFOSA**
F10:MRM of 10 channels,ES-
514.956 > 218.974
1.332e+005


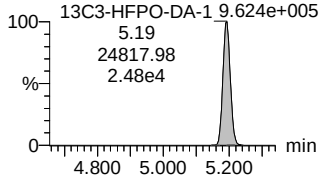

**D5-N-EtFOSA**
F10:MRM of 10 channels,ES-
531.112 > 218.984
1.190e+005


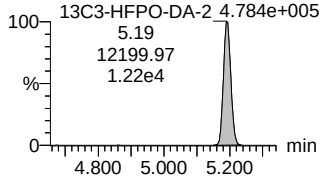

**D3-MeFOSAA**
F9:MRM of 15 channels,ES-
573.153 > 418.99
1.718e+005



**D5-EtFOSAA**
F13:MRM of 3 channels,ES-
589.245 > 418.971
1.467e+005



**D7-N-MeFOSE**
F10:MRM of 10 channels,ES-
623.156 > 58.896
1.379e+006



**D9-N-EtFOSE**
F10:MRM of 10 channels,ES-
639.184 > 58.897
1.640e+006



**13C3-HFPO-DA-1**
F3:MRM of 18 channels,ES-
286.8631 > 168.8861
13C3-HFPO-DA-1 9.624e+005
5.19
24817.98
2.48e4



**13C3-HFPO-DA-2**
F3:MRM of 18 channels,ES-
286.8631 > 184.8888
13C3-HFPO-DA-2 4.784e+005
5.19
12199.97
1.22e4



PVed by WANGG 13-Apr-19, SVed by AP 16-Apr-19. NOTE: Units = ng/L for BLK and FIeld Samples.

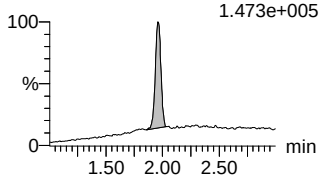
**Quantify Sample Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_130-b.qld

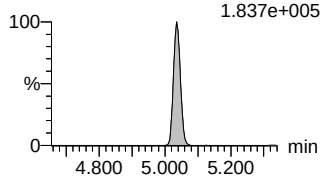
Last Altered: Tuesday, April 16, 2019 12:33:52 Pacific Daylight Time
Printed: Tuesday, April 16, 2019 12:38:54 Pacific Daylight Time

**ID: FC027E-CAL,, /01, Name: FC9W_130S18, Description: 1,,2uL, Date: 31-Mar-2019, Time: 00:17:57**

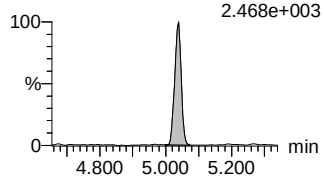
**13C3-PFBA**



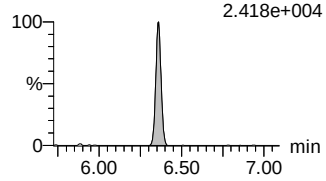

**13C2-PFHxA-1**



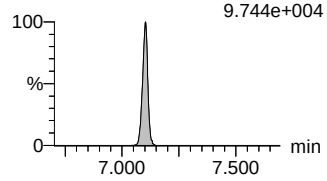

**13C2-PFHxA-2**



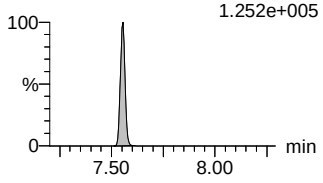

**13C4-PFOA**



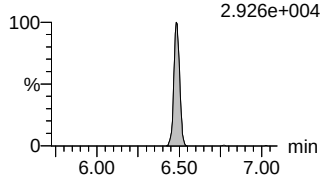

**13C5-PFNA**



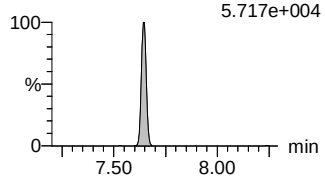

**13C2-PFDA**



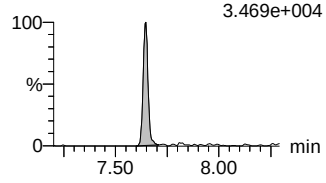

**18O2-PFHxS**




**13C4-PFOS-1**




**13C4-PFOS-2**




PVed by WANGG 13-Apr-19, SVed by AP 16-Apr-19. NOTE: Units = ng/L for BLK and FIeld Samples.

**Quantify Sample Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_130-b.qld

Last Altered: Tuesday, April 16, 2019 12:33:52 Pacific Daylight Time
Printed: Tuesday, April 16, 2019 12:38:54 Pacific Daylight Time

**ID: FC027E-CAL,, /01, Name: FC9W_130S18, Description: 1,,2uL, Date: 31-Mar-2019, Time: 00:17:57**

| # | Name | IS# | Trace | RT | Area | IS Area | Std. Conc | Conc. | LOD | %Rec | S/N | Noise | Peak Height | IS Height | Sample size | F2 | Flags |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | PFBA | 64 | 212.763 > 168.903 | 1.96 | 52490 | 58223 | 41.000 | 42.861 | | 104.5 | 2159 | 430 | 929265 | 1040385 | 1.000 | 0.0 | MM |
| 2 | PFPeA-1 | 65 | 262.951 > 218.996 | 4.35 | 27851 | 31721 | 20.430 | 17.923 | | 87.7 | 3513 | 263 | 924144 | 1043105 | 1.000 | 0.0 | bb |
| 3 | PFPeA-2 | 65 | 262.951 > 68.925 | 4.35 | 106 | 31721 | 20.430 | 20.606 | 0.4444 | 100.9 | 134 | 26 | 3493 | 1043105 | 1.000 | 0.0 | MM |
| 4 | PFHxA-1 | 66 | 313.012 > 269.017 | 5.04 | 13021 | 13240 | 10.250 | 10.712 | | 104.5 | 671 | 819 | 549016 | 552262 | 1.000 | 0.0 | bb |
| 5 | PFHxA-2 | 66 | 313.012 > 118.918 | 5.04 | 1652 | 13240 | 10.250 | 11.714 | 0.1839 | 114.3 | 178 | 363 | 64622 | 552262 | 1.000 | 0.0 | bb |
| 6 | PFHpA-1 | 68 | 363.073 > 319.025 | 5.54 | 18707 | 19526 | 10.250 | 10.688 | | 104.3 | 737 | 949 | 699615 | 747641 | 1.000 | 0.0 | bb |
| 7 | PFHpA-2 | 68 | 363.073 > 168.962 | 5.54 | 6084 | 19526 | 10.250 | 10.785 | | 105.2 | 3346 | 68 | 227413 | 747641 | 1.000 | 0.0 | bb |
| 8 | PFOA-1 | 69 | 413.006 > 369.03 | 6.36 | 28524 | 20302 | 10.250 | 9.932 | 0.0322 | 96.9 | 226 | 3366 | 759163 | 528795 | 1.000 | 0.0 | MM |
| 9 | PFOA-2 | 69 | 413.006 > 168.963 | 6.36 | 9046 | 20302 | 10.250 | 10.563 | | 103.1 | 1121 | 210 | 234918 | 528795 | 1.000 | 0.0 | bb |
| 10 | PFNA-1 | 70 | 463.002 > 418.97 | 7.10 | 21667 | 11008 | 10.000 | 10.370 | | 103.7 | 458 | 1682 | 770371 | 418766 | 1.000 | 0.0 | bb |
| 11 | PFNA-2 | 70 | 463.002 > 218.968 | 7.10 | 5928 | 11008 | 10.000 | 10.901 | 0.0063 | 109.0 | 1325 | 164 | 216738 | 418766 | 1.000 | 0.0 | bb |
| 12 | PFDA-1 | 72 | 512.935 > 469.021 | 7.56 | 17383 | 12217 | 10.000 | 9.394 | | 93.9 | 349 | 1871 | 653061 | 452119 | 1.000 | 0.0 | bb |
| 13 | PFDA-2 | 72 | 512.935 > 218.972 | 7.56 | 4382 | 12217 | 10.000 | 9.576 | | 95.8 | 4774 | 36 | 169568 | 452119 | 1.000 | 0.0 | bb |
| 14 | PFUnA-1 | 71 | 563.124 > 519.003 | 7.84 | 20397 | 14302 | 10.000 | 11.334 | 0.0465 | 113.3 | 334 | 2525 | 842946 | 603187 | 1.000 | 0.0 | bb |
| 15 | PFUnA-2 | 71 | 563.124 > 269.051 | 7.84 | 3614 | 14302 | 10.000 | 11.184 | | 111.8 | 8446 | 18 | 149790 | 603187 | 1.000 | 0.0 | bb |
| 16 | PFDoA-1 | 73 | 613.057 > 569.045 | 8.13 | 24436 | 12749 | 10.000 | 9.421 | | 94.2 | 407 | 2113 | 858987 | 459440 | 1.000 | 0.0 | bb |
| 17 | PFDoA-2 | 73 | 613.057 > 318.996 | 8.13 | 3090 | 12749 | 10.000 | 9.898 | | 99.0 | 1546 | 72 | 111781 | 459440 | 1.000 | 0.0 | bb |
| 18 | PFTrDA-1 | 74 | 663.053 > 619.023 | 8.46 | 20058 | 11853 | 10.000 | 10.622 | | 106.2 | 371 | 1912 | 709197 | 344570 | 1.000 | 0.0 | bb |
| 19 | PFTrDA-2 | 74 | 663.053 > 168.949 | 8.46 | 3796 | 11853 | 10.000 | 11.165 | | 111.7 | 890 | 152 | 135102 | 344570 | 1.000 | 0.0 | bb |
| 20 | PFTeDA-1 | 74 | 713.05 > 669. | 8.87 | 16365 | 11853 | 10.000 | 10.688 | | 106.9 | 452 | 1026 | 463648 | 344570 | 1.000 | 0.0 | bb |
| 21 | PFTeDA-2 | 74 | 713.05 > 168.94 | 8.87 | 3567 | 11853 | 10.000 | 11.044 | | 110.4 | 576 | 183 | 105302 | 344570 | 1.000 | 0.0 | bb |
| 22 | PFBS-1 | 75 | 298.663 > 79.865 | 5.00 | 6889 | 6747 | 10.250 | 8.903 | 0.0134 | 86.9 | 2149 | 129 | 276505 | 269029 | 1.000 | 0.0 | bb |
| 23 | PFBS-2 | 76 | 298.663 > 98.811 | 5.00 | 3470 | 3304 | 10.250 | 8.833 | | 86.2 | 647 | 210 | 135943 | 131752 | 1.000 | 0.0 | bb |
| 24 | PFPeS-1 | 77 | 349.107 > 79.857 | 5.59 | 5074 | 5339 | 9.500 | 9.984 | | 105.1 | 154... | 12 | 181518 | 135213 | 1.000 | 0.0 | bb |
| 25 | PFPeS-2 | 78 | 349.107 > 98.871 | 5.59 | 2870 | 3110 | 9.500 | 9.309 | 0.0349 | 98.0 | 167 | 578 | 96715 | 82767 | 1.000 | 0.0 | bb |
| 26 | PFHxS-1 | 77 | 398.721 > 79.92 | 6.49 | 5801 | 5339 | 10.250 | 8.848 | 0.1207 | 86.3 | 3131 | 42 | 130747 | 135213 | 1.000 | 0.0 | MM |
| 27 | PFHxS-2 | 78 | 398.721 > 98.863 | 6.49 | 3461 | 3110 | 10.250 | 8.887 | 0.0229 | 86.7 | 225 | 325 | 72978 | 82767 | 1.000 | 0.0 | MM |
| 28 | PFHpS-1 | 79 | 449.036 > 79.857 | 7.22 | 4466 | 5263 | 9.500 | 8.980 | | 94.5 | 2720 | 56 | 152202 | 193661 | 1.000 | 0.0 | bb |
| 29 | PFHpS-2 | 80 | 449.036 > 98.8 | 7.22 | 2694 | 3493 | 9.500 | 8.200 | 0.0338 | 86.3 | 841 | 109 | 91701 | 132801 | 1.000 | 0.0 | bb |
| 30 | PFOS-1 | 79 | 498.906 > 79.856 | 7.65 | 5819 | 5263 | 10.250 | 9.700 | | 94.6 | 366 | 544 | 199173 | 193661 | 1.000 | 0.0 | MM |
| 31 | PFOS-2 | 80 | 498.906 > 98.801 | 7.65 | 3012 | 3493 | 10.250 | 9.077 | | 88.6 | 338 | 326 | 110006 | 132801 | 1.000 | 0.0 | MM |
| 32 | PFNS-1 | 79 | 548.775 > 79.858 | 7.95 | 5455 | 5263 | 9.500 | 9.234 | | 97.2 | 5922 | 32 | 189588 | 193661 | 1.000 | 0.0 | bb |
| 33 | PFNS-2 | 80 | 548.775 > 98.801 | 7.94 | 3260 | 3493 | 9.500 | 8.829 | 0.0111 | 92.9 | 549 | 209 | 114990 | 132801 | 1.000 | 0.0 | bb |
| 34 | PFDS-1 | 79 | 599.027 > 79.92 | 8.25 | 5489 | 5263 | 10.250 | 11.490 | | 112.1 | 140... | 14 | 192678 | 193661 | 1.000 | 0.0 | bb |
| 35 | PFDS-2 | 80 | 599.027 > 98.8 | 8.25 | 3250 | 3493 | 10.250 | 11.067 | 0.1250 | 108.0 | 979 | 109 | 107053 | 132801 | 1.000 | 0.0 | bb |

PVed by WANGG 13-Apr-19, SVed by AP 16-Apr-19. NOTE: Units = ng/L for BLK and FIeld Samples.

**Quantify Sample Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_130-b.qld

Last Altered: Tuesday, April 16, 2019 12:33:52 Pacific Daylight Time
Printed: Tuesday, April 16, 2019 12:38:54 Pacific Daylight Time

**ID: FC027E-CAL,, /01, Name: FC9W_130S18, Description: 1,,2uL, Date: 31-Mar-2019, Time: 00:17:57**

| # | Name | IS# | Trace | RT | Area | IS Area | Std. Conc | Conc. | LOD | %Rec | S/N | Noise | Peak Height | IS Height | Sample size | F2 | Flags |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 36 | PFDoS-1 | 79 | 699.084 > 79.856 | 9.05 | 4130 | 5263 | 9.500 | 10.354 | | 109.0 | 5673 | 22 | 124471 | 193661 | 1.000 | 0.0 | bb |
| 37 | PFDoS-2 | 80 | 699.084 > 98.8 | 9.05 | 2496 | 3493 | 9.500 | 9.534 | | 100.4 | 940 | 78 | 73737 | 132801 | 1.000 | 0.0 | bb |
| 38 | 4:2 FTS-1 | 81 | 327.077 > 307.017 | 4.92 | 7104 | 2791 | 40.000 | 34.703 | | 86.8 | 308... | 10 | 296942 | 117051 | 1.000 | 0.0 | bb |
| 39 | 4:2 FTS-2 | 81 | 327.077 > 80.85 | 4.92 | 4719 | 2791 | 40.000 | 37.308 | 0.1875 | 93.3 | 870 | 227 | 197493 | 117051 | 1.000 | 0.0 | bb |
| 40 | 6:2 FTS-1 | 83 | 427.071 > 407.024 | 6.03 | 5624 | 1882 | 36.000 | 32.146 | | 89.3 | 2725 | 60 | 163324 | 53569 | 1.000 | 0.0 | bb |
| 41 | 6:2 FTS-2 | 83 | 427.071 > 80.9 | 6.03 | 3372 | 1882 | 36.000 | 31.362 | 0.0590 | 87.1 | 3248 | 29 | 93651 | 53569 | 1.000 | 0.0 | bb |
| 42 | 8:2 FTS-1 | 85 | 527.065 > 506.997 | 7.40 | 5709 | 2850 | 40.000 | 36.900 | | 92.3 | 150... | 13 | 201676 | 101035 | 1.000 | 0.0 | bb |
| 43 | 8:2 FTS-2 | 85 | 527.065 > 80.75 | 7.40 | 2894 | 2850 | 40.000 | 38.684 | | 96.7 | 114... | 9 | 108353 | 101035 | 1.000 | 0.0 | bb |
| 44 | PFOSA-1 | 87 | 498.113 > 77.902 | 8.56 | 13584 | 14477 | 10.250 | 10.066 | 0.1820 | 98.2 | 266 | 1381 | 367030 | 432600 | 1.000 | 0.0 | MM |
| 45 | PFOSA-2 | 87 | 498.113 > 477.993 | 8.55 | 276 | 14477 | 10.250 | 11.555 | 4.2608 | 112.7 | 11 | 677 | 7682 | 432600 | 1.000 | 0.0 | bb |
| 46 | N-MeFOSA-1 | 88 | 511.937 > 218.985 | 9.85 | 4949 | 4108 | 11.500 | 13.014 | | 113.2 | 1527 | 98 | 148932 | 132912 | 1.000 | 0.0 | MM |
| 47 | N-MeFOSA-2 | 88 | 511.937 > 168.955 | 9.85 | 7046 | 4108 | 11.500 | 12.533 | | 109.0 | 953 | 219 | 208585 | 132912 | 1.000 | 0.0 | MM |
| 48 | N-EtFOSA-1 | 89 | 526.017 > 218.977 | 10.12 | 10533 | 3773 | 25.000 | 23.922 | | 95.7 | 2574 | 101 | 260995 | 118853 | 1.000 | 0.0 | MM |
| 49 | N-EtFOSA-2 | 89 | 526.017 > 168.95 | 10.12 | 15733 | 3773 | 25.000 | 24.356 | 0.0096 | 97.4 | 1182 | 321 | 379696 | 118853 | 1.000 | 0.0 | MM |
| 50 | MeFOSAA-1 | 90 | 570.134 > 419.035 | 7.59 | 2234 | 4381 | 10.000 | 10.657 | | 106.6 | 5066 | 16 | 80997 | 171604 | 1.000 | 0.0 | bb |
| 51 | MeFOSAA-2 | 90 | 570.134 > 482.99 | 7.59 | 1058 | 4381 | 10.000 | 11.058 | | 110.6 | 3057 | 13 | 39958 | 171604 | 1.000 | 0.0 | MM |
| 52 | EtFOSAA-1 | 91 | 584.15 > 419.062 | 7.70 | 1639 | 3979 | 10.000 | 10.762 | 0.3220 | 107.6 | 134 | 489 | 65808 | 146491 | 1.000 | 0.0 | bb |
| 53 | EtFOSAA-2 | 91 | 584.15 > 526.045 | 7.70 | 1427 | 3979 | 10.000 | 10.144 | 0.1267 | 101.4 | 3109 | 18 | 55253 | 146491 | 1.000 | 0.0 | bb |
| 54 | N-MeFOSE | 92 | 616.112 > 58.894 | 9.76 | 46522 | 47169 | 102.000 | 105.363 | | 103.3 | 4790 | 248 | 1186712 | 1376691 | 1.000 | 0.0 | MM |
| 55 | N-EtFOSE | 93 | 630. > 58.893 | 10.01 | 50239 | 50191 | 76.500 | 78.902 | | 103.1 | 1076 | 1149 | 1236774 | 1636812 | 1.000 | 0.0 | MM |
| 56 | HFPO-DA-1 | 94 | 284.8894 > 168.... | 5.19 | 25269 | 24818 | 40.000 | 45.384 | | 113.5 | 8832 | 114 | 1006793 | 963194 | 1.000 | 0.0 | bb |
| 57 | HFPO-DA-2 | 95 | 284.8894 > 184.... | 5.19 | 11763 | 12200 | 40.000 | 41.811 | 0.3676 | 104.5 | 299 | 1538 | 460046 | 477582 | 1.000 | 0.0 | bb |
| 58 | ADONA-1 | 94 | 376.88 > 250.937 | 5.80 | 174277 | 24818 | 40.000 | 45.392 | | 113.5 | 164... | 321 | 5292123 | 963194 | 1.000 | 0.0 | bb |
| 59 | ADONA-2 | 95 | 376.88 > 84.832 | 5.80 | 64049 | 12200 | 40.000 | 44.527 | 0.5339 | 111.3 | 120... | 159 | 1927272 | 477582 | 1.000 | 0.0 | bb |
| 60 | 9Cl-PF3ONS-1 | 94 | 530.807 > 350.967 | 7.85 | 85032 | 24818 | 40.000 | 56.302 | | 140.8 | 221... | 160 | 3552316 | 963194 | 1.000 | 0.0 | MM |
| 61 | 9Cl-PF3ONS-2 | 95 | 532.804 > 352.947 | 7.85 | 27058 | 12200 | 40.000 | 55.855 | | 139.6 | 1481 | 748 | 1107101 | 477582 | 1.000 | 0.0 | bb |
| 62 | 11Cl-PF3OUdS-1 | 94 | 630.865 > 450.902 | 8.50 | 51221 | 24818 | 40.000 | 48.876 | | 122.2 | 5430 | 345 | 1875184 | 963194 | 1.000 | 0.0 | MM |
| 63 | 11Cl-PF3OUdS-2 | 95 | 632.868 > 452.91 | 8.50 | 17385 | 12200 | 40.000 | 48.813 | 0.0991 | 122.0 | 1013 | 584 | 592078 | 477582 | 1.000 | 0.0 | bb |
| 64 | 13C4-PFBA | 96 | 216.776 > 171.928 | 1.96 | 58223 | 7204 | 40.000 | 39.476 | 0.0158 | 98.7 | 7606 | 137 | 1040385 | 126510 | 1.000 | 0.0 | bb |
| 65 | 13C5-PFPeA | 97 | 268.16 > 223.035 | 4.35 | 31721 | 4421 | 20.000 | 22.112 | 0.0049 | 110.6 | 108... | 97 | 1043105 | 183635 | 1.000 | 0.0 | bb |
| 66 | 13C5-PFHxA-1 | 97 | 318.029 > 272.993 | 5.04 | 13240 | 4421 | 10.000 | 10.634 | 0.0037 | 106.3 | 8622 | 64 | 552262 | 183635 | 1.000 | 0.0 | bb |
| 67 | 13C5-PFHxA-2 | 97 | 318.029 > 120.341 | 5.04 | 508 | 4421 | 10.000 | 12.012 | 0.0174 | 120.1 | 2086 | 10 | 21208 | 183635 | 1.000 | 0.0 | bb |
| 68 | 13C4-PFHpA | 99 | 367.086 > 322.004 | 5.54 | 19526 | 881 | 10.000 | 10.192 | 0.0050 | 101.9 | 8460 | 88 | 747641 | 24169 | 1.000 | 0.0 | bb |
| 69 | 13C8-PFOA | 99 | 421.096 > 376.022 | 6.36 | 20302 | 881 | 10.000 | 9.223 | 0.0051 | 92.2 | 5199 | 102 | 528795 | 24169 | 1.000 | 0.0 | bb |
| 70 | 13C9-PFNA | 100 | 472.096 > 427.014 | 7.10 | 11008 | 2582 | 5.000 | 4.908 | 0.0053 | 98.2 | 2792 | 150 | 418766 | 97418 | 1.000 | 0.0 | bb |

PVed by WANGG 13-Apr-19, SVed by AP 16-Apr-19. NOTE: Units = ng/L for BLK and FIeld Samples.

**Quantify Sample Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_130-b.qld

Last Altered: Tuesday, April 16, 2019 12:33:52 Pacific Daylight Time
Printed: Tuesday, April 16, 2019 12:38:54 Pacific Daylight Time

**ID: FC027E-CAL,, /01, Name: FC9W_130S18, Description: 1,,2uL, Date: 31-Mar-2019, Time: 00:17:57**

| # | Name | IS# | Trace | RT | Area | IS Area | Std. Conc | Conc. | LOD | %Rec | S/N | Noise | Peak Height | IS Height | Sample size | F2 | Flags |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 71 | 13C7-PFUnA | 101 | 570.019 > 525.05 | 7.84 | 14302 | 3206 | 5.000 | 4.986 | 0.0010 | 99.7 | 160... | 37 | 603187 | 124966 | 1.000 | 0.0 | bb |
| 72 | 13C6-PFDA | 101 | 519.147 > 474.058 | 7.56 | 12217 | 3206 | 5.000 | 5.062 | 0.0004 | 101.2 | 385... | 12 | 452119 | 124966 | 1.000 | 0.0 | bb |
| 73 | 13C2-PFDoA | 101 | 615.127 > 570.013 | 8.13 | 12749 | 3206 | 5.000 | 6.228 | 0.0017 | 124.6 | 101... | 45 | 459440 | 124966 | 1.000 | 0.0 | bb |
| 74 | 13C2-PFTeDA | 101 | 715.057 > 670.026 | 8.86 | 11853 | 3206 | 5.000 | 5.901 | 0.0010 | 118.0 | 134... | 26 | 344570 | 124966 | 1.000 | 0.0 | bb |
| 75 | 13C3-PFBS-1 | 102 | 302.056 > 79.865 | 5.00 | 6747 | 1172 | 10.000 | 11.956 | 0.0016 | 119.6 | 369... | 7 | 269029 | 29253 | 1.000 | 0.0 | bb |
| 76 | 13C3-PFBS-2 | 102 | 302.056 > 98.875 | 5.00 | 3304 | 1172 | 10.000 | 12.114 | 0.0814 | 121.1 | 713 | 185 | 131752 | 29253 | 1.000 | 0.0 | bb |
| 77 | 13C3-PFHxS-1 | 102 | 402.114 > 79.858 | 6.49 | 5339 | 1172 | 10.000 | 10.979 | 0.0025 | 109.8 | 133... | 10 | 135213 | 29253 | 1.000 | 0.0 | bb |
| 78 | 13C3-PFHxS-2 | 102 | 402.114 > 98.801 | 6.49 | 3110 | 1172 | 10.000 | 11.479 | 0.0560 | 114.8 | 655 | 126 | 82767 | 29253 | 1.000 | 0.0 | bb |
| 79 | 13C8-PFOS-1 | 103 | 507.124 > 79.858 | 7.64 | 5263 | 1536 | 10.000 | 10.818 | 0.0024 | 108.2 | 136... | 14 | 193661 | 57132 | 1.000 | 0.0 | bb |
| 80 | 13C8-PFOS-2 | 104 | 507.124 > 98.867 | 7.64 | 3493 | 929 | 10.000 | 11.979 | 0.0538 | 119.8 | 682 | 195 | 132801 | 34596 | 1.000 | 0.0 | bb |
| 81 | 13C2-4:2 FTS-1 | 102 | 329.084 > 80.9 | 4.92 | 2791 | 1172 | 20.000 | 16.763 | 0.2803 | 83.8 | 301 | 388 | 117051 | 29253 | 1.000 | 0.0 | bb |
| 82 | 13C2-4:2 FTS-2 | 102 | 329.084 > 309.024 | 4.92 | 5279 | 1172 | 20.000 | 13.586 | 0.0118 | 67.9 | 5923 | 38 | 226303 | 29253 | 1.000 | 0.0 | bb |
| 83 | 13C2-6:2 FTS-1 | 102 | 429.078 > 80.900 | 6.03 | 1882 | 1172 | 20.000 | 13.993 | 0.0263 | 70.0 | 1818 | 29 | 53569 | 29253 | 1.000 | 0.0 | bb |
| 84 | 13C2-6:2 FTS-2 | 102 | 429.078 > 409.031 | 6.03 | 3738 | 1172 | 20.000 | 12.135 | 0.0045 | 60.7 | 9303 | 11 | 106411 | 29253 | 1.000 | 0.0 | bb |
| 85 | 13C2-8:2 FTS-1 | 102 | 529.1351 > 80.900 | 7.40 | 2850 | 1172 | 20.000 | 14.183 | 0.0084 | 70.9 | 7179 | 14 | 101035 | 29253 | 1.000 | 0.0 | bb |
| 86 | 13C2-8:2 FTS-2 | 102 | 529.135 > 509.003 | 7.40 | 3712 | 1172 | 20.000 | 13.733 | 0.2046 | 68.7 | 290 | 460 | 133535 | 29253 | 1.000 | 0.0 | bb |
| 87 | 13C8-PFOSA | 103 | 506.14 > 77.841 | 8.56 | 14477 | 1536 | 10.000 | 18.822 | 0.0146 | 188.2 | 3101 | 140 | 432600 | 57132 | 1.000 | 0.0 | bb |
| 88 | D3-N-MeFOSA | 103 | 514.956 > 218.974 | 9.85 | 4108 | 1536 | 10.000 | 10.345 | 0.0578 | 103.4 | 467 | 284 | 132912 | 57132 | 1.000 | 0.0 | bb |
| 89 | D5-N-EtFOSA | 103 | 531.112 > 218.984 | 10.11 | 3773 | 1536 | 10.000 | 11.252 | 0.0432 | 112.5 | 662 | 180 | 118853 | 57132 | 1.000 | 0.0 | bb |
| 90 | D3-MeFOSAA | 103 | 573.153 > 418.99 | 7.58 | 4381 | 1536 | 20.000 | 10.258 | 0.0093 | 51.3 | 3479 | 49 | 171604 | 57132 | 1.000 | 0.0 | bb |
| 91 | D5-EtFOSAA | 103 | 589.245 > 418.971 | 7.70 | 3979 | 1536 | 20.000 | 11.147 | 0.0346 | 55.7 | 956 | 153 | 146491 | 57132 | 1.000 | 0.0 | bb |
| 92 | D7-N-MeFOSE | 103 | 623.156 > 58.896 | 9.73 | 47169 | 1536 | 100.000 | 257.259 | 0.2070 | 257.3 | 2927 | 470 | 1376691 | 57132 | 1.000 | 0.0 | bb |
| 93 | D9-N-EtFOSE | 103 | 639.184 > 58.897 | 9.99 | 50191 | 1536 | 100.000 | 264.282 | 0.1109 | 264.3 | 6268 | 261 | 1636812 | 57132 | 1.000 | 0.0 | bb |
| 94 | 13C3-HFPO-DA-1 | 97 | 286.8631 > 168.... | 5.19 | 24818 | 4421 | 40.000 | 43.406 | 0.0059 | 108.5 | 205... | 47 | 963194 | 183635 | 1.000 | 0.0 | MM |
| 95 | 13C3-HFPO-DA-2 | 97 | 286.8631 > 184.... | 5.19 | 12200 | 4421 | 40.000 | 43.562 | 0.0443 | 108.9 | 2781 | 172 | 477582 | 183635 | 1.000 | 0.0 | bb |
| 96 | 13C3-PFBA | | 216.029 > 171.97 | 1.96 | 7204 | | 5.000 | 5.146 | 0.1125 | 102.9 | 137 | 922 | 126510 | | 1.000 | 0.0 | bb |
| 97 | 13C2-PFHxA-1 | | 315.083 > 269.984 | 5.04 | 4421 | | 2.500 | 2.476 | 0.0006 | 99.0 | 133... | 14 | 183635 | | 1.000 | 0.0 | bb |
| 98 | 13C2-PFHxA-2 | | 315.083 > 119.359 | 5.04 | 56 | | 2.500 | 1.031 | 0.2521 | 41.2 | 12 | 201 | 2460 | | 1.000 | 0.0 | bb |
| 99 | 13C4-PFOA | | 417.083 > 171.95 | 6.36 | 881 | | 2.500 | 2.932 | 0.0098 | 117.3 | 901 | 27 | 24169 | | 1.000 | 0.0 | bb |
| 1... | 13C5-PFNA | | 468.019 > 423.008 | 7.10 | 2582 | | 1.250 | 1.266 | 0.0023 | 101.2 | 1619 | 60 | 97418 | | 1.000 | 0.0 | bb |
| 1... | 13C2-PFDA | | 515.134 > 470.05 | 7.56 | 3206 | | 1.250 | 1.410 | 0.0006 | 112.8 | 6830 | 18 | 124966 | | 1.000 | 0.0 | bb |
| 1... | 18O2-PFHxS | | 402.984 > 83.895 | 6.48 | 1172 | | 2.500 | 2.984 | 0.0022 | 119.4 | 4013 | 7 | 29253 | | 1.000 | 0.0 | bb |
| 1... | 13C4-PFOS-1 | | 502.791 > 79.856 | 7.64 | 1536 | | 2.500 | 3.158 | 0.0017 | 126.3 | 5619 | 10 | 57132 | | 1.000 | 0.0 | bb |
| 1... | 13C4-PFOS-2 | | 502.791 > 98.864 | 7.65 | 929 | | 2.500 | 2.976 | 0.0787 | 119.0 | 113 | 305 | 34596 | | 1.000 | 0.0 | bb |

PVed by WANGG 13-Apr-19, SVed by AP 16-Apr-19. NOTE: Units = ng/L for BLK and FIeld Samples.

www.axysanalytical.com

**Sample List Report** **MassLynx MassLynx V4.1 SCN945 SCN960**

Sample List: G:\Masslynx\Inst_W_Master.PRO\Sample DB\FC9W_144.SPL
Last Modified: Monday, April 08, 2019 17:12:14 Pacific Daylight Time
Printed: Monday, April 08, 2019 17:19:12 Pacific Daylight Time



Page Position (1, 1)

| | File Name | Sample ID | File Text | Bottle | SignIn | SignOut | Inj VoL | EXP |
|---|---|---|---|---|---|---|---|---|
| 1 | FC9W_144S01 | MeOH,, MLA110 UPLC option | 1,,2uL | 1:8,A | GW | (NH)* GW | 2.0 | GW |
| 2 | FC9W_144S02 | MeOH,, more Targets for EPA | 1,,2uL | 1:8,A | --- | --- | 2.0 | --- |
| 3 | FC9W_144S03 | MeOH,, A new format | 1,,2uL | 1:8,A | --- | --- | 2.0 | --- |
| 4 | FC9W_144S04 | MeOH,, MLA110-PFAS UPLC_02 | 1,,2uL | 1:8,A | --- | --- | 2.0 | --- |
| 5 | FC9W_144S05 | MeOH,, new MS Exp name | 1,,2uL | 1:8,A | --- | --- | 2.0 | --- |
| 6 | FC9W_144S06 | MeOH,, MLA 110 new version | 1,,2uL | 1:8,A | --- | --- | 2.0 | --- |
| 7 | FC9W_144S07 | MeOH,, quan method _06 | 1,,2uL | 1:8,A | --- | --- | 2.0 | --- |
| 8 | FC9W_144S08 | MeOH,, | 1,,2uL | 1:8,A | --- | --- | 2.0 | --- |
| 9 | FC9W_144S09 | MeOH,, MLA110 column | 1,,2uL | 1:8,A | --- | --- | 2.0 | --- |
| 10 | FC9W_144S10 | MeOH,, 2ul | 1,,2uL | 1:8,A | --- | --- | 2.0 | --- |
| 11 | FC9W_144S11 | MeOH,, 097-a1 | 1,,2uL | 1:8,A | --- | --- | 2.0 | --- |
| 12 | FC9W_144S12 | MeOH,, | 1,,2uL | 1:8,A | --- | --- | 2.0 | --- |
| 13 | FC9W_144S13 | FC027B-CAL,, /01 | 1,,2uL | 2:1,B | --- | --- | 2.0 | --- |
| 14 | FC9W_144S14 | FC027E-CAL,, /01 | 1,,2uL | 2:1,E | --- | --- | 2.0 | --- |
| 15 | FC9W_144S15 | WG67663-103,i,SAR | 1,WG67663,2/4000uL | 2:2,E | --- | --- | 2.0 | --- |
| 16 | FC9W_144S16 | WG67663-102,i,SPM | 1,WG67663,2/4000uL | 2:2,F | --- | --- | 2.0 | --- |
| 17 | FC9W_144S17 | MeOH,, | 1,,2uL | 2:8,A | --- | --- | 2.0 | --- |
| 18 | FC9W_144S18 | WG67663-101,i,BLK | 1,WG67663,2/4000uL | 2:5,B | --- | --- | 2.0 | --- |
| 19 | FC9W_144S19 | L30821-3,i, | 1,WG67663,2/4000uL | 2:5,C | --- | --- | 2.0 | --- |
| 20 | FC9W_144S20 | L30821-7,i, | 1,WG67663,2/4000uL | 2:5,D | --- | --- | 2.0 | --- |
| 21 | FC9W_144S21 | FC027E-CAL,, /01 | 1,,2uL | 2:1,E | --- | --- | 2.0 | --- |
| 22 | FC9W_144S22 | FC027E-CAL,, /01 | 1,,2uL | 2:1,E | --- | --- | 2.0 | --- |
| 23 | FC9W_144S23 | MeOH,, | 1,,2uL | 1:8,A | --- | --- | 2.0 | --- |

* previously checked. _140

1-2 1-8
6.50 6.66

**Quantify Sample Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

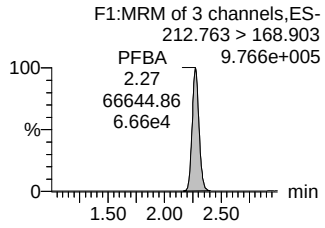
Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_144-b.qld

Last Altered: Tuesday, April 16, 2019 14:59:53 Pacific Daylight Time
Printed: Monday, April 22, 2019 08:53:24 Pacific Daylight Time

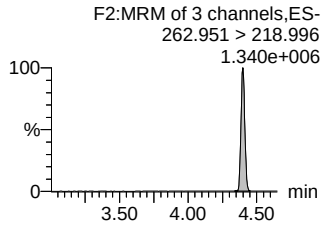
**Method: G:\Masslynx\Master Methods\MassLynx SCN 909\UPLC\FC_110_UPLC_06.mdb 10 Mar 2019 18:18:03**
**Calibration: G:\Masslynx\Inst_W\PFC.PRO\Curve\FC9W_097-a1.cdb 12 Mar 2019 11:26:10**

**ID: FC027E-CAL,, /01, Name: FC9W_144S14, Description: 1,,2uL, Date: 08-Apr-2019, Time: 16:56:51**

**PFBA**




**PFPeA-1**

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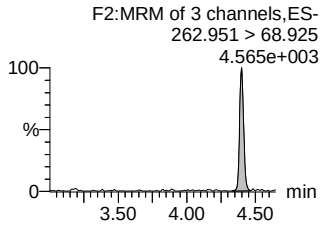
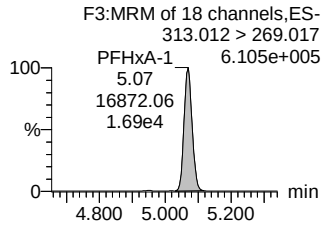
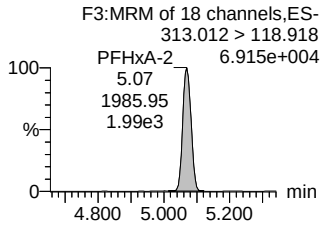



**PFHxA-1**




**PFHxA-2**

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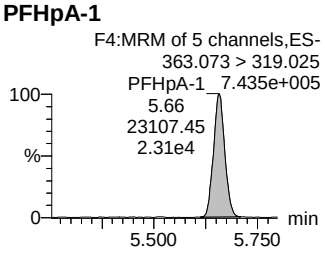


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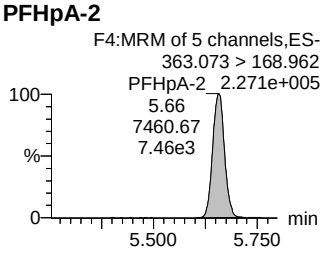


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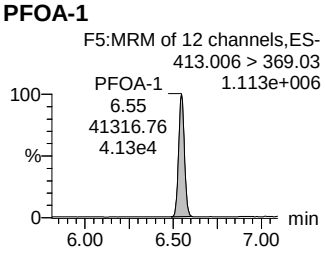


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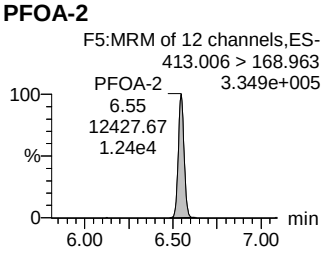


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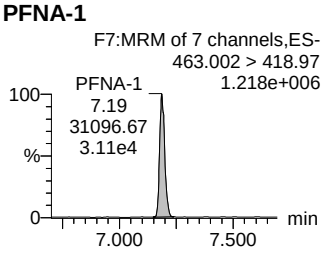


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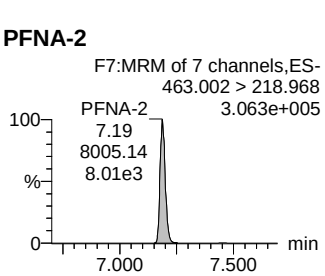
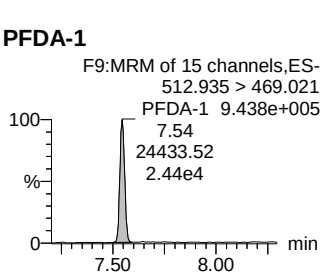



**PFDA-1**

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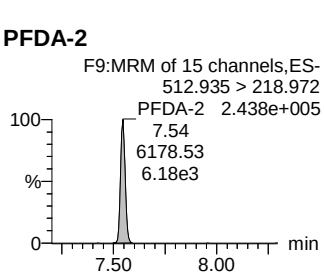


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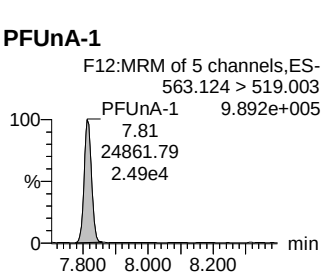


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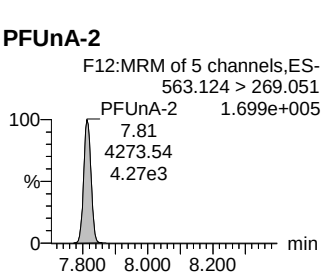


PVed by WANGG 16-Apr-19, SVed by AP 22-Apr-19. NOTE: Units = ng/L for BLK and Field Samples.

**Quantify Sample Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_144-b.qld

Last Altered: Tuesday, April 16, 2019 14:59:53 Pacific Daylight Time
Printed: Monday, April 22, 2019 08:53:24 Pacific Daylight Time

**ID: FC027E-CAL,, /01, Name: FC9W_144S14, Description: 1,,2uL, Date: 08-Apr-2019, Time: 16:56:51**

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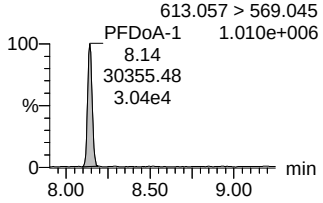


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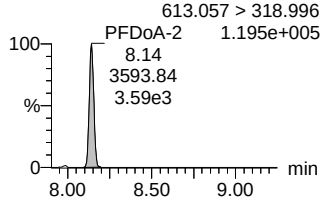


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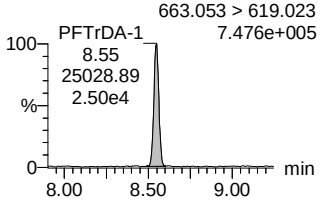


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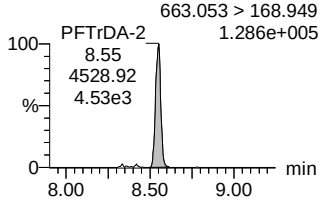


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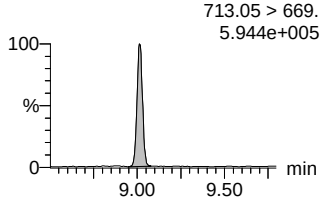


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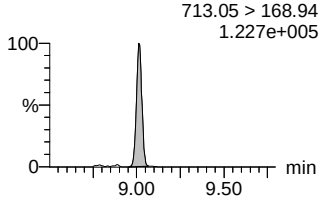


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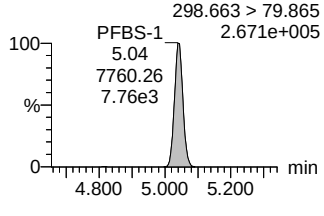


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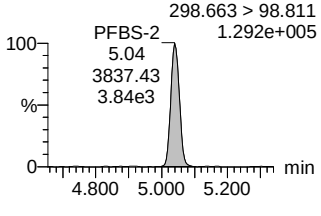


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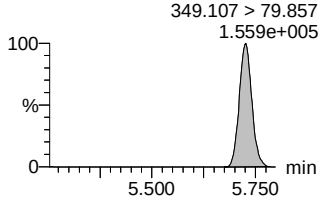


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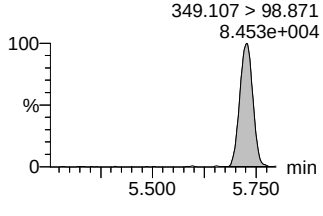


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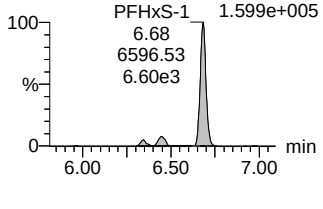


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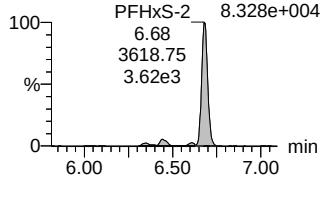


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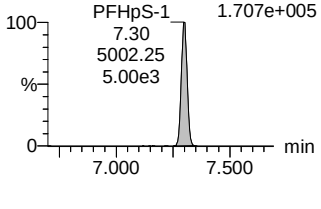


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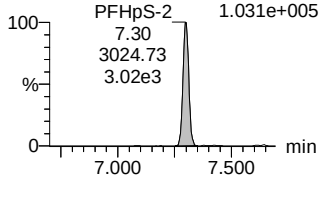


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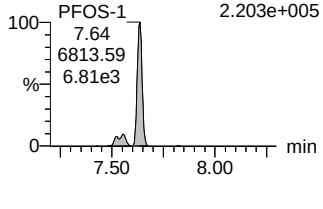


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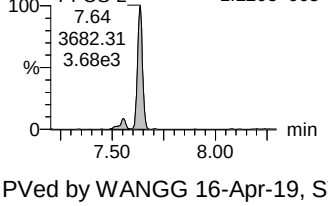


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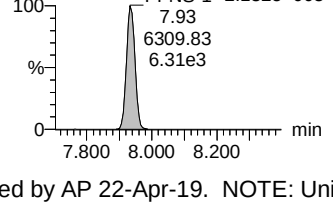


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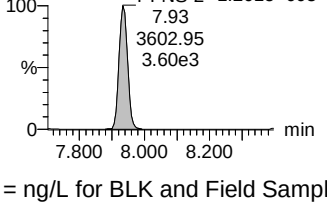


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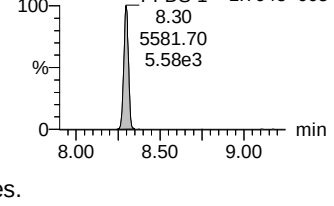


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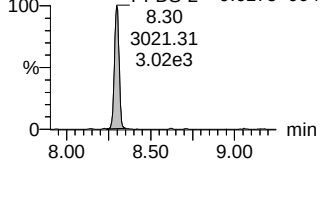


PVed by WANGG 16-Apr-19, SVed by AP 22-Apr-19. NOTE: Units = ng/L for BLK and Field Samples.

**Quantify Sample Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_144-b.qld

Last Altered: Tuesday, April 16, 2019 14:59:53 Pacific Daylight Time
Printed: Monday, April 22, 2019 08:53:24 Pacific Daylight Time

**ID: FC027E-CAL,, /01, Name: FC9W_144S14, Description: 1,,2uL, Date: 08-Apr-2019, Time: 16:56:51**

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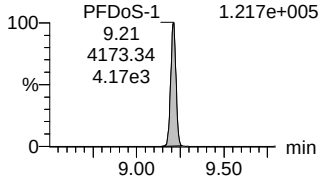


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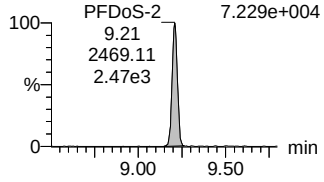


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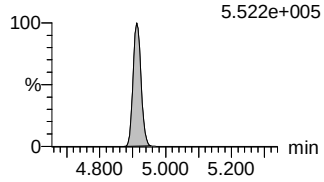


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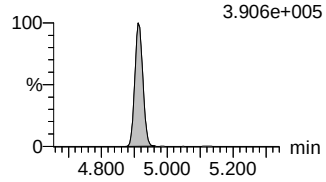


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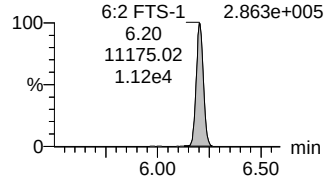


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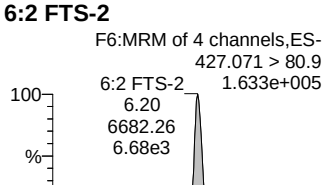


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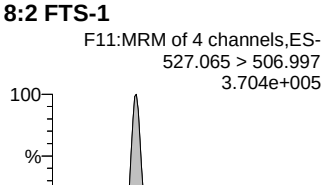


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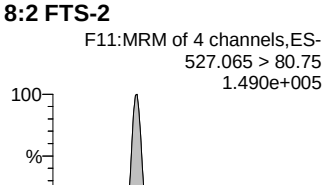


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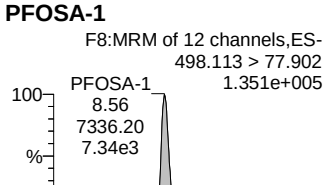


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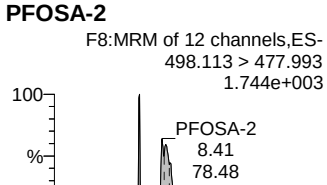


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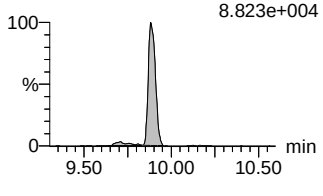


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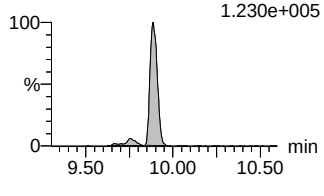


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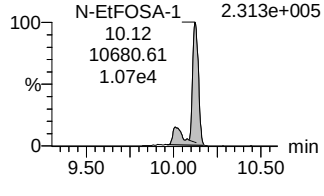


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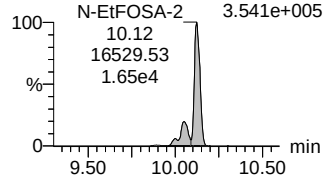


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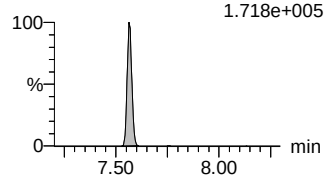


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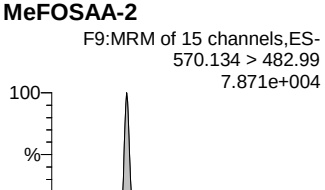


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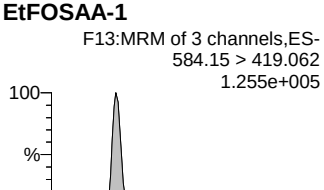


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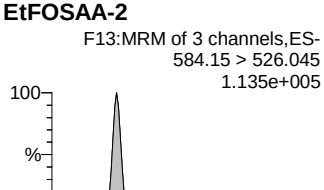


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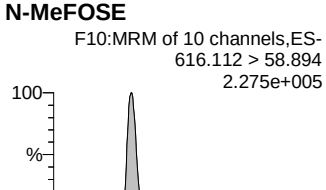


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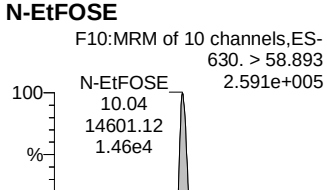


PVed by WANGG 16-Apr-19, SVed by AP 22-Apr-19. NOTE: Units = ng/L for BLK and Field Samples.

**Quantify Sample Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_144-b.qld

Last Altered: Tuesday, April 16, 2019 14:59:53 Pacific Daylight Time
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**ID: FC027E-CAL,, /01, Name: FC9W_144S14, Description: 1,,2uL, Date: 08-Apr-2019, Time: 16:56:51**

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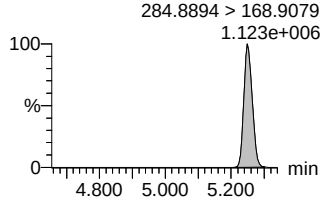


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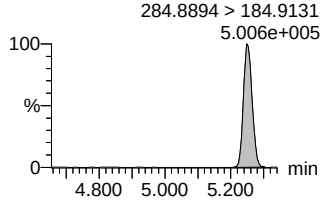


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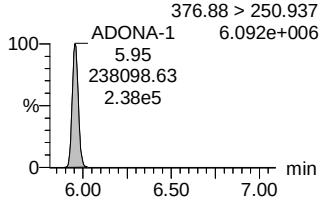


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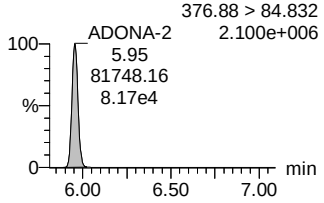


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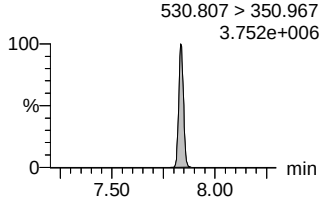


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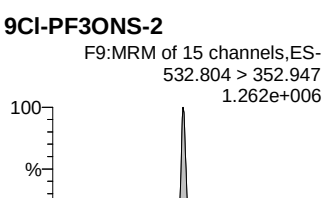


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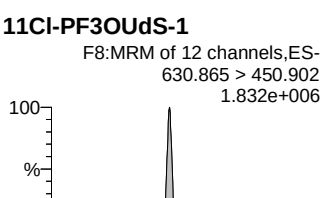


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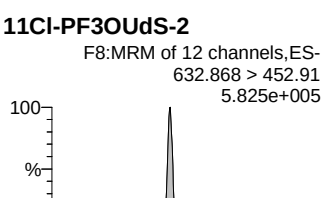
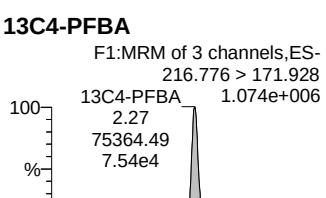



**13C4-PFBA**
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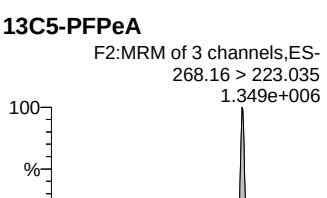


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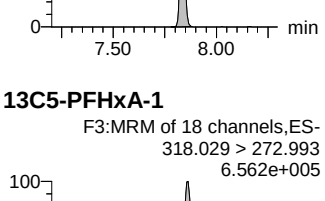


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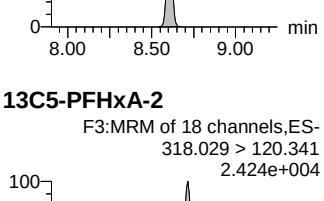


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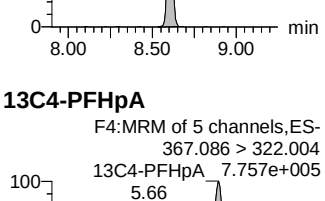
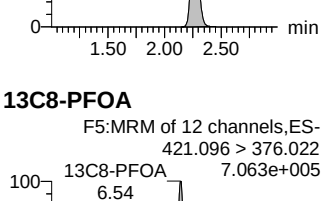



**13C8-PFOA**
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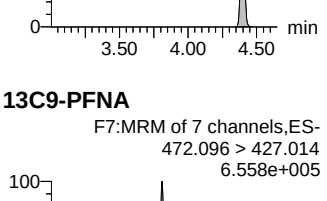
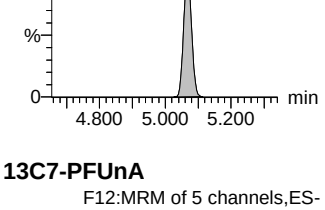



**13C7-PFUnA**
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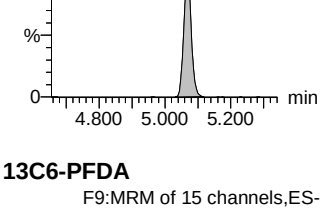
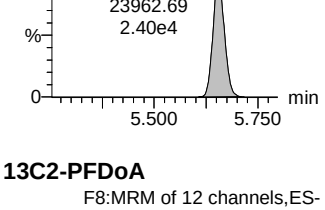
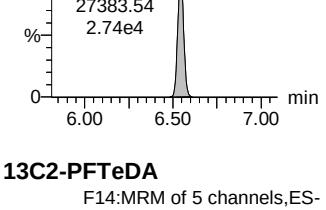
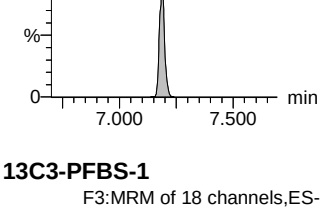



**13C2-PFDoA**



**13C2-PFTeDA**



**13C3-PFBS-1**


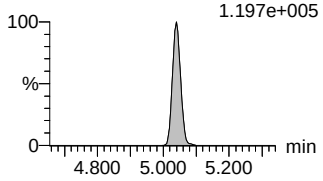

PVed by WANGG 16-Apr-19, SVed by AP 22-Apr-19. NOTE: Units = ng/L for BLK and Field Samples.

**Quantify Sample Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_144-b.qld

Last Altered: Tuesday, April 16, 2019 14:59:53 Pacific Daylight Time
Printed: Monday, April 22, 2019 08:53:24 Pacific Daylight Time

**ID: FC027E-CAL,, /01, Name: FC9W_144S14, Description: 1,,2uL, Date: 08-Apr-2019, Time: 16:56:51**

**13C3-PFBS-2**
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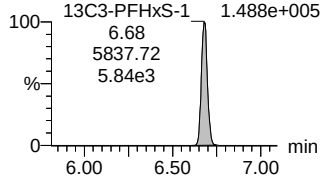


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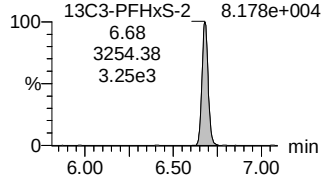


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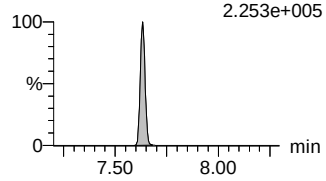


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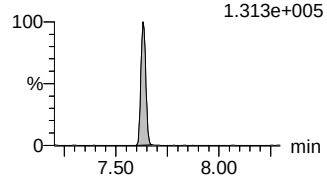
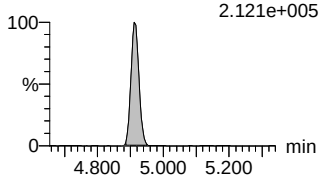



**13C2-4:2 FTS-1**
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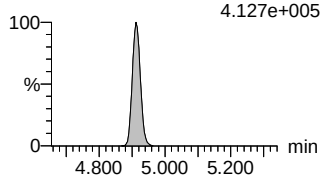


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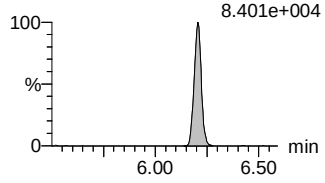


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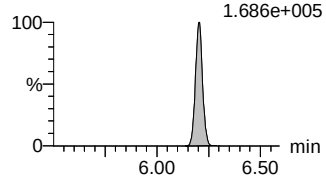


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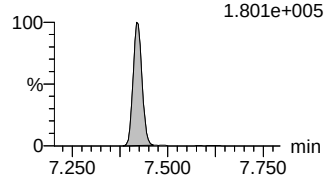


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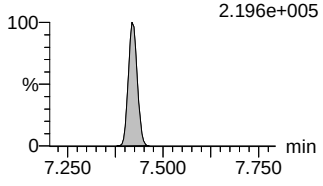
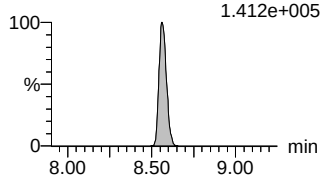
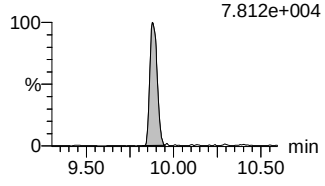



**13C8-PFOSA**



**D3-N-MeFOSA**
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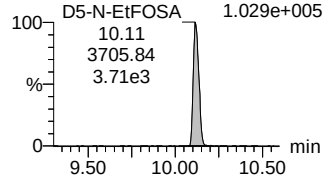


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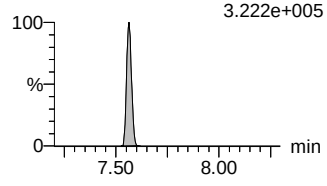


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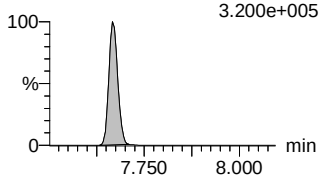
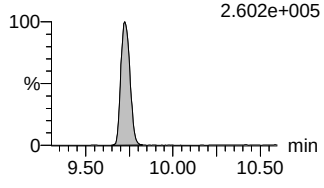
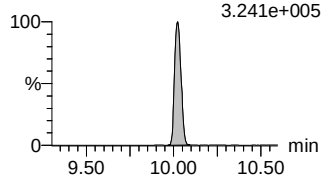



**D7-N-MeFOSE**



**D9-N-EtFOSE**
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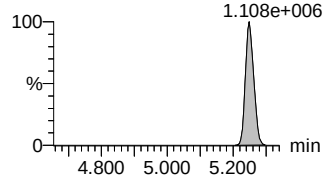
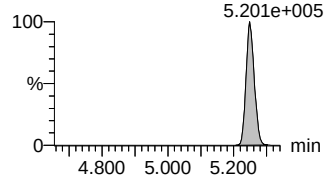



**13C3-HFPO-DA-2**



PVed by WANGG 16-Apr-19, SVed by AP 22-Apr-19. NOTE: Units = ng/L for BLK and Field Samples.

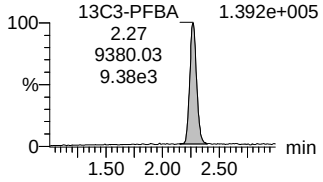
**Quantify Sample Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_144-b.qld

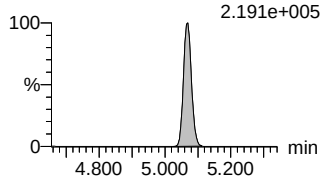
Last Altered: Tuesday, April 16, 2019 14:59:53 Pacific Daylight Time
Printed: Monday, April 22, 2019 08:53:24 Pacific Daylight Time

**ID: FC027E-CAL,, /01, Name: FC9W_144S14, Description: 1,,2uL, Date: 08-Apr-2019, Time: 16:56:51**

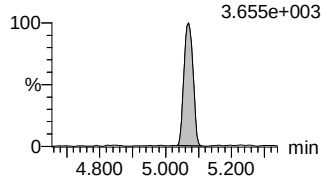
**13C3-PFBA**



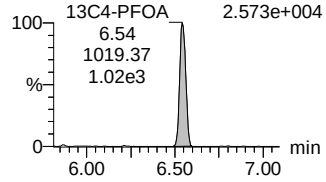

**13C2-PFHxA-1**



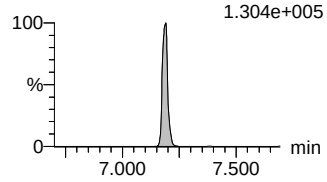

**13C2-PFHxA-2**



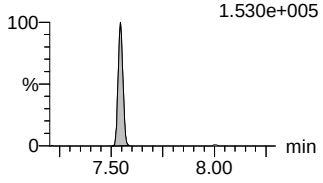

**13C4-PFOA**



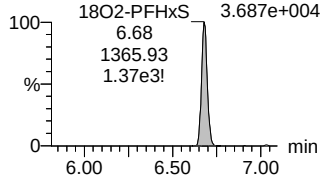

**13C5-PFNA**



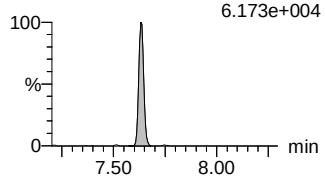

**13C2-PFDA**



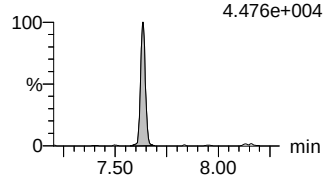

**18O2-PFHxS**




**13C4-PFOS-1**




**13C4-PFOS-2**




PVed by WANGG 16-Apr-19, SVed by AP 22-Apr-19. NOTE: Units = ng/L for BLK and Field Samples.

**Quantify Sample Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_144-b.qld

Last Altered: Tuesday, April 16, 2019 14:59:53 Pacific Daylight Time
Printed: Monday, April 22, 2019 08:53:24 Pacific Daylight Time

**ID: FC027E-CAL,, /01, Name: FC9W_144S14, Description: 1,,2uL, Date: 08-Apr-2019, Time: 16:56:51**

| # | Name | IS# | Trace | RT | Area | IS Area | Std. Conc | Conc. | LOD | %Rec | S/N | Noise | Peak Height | IS Height | Sample size | F2 | Flags |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | PFBA | 64 | 212.763 > 168.903 | 2.27 | 66645 | 75364 | 41.000 | 42.038 | | 102.5 | 3159 | 308 | 972641 | 1072357 | 1.000 | 0.0 | bb |
| 2 | PFPeA-1 | 65 | 262.951 > 218.996 | 4.40 | 41585 | 42124 | 20.430 | 20.174 | | 98.7 | 4357 | 306 | 1335225 | 1347488 | 1.000 | 0.0 | bb |
| 3 | PFPeA-2 | 65 | 262.951 > 68.925 | 4.40 | 151 | 42124 | 20.430 | 21.964 | 0.3166 | 107.5 | 187 | 24 | 4536 | 1347488 | 1.000 | 0.0 | bb |
| 4 | PFHxA-1 | 66 | 313.012 > 269.017 | 5.07 | 16872 | 18187 | 10.250 | 10.099 | | 98.5 | 745 | 814 | 606770 | 655395 | 1.000 | 0.0 | bb |
| 5 | PFHxA-2 | 66 | 313.012 > 118.918 | 5.07 | 1986 | 18187 | 10.250 | 10.249 | 0.0468 | 100.0 | 617 | 112 | 69013 | 655395 | 1.000 | 0.0 | bb |
| 6 | PFHpA-1 | 68 | 363.073 > 319.025 | 5.66 | 23107 | 23963 | 10.250 | 10.758 | | 105.0 | 565 | 1307 | 739082 | 774650 | 1.000 | 0.0 | bb |
| 7 | PFHpA-2 | 68 | 363.073 > 168.962 | 5.66 | 7461 | 23963 | 10.250 | 10.776 | | 105.1 | 2077 | 109 | 226882 | 774650 | 1.000 | 0.0 | bb |
| 8 | PFOA-1 | 69 | 413.006 > 369.03 | 6.55 | 41317 | 27384 | 10.250 | 10.674 | | 104.1 | 589 | 1873 | 1103459 | 705827 | 1.000 | 0.0 | bb |
| 9 | PFOA-2 | 69 | 413.006 > 168.963 | 6.55 | 12428 | 27384 | 10.250 | 10.761 | | 105.0 | 2809 | 119 | 334494 | 705827 | 1.000 | 0.0 | bb |
| 10 | PFNA-1 | 70 | 463.002 > 418.97 | 7.19 | 31097 | 15727 | 10.000 | 10.417 | 0.1075 | 104.2 | 147 | 8270 | 1212314 | 655597 | 1.000 | 0.0 | bb |
| 11 | PFNA-2 | 70 | 463.002 > 218.968 | 7.19 | 8005 | 15727 | 10.000 | 10.302 | | 103.0 | 101... | 30 | 306182 | 655597 | 1.000 | 0.0 | bb |
| 12 | PFDA-1 | 72 | 512.935 > 469.021 | 7.54 | 24434 | 16353 | 10.000 | 9.873 | | 98.7 | 759 | 1235 | 938135 | 623689 | 1.000 | 0.0 | bb |
| 13 | PFDA-2 | 72 | 512.935 > 218.972 | 7.54 | 6179 | 16353 | 10.000 | 10.089 | | 100.9 | 8504 | 29 | 243589 | 623689 | 1.000 | 0.0 | bb |
| 14 | PFUnA-1 | 71 | 563.124 > 519.003 | 7.81 | 24862 | 20120 | 10.000 | 9.813 | | 98.1 | 744 | 1323 | 984659 | 812290 | 1.000 | 0.0 | bb |
| 15 | PFUnA-2 | 71 | 563.124 > 269.051 | 7.81 | 4274 | 20120 | 10.000 | 9.387 | | 93.9 | 3989 | 43 | 169698 | 812290 | 1.000 | 0.0 | bb |
| 16 | PFDoA-1 | 73 | 613.057 > 569.045 | 8.14 | 30355 | 14201 | 10.000 | 10.526 | | 105.3 | 516 | 1944 | 1003030 | 464556 | 1.000 | 0.0 | bb |
| 17 | PFDoA-2 | 73 | 613.057 > 318.996 | 8.14 | 3594 | 14201 | 10.000 | 10.339 | | 103.4 | 7309 | 16 | 119420 | 464556 | 1.000 | 0.0 | bb |
| 18 | PFTrDA-1 | 74 | 663.053 > 619.023 | 8.55 | 25029 | 14887 | 10.000 | 10.551 | | 105.5 | 428 | 1730 | 741079 | 424721 | 1.000 | 0.0 | bb |
| 19 | PFTrDA-2 | 74 | 663.053 > 168.949 | 8.55 | 4529 | 14887 | 10.000 | 10.596 | | 106.0 | 1773 | 73 | 128530 | 424721 | 1.000 | 0.0 | bb |
| 20 | PFTeDA-1 | 74 | 713.05 > 669. | 9.01 | 21293 | 14887 | 10.000 | 11.081 | | 110.8 | 632 | 933 | 590060 | 424721 | 1.000 | 0.0 | bb |
| 21 | PFTeDA-2 | 74 | 713.05 > 168.94 | 9.01 | 4285 | 14887 | 10.000 | 10.555 | | 105.6 | 1272 | 96 | 122413 | 424721 | 1.000 | 0.0 | bb |
| 22 | PFBS-1 | 75 | 298.663 > 79.865 | 5.04 | 7760 | 6694 | 10.250 | 10.108 | 0.0026 | 98.6 | 179... | 15 | 266988 | 227160 | 1.000 | 0.0 | bb |
| 23 | PFBS-2 | 76 | 298.663 > 98.811 | 5.04 | 3837 | 3397 | 10.250 | 9.506 | | 92.7 | 618 | 208 | 128823 | 119638 | 1.000 | 0.0 | bb |
| 24 | PFPeS-1 | 77 | 349.107 > 79.857 | 5.73 | 5393 | 5838 | 9.500 | 9.704 | | 102.1 | 7231 | 22 | 155807 | 148619 | 1.000 | 0.0 | bb |
| 25 | PFPeS-2 | 78 | 349.107 > 98.871 | 5.73 | 3056 | 3254 | 9.500 | 9.476 | | 99.7 | 678 | 124 | 84394 | 81734 | 1.000 | 0.0 | bb |
| 26 | PFHxS-1 | 77 | 398.721 > 79.92 | 6.68 | 6597 | 5838 | 10.250 | 9.196 | 0.1267 | 89.7 | 1926 | 83 | 159247 | 148619 | 1.000 | 0.0 | MM |
| 27 | PFHxS-2 | 78 | 398.721 > 98.863 | 6.68 | 3619 | 3254 | 10.250 | 8.880 | | 86.6 | 429 | 194 | 83108 | 81734 | 1.000 | 0.0 | MM |
| 28 | PFHpS-1 | 79 | 449.036 > 79.857 | 7.30 | 5002 | 5915 | 9.500 | 8.949 | | 94.2 | 1303 | 131 | 170440 | 224988 | 1.000 | 0.0 | bb |
| 29 | PFHpS-2 | 80 | 449.036 > 98.8 | 7.30 | 3025 | 3458 | 9.500 | 9.296 | 0.0539 | 97.9 | 541 | 190 | 103022 | 130992 | 1.000 | 0.0 | bb |
| 30 | PFOS-1 | 79 | 498.906 > 79.856 | 7.64 | 6814 | 5915 | 10.250 | 10.109 | | 98.6 | 386 | 569 | 219595 | 224988 | 1.000 | 0.0 | MM |
| 31 | PFOS-2 | 80 | 498.906 > 98.801 | 7.64 | 3682 | 3458 | 10.250 | 11.231 | | 109.6 | 939 | 130 | 121907 | 130992 | 1.000 | 0.0 | MM |
| 32 | PFNS-1 | 79 | 548.775 > 79.858 | 7.93 | 6310 | 5915 | 9.500 | 9.509 | | 100.1 | 9370 | 23 | 213076 | 224988 | 1.000 | 0.0 | bb |
| 33 | PFNS-2 | 80 | 548.775 > 98.801 | 7.93 | 3603 | 3458 | 9.500 | 9.860 | | 103.8 | 2884 | 42 | 120047 | 130992 | 1.000 | 0.0 | bb |
| 34 | PFDS-1 | 79 | 599.027 > 79.92 | 8.30 | 5582 | 5915 | 10.250 | 10.392 | | 101.4 | 4960 | 36 | 176289 | 224988 | 1.000 | 0.0 | bb |
| 35 | PFDS-2 | 80 | 599.027 > 98.8 | 8.30 | 3021 | 3458 | 10.250 | 10.398 | 0.1458 | 101.4 | 517 | 185 | 95590 | 130992 | 1.000 | 0.0 | bb |

PVed by WANGG 16-Apr-19, SVed by AP 22-Apr-19. NOTE: Units = ng/L for BLK and Field Samples.

**Quantify Sample Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_144-b.qld

Last Altered: Tuesday, April 16, 2019 14:59:53 Pacific Daylight Time
Printed: Monday, April 22, 2019 08:53:24 Pacific Daylight Time

**ID: FC027E-CAL,, /01, Name: FC9W_144S14, Description: 1,,2uL, Date: 08-Apr-2019, Time: 16:56:51**

| # | Name | IS# | Trace | RT | Area | IS Area | Std. Conc | Conc. | LOD | %Rec | S/N | Noise | Peak Height | IS Height | Sample size | F2 | Flags |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 36 | PFDoS-1 | 79 | 699.084 > 79.856 | 9.21 | 4173 | 5915 | 9.500 | 9.301 | | 97.9 | 1855 | 65 | 121394 | 224988 | 1.000 | 0.0 | bb |
| 37 | PFDoS-2 | 80 | 699.084 > 98.8 | 9.21 | 2469 | 3458 | 9.500 | 9.523 | | 100.2 | 585 | 123 | 72102 | 130992 | 1.000 | 0.0 | bb |
| 38 | 4:2 FTS-1 | 81 | 327.077 > 307.017 | 4.91 | 15256 | 5808 | 40.000 | 35.819 | | 89.5 | 531... | 10 | 551310 | 211125 | 1.000 | 0.0 | bb |
| 39 | 4:2 FTS-2 | 81 | 327.077 > 80.85 | 4.91 | 10824 | 5808 | 40.000 | 41.119 | 0.1010 | 102.8 | 2931 | 133 | 390264 | 211125 | 1.000 | 0.0 | bb |
| 40 | 6:2 FTS-1 | 83 | 427.071 > 407.024 | 6.20 | 11175 | 3306 | 36.000 | 36.405 | | 101.1 | 118... | 24 | 285841 | 83974 | 1.000 | 0.0 | bb |
| 41 | 6:2 FTS-2 | 83 | 427.071 > 80.9 | 6.20 | 6682 | 3306 | 36.000 | 35.389 | 0.0979 | 98.3 | 1516 | 107 | 162835 | 83974 | 1.000 | 0.0 | bb |
| 42 | 8:2 FTS-1 | 85 | 527.065 > 506.997 | 7.42 | 9874 | 4750 | 40.000 | 38.314 | | 95.8 | 352... | 11 | 370059 | 179744 | 1.000 | 0.0 | bb |
| 43 | 8:2 FTS-2 | 85 | 527.065 > 80.75 | 7.42 | 4162 | 4750 | 40.000 | 33.366 | | 83.4 | 2272 | 65 | 148657 | 179744 | 1.000 | 0.0 | bb |
| 44 | PFOSA-1 | 87 | 498.113 > 77.902 | 8.56 | 7336 | 7207 | 10.250 | 10.913 | 0.1078 | 106.5 | 1100 | 123 | 135008 | 141094 | 1.000 | 0.0 | MM |
| 45 | PFOSA-2 | 87 | 498.113 > 477.993 | 8.41 | 78 | 7207 | 10.250 | 7.399 | 2.1003 | 72.2 | 85 | 20 | 1731 | 141094 | 1.000 | 0.0 | MM |
| 46 | N-MeFOSA-1 | 88 | 511.937 > 218.985 | 9.88 | 4371 | 3724 | 11.500 | 12.675 | | 110.2 | 883 | 100 | 88009 | 77796 | 1.000 | 0.0 | MM |
| 47 | N-MeFOSA-2 | 88 | 511.937 > 168.955 | 9.88 | 6406 | 3724 | 11.500 | 12.566 | | 109.3 | 551 | 223 | 122762 | 77796 | 1.000 | 0.0 | MM |
| 48 | N-EtFOSA-1 | 89 | 526.017 > 218.977 | 10.12 | 10681 | 3706 | 25.000 | 24.699 | | 98.8 | 702 | 327 | 229296 | 102722 | 1.000 | 0.0 | MM |
| 49 | N-EtFOSA-2 | 89 | 526.017 > 168.95 | 10.12 | 16530 | 3706 | 25.000 | 26.053 | | 104.2 | 3106 | 114 | 353021 | 102722 | 1.000 | 0.0 | MM |
| 50 | MeFOSAA-1 | 90 | 570.134 > 419.035 | 7.56 | 4417 | 8808 | 10.000 | 10.480 | | 104.8 | 8376 | 20 | 171696 | 321756 | 1.000 | 0.0 | bb |
| 51 | MeFOSAA-2 | 90 | 570.134 > 482.99 | 7.56 | 2148 | 8808 | 10.000 | 11.170 | | 111.7 | 590 | 133 | 78625 | 321756 | 1.000 | 0.0 | bb |
| 52 | EtFOSAA-1 | 91 | 584.15 > 419.062 | 7.67 | 3458 | 8581 | 10.000 | 10.529 | 0.0691 | 105.3 | 4117 | 30 | 125458 | 318946 | 1.000 | 0.0 | bb |
| 53 | EtFOSAA-2 | 91 | 584.15 > 526.045 | 7.67 | 2973 | 8581 | 10.000 | 9.801 | 0.1918 | 98.0 | 396 | 286 | 113388 | 318946 | 1.000 | 0.0 | bb |
| 54 | N-MeFOSE | 92 | 616.112 > 58.894 | 9.75 | 15358 | 15647 | 102.000 | 104.851 | 0.2610 | 102.8 | 519 | 436 | 226126 | 259917 | 1.000 | 0.0 | MM |
| 55 | N-EtFOSE | 93 | 630. > 58.893 | 10.04 | 14601 | 13772 | 76.500 | 83.586 | | 109.3 | 2102 | 123 | 258346 | 323568 | 1.000 | 0.0 | MM |
| 56 | HFPO-DA-1 | 94 | 284.8894 > 168.... | 5.25 | 32938 | 32356 | 40.000 | 45.376 | | 113.4 | 425... | 26 | 1121912 | 1106703 | 1.000 | 0.0 | bb |
| 57 | HFPO-DA-2 | 95 | 284.8894 > 184.... | 5.25 | 15268 | 15006 | 40.000 | 44.126 | | 110.3 | 2511 | 199 | 500200 | 519355 | 1.000 | 0.0 | bb |
| 58 | ADONA-1 | 94 | 376.88 > 250.937 | 5.95 | 238099 | 32356 | 40.000 | 47.593 | | 119.0 | 311... | 195 | 6085407 | 1106703 | 1.000 | 0.0 | bb |
| 59 | ADONA-2 | 95 | 376.88 > 84.832 | 5.95 | 81748 | 15006 | 40.000 | 46.185 | 0.5306 | 115.5 | 196... | 107 | 2097316 | 519355 | 1.000 | 0.0 | bb |
| 60 | 9Cl-PF3ONS-1 | 94 | 530.807 > 350.967 | 7.83 | 97686 | 32356 | 40.000 | 49.504 | | 123.8 | 5468 | 685 | 3748140 | 1106703 | 1.000 | 0.0 | bb |
| 61 | 9Cl-PF3ONS-2 | 95 | 532.804 > 352.947 | 7.83 | 31947 | 15006 | 40.000 | 53.587 | | 134.0 | 1943 | 648 | 1260144 | 519355 | 1.000 | 0.0 | bb |
| 62 | 11Cl-PF3OUdS-1 | 94 | 630.865 > 450.902 | 8.61 | 62378 | 32356 | 40.000 | 45.628 | | 114.1 | 102... | 179 | 1829396 | 1106703 | 1.000 | 0.0 | bb |
| 63 | 11Cl-PF3OUdS-2 | 95 | 632.868 > 452.91 | 8.61 | 20167 | 15006 | 40.000 | 46.036 | 0.0550 | 115.1 | 1412 | 412 | 582024 | 519355 | 1.000 | 0.0 | bb |
| 64 | 13C4-PFBA | 96 | 216.776 > 171.928 | 2.27 | 75364 | 9380 | 40.000 | 39.242 | 0.0130 | 98.1 | 8894 | 121 | 1072357 | 136348 | 1.000 | 0.0 | bb |
| 65 | 13C5-PFPeA | 97 | 268.16 > 223.035 | 4.39 | 42124 | 6070 | 20.000 | 21.385 | 0.0043 | 106.9 | 131... | 103 | 1347488 | 218897 | 1.000 | 0.0 | bb |
| 66 | 13C5-PFHxA-1 | 97 | 318.029 > 272.993 | 5.07 | 18187 | 6070 | 10.000 | 10.638 | 0.0020 | 106.4 | 163... | 40 | 655395 | 218897 | 1.000 | 0.0 | bb |
| 67 | 13C5-PFHxA-2 | 97 | 318.029 > 120.341 | 5.07 | 633 | 6070 | 10.000 | 10.893 | 0.0141 | 108.9 | 2458 | 10 | 24222 | 218897 | 1.000 | 0.0 | bb |
| 68 | 13C4-PFHpA | 99 | 367.086 > 322.004 | 5.66 | 23963 | 1019 | 10.000 | 10.808 | 0.0021 | 108.1 | 198... | 39 | 774650 | 25693 | 1.000 | 0.0 | bb |
| 69 | 13C8-PFOA | 99 | 421.096 > 376.022 | 6.54 | 27384 | 1019 | 10.000 | 10.749 | 0.0007 | 107.5 | 479... | 15 | 705827 | 25693 | 1.000 | 0.0 | bb |
| 70 | 13C9-PFNA | 100 | 472.096 > 427.014 | 7.19 | 15727 | 3531 | 5.000 | 5.128 | 0.0037 | 102.6 | 4679 | 140 | 655597 | 130397 | 1.000 | 0.0 | bb |

PVed by WANGG 16-Apr-19, SVed by AP 22-Apr-19. NOTE: Units = ng/L for BLK and Field Samples.

**Quantify Sample Report** **MassLynx MassLynx V4.1 SCN909**
SGS Axys Analytical Services, Ltd.

Dataset: G:\Masslynx\Inst_W\PFC.PRO\quanfiles\FC9W_144-b.qld

Last Altered: Tuesday, April 16, 2019 14:59:53 Pacific Daylight Time
Printed: Monday, April 22, 2019 08:53:24 Pacific Daylight Time

**ID: FC027E-CAL,, /01, Name: FC9W_144S14, Description: 1,,2uL, Date: 08-Apr-2019, Time: 16:56:51**

| # | Name | IS# | Trace | RT | Area | IS Area | Std. Conc | Conc. | LOD | %Rec | S/N | Noise | Peak Height | IS Height | Sample size | F2 | Flags |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 71 | 13C7-PFUnA | 101 | 570.019 > 525.05 | 7.81 | 20120 | 3993 | 5.000 | 5.633 | 0.0015 | 112.7 | 120... | 67 | 812290 | 152831 | 1.000 | 0.0 | bb |
| 72 | 13C6-PFDA | 101 | 519.147 > 474.058 | 7.54 | 16353 | 3993 | 5.000 | 5.441 | 0.0005 | 108.8 | 318... | 20 | 623689 | 152831 | 1.000 | 0.0 | bb |
| 73 | 13C2-PFDoA | 101 | 615.127 > 570.013 | 8.14 | 14201 | 3993 | 5.000 | 5.570 | 0.0006 | 111.4 | 243... | 19 | 464556 | 152831 | 1.000 | 0.0 | bb |
| 74 | 13C2-PFTeDA | 101 | 715.057 > 670.026 | 9.01 | 14887 | 3993 | 5.000 | 5.952 | 0.0027 | 119.0 | 4966 | 86 | 424721 | 152831 | 1.000 | 0.0 | bb |
| 75 | 13C3-PFBS-1 | 102 | 302.056 > 79.865 | 5.04 | 6694 | 1366 | 10.000 | 10.179 | 0.0072 | 101.8 | 5343 | 43 | 227160 | 36883 | 1.000 | 0.0 | bb |
| 76 | 13C3-PFBS-2 | 102 | 302.056 > 98.875 | 5.04 | 3397 | 1366 | 10.000 | 10.686 | 0.0036 | 106.9 | 114... | 10 | 119638 | 36883 | 1.000 | 0.0 | bb |
| 77 | 13C3-PFHxS-1 | 102 | 402.114 > 79.858 | 6.68 | 5838 | 1366 | 10.000 | 10.301 | 0.0038 | 103.0 | 7586 | 20 | 148619 | 36883 | 1.000 | 0.0 | bb |
| 78 | 13C3-PFHxS-2 | 102 | 402.114 > 98.801 | 6.68 | 3254 | 1366 | 10.000 | 10.308 | 0.0111 | 103.1 | 2597 | 31 | 81734 | 36883 | 1.000 | 0.0 | bb |
| 79 | 13C8-PFOS-1 | 103 | 507.124 > 79.858 | 7.63 | 5915 | 1672 | 10.000 | 11.169 | 0.0023 | 111.7 | 147... | 15 | 224988 | 61711 | 1.000 | 0.0 | bb |
| 80 | 13C8-PFOS-2 | 104 | 507.124 > 98.867 | 7.63 | 3458 | 1191 | 10.000 | 9.254 | 0.0176 | 92.5 | 1588 | 82 | 130992 | 44720 | 1.000 | 0.0 | bb |
| 81 | 13C2-4:2 FTS-1 | 102 | 329.084 > 80.9 | 4.91 | 5808 | 1366 | 20.000 | 29.930 | 0.1312 | 149.6 | 921 | 229 | 211125 | 36883 | 1.000 | 0.0 | MM |
| 82 | 13C2-4:2 FTS-2 | 102 | 329.084 > 309.024 | 4.91 | 11555 | 1366 | 20.000 | 25.516 | 0.0026 | 127.6 | 394... | 10 | 412532 | 36883 | 1.000 | 0.0 | bb |
| 83 | 13C2-6:2 FTS-1 | 102 | 429.078 > 80.900 | 6.21 | 3306 | 1366 | 20.000 | 21.087 | 0.0229 | 105.4 | 2604 | 32 | 83974 | 36883 | 1.000 | 0.0 | bb |
| 84 | 13C2-6:2 FTS-2 | 102 | 429.078 > 409.031 | 6.21 | 6603 | 1366 | 20.000 | 18.397 | 0.0055 | 92.0 | 9441 | 18 | 168447 | 36883 | 1.000 | 0.0 | bb |
| 85 | 13C2-8:2 FTS-1 | 102 | 529.1351 > 80.900 | 7.42 | 4750 | 1366 | 20.000 | 20.278 | 0.0966 | 101.4 | 883 | 204 | 179744 | 36883 | 1.000 | 0.0 | bb |
| 86 | 13C2-8:2 FTS-2 | 102 | 529.135 > 509.003 | 7.42 | 5865 | 1366 | 20.000 | 18.616 | 0.0121 | 93.1 | 6418 | 34 | 219370 | 36883 | 1.000 | 0.0 | bb |
| 87 | 13C8-PFOSA | 103 | 506.14 > 77.841 | 8.56 | 7207 | 1672 | 10.000 | 8.607 | 0.0015 | 86.1 | 8842 | 16 | 141094 | 61711 | 1.000 | 0.0 | bb |
| 88 | D3-N-MeFOSA | 103 | 514.956 > 218.974 | 9.88 | 3724 | 1672 | 10.000 | 8.617 | 0.0422 | 86.2 | 347 | 224 | 77796 | 61711 | 1.000 | 0.0 | bb |
| 89 | D5-N-EtFOSA | 103 | 531.112 > 218.984 | 10.11 | 3706 | 1672 | 10.000 | 10.154 | 0.0425 | 101.5 | 538 | 191 | 102722 | 61711 | 1.000 | 0.0 | bb |
| 90 | D3-MeFOSAA | 103 | 573.153 > 418.99 | 7.56 | 8808 | 1672 | 20.000 | 18.943 | 0.0051 | 94.7 | 109... | 29 | 321756 | 61711 | 1.000 | 0.0 | bb |
| 91 | D5-EtFOSAA | 103 | 589.245 > 418.971 | 7.67 | 8581 | 1672 | 20.000 | 22.087 | 0.0118 | 110.4 | 5675 | 56 | 318946 | 61711 | 1.000 | 0.0 | bb |
| 92 | D7-N-MeFOSE | 103 | 623.156 > 58.896 | 9.72 | 15647 | 1672 | 100.000 | 78.395 | 0.6823 | 78.4 | 155 | 1675 | 259917 | 61711 | 1.000 | 0.0 | bb |
| 93 | D9-N-EtFOSE | 103 | 639.184 > 58.897 | 10.02 | 13772 | 1672 | 100.000 | 66.618 | 0.0700 | 66.6 | 1817 | 178 | 323568 | 61711 | 1.000 | 0.0 | bb |
| 94 | 13C3-HFPO-DA-1 | 97 | 286.8631 > 168.... | 5.25 | 32356 | 6070 | 40.000 | 41.213 | 0.0107 | 103.0 | 109... | 101 | 1106703 | 218897 | 1.000 | 0.0 | bb |
| 95 | 13C3-HFPO-DA-2 | 97 | 286.8631 > 184.... | 5.25 | 15006 | 6070 | 40.000 | 39.021 | 0.0432 | 97.6 | 2602 | 200 | 519355 | 218897 | 1.000 | 0.0 | bb |
| 96 | 13C3-PFBA | | 216.029 > 171.97 | 2.27 | 9380 | | 5.000 | 6.701 | 0.0424 | 134.0 | 474 | 288 | 136348 | | 1.000 | 0.0 | bb |
| 97 | 13C2-PFHxA-1 | | 315.083 > 269.984 | 5.07 | 6070 | | 2.500 | 3.400 | 0.0006 | 136.0 | 180... | 12 | 218897 | | 1.000 | 0.0 | bb |
| 98 | 13C2-PFHxA-2 | | 315.083 > 119.359 | 5.07 | 115 | | 2.500 | 2.128 | 0.0156 | 85.1 | 409 | 9 | 3634 | | 1.000 | 0.0 | bb |
| 99 | 13C4-PFOA | | 417.083 > 171.95 | 6.54 | 1019 | | 2.500 | 3.393 | 0.0097 | 135.7 | 1052 | 24 | 25693 | | 1.000 | 0.0 | bb |
| 1... | 13C5-PFNA | | 468.019 > 423.008 | 7.19 | 3531 | | 1.250 | 1.731 | 0.0011 | 138.5 | 4678 | 28 | 130397 | | 1.000 | 0.0 | bb |
| 1... | 13C2-PFDA | | 515.134 > 470.05 | 7.54 | 3993 | | 1.250 | 1.755 | 0.0023 | 140.4 | 2251 | 68 | 152831 | | 1.000 | 0.0 | bb |
| 1... | 18O2-PFHxS | | 402.984 > 83.895 | 6.68 | 1366 | | 2.500 | 3.477 | 0.0045 | 139.1 | 2342 | 16 | 36883 | | 1.000 | 0.0 | MM! |
| 1... | 13C4-PFOS-1 | | 502.791 > 79.856 | 7.63 | 1672 | | 2.500 | 3.437 | 0.0059 | 137.5 | 1762 | 35 | 61711 | | 1.000 | 0.0 | bb |
| 1... | 13C4-PFOS-2 | | 502.791 > 98.864 | 7.64 | 1191 | | 2.500 | 3.814 | 0.0356 | 152.6 | 321 | 139 | 44720 | | 1.000 | 0.0 | bb |

PVed by WANGG 16-Apr-19, SVed by AP 22-Apr-19. NOTE: Units = ng/L for BLK and Field Samples.

# Accreditation Scope

SGS AXYS Analytical Services Ltd.
file ref.: ACC-101 Rev. 42

| | | | | Serum | Solids | | | | | | | | | | Tissue | | | | | Urine | Water | Water, Non-Potable | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Compound Class | Compound | Accredited Method ID | SGS AXYS Method ID | CALA | CALA | California DPH | Florida DOH | Minnesota DOH | New Jersey DEP | New York DOH | Virginia DGS | Washington DE | Maine DOH | ANAB DoD ** | CALA | Florida DOH | Minnesota DOH | New Jersey DEP | Virginia DGS | CALA | CALA | California DPH | Florida DOH | Minnesota DOH | New Jersey DEP | New York DOH | Virginia DGS | Washington DE * | Maine DOH | Pennsylvania DEP | ANAB DoD ** |
| BFR | BTBPE | SGS AXYS MLA-033 | MLA-033 | | Y | | | | | | | | | | Y | | | | | | Y | | | | | | | | | | |
| | DBDPE | SGS AXYS MLA-033 | MLA-033 | | Y | | | | | | | | | | Y | | | | | | Y | | | | | | | | | | |
| | HBB | SGS AXYS MLA-033 | MLA-033 | | Y | | | | | | | | | | Y | | | | | | Y | | | | | | | | | | |
| | PBEB | SGS AXYS MLA-033 | MLA-033 | | Y | | | | | | | | | | Y | | | | | | Y | | | | | | | | | | |
| Bisphenols | Bisphenol A | SGS AXYS MLA-113 | MLA-113 | | Y | | | | | | | | | | | | | | | | Y | | | | | | | | | | |
| | Bisphenol AF | SGS AXYS MLA-113 | MLA-113 | | Y | | | | | | | | | | | | | | | | Y | | | | | | | | | | |
| | Bisphenol B | SGS AXYS MLA-113 | MLA-113 | | Y | | | | | | | | | | | | | | | | Y | | | | | | | | | | |
| | Bisphenol E | SGS AXYS MLA-113 | MLA-113 | | Y | | | | | | | | | | | | | | | | Y | | | | | | | | | | |
| | Bisphenol F | SGS AXYS MLA-113 | MLA-113 | | Y | | | | | | | | | | | | | | | | Y | | | | | | | | | | |
| | Bisphenol S | SGS AXYS MLA-113 | MLA-113 | | Y | | | | | | | | | | | | | | | | Y | | | | | | | | | | |
| BPA and MPE | 4,4'-dihydroxy-2,2-diphenylpropane (Bisphenol A) (BPA) | SGS AXYS MLA-059 | MLA-059 | | | | | | | | | | | | | | | | | Y | | | | | | | | | | | |
| | Mono-(2-ethyl-5-hydroxyhexyl) phthalate (MEHHP) | SGS AXYS MLA-059 | MLA-059 | | | | | | | | | | | | | | | | | Y | | | | | | | | | | | |
| | Mono-(2-ethyl-5-oxohexyl) phthalate (MEOHP) | SGS AXYS MLA-059 | MLA-059 | | | | | | | | | | | | | | | | | Y | | | | | | | | | | | |
| | Mono-(3-carboxypropyl) phthalate (MCPP) | SGS AXYS MLA-059 | MLA-059 | | | | | | | | | | | | | | | | | Y | | | | | | | | | | | |
| | Mono-2-ethylhexyl phthalate (MEHP) | SGS AXYS MLA-059 | MLA-059 | | | | | | | | | | | | | | | | | Y | | | | | | | | | | | |
| | Mono-benzyl phthalate (MBzP) | SGS AXYS MLA-059 | MLA-059 | | | | | | | | | | | | | | | | | Y | | | | | | | | | | | |
| | Mono-butyl phthalate (MBP) (n + iso) | SGS AXYS MLA-059 | MLA-059 | | | | | | | | | | | | | | | | | Y | | | | | | | | | | | |
| | Mono-cyclohexyl phthalate (MCHP) | SGS AXYS MLA-059 | MLA-059 | | | | | | | | | | | | | | | | | Y | | | | | | | | | | | |
| | Mono-ethyl phthalate (MEP) | SGS AXYS MLA-059 | MLA-059 | | | | | | | | | | | | | | | | | Y | | | | | | | | | | | |
| | Mono-iso-nonyl phthalate (MiNP) | SGS AXYS MLA-059 | MLA-059 | | | | | | | | | | | | | | | | | Y | | | | | | | | | | | |
| | Mono-methyl phthalate (MMP) | SGS AXYS MLA-059 | MLA-059 | | | | | | | | | | | | | | | | | Y | | | | | | | | | | | |
| HBCDD | alpha-hexabromocyclododecane (a-HBCDD) | SGS AXYS MLA-070 | MLA-070 | Y | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | beta-hexabromocyclododecane (b-HBCDD) | SGS AXYS MLA-070 | MLA-070 | Y | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | gamma-hexabromocyclododecane (g-HBCDD) | SGS AXYS MLA-070 | MLA-070 | Y | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| OC Pesticides | "Organochlorine Pesticides" category (CA only) | EPA 608 | MLA-007 | | | | | | | | | | | | | | | | | | | Y | | | | | | | | | |
| | | EPA 625 | MLA-007 | | | | | | | | | | | | | | | | | | | Y | | | | | | | | | |
| | | EPA 8081 | MLA-007 | | | Y | | | | | | | | | | | | | | | | | | | | | | | | | |
| | "Pesticides" category (CA only) | EPA 8270 | MLA-007 | | | Y | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 2,4'-DDD | EPA 625 | MLA-007 | | | | | | | | | | | | | | | | | | | | Y | | | | | | | | |
| | | EPA 8270 | MLA-007 | | | | Y | | | | | Y | | | | | | | | | | | | | | | | | | | | |
| | | EPA 1699 | MLA-028 | | | | Y | | | | | | | | | | | | | | | | Y | | | | | | | | |
| | | SGS AXYS MLA-028 | MLA-028 | Y | Y | | Y | | | | | Y | | | Y | | | | | | Y | | Y | | | | | | Y | | |
| | | SGS AXYS MLA-007 | MLA-007 | Y | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | | |
| | 2,4'-DDE | EPA 625 | MLA-007 | | | | | | | | | | | | | | | | | | | | Y | | | | | | | | |
| | | EPA 8270 | MLA-007 | | | | Y | | | | | Y | | | | | | | | | | | | | | | | | | | | |
| | | EPA 1699 | MLA-028 | | | | Y | | | | | | | | | | | | | | | | Y | | | | | | | | |
| | | SGS AXYS MLA-028 | MLA-028 | Y | Y | | Y | | | | | Y | | | Y | | | | | | Y | | Y | | | | | | Y | | |
| | | SGS AXYS MLA-007 | MLA-007 | Y | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | | |
| | 2,4'-DDT | EPA 625 | MLA-007 | | | | | | | | | | | | | | | | | | | | Y | | | | | | | | |
| | | EPA 8270 | MLA-007 | | | | Y | | | | | Y | | | | | | | | | | | | | | | | | | | | |
| | | EPA 1699 | MLA-028 | | | | Y | | | | | | | | | | | | | | | | Y | | | | | | | | |
| | | SGS AXYS MLA-028 | MLA-028 | Y | Y | | Y | | | | | Y | | | Y | | | | | | Y | | Y | | | | | | Y | | |
| | | SGS AXYS MLA-007 | MLA-007 | Y | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | | |
| | 4,4'-DDD | EPA 625 | MLA-007 | | | | | | | | | | | | | | | | | | | | Y | | | Y | Y | | Y | | |
| | | EPA 8270 | MLA-007 | | | | Y | | | Y | Y | Y | Y | | | | | | | | | | | | | | | | | | | |
| | | EPA 1699 | MLA-028 | | | | Y | | | | | | | | | | | | | | | | Y | | | | | | | | |
| | | SGS AXYS MLA-028 | MLA-028 | Y | Y | | Y | | | | | Y | | | Y | | | | | | Y | | Y | | | | | | Y | | |
| | | SGS AXYS MLA-007 | MLA-007 | Y | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | | |
| | 4,4'-DDE | EPA 625 | MLA-007 | | | | | | | | | | | | | | | | | | | | Y | | | Y | Y | | Y | | |
| | | EPA 8270 | MLA-007 | | | | Y | | | Y | Y | Y | Y | | | | | | | | | | | | | | | | | | | |

# Accreditation Scope

SGS AXYS Analytical Services Ltd.
file ref.: ACC-101 Rev. 42

| Compound Class | Compound | Accredited Method ID | SGS AXYS Method ID | Serum | Solids | | | | | | | | | Tissue | | | | | Urine | Water | Water, Non-Potable | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | CALA | CALA | California DPH | Florida DOH | Minnesota DOH | New Jersey DEP | New York DOH | Virginia DGS | Washington DE | Maine DOH | ANAB DoD ** | CALA | Florida DOH | Minnesota DOH | New Jersey DEP | Virginia DGS | CALA | CALA | California DPH | Florida DOH | Minnesota DOH | New Jersey DEP | New York DOH | Virginia DGS | Washington DE * | Maine DOH | Pennsylvania DEP | ANAB DoD ** |
| | | EPA 1699 | MLA-028 | | | | Y | | | | | | | | | | | | | | | Y | | | | | | | | | |
| | | SGS AXYS MLA-028 | MLA-028 | Y | Y | | Y | | | | | Y | | | Y | | | | | | Y | | Y | | | | | Y | | | |
| | | SGS AXYS MLA-007 | MLA-007 | Y | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | | |
| | 4,4'-DDT | EPA 625 | MLA-007 | | | | | | | | | | | | | | | | | | | Y | | | | Y | Y | | Y | | |
| | | EPA 8270 | MLA-007 | | | | Y | | | Y | Y | Y | Y | | | | | | | | | | | | | | | | | | |
| | | EPA 1699 | MLA-028 | | | | Y | | | | | | | | | | | | | | | Y | | | | | | | | | |
| | | SGS AXYS MLA-028 | MLA-028 | Y | Y | | Y | | | | | Y | | | Y | | | | | | Y | | Y | | | | | Y | | | |
| | | SGS AXYS MLA-007 | MLA-007 | Y | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | | |
| | Aldrin | EPA 625 | MLA-007 | | | | | | | | | | | | | | | | | | | Y | | | | Y | Y | | Y | | |
| | | EPA 8270 | MLA-007 | | | | Y | | | Y | Y | Y | Y | | | | | | | | | | | | | | | | | | |
| | | EPA 1699 | MLA-028 | | | | Y | | | | | | | | | | | | | | | Y | | | | | | | | | |
| | | SGS AXYS MLA-028 | MLA-028 | Y | Y | | Y | | | | | Y | | | Y | | | | | | Y | | Y | | | | | Y | | | |
| | | SGS AXYS MLA-007 | MLA-007 | Y | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | | |
| | Alpha-HCH | EPA 625 | MLA-007 | | | | | | | | | | | | | | | | | | | Y | | | | Y | Y | | Y | | |
| | | EPA 8270 | MLA-007 | | | | Y | | | Y | Y | Y | Y | | | | | | | | | | | | | | | | | | |
| | | EPA 1699 | MLA-028 | | | | Y | | | | | | | | | | | | | | | Y | | | | | | | | | |
| | | SGS AXYS MLA-028 | MLA-028 | Y | Y | | Y | | | | | Y | | | Y | | | | | | Y | | Y | | | | | Y | | | |
| | | SGS AXYS MLA-007 | MLA-007 | Y | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | | |
| | Beta-HCH | EPA 625 | MLA-007 | | | | | | | | | | | | | | | | | | | Y | | | | Y | Y | | Y | | |
| | | EPA 8270 | MLA-007 | | | | Y | | | Y | Y | Y | Y | | | | | | | | | | | | | | | | | | |
| | | EPA 1699 | MLA-028 | | | | Y | | | | | | | | | | | | | | | Y | | | | | | | | | |
| | | SGS AXYS MLA-028 | MLA-028 | Y | Y | | Y | | | | | Y | | | Y | | | | | | Y | | Y | | | | | Y | | | |
| | | SGS AXYS MLA-007 | MLA-007 | Y | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | | |
| | Chlordane, technical | EPA 8270 | MLA-007 | | | | Y | | | Y | Y | | Y | | | | | | | | | Y | | | | Y | Y | | Y | | |
| | | SGS AXYS MLA-007 | MLA-007 | | | | Y | | | | | | | | | | | | | | | Y | | | | | | | | | |
| | cis-Chlordane (alpha-Chlordane) | EPA 8270 | MLA-007 | | | | Y | | | Y | | Y | Y | | | | | | | | | Y | | | | Y | | | Y | | |
| | | EPA 1699 | MLA-028 | | | | Y | | | | | | | | | | | | | | | Y | | | | | | | | | |
| | | SGS AXYS MLA-028 | MLA-028 | Y | Y | | Y | | | | | Y | | | Y | | | | | | Y | | Y | | | | | Y | | | |
| | | SGS AXYS MLA-007 | MLA-007 | Y | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | | |
| | cis-Nonachlor | EPA 8270 | MLA-007 | | | | Y | | | | | Y | | | | | | | | | | Y | | | | | | | | | |
| | | EPA 1699 | MLA-028 | | | | Y | | | | | | | | | | | | | | | Y | | | | | | | | | |
| | | SGS AXYS MLA-028 | MLA-028 | Y | Y | | Y | | | | | Y | | | Y | | | | | | Y | | Y | | | | | Y | | | |
| | | SGS AXYS MLA-007 | MLA-007 | Y | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | | |
| | Delta-HCH | EPA 608 | MLA-007 | | | | | | | | | | | | | | | | | | | Y | | | | Y | Y | | Y | | |
| | | EPA 8081 | MLA-007 | | | | Y | | | Y | Y | Y | Y | | | | | | | | | | | | | | | | | | |
| | | EPA 1699 | MLA-028 | | | | Y | | | | | | | | | | | | | | | Y | | | | | | | | | |
| | | SGS AXYS MLA-028 | MLA-028 | Y | Y | | Y | | | | | Y | | | Y | | | | | | Y | | Y | | | | | Y | | | |
| | | SGS AXYS MLA-007 | MLA-007 | Y | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | | |
| | Dieldrin | EPA 608 | MLA-007 | | | | | | | | | | | | | | | | | | | Y | | | | Y | Y | | Y | | |
| | | EPA 8081 | MLA-007 | | | | Y | | | Y | Y | Y | Y | | | | | | | | | | | | | | | | | | |
| | | EPA 1699 | MLA-028 | | | | Y | | | | | | | | | | | | | | | Y | | | | | | | | | |
| | | SGS AXYS MLA-028 | MLA-028 | Y | Y | | Y | | | | | Y | | | Y | | | | | | Y | | Y | | | | | Y | | | |
| | | SGS AXYS MLA-007 | MLA-007 | Y | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | | |
| | Endosulphan I | EPA 608 | MLA-007 | | | | | | | | | | | | | | | | | | | Y | | | | Y | Y | | Y | | |
| | | EPA 8081 | MLA-007 | | | | Y | | | Y | Y | Y | Y | | | | | | | | | | | | | | | | | | |
| | | EPA 1699 | MLA-028 | | | | Y | | | | | | | | | | | | | | | Y | | | | | | | | | |
| | | SGS AXYS MLA-028 | MLA-028 | Y | Y | | Y | | | | | Y | | | Y | | | | | | Y | | Y | | | | | Y | | | |
| | | SGS AXYS MLA-007 | MLA-007 | Y | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | | |
| | Endosulphan II | EPA 608 | MLA-007 | | | | | | | | | | | | | | | | | | | Y | | | | Y | Y | | Y | | |
| | | EPA 8081 | MLA-007 | | | | Y | | | Y | Y | Y | Y | | | | | | | | | | | | | | | | | | |

# Accreditation Scope

SGS AXYS Analytical Services Ltd.
file ref.: ACC-101 Rev. 42

| | | | | Serum | Solids | | | | | | | | | | Tissue | | | | | Urine | Water | Water, Non-Potable | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Compound Class | Compound | Accredited Method ID | SGS AXYS Method ID | CALA | CALA | California DPH | Florida DOH | Minnesota DOH | New Jersey DEP | New York DOH | Virginia DGS | Washington DE | Maine DOH | ANAB DoD ** | CALA | Florida DOH | Minnesota DOH | New Jersey DEP | Virginia DGS | CALA | CALA | California DPH | Florida DOH | Minnesota DOH | New Jersey DEP | New York DOH | Virginia DGS | Washington DE * | Maine DOH | Pennsylvania DEP | ANAB DoD ** |
| | | EPA 1699 | MLA-028 | | | | Y | | | | | | | | | | | | | | | | Y | | | | | | | | |
| | | SGS AXYS MLA-028 | MLA-028 | Y | Y | | Y | | | | | Y | | | Y | | | | | | Y | | Y | | | | | Y | | | |
| | | SGS AXYS MLA-007 | MLA-007 | Y | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | | |
| | Endosulphan sulphate | EPA 608 | MLA-007 | | | | | | | | | | | | | | | | | | | | Y | | | Y | Y | | Y | | |
| | | EPA 8081 | MLA-007 | | | | Y | | | Y | Y | Y | Y | | | | | | | | | | | | | | | | | | | |
| | | EPA 1699 | MLA-028 | | | | Y | | | | | | | | | | | | | | | | Y | | | | | | | | |
| | | SGS AXYS MLA-028 | MLA-028 | Y | Y | | Y | | | | | Y | | | Y | | | | | | Y | | Y | | | | | Y | | | |
| | | SGS AXYS MLA-007 | MLA-007 | Y | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | | |
| | Endrin | EPA 608 | MLA-007 | | | | | | | | | | | | | | | | | | | | Y | | | Y | Y | | Y | | |
| | | EPA 8081 | MLA-007 | | | | Y | | | Y | Y | Y | Y | | | | | | | | | | | | | | | | | | | |
| | | EPA 1699 | MLA-028 | | | | Y | | | | | | | | | | | | | | | | Y | | | | | | | | |
| | | SGS AXYS MLA-028 | MLA-028 | Y | Y | | Y | | | | | Y | | | Y | | | | | | Y | | Y | | | | | Y | | | |
| | | SGS AXYS MLA-007 | MLA-007 | Y | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | | |
| | Endrin aldehyde | EPA 608 | MLA-007 | | | | | | | | | | | | | | | | | | | | Y | | | Y | Y | | Y | | |
| | | EPA 8081 | MLA-007 | | | | Y | | | Y | Y | Y | Y | | | | | | | | | | | | | | | | | | | |
| | | EPA 1699 | MLA-028 | | | | Y | | | | | | | | | | | | | | | | Y | | | | | | | | |
| | | SGS AXYS MLA-028 | MLA-028 | Y | Y | | Y | | | | | Y | | | Y | | | | | | Y | | Y | | | | | Y | | | |
| | | SGS AXYS MLA-007 | MLA-007 | | Y | | Y | | | | | | | | | | | | | | Y | | Y | | | | | | | | |
| | Endrin ketone | EPA 8081 | MLA-007 | | | | Y | | | Y | | Y | | | | | | | | | | | | | | | | | | | | |
| | | EPA 1699 | MLA-028 | | | | Y | | | | | | | | | | | | | | | | Y | | | | | | | | |
| | | SGS AXYS MLA-028 | MLA-028 | Y | Y | | Y | | | | | Y | | | Y | | | | | | Y | | Y | | | | | Y | | | |
| | | SGS AXYS MLA-007 | MLA-007 | Y | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | | |
| | Gamma-HCH (Lindane) | EPA 625 | MLA-007 | | | | | | | | | | | | | | | | | | | | Y | | | Y | Y | | Y | | |
| | | EPA 8270 | MLA-007 | | | | Y | | | Y | Y | Y | Y | | | | | | | | | | | | | | | | | | | |
| | | EPA 1699 | MLA-028 | | | | Y | | | | | | | | | | | | | | | | Y | | | | | | | | |
| | | SGS AXYS MLA-028 | MLA-028 | Y | Y | | Y | | | | | Y | | | Y | | | | | | Y | | Y | | | | | Y | | | |
| | | SGS AXYS MLA-007 | MLA-007 | Y | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | | |
| | Heptachlor | EPA 625 | MLA-007 | | | | | | | | | | | | | | | | | | | | Y | | | Y | Y | | Y | | |
| | | EPA 8270 | MLA-007 | | | | Y | | | Y | Y | Y | Y | | | | | | | | | | | | | | | | | | | |
| | | EPA 1699 | MLA-028 | | | | Y | | | | | | | | | | | | | | | | Y | | | | | | | | |
| | | SGS AXYS MLA-028 | MLA-028 | Y | Y | | Y | | | | | Y | | | Y | | | | | | Y | | Y | | | | | Y | | | |
| | | SGS AXYS MLA-007 | MLA-007 | Y | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | | |
| | Heptachlor epoxide | EPA 608 | MLA-007 | | | | | | | | | | | | | | | | | | | | Y | | | Y | Y | | Y | | |
| | | EPA 8081 | MLA-007 | | | | Y | | | Y | Y | Y | Y | | | | | | | | | | | | | | | | | | | |
| | | EPA 1699 | MLA-028 | | | | Y | | | | | | | | | | | | | | | | Y | | | | | | | | |
| | | SGS AXYS MLA-028 | MLA-028 | Y | Y | | Y | | | | | Y | | | Y | | | | | | Y | | Y | | | | | Y | | | |
| | | SGS AXYS MLA-007 | MLA-007 | Y | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | | |
| | Hexachlorobenzene | EPA 1625 | MLA-007 | | | | | | | | | | | | | | | | | | | | Y | | | Y | | | | | |
| | | EPA 8270 | MLA-007 | | | | Y | | | Y | Y | Y | Y | | | | | | | | | | | | | | | | | | | |
| | | EPA 1699 | MLA-028 | | | | Y | | | | | | | | | | | | | | | | Y | | | | | | | | |
| | | SGS AXYS MLA-028 | MLA-028 | Y | Y | | Y | | | | | Y | | | Y | | | | | | Y | | Y | | | | | Y | | | |
| | | SGS AXYS MLA-007 | MLA-007 | Y | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | | |
| | Methoxychlor | EPA 608 | MLA-007 | | | | | | | | | | | | | | | | | | | | Y | | | Y | Y | | | | |
| | | EPA 8081 | MLA-007 | | | | Y | | | Y | Y | Y | Y | | | | | | | | | | | | | | | | | | | |
| | | EPA 1699 | MLA-028 | | | | Y | | | | | | | | | | | | | | | | Y | | | | | | | | |
| | | SGS AXYS MLA-028 | MLA-028 | Y | Y | | Y | | | | | Y | | | Y | | | | | | Y | | Y | | | | | Y | | | |
| | | SGS AXYS MLA-007 | MLA-007 | Y | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | | |
| | Mirex | EPA 8270 | MLA-007 | | | | Y | | | Y | | Y | | | | | | | | | | | Y | | | Y | Y | | Y | | |
| | | EPA 1699 | MLA-028 | | | | Y | | | | | | | | | | | | | | | | Y | | | | | | | | |
| | | SGS AXYS MLA-028 | MLA-028 | Y | Y | | Y | | | | | Y | | | Y | | | | | | Y | | Y | | | | | Y | | | |

# Accreditation Scope

SGS AXYS Analytical Services Ltd.
file ref.: ACC-101 Rev. 42

| | | | | Serum | Solids | | | | | | | | | | Tissue | | | | | | Urine | Water | Water, Non-Potable | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Compound Class | Compound | Accredited Method ID | SGS AXYS Method ID | CALA | CALA | California DPH | Florida DOH | Minnesota DOH | New Jersey DEP | New York DOH | Virginia DGS | Washington DE | Maine DOH | ANAB DoD ** | CALA | Florida DOH | Minnesota DOH | New Jersey DEP | Virginia DGS | | CALA | CALA | California DPH | Florida DOH | Minnesota DOH | New Jersey DEP | New York DOH | Virginia DGS | Washington DE * | Maine DOH | Pennsylvania DEP | ANAB DoD ** |
| | | SGS AXYS MLA-007 | MLA-007 | Y | Y | | Y | | | | | | | | Y | | | | | | | Y | | Y | | | | | | | | |
| | Oxychlordane | EPA 8270 | MLA-007 | | | | Y | | | | | Y | | | | | | | | | | | | Y | | | | | | | | | |
| | | EPA 1699 | MLA-028 | | | | Y | | | | | | | | | | | | | | | | | Y | | | | | | | | | |
| | | SGS AXYS MLA-028 | MLA-028 | Y | Y | | Y | | | | | Y | | | Y | | | | | | | Y | | Y | | | | | | Y | | | |
| | | SGS AXYS MLA-007 | MLA-007 | Y | Y | | Y | | | | | | | | Y | | | | | | | Y | | Y | | | | | | | | | |
| | Toxaphene | EPA 8270 | MLA-007 | | | | | | | | | Y | | | | | | | | | | | | | | | | | | | | | |
| | | SGS AXYS MLA-007 | MLA-007 | | Y | | | | | | | | | | Y | | | | | | | Y | | | | | | | | | | | |
| | trans-Chlordane (gamma-Chlordane) | EPA 8270 | MLA-007 | | | | Y | | | Y | | Y | Y | | | | | | | | | | | Y | | | | Y | | | Y | | |
| | | EPA 1699 | MLA-028 | | | | Y | | | | | | | | | | | | | | | | | Y | | | | | | | | | |
| | | SGS AXYS MLA-028 | MLA-028 | Y | Y | | Y | | | | | Y | | | Y | | | | | | | Y | | Y | | | | | | Y | | | |
| | | SGS AXYS MLA-007 | MLA-007 | Y | Y | | Y | | | | | | | | Y | | | | | | | Y | | Y | | | | | | | | | |
| | trans-Nonachlor | EPA 8270 | MLA-007 | | | | Y | | | | | Y | | | | | | | | | | | | Y | | | | | | | | | |
| | | EPA 1699 | MLA-028 | | | | Y | | | | | | | | | | | | | | | | | Y | | | | | | | | | |
| | | SGS AXYS MLA-028 | MLA-028 | Y | Y | | Y | | | | | Y | | | Y | | | | | | | Y | | Y | | | | | | Y | | | |
| | | SGS AXYS MLA-007 | MLA-007 | Y | Y | | Y | | | | | | | | Y | | | | | | | | | Y | | | | | | | | | |
| PAH | 1,2,6-Trimethylphenanthrene | SGS AXYS MLA-021 | MLA-021 | | Y | | | | | | | | | | | | | | | | | Y | | | | | | | | | | |
| | 1,2-Dimethylnaphthalene | SGS AXYS MLA-021 | MLA-021 | | Y | | | | | | | | | | | | | | | | | Y | | | | | | | | | | |
| | 1,4,6,7-Tetramethylnaphthalene | SGS AXYS MLA-021 | MLA-021 | | Y | | | | | | | | | | | | | | | | | Y | | | | | | | | | | |
| | 1,7-Dimethylfluorene | SGS AXYS MLA-021 | MLA-021 | | Y | | | | | | | | | | | | | | | | | Y | | | | | | | | | | |
| | 1,7-Dimethylphenanthrene | SGS AXYS MLA-021 | MLA-021 | | Y | | | | | | | | | | | | | | | | | Y | | | | | | | | | | |
| | 1,8-Dimethylphenanthrene | SGS AXYS MLA-021 | MLA-021 | | Y | | | | | | | | | | | | | | | | | Y | | | | | | | | | | |
| | 1-Methylchrysene | SGS AXYS MLA-021 | MLA-021 | | Y | | | | | | | | | | | | | | | | | Y | | | | | | | | | | |
| | 1-Methylnaphthalene | SGS AXYS MLA-021 | MLA-021 | | Y | | | | | | | | | | | | | | | | | Y | | | | | | | | | | |
| | 1-Methylphenanthrene | SGS AXYS MLA-021 | MLA-021 | | Y | | | | | | | | | | | | | | | | | Y | | | | | | | | | | |
| | 2,3,5-Trimethylnaphthalene | SGS AXYS MLA-021 | MLA-021 | | Y | | | | | | | | | | | | | | | | | Y | | | | | | | | | | |
| | 2,3,6-Trimethylnaphthalene | SGS AXYS MLA-021 | MLA-021 | | Y | | | | | | | | | | | | | | | | | Y | | | | | | | | | | |
| | 2,4-Dimethyldibenzothiophene | SGS AXYS MLA-021 | MLA-021 | | Y | | | | | | | | | | | | | | | | | Y | | | | | | | | | | |
| | 2,6-Dimethylnaphthalene | SGS AXYS MLA-021 | MLA-021 | | Y | | | | | | | | | | | | | | | | | Y | | | | | | | | | | |
| | 2,6-Dimethylphenanthrene | SGS AXYS MLA-021 | MLA-021 | | Y | | | | | | | | | | | | | | | | | Y | | | | | | | | | | |
| | 2-Methylanthracene | SGS AXYS MLA-021 | MLA-021 | | Y | | | | | | | | | | | | | | | | | Y | | | | | | | | | | |
| | 2-Methyldibenzothiophene | SGS AXYS MLA-021 | MLA-021 | | Y | | | | | | | | | | | | | | | | | Y | | | | | | | | | | |
| | 2-Methylfluorene | SGS AXYS MLA-021 | MLA-021 | | Y | | | | | | | | | | | | | | | | | Y | | | | | | | | | | |
| | 2-Methylnaphthalene | EPA 8270 | MLA-021 | | | | Y | | | Y | | | | | | | | | | | | | | Y | | | | | | | | | |
| | | SGS AXYS MLA-021 | MLA-021 | | Y | | Y | | | | | | | | | | | | | | | Y | | | | | | | | | | |
| | 2-Methylphenanthrene | SGS AXYS MLA-021 | MLA-021 | | Y | | | | | | | | | | | | | | | | | Y | | | | | | | | | | |
| | 3,6-Dimethylphenanthrene | SGS AXYS MLA-021 | MLA-021 | | Y | | | | | | | | | | | | | | | | | Y | | | | | | | | | | |
| | 3-Methyldibenzothiophene | SGS AXYS MLA-021 | MLA-021 | | Y | | | | | | | | | | | | | | | | | Y | | | | | | | | | | |
| | 3-Methylfluoranthene/ Benzo(a)fluorene | SGS AXYS MLA-021 | MLA-021 | | Y | | | | | | | | | | | | | | | | | Y | | | | | | | | | | |
| | 3-Methylphenanthrene | SGS AXYS MLA-021 | MLA-021 | | Y | | | | | | | | | | | | | | | | | Y | | | | | | | | | | |
| | 5,9-Dimethylchrysene | SGS AXYS MLA-021 | MLA-021 | | Y | | | | | | | | | | | | | | | | | Y | | | | | | | | | | |
| | 5/6-Methylchrysenes | SGS AXYS MLA-021 | MLA-021 | | Y | | | | | | | | | | | | | | | | | Y | | | | | | | | | | |
| | 7-Methylbenzo(a)pyrene | SGS AXYS MLA-021 | MLA-021 | | Y | | | | | | | | | | | | | | | | | Y | | | | | | | | | | |
| | 9/4-Methylphenanthrenes | SGS AXYS MLA-021 | MLA-021 | | Y | | | | | | | | | | | | | | | | | Y | | | | | | | | | | |
| | Acenaphthene | EPA 1625 | MLA-021 | | | | | | | | | | | | | | | | | | | | | Y | | | | Y | Y | | | | |
| | | EPA 8270 | MLA-021 | | | | Y | | | Y | Y | | Y | | | | | | | | | | | | | | | | | | | | |
| | | SGS AXYS MLA-021 | MLA-021 | | Y | | Y | | | | | | | | Y | | | | | | | Y | | Y | | | | | | | | | |
| | Acenaphthylene | EPA 1625 | MLA-021 | | | | | | | | | | | | | | | | | | | | | Y | | | | Y | Y | | | | |
| | | EPA 8270 | MLA-021 | | | | Y | | | Y | Y | | Y | | | | | | | | | | | | | | | | | | | | |
| | | SGS AXYS MLA-021 | MLA-021 | | Y | | Y | | | | | | | | Y | | | | | | | Y | | Y | | | | | | | | | |
| | Anthracene | EPA 1625 | MLA-021 | | | | | | | | | | | | | | | | | | | | | Y | | | | Y | Y | | | | |

# Accreditation Scope

SGS AXYS Analytical Services Ltd.
file ref.: ACC-101 Rev. 42

| Compound Class | Compound | Accredited Method ID | SGS AXYS Method ID | Serum | Solids | | | | | | | | | Tissue | | | | | Urine | Water | Water, Non-Potable | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | CALA | CALA | California DPH | Florida DOH | Minnesota DOH | New Jersey DEP | New York DOH | Virginia DGS | Washington DE | Maine DOH | ANAB DoD ** | CALA | Florida DOH | Minnesota DOH | New Jersey DEP | Virginia DGS | CALA | CALA | California DPH | Florida DOH | Minnesota DOH | New Jersey DEP | New York DOH | Virginia DGS | Washington DE * | Maine DOH | Pennsylvania DEP | ANAB DoD ** |
| | | EPA 8270 | MLA-021 | | | | Y | | | Y | Y | | Y | | | | | | | | | | | | | | | | | | |
| | | SGS AXYS MLA-021 | MLA-021 | | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | | |
| | Benz[a]anthracene | EPA 1625 | MLA-021 | | | | | | | | | | | | | | | | | | | | Y | | | Y | Y | | | | |
| | | EPA 8270 | MLA-021 | | | | Y | | | Y | Y | | Y | | | | | | | | | | | | | | | | | | |
| | | SGS AXYS MLA-021 | MLA-021 | | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | | |
| | Benzo[a]pyrene | EPA 1625 | MLA-021 | | | | | | | | | | | | | | | | | | | | Y | | | Y | Y | | | | |
| | | EPA 8270 | MLA-021 | | | | Y | | | Y | Y | | Y | | | | | | | | | | | | | | | | | | |
| | | SGS AXYS MLA-021 | MLA-021 | | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | | |
| | Benzo[b]fluoranthene | EPA 1625 | MLA-021 | | | | | | | | | | | | | | | | | | | | Y | | | Y | Y | | Y | | |
| | | EPA 8270 | MLA-021 | | | | Y | | | Y | Y | | Y | | | | | | | | | | | | | | | | | | |
| | | SGS AXYS MLA-021 | MLA-021 | | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | | |
| | Benzo[e]pyrene | SGS AXYS MLA-021 | MLA-021 | | Y | | | | | | | | | | Y | | | | | | Y | | | | | | | | | | |
| | Benzo[ghi]perylene | EPA 1625 | MLA-021 | | | | | | | | | | | | | | | | | | | | Y | | | Y | Y | | | | |
| | | EPA 8270 | MLA-021 | | | | Y | | | Y | Y | | Y | | | | | | | | | | | | | | | | | | |
| | | SGS AXYS MLA-021 | MLA-021 | | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | | |
| | Benzo[j/k]fluoranthenes | SGS AXYS MLA-021 | MLA-021 | | Y | | | | | | | | | | Y | | | | | | Y | | | | | | | | | | |
| | Benzo[k]fluoranthene | EPA 1625 | MLA-021 | | | | | | | | | | | | | | | | | | | | Y | | | Y | Y | | Y | | |
| | | EPA 8270 | MLA-021 | | | | Y | | | Y | | | Y | | | | | | | | | | | | | | | | | | |
| | | SGS AXYS MLA-021 | MLA-021 | | | | Y | | | | | | | | | | | | | | | | Y | | | | | | | | |
| | Biphenyl | SGS AXYS MLA-021 | MLA-021 | | Y | | | | | | | | | | | | | | | | Y | | | | | | | | | | |
| | C1-Acenaphthenes | SGS AXYS MLA-021 | MLA-021 | | Y | | | | | | | | | | | | | | | | Y | | | | | | | | | | |
| | C1-Benz(a)anthracenes/chrysenes | SGS AXYS MLA-021 | MLA-021 | | Y | | | | | | | | | | | | | | | | Y | | | | | | | | | | |
| | C1-Benzofluoranthenes/ Benzopyrenes | SGS AXYS MLA-021 | MLA-021 | | Y | | | | | | | | | | | | | | | | Y | | | | | | | | | | |
| | C1-Biphenyls | SGS AXYS MLA-021 | MLA-021 | | Y | | | | | | | | | | | | | | | | Y | | | | | | | | | | |
| | C1-Dibenzothiophene | SGS AXYS MLA-021 | MLA-021 | | Y | | | | | | | | | | | | | | | | Y | | | | | | | | | | |
| | C1-Fluoranthenes/Pyrenes | SGS AXYS MLA-021 | MLA-021 | | Y | | | | | | | | | | | | | | | | Y | | | | | | | | | | |
| | C1-Fluorenes | SGS AXYS MLA-021 | MLA-021 | | Y | | | | | | | | | | | | | | | | Y | | | | | | | | | | |
| | C1-Naphthalenes | SGS AXYS MLA-021 | MLA-021 | | Y | | | | | | | | | | | | | | | | Y | | | | | | | | | | |
| | C1-Phenanthrenes/Anthracenes | SGS AXYS MLA-021 | MLA-021 | | Y | | | | | | | | | | | | | | | | Y | | | | | | | | | | |
| | C2-Benz(a)anthracenes/Chrysenes | SGS AXYS MLA-021 | MLA-021 | | Y | | | | | | | | | | | | | | | | Y | | | | | | | | | | |
| | C2-Benzofluoranthenes/ Benzopyrenes | SGS AXYS MLA-021 | MLA-021 | | Y | | | | | | | | | | | | | | | | Y | | | | | | | | | | |
| | C2-Biphenyls | SGS AXYS MLA-021 | MLA-021 | | Y | | | | | | | | | | | | | | | | Y | | | | | | | | | | |
| | C2-Dibenzothiophene | SGS AXYS MLA-021 | MLA-021 | | Y | | | | | | | | | | | | | | | | Y | | | | | | | | | | |
| | C2-Fluoranthenes/Pyrenes | SGS AXYS MLA-021 | MLA-021 | | Y | | | | | | | | | | | | | | | | Y | | | | | | | | | | |
| | C2-Fluorenes | SGS AXYS MLA-021 | MLA-021 | | Y | | | | | | | | | | | | | | | | Y | | | | | | | | | | |
| | C2-Naphthalenes | SGS AXYS MLA-021 | MLA-021 | | Y | | | | | | | | | | | | | | | | Y | | | | | | | | | | |
| | C2-Phenanthrenes/Anthracenes | SGS AXYS MLA-021 | MLA-021 | | Y | | | | | | | | | | | | | | | | Y | | | | | | | | | | |
| | C3-Benz(a)anthracenes/Chrysenes | SGS AXYS MLA-021 | MLA-021 | | Y | | | | | | | | | | | | | | | | Y | | | | | | | | | | |
| | C3-Dibenzothiophene | SGS AXYS MLA-021 | MLA-021 | | Y | | | | | | | | | | | | | | | | Y | | | | | | | | | | |
| | C3-Fluoranthenes/Pyrenes | SGS AXYS MLA-021 | MLA-021 | | Y | | | | | | | | | | | | | | | | Y | | | | | | | | | | |
| | C3-Fluorenes | SGS AXYS MLA-021 | MLA-021 | | Y | | | | | | | | | | | | | | | | Y | | | | | | | | | | |
| | C3-Naphthalenes | SGS AXYS MLA-021 | MLA-021 | | Y | | | | | | | | | | | | | | | | Y | | | | | | | | | | |
| | C3-Phenanthrenes/Anthracenes | SGS AXYS MLA-021 | MLA-021 | | Y | | | | | | | | | | | | | | | | Y | | | | | | | | | | |
| | C4-Benz(a)anthracenes/Chrysenes | SGS AXYS MLA-021 | MLA-021 | | Y | | | | | | | | | | | | | | | | Y | | | | | | | | | | |
| | C4-Dibenzothiophene | SGS AXYS MLA-021 | MLA-021 | | Y | | | | | | | | | | | | | | | | Y | | | | | | | | | | |
| | C4-Fluoranthenes/Pyrenes | SGS AXYS MLA-021 | MLA-021 | | Y | | | | | | | | | | | | | | | | Y | | | | | | | | | | |
| | C4-Naphthalenes | SGS AXYS MLA-021 | MLA-021 | | Y | | | | | | | | | | | | | | | | Y | | | | | | | | | | |
| | C4-Phenanthrenes/Anthracenes | SGS AXYS MLA-021 | MLA-021 | | Y | | | | | | | | | | | | | | | | Y | | | | | | | | | | |
| | Chrysene | EPA 1625 | MLA-021 | | | | | | | | | | | | | | | | | | | | Y | | | Y | Y | | | | |
| | | EPA 8270 | MLA-021 | | | | Y | | | Y | Y | | Y | | | | | | | | | | | | | | | | | | |

# Accreditation Scope

SGS AXYS Analytical Services Ltd.
file ref.: ACC-101 Rev. 42

| | | | | Serum | Solids | | | | | | | | | Tissue | | | | | Urine | Water | Water, Non-Potable | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Compound Class | Compound | Accredited Method ID | SGS AXYS Method ID | CALA | CALA | California DPH | Florida DOH | Minnesota DOH | New Jersey DEP | New York DOH | Virginia DGS | Washington DE | Maine DOH | ANAB DoD ** | CALA | Florida DOH | Minnesota DOH | New Jersey DEP | Virginia DGS | CALA | CALA | California DPH | Florida DOH | Minnesota DOH | New Jersey DEP | New York DOH | Virginia DGS | Washington DE * | Maine DOH | Pennsylvania DEP | ANAB DoD ** |
| | | SGS AXYS MLA-021 | MLA-021 | | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | | |
| | Dibenz[a,h]anthracene | EPA 1625 | MLA-021 | | | | | | | | | | | | | | | | | | | | Y | | | | Y | Y | | | |
| | | EPA 8270 | MLA-021 | | | | Y | | | Y | Y | | Y | | | | | | | | | | | | | | | | | | |
| | | SGS AXYS MLA-021 | MLA-021 | | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | | |
| | Dibenzothiophene | SGS AXYS MLA-021 | MLA-021 | | Y | | | | | | | | | | | | | | | | Y | | | | | | | | | | |
| | Fluoranthene | EPA 1625 | MLA-021 | | | | | | | | | | | | | | | | | | | | Y | | | | Y | Y | | | |
| | | EPA 8270 | MLA-021 | | | | Y | | | Y | Y | | Y | | | | | | | | | | | | | | | | | | |
| | | SGS AXYS MLA-021 | MLA-021 | | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | | |
| | Fluorene | EPA 1625 | MLA-021 | | | | | | | | | | | | | | | | | | | | Y | | | | Y | Y | | | |
| | | EPA 8270 | MLA-021 | | | | Y | | | Y | Y | | Y | | | | | | | | | | | | | | | | | | |
| | | SGS AXYS MLA-021 | MLA-021 | | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | | |
| | Indeno[1,2,3-cd]pyrene | EPA 1625 | MLA-021 | | | | | | | | | | | | | | | | | | | | Y | | | | Y | Y | | | |
| | | EPA 8270 | MLA-021 | | | | Y | | | Y | Y | | Y | | | | | | | | | | | | | | | | | | |
| | | SGS AXYS MLA-021 | MLA-021 | | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | | |
| | Naphthalene | EPA 1625 | MLA-021 | | | | | | | | | | | | | | | | | | | | Y | | | | Y | Y | | | |
| | | EPA 8270 | MLA-021 | | | | Y | | | Y | Y | | Y | | | | | | | | | | | | | | | | | | |
| | | SGS AXYS MLA-021 | MLA-021 | | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | | |
| | Perylene | SGS AXYS MLA-021 | MLA-021 | | Y | | | | | | | | | | Y | | | | | | Y | | | | | | | | | | |
| | Phenanthrene | EPA 1625 | MLA-021 | | | | | | | | | | | | | | | | | | | | Y | | | | Y | Y | | | |
| | | EPA 8270 | MLA-021 | | | | Y | | | Y | Y | | Y | | | | | | | | | | | | | | | | | | |
| | | SGS AXYS MLA-021 | MLA-021 | | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | | |
| | Pyrene | EPA 1625 | MLA-021 | | | | | | | | | | | | | | | | | | | | Y | | | | Y | Y | | | |
| | | EPA 8270 | MLA-021 | | | | Y | | | Y | Y | | Y | | | | | | | | | | | | | | | | | | |
| | | SGS AXYS MLA-021 | MLA-021 | | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | | |
| | Retene | SGS AXYS MLA-021 | MLA-021 | | Y | | | | | | | | | | | | | | | | Y | | | | | | | | | | |
| PBDPE | BDE 10 2,6-dibromodiphenylether | EPA 1614 | MLA-033 | | | | | | | | | Y | | | | | | | | | | | | | | | | Y | | | |
| | | SGS AXYS MLA-033 | MLA-033 | Y | Y | | | | | | | | | | Y | | | | | | Y | | | | | | | | | | |
| | BDE 100 2,2',4,4',6-pentabromodiphenylether | EPA 1614 | MLA-033 | | | | | | | | | Y | | | | | | | | | | | | | | | | Y | | | |
| | | SGS AXYS MLA-033 | MLA-033 | Y | Y | | | | | | | | | | Y | | | | | | Y | | | | | | | | | | |
| | BDE 105 2,3,3',4,4'-pentabromodiphenylether | EPA 1614 | MLA-033 | | | | | | | | | Y | | | | | | | | | | | | | | | | Y | | | |
| | | SGS AXYS MLA-033 | MLA-033 | Y | Y | | | | | | | | | | Y | | | | | | Y | | | | | | | | | | |
| | BDE 11 3,3'-dibromodiphenylether | EPA 1614 | MLA-033 | | | | | | | | | Y | | | | | | | | | | | | | | | | Y | | | |
| | | SGS AXYS MLA-033 | MLA-033 | Y | Y | | | | | | | | | | Y | | | | | | Y | | | | | | | | | | |
| | BDE 116 2,3,4,5,6-pentabromodiphenylether | EPA 1614 | MLA-033 | | | | | | | | | Y | | | | | | | | | | | | | | | | Y | | | |
| | | SGS AXYS MLA-033 | MLA-033 | Y | Y | | | | | | | | | | Y | | | | | | Y | | | | | | | | | | |
| | BDE 119 2,3',4,4',6-pentabromodiphenylether | EPA 1614 | MLA-033 | | | | | | | | | Y | | | | | | | | | | | | | | | | Y | | | |
| | | SGS AXYS MLA-033 | MLA-033 | Y | Y | | | | | | | | | | Y | | | | | | Y | | | | | | | | | | |
| | BDE 12 3,4-dibromodiphenylether | EPA 1614 | MLA-033 | | | | | | | | | Y | | | | | | | | | | | | | | | | Y | | | |
| | | SGS AXYS MLA-033 | MLA-033 | Y | Y | | | | | | | | | | Y | | | | | | Y | | | | | | | | | | |
| | BDE 126 3,3',4,4',5-pentabromodiphenylether | EPA 1614 | MLA-033 | | | | | | | | | Y | | | | | | | | | | | | | | | | Y | | | |
| | | SGS AXYS MLA-033 | MLA-033 | Y | Y | | | | | | | | | | Y | | | | | | Y | | | | | | | | | | |
| | BDE 13 3,4'-dibromodiphenylether | EPA 1614 | MLA-033 | | | | | | | | | Y | | | | | | | | | | | | | | | | Y | | | |
| | | SGS AXYS MLA-033 | MLA-033 | Y | Y | | | | | | | | | | Y | | | | | | Y | | | | | | | | | | |
| | BDE 140 2,2',3,4,4',6'-hexabromodiphenylether | EPA 1614 | MLA-033 | | | | | | | | | Y | | | | | | | | | | | | | | | | Y | | | |
| | | SGS AXYS MLA-033 | MLA-033 | Y | Y | | | | | | | | | | Y | | | | | | Y | | | | | | | | | | |
| | BDE 15 4,4'-dibromodiphenylether | EPA 1614 | MLA-033 | | | | | | | | | Y | | | | | | | | | | | | | | | | Y | | | |
| | | SGS AXYS MLA-033 | MLA-033 | Y | Y | | | | | | | | | | Y | | | | | | Y | | | | | | | | | | |
| | BDE 153 2,2',4,4',5,5'-hexabromodiphenylether | EPA 1614 | MLA-033 | | | | | | | | | Y | | | | | | | | | | | | | | | | Y | | | |
| | | SGS AXYS MLA-033 | MLA-033 | Y | Y | | | | | | | | | | Y | | | | | | Y | | | | | | | | | | |
| | BDE 154 2,2',4,4',5',6-hexabromodiphenylether | EPA 1614 | MLA-033 | | | | | | | | | Y | | | | | | | | | | | | | | | | Y | | | |

# Accreditation Scope

SGS AXYS Analytical Services Ltd.
file ref.: ACC-101 Rev. 42

| Compound Class | Compound | Accredited Method ID | SGS AXYS Method ID | Serum | Solids | | | | | | | | | Tissue | | | | | Urine | Water | Water, Non-Potable | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | CALA | CALA | California DPH | Florida DOH | Minnesota DOH | New Jersey DEP | New York DOH | Virginia DGS | Washington DE | Maine DOH | ANAB DoD ** | CALA | Florida DOH | Minnesota DOH | New Jersey DEP | Virginia DGS | CALA | CALA | California DPH | Florida DOH | Minnesota DOH | New Jersey DEP | New York DOH | Virginia DGS | Washington DE * | Maine DOH | Pennsylvania DEP | ANAB DoD ** |
| | | SGS AXYS MLA-033 | MLA-033 | Y | Y | | | | | | | | | | Y | | | | | | Y | | | | | | | | | | |
| | BDE 155 2,2',4,4',6,6'-hexabromodiphenylether | EPA 1614 | MLA-033 | | | | | | | | | Y | | | | | | | | | | | | | | | | Y | | | |
| | | SGS AXYS MLA-033 | MLA-033 | Y | Y | | | | | | | | | | Y | | | | | | Y | | | | | | | | | | |
| | BDE 166 2,3,4,4',5,6-hexabromodiphenylether | EPA 1614 | MLA-033 | | | | | | | | | Y | | | | | | | | | | | | | | | | Y | | | |
| | | SGS AXYS MLA-033 | MLA-033 | Y | Y | | | | | | | | | | Y | | | | | | Y | | | | | | | | | | |
| | BDE 17 2,2',4-tribromodiphenylether | EPA 1614 | MLA-033 | | | | | | | | | Y | | | | | | | | | | | | | | | | Y | | | |
| | | SGS AXYS MLA-033 | MLA-033 | Y | Y | | | | | | | | | | Y | | | | | | Y | | | | | | | | | | |
| | BDE 181 2,2',3,4,4',5,6-heptabromodiphenylether | EPA 1614 | MLA-033 | | | | | | | | | Y | | | | | | | | | | | | | | | | Y | | | |
| | | SGS AXYS MLA-033 | MLA-033 | Y | Y | | | | | | | | | | Y | | | | | | Y | | | | | | | | | | |
| | BDE 183 2,2',3,4,4',5',6-heptabromodiphenylether | EPA 1614 | MLA-033 | | | | | | | | | Y | | | | | | | | | | | | | | | | Y | | | |
| | | SGS AXYS MLA-033 | MLA-033 | Y | Y | | | | | | | | | | Y | | | | | | Y | | | | | | | | | | |
| | BDE 190 2,3,3',4,4',5,6-heptabromodiphenylether | EPA 1614 | MLA-033 | | | | | | | | | Y | | | | | | | | | | | | | | | | Y | | | |
| | | SGS AXYS MLA-033 | MLA-033 | Y | Y | | | | | | | | | | Y | | | | | | Y | | | | | | | | | | |
| | BDE 206 2,2',3,3',4,4',5,5',6-nonabromodiphenylether | EPA 1614 | MLA-033 | | | | | | | | | Y | | | | | | | | | | | | | | | | Y | | | |
| | | SGS AXYS MLA-033 | MLA-033 | Y | Y | | | | | | | | | | Y | | | | | | Y | | | | | | | | | | |
| | BDE 207 2,2',3,3',4,4',5,6,6'-nonabromodiphenylether | EPA 1614 | MLA-033 | | | | | | | | | Y | | | | | | | | | | | | | | | | Y | | | |
| | | SGS AXYS MLA-033 | MLA-033 | Y | Y | | | | | | | | | | Y | | | | | | Y | | | | | | | | | | |
| | BDE 208 2,2',3,3',4,5,5',6,6'-nonabromodiphenylether | EPA 1614 | MLA-033 | | | | | | | | | Y | | | | | | | | | | | | | | | | Y | | | |
| | | SGS AXYS MLA-033 | MLA-033 | Y | Y | | | | | | | | | | Y | | | | | | Y | | | | | | | | | | |
| | BDE 209 Decabromodiphenylether | EPA 1614 | MLA-033 | | | | | | | | | Y | | | | | | | | | | | | | | | | Y | | | |
| | | SGS AXYS MLA-033 | MLA-033 | Y | Y | | | | | | | | | | Y | | | | | | Y | | | | | | | | | | |
| | BDE 25 2,3',4-tribromodiphenylether | EPA 1614 | MLA-033 | | | | | | | | | Y | | | | | | | | | | | | | | | | Y | | | |
| | | SGS AXYS MLA-033 | MLA-033 | Y | Y | | | | | | | | | | Y | | | | | | Y | | | | | | | | | | |
| | BDE 28 2,4,4'-tribromodiphenylether | EPA 1614 | MLA-033 | | | | | | | | | Y | | | | | | | | | | | | | | | | Y | | | |
| | | SGS AXYS MLA-033 | MLA-033 | Y | Y | | | | | | | | | | Y | | | | | | Y | | | | | | | | | | |
| | BDE 30 2,4,6-tribromodiphenylether | EPA 1614 | MLA-033 | | | | | | | | | Y | | | | | | | | | | | | | | | | Y | | | |
| | | SGS AXYS MLA-033 | MLA-033 | Y | Y | | | | | | | | | | Y | | | | | | Y | | | | | | | | | | |
| | BDE 33 2',3,4-tribromodiphenylether | EPA 1614 | MLA-033 | | | | | | | | | Y | | | | | | | | | | | | | | | | Y | | | |
| | | SGS AXYS MLA-033 | MLA-033 | Y | Y | | | | | | | | | | Y | | | | | | Y | | | | | | | | | | |
| | BDE 35 3,3',4-tribromodiphenylether | EPA 1614 | MLA-033 | | | | | | | | | Y | | | | | | | | | | | | | | | | Y | | | |
| | | SGS AXYS MLA-033 | MLA-033 | Y | Y | | | | | | | | | | Y | | | | | | Y | | | | | | | | | | |
| | BDE 37 3,4,4'-tribromodiphenylether | EPA 1614 | MLA-033 | | | | | | | | | Y | | | | | | | | | | | | | | | | Y | | | |
| | | SGS AXYS MLA-033 | MLA-033 | Y | Y | | | | | | | | | | Y | | | | | | Y | | | | | | | | | | |
| | BDE 47 2,2',4,4'-tetrabromodiphenylether | EPA 1614 | MLA-033 | | | | | | | | | Y | | | | | | | | | | | | | | | | Y | | | |
| | | SGS AXYS MLA-033 | MLA-033 | Y | Y | | | | | | | | | | Y | | | | | | Y | | | | | | | | | | |
| | BDE 49 2,2',4,5'-tetrabromodiphenylether | EPA 1614 | MLA-033 | | | | | | | | | Y | | | | | | | | | | | | | | | | Y | | | |
| | | SGS AXYS MLA-033 | MLA-033 | Y | Y | | | | | | | | | | Y | | | | | | Y | | | | | | | | | | |
| | BDE 66 2,3',4,4'-tetrabromodiphenylether | EPA 1614 | MLA-033 | | | | | | | | | Y | | | | | | | | | | | | | | | | Y | | | |
| | | SGS AXYS MLA-033 | MLA-033 | Y | Y | | | | | | | | | | Y | | | | | | Y | | | | | | | | | | |
| | BDE 7 2,4-dibromodiphenylether | EPA 1614 | MLA-033 | | | | | | | | | Y | | | | | | | | | | | | | | | | Y | | | |
| | | SGS AXYS MLA-033 | MLA-033 | Y | Y | | | | | | | | | | Y | | | | | | Y | | | | | | | | | | |
| | BDE 75 2,4,4',6-tetrabromodiphenylether | EPA 1614 | MLA-033 | | | | | | | | | Y | | | | | | | | | | | | | | | | Y | | | |
| | | SGS AXYS MLA-033 | MLA-033 | Y | Y | | | | | | | | | | Y | | | | | | Y | | | | | | | | | | |
| | BDE 77 3,3',4,4'-tetrabromodiphenylether | EPA 1614 | MLA-033 | | | | | | | | | Y | | | | | | | | | | | | | | | | Y | | | |
| | | SGS AXYS MLA-033 | MLA-033 | Y | Y | | | | | | | | | | Y | | | | | | Y | | | | | | | | | | |
| | BDE 8 2,4'-dibromodiphenylether | EPA 1614 | MLA-033 | | | | | | | | | Y | | | | | | | | | | | | | | | | Y | | | |
| | | SGS AXYS MLA-033 | MLA-033 | Y | Y | | | | | | | | | | Y | | | | | | Y | | | | | | | | | | |
| | BDE 85 2,2',3,4,4'-pentabromodiphenylether | EPA 1614 | MLA-033 | | | | | | | | | Y | | | | | | | | | | | | | | | | Y | | | |
| | | SGS AXYS MLA-033 | MLA-033 | Y | Y | | | | | | | | | | Y | | | | | | Y | | | | | | | | | | |
| | BDE 99 2,2',4,4',5-pentabromodiphenylether | EPA 1614 | MLA-033 | | | | | | | | | Y | | | | | | | | | | | | | | | | Y | | | |

# Accreditation Scope

SGS AXYS Analytical Services Ltd.
file ref.: ACC-101 Rev. 42

| | | | | Serum | Solids | | | | | | | | | | Tissue | | | | | Urine | Water | Water, Non-Potable | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Compound Class | Compound | Accredited Method ID | SGS AXYS Method ID | CALA | CALA | California DPH | Florida DOH | Minnesota DOH | New Jersey DEP | New York DOH | Virginia DGS | Washington DE | Maine DOH | ANAB DoD ** | CALA | Florida DOH | Minnesota DOH | New Jersey DEP | Virginia DGS | CALA | CALA | California DPH | Florida DOH | Minnesota DOH | New Jersey DEP | New York DOH | Virginia DGS | Washington DE * | Maine DOH | Pennsylvania DEP | ANAB DoD ** |
| | | SGS AXYS MLA-033 | MLA-033 | Y | Y | | | | | | | | | | Y | | | | | | Y | | | | | | | | | | |
| PCB Aroclors | "PCBs" category (CA only) | EPA 625 | MLA-007 | | | | | | | | | | | | | | | | | | | Y | | | | | | | | | |
| | | EPA 8270 | MLA-007 | | | Y | | | | | | | | | | | | | | | | | | | | | | | | | |
| | PCB Aroclor 1016 | EPA 1668 | MLA-010 | | | | Y | | | | | | Y | | | | | | | | | | Y | | | | | | Y | | |
| | | EPA 625 | MLA-007 | | | | | | | | | | | | | | | | | | | | Y | | | Y | Y | | Y | | |
| | | EPA 8270 | MLA-007 | | | | Y | | | Y | Y | | | | | | | | | | | | | | | | | | | | |
| | | SGS AXYS MLA-010 | MLA-010 | | | | Y | | | | | | | | | | | | | | | | Y | | | | | | | | |
| | | SGS AXYS MLA-007 | MLA-007 | | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | | |
| | PCB Aroclor 1016/1242 | EPA 8270 | MLA-007 | | | | | | | | | Y | | | | | | | | | | | | | | | | | | | |
| | PCB Aroclor 1221 | EPA 1668 | MLA-010 | | | | Y | | | | | | Y | | | | | | | | | | Y | | | | | | Y | | |
| | | EPA 625 | MLA-007 | | | | | | | | | | | | | | | | | | | | Y | | | Y | Y | | Y | | |
| | | EPA 8270 | MLA-007 | | | | Y | | | Y | Y | Y | | | | | | | | | | | | | | | | | | | |
| | | SGS AXYS MLA-010 | MLA-010 | | | | Y | | | | | | | | | | | | | | | | Y | | | | | | | | |
| | | SGS AXYS MLA-007 | MLA-007 | | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | | |
| | PCB Aroclor 1232 | EPA 1668 | MLA-010 | | | | Y | | | | | | Y | | | | | | | | | | Y | | | | | | Y | | |
| | | EPA 625 | MLA-007 | | | | | | | | | | | | | | | | | | | | Y | | | Y | Y | | Y | | |
| | | EPA 8270 | MLA-007 | | | | Y | | | Y | Y | Y | | | | | | | | | | | | | | | | | | | |
| | | SGS AXYS MLA-010 | MLA-010 | | | | Y | | | | | | | | | | | | | | | | Y | | | | | | | | |
| | | SGS AXYS MLA-007 | MLA-007 | | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | | |
| | PCB Aroclor 1242 | EPA 1668 | MLA-010 | | | | Y | | | | | | Y | | | | | | | | | | Y | | | | | | Y | | |
| | | EPA 625 | MLA-007 | | | | | | | | | | | | | | | | | | | | Y | | | Y | Y | | Y | | |
| | | EPA 8270 | MLA-007 | | | | Y | | | Y | Y | | | | | | | | | | | | | | | | | | | | |
| | | SGS AXYS MLA-010 | MLA-010 | | | | Y | | | | | | | | | | | | | | | | Y | | | | | | | | |
| | | SGS AXYS MLA-007 | MLA-007 | | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | | |
| | PCB Aroclor 1248 | EPA 1668 | MLA-010 | | | | Y | | | | | | Y | | | | | | | | | | Y | | | | | | Y | | |
| | | EPA 625 | MLA-007 | | | | | | | | | | | | | | | | | | | | Y | | | Y | Y | | Y | | |
| | | EPA 8270 | MLA-007 | | | | Y | | | Y | Y | Y | | | | | | | | | | | | | | | | | | | |
| | | SGS AXYS MLA-010 | MLA-010 | | | | Y | | | | | | | | | | | | | | | | Y | | | | | | | | |
| | | SGS AXYS MLA-007 | MLA-007 | | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | | |
| | PCB Aroclor 1254 | EPA 1668 | MLA-010 | | | | Y | | | | | | Y | | | | | | | | | | Y | | | | | | Y | | |
| | | EPA 625 | MLA-007 | | | | | | | | | | | | | | | | | | | | Y | | | Y | Y | | Y | | |
| | | EPA 8270 | MLA-007 | | | | Y | | | Y | Y | Y | | | | | | | | | | | | | | | | | | | |
| | | SGS AXYS MLA-010 | MLA-010 | | | | Y | | | | | | | | | | | | | | | | Y | | | | | | | | |
| | | SGS AXYS MLA-007 | MLA-007 | | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | | |
| | PCB Aroclor 1260 | EPA 1668 | MLA-010 | | | | Y | | | | | | Y | | | | | | | | | | Y | | | | | | Y | | |
| | | EPA 625 | MLA-007 | | | | | | | | | | | | | | | | | | | | Y | | | Y | Y | | Y | | |
| | | EPA 8270 | MLA-007 | | | | Y | | | Y | Y | Y | | | | | | | | | | | | | | | | | | | |
| | | SGS AXYS MLA-010 | MLA-010 | | | | Y | | | | | | | | | | | | | | | | Y | | | | | | | | |
| | | SGS AXYS MLA-007 | MLA-007 | | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | | |
| | PCB Aroclor 1268 | SGS AXYS MLA-007 | MLA-007 | | Y | | | | | | | | | | Y | | | | | | Y | | | | | | | | | | |
| PCB congeners | PCB 1 2-Chlorobiphenyl | EPA 1668 | MLA-010 | | | | Y | | Y | Y | Y | Y | Y | | | | | | | | | | Y | | Y | Y | Y | Y | | Y | |
| | | EPA 8270 | MLA-007 | | | | | | | | | Y | | | | | | | | | | | | | | | | | | | |
| | | SGS AXYS MLA-010 | MLA-010 | Y | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | | |
| | PCB 10 2,6-Dichlorobiphenyl | EPA 1668 | MLA-010 | | | | Y | | Y | Y | Y | Y | | | | | | | | | | | Y | | Y | Y | Y | Y | | Y | |
| | | SGS AXYS MLA-010 | MLA-010 | Y | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | | |
| | PCB 100 2,2',4,4',6-Pentachlorobiphenyl | EPA 1668 | MLA-010 | | | | Y | | Y | Y | Y | Y | Y | | | | | | | | | | Y | | Y | Y | Y | Y | | Y | |
| | | EPA 8270 | MLA-007 | | | | | | | | | Y | | | | | | | | | | | | | | | | | | | |
| | | SGS AXYS MLA-010 | MLA-010 | Y | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | | |
| | PCB 101 2,2',4,5,5'-Pentachlorobiphenyl | EPA 1668 | MLA-010 | | | | Y | | Y | Y | Y | Y | Y | | | | | | | | | | Y | | Y | Y | Y | Y | | Y | |
| | | SGS AXYS MLA-010 | MLA-010 | Y | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | | |

# Accreditation Scope

SGS AXYS Analytical Services Ltd.
file ref.: ACC-101 Rev. 42

| | | | | Serum | Solids | | | | | | | | | Tissue | | | | | Urine | Water | Water, Non-Potable | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Compound Class | Compound | Accredited Method ID | SGS AXYS Method ID | CALA | CALA | California DPH | Florida DOH | Minnesota DOH | New Jersey DEP | New York DOH | Virginia DGS | Washington DE | Maine DOH | ANAB DoD ** | CALA | Florida DOH | Minnesota DOH | New Jersey DEP | Virginia DGS | CALA | CALA | California DPH | Florida DOH | Minnesota DOH | New Jersey DEP | New York DOH | Virginia DGS | Washington DE * | Maine DOH | Pennsylvania DEP | ANAB DoD ** |
| | PCB 101/90/89 | EPA 8270 | MLA-007 | | | | | | | | | Y | | | | | | | | | | | | | | | | | | |
| | | SGS AXYS MLA-007 | MLA-007 | | Y | | | | | | | | | | Y | | | | | | Y | | | | | | | | | |
| | PCB 102 2,2',4,5,6'-Pentachlorobiphenyl | EPA 1668 | MLA-010 | | | | Y | | Y | Y | Y | Y | Y | | | | | | | | | | Y | | Y | Y | Y | Y | | Y | |
| | | SGS AXYS MLA-010 | MLA-010 | Y | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | |
| | PCB 103 2,2',4,5',6-Pentachlorobiphenyl | EPA 1668 | MLA-010 | | | | Y | | Y | Y | Y | Y | Y | | | | | | | | | | Y | | Y | Y | Y | Y | | Y | |
| | | EPA 8270 | MLA-007 | | | | | | | | | Y | | | | | | | | | | | | | | | | | | |
| | | SGS AXYS MLA-010 | MLA-010 | Y | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | |
| | PCB 104 2,2',4,6,6'-Pentachlorobiphenyl | EPA 1668 | MLA-010 | | | | Y | | Y | Y | Y | Y | Y | | | | | | | | | | Y | | Y | Y | Y | Y | | Y | |
| | | EPA 8270 | MLA-007 | | | | | | | | | Y | | | | | | | | | | | | | | | | | | |
| | | SGS AXYS MLA-010 | MLA-010 | Y | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | |
| | PCB 105 2,3,3',4,4'-Pentachlorobiphenyl | EPA 1668 | MLA-010 | | | | Y | | Y | Y | Y | Y | Y | | | | | | | | | | Y | | Y | Y | Y | Y | | Y | |
| | | SGS AXYS MLA-010 | MLA-010 | Y | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | |
| | PCB 105/127 | EPA 8270 | MLA-007 | | | | | | | | | Y | | | | | | | | | | | | | | | | | | |
| | | SGS AXYS MLA-007 | MLA-007 | | Y | | | | | | | | | | Y | | | | | | Y | | | | | | | | | |
| | PCB 106 2,3,3',4,5-Pentachlorobiphenyl | EPA 1668 | MLA-010 | | | | Y | | Y | Y | Y | Y | Y | | | | | | | | | | Y | | Y | Y | Y | Y | | Y | |
| | | SGS AXYS MLA-010 | MLA-010 | Y | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | |
| | PCB 107 2,3,3',4',5-Pentachlorobiphenyl | EPA 1668 | MLA-010 | | | | Y | | Y | Y | Y | Y | Y | | | | | | | | | | Y | | Y | Y | Y | Y | | Y | |
| | | SGS AXYS MLA-010 | MLA-010 | Y | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | |
| | PCB 107/109 | EPA 8270 | MLA-007 | | | | | | | | | Y | | | | | | | | | | | | | | | | | | |
| | | SGS AXYS MLA-007 | MLA-007 | | Y | | | | | | | | | | Y | | | | | | Y | | | | | | | | | |
| | PCB 108 2,3,3',4,5'-Pentachlorobiphenyl | EPA 1668 | MLA-010 | | | | Y | | Y | Y | Y | Y | Y | | | | | | | | | | Y | | Y | Y | Y | Y | | Y | |
| | | SGS AXYS MLA-010 | MLA-010 | Y | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | |
| | PCB 109 2,3,3',4,6-Pentachlorobiphenyl | EPA 1668 | MLA-010 | | | | Y | | Y | Y | Y | Y | Y | | | | | | | | | | Y | | Y | Y | Y | Y | | Y | |
| | | SGS AXYS MLA-010 | MLA-010 | Y | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | |
| | PCB 11 3,3'-Dichlorobiphenyl | EPA 1668 | MLA-010 | | | | Y | | Y | Y | Y | Y | Y | | | | | | | | | | Y | | Y | Y | Y | Y | | Y | |
| | | EPA 8270 | MLA-007 | | | | | | | | | Y | | | | | | | | | | | | | | | | | | |
| | | SGS AXYS MLA-010 | MLA-010 | Y | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | |
| | PCB 110 2,3,3',4',6-Pentachlorobiphenyl | EPA 1668 | MLA-010 | | | | Y | | Y | Y | Y | Y | Y | | | | | | | | | | Y | | Y | Y | Y | Y | | Y | |
| | | EPA 8270 | MLA-007 | | | | | | | | | Y | | | | | | | | | | | | | | | | | | |
| | | SGS AXYS MLA-010 | MLA-010 | Y | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | |
| | | SGS AXYS MLA-007 | MLA-007 | | Y | | | | | | | | | | Y | | | | | | Y | | | | | | | | | |
| | PCB 111 2,3,3',5,5'-Pentachlorobiphenyl | EPA 1668 | MLA-010 | | | | Y | | Y | Y | Y | Y | Y | | | | | | | | | | Y | | Y | Y | Y | Y | | Y | |
| | | SGS AXYS MLA-010 | MLA-010 | Y | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | |
| | PCB 111/117 | EPA 8270 | MLA-007 | | | | | | | | | Y | | | | | | | | | | | | | | | | | | |
| | PCB 112 2,3,3',5,6-Pentachlorobiphenyl | EPA 1668 | MLA-010 | | | | Y | | Y | Y | Y | Y | Y | | | | | | | | | | Y | | Y | Y | Y | Y | | Y | |
| | | EPA 8270 | MLA-007 | | | | | | | | | Y | | | | | | | | | | | | | | | | | | |
| | | SGS AXYS MLA-010 | MLA-010 | Y | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | |
| | PCB 113 2,3,3',5',6-Pentachlorobiphenyl | EPA 1668 | MLA-010 | | | | Y | | Y | Y | Y | Y | Y | | | | | | | | | | Y | | Y | Y | Y | Y | | Y | |
| | | EPA 8270 | MLA-007 | | | | | | | | | Y | | | | | | | | | | | | | | | | | | |
| | | SGS AXYS MLA-010 | MLA-010 | Y | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | |
| | PCB 114 2,3,4,4',5-Pentachlorobiphenyl | EPA 1668 | MLA-010 | | | | Y | | Y | Y | Y | Y | Y | | | | | | | | | | Y | | Y | Y | Y | Y | | Y | |
| | | EPA 8270 | MLA-007 | | | | | | | | | Y | | | | | | | | | | | | | | | | | | |
| | | SGS AXYS MLA-010 | MLA-010 | Y | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | |
| | PCB 115 2,3,4,4',6-Pentachlorobiphenyl | EPA 1668 | MLA-010 | | | | Y | | Y | Y | Y | Y | Y | | | | | | | | | | Y | | Y | Y | Y | Y | | Y | |
| | | SGS AXYS MLA-010 | MLA-010 | Y | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | |
| | PCB 116 2,3,4,5,6-Pentachlorobiphenyl | EPA 1668 | MLA-010 | | | | Y | | Y | Y | Y | Y | Y | | | | | | | | | | Y | | Y | Y | Y | Y | | Y | |
| | | SGS AXYS MLA-010 | MLA-010 | Y | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | |
| | PCB 117 2,3,4',5,6-Pentachlorobiphenyl | EPA 1668 | MLA-010 | | | | Y | | Y | Y | Y | Y | Y | | | | | | | | | | Y | | Y | Y | Y | Y | | Y | |
| | | SGS AXYS MLA-010 | MLA-010 | Y | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | |
| | PCB 118 2,3',4,4',5-Pentachlorobiphenyl | EPA 1668 | MLA-010 | | | | Y | | Y | Y | Y | Y | Y | | | | | | | | | | Y | | Y | Y | Y | Y | | Y | |

# Accreditation Scope

SGS AXYS Analytical Services Ltd.
file ref.: ACC-101 Rev. 42

| | | | | Serum | Solids | | | | | | | | | | Tissue | | | | | Urine | Water | Water, Non-Potable | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Compound Class | Compound | Accredited Method ID | SGS AXYS Method ID | CALA | CALA | California DPH | Florida DOH | Minnesota DOH | New Jersey DEP | New York DOH | Virginia DGS | Washington DE | Maine DOH | ANAB DoD ** | CALA | Florida DOH | Minnesota DOH | New Jersey DEP | Virginia DGS | CALA | CALA | California DPH | Florida DOH | Minnesota DOH | New Jersey DEP | New York DOH | Virginia DGS | Washington DE * | Maine DOH | Pennsylvania DEP | ANAB DoD ** |
| | | SGS AXYS MLA-010 | MLA-010 | Y | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | | |
| | | SGS AXYS MLA-901 | MLA-901 | Y | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | PCB 118/106 | EPA 8270 | MLA-007 | | | | | | | | | Y | | | | | | | | | | | | | | | | | | | |
| | | SGS AXYS MLA-007 | MLA-007 | | Y | | | | | | | | | | Y | | | | | | Y | | | | | | | | | | |
| | PCB 119 2,3',4,4',6-Pentachlorobiphenyl | EPA 1668 | MLA-010 | | | | Y | | Y | Y | Y | Y | Y | | | | | | | | | | Y | | Y | Y | Y | Y | | Y | |
| | | EPA 8270 | MLA-007 | | | | | | | | | Y | | | | | | | | | | | | | | | | | | | |
| | | SGS AXYS MLA-010 | MLA-010 | Y | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | | |
| | PCB 12 3,4-Dichlorobiphenyl | EPA 1668 | MLA-010 | | | | Y | | Y | Y | Y | Y | Y | | | | | | | | | | Y | | Y | Y | Y | Y | | Y | |
| | | SGS AXYS MLA-010 | MLA-010 | Y | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | | |
| | PCB 12/13 | EPA 8270 | MLA-007 | | | | | | | | | Y | | | | | | | | | | | | | | | | | | | |
| | PCB 120 2,3',4,5,5'-Pentachlorobiphenyl | EPA 1668 | MLA-010 | | | | Y | | Y | Y | Y | Y | Y | | | | | | | | | | Y | | Y | Y | Y | Y | | Y | |
| | | SGS AXYS MLA-010 | MLA-010 | Y | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | | |
| | PCB 121 2,3',4,5',6-Pentachlorobiphenyl | EPA 1668 | MLA-010 | | | | Y | | Y | Y | Y | Y | Y | | | | | | | | | | Y | | Y | Y | Y | Y | | Y | |
| | | SGS AXYS MLA-010 | MLA-010 | Y | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | | |
| | PCB 122 2,3,3',4',5'-Pentachlorobiphenyl | EPA 1668 | MLA-010 | | | | Y | | Y | Y | Y | Y | Y | | | | | | | | | | Y | | Y | Y | Y | Y | | Y | |
| | | EPA 8270 | MLA-007 | | | | | | | | | Y | | | | | | | | | | | | | | | | | | | |
| | | SGS AXYS MLA-010 | MLA-010 | Y | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | | |
| | PCB 123 2,3',4,4',5'-Pentachlorobiphenyl | EPA 1668 | MLA-010 | | | | Y | | Y | Y | Y | Y | Y | | | | | | | | | | Y | | Y | Y | Y | Y | | Y | |
| | | EPA 8270 | MLA-007 | | | | | | | | | Y | | | | | | | | | | | | | | | | | | | |
| | | SGS AXYS MLA-010 | MLA-010 | Y | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | | |
| | PCB 124 2,3',4',5,5'-Pentachlorobiphenyl | EPA 1668 | MLA-010 | | | | Y | | Y | Y | Y | Y | Y | | | | | | | | | | Y | | Y | Y | Y | Y | | Y | |
| | | EPA 8270 | MLA-007 | | | | | | | | | Y | | | | | | | | | | | | | | | | | | | |
| | | SGS AXYS MLA-010 | MLA-010 | Y | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | | |
| | PCB 125 2,3',4',5',6-Pentachlorobiphenyl | EPA 1668 | MLA-010 | | | | Y | | Y | Y | Y | Y | Y | | | | | | | | | | Y | | Y | Y | Y | Y | | Y | |
| | | EPA 8270 | MLA-007 | | | | | | | | | Y | | | | | | | | | | | | | | | | | | | |
| | | SGS AXYS MLA-010 | MLA-010 | Y | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | | |
| | PCB 126 3,3',4,4',5-Pentachlorobiphenyl | EPA 1668 | MLA-010 | | | | Y | | Y | Y | Y | Y | Y | | | | | | | | | | Y | | Y | Y | Y | Y | | Y | |
| | | EPA 8270 | MLA-007 | | | | | | | | | Y | | | | | | | | | | | | | | | | | | | |
| | | SGS AXYS MLA-010 | MLA-010 | Y | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | | |
| | | SGS AXYS MLA-007 | MLA-007 | | Y | | | | | | | | | | Y | | | | | | Y | | | | | | | | | | |
| | PCB 127 3,3',4,5,5'-Pentachlorobiphenyl | EPA 1668 | MLA-010 | | | | Y | | Y | Y | Y | Y | Y | | | | | | | | | | Y | | Y | Y | Y | Y | | Y | |
| | | SGS AXYS MLA-010 | MLA-010 | Y | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | | |
| | PCB 128 2,2',3,3',4,4'-Hexachlorobiphenyl | EPA 1668 | MLA-010 | | | | Y | | Y | Y | Y | Y | Y | | | | | | | | | | Y | | Y | Y | Y | Y | | Y | |
| | | EPA 8270 | MLA-007 | | | | | | | | | Y | | | | | | | | | | | | | | | | | | | |
| | | SGS AXYS MLA-010 | MLA-010 | Y | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | | |
| | | SGS AXYS MLA-007 | MLA-007 | | Y | | | | | | | | | | Y | | | | | | Y | | | | | | | | | | |
| | PCB 129 2,2',3,3',4,5-Hexachlorobiphenyl | EPA 1668 | MLA-010 | | | | Y | | Y | Y | Y | Y | Y | | | | | | | | | | Y | | Y | Y | Y | Y | | Y | |
| | | EPA 8270 | MLA-007 | | | | | | | | | Y | | | | | | | | | | | | | | | | | | | |
| | | SGS AXYS MLA-010 | MLA-010 | Y | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | | |
| | | SGS AXYS MLA-007 | MLA-007 | | Y | | | | | | | | | | Y | | | | | | Y | | | | | | | | | | |
| | PCB 13 3,4'-Dichlorobiphenyl | EPA 1668 | MLA-010 | | | | Y | | Y | Y | Y | Y | Y | | | | | | | | | | Y | | Y | Y | Y | Y | | Y | |
| | | SGS AXYS MLA-010 | MLA-010 | Y | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | | |
| | PCB 130 2,2',3,3',4,5'-Hexachlorobiphenyl | EPA 1668 | MLA-010 | | | | Y | | Y | Y | Y | Y | | | | | | | | | | | Y | | Y | Y | Y | Y | | Y | |
| | | EPA 8270 | MLA-007 | | | | | | | | | Y | | | | | | | | | | | | | | | | | | | |
| | | SGS AXYS MLA-010 | MLA-010 | Y | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | | |
| | | SGS AXYS MLA-007 | MLA-007 | | Y | | | | | | | | | | Y | | | | | | Y | | | | | | | | | | |
| | PCB 131 2,2',3,3',4,6-Hexachlorobiphenyl | EPA 1668 | MLA-010 | | | | Y | | Y | Y | Y | Y | Y | | | | | | | | | | Y | | Y | Y | Y | Y | | Y | |
| | | SGS AXYS MLA-010 | MLA-010 | Y | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | | |
| | PCB 131/142 | EPA 8270 | MLA-007 | | | | | | | | | Y | | | | | | | | | | | | | | | | | | | |
| | | SGS AXYS MLA-007 | MLA-007 | | Y | | | | | | | | | | Y | | | | | | Y | | | | | | | | | | |

# Accreditation Scope

SGS AXYS Analytical Services Ltd.
file ref.: ACC-101 Rev. 42

| | | | | Serum | Solids | | | | | | | | | | Tissue | | | | | Urine | Water | Water, Non-Potable | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Compound Class | Compound | Accredited Method ID | SGS AXYS Method ID | CALA | CALA | California DPH | Florida DOH | Minnesota DOH | New Jersey DEP | New York DOH | Virginia DGS | Washington DE | Maine DOH | ANAB DoD ** | CALA | Florida DOH | Minnesota DOH | New Jersey DEP | Virginia DGS | CALA | CALA | California DPH | Florida DOH | Minnesota DOH | New Jersey DEP | New York DOH | Virginia DGS | Washington DE * | Maine DOH | Pennsylvania DEP | ANAB DoD ** |
| | PCB 132 2,2',3,3',4,6'-Hexachlorobiphenyl | EPA 1668 | MLA-010 | | | | Y | | Y | Y | Y | Y | Y | | | | | | | | | | Y | | Y | Y | Y | Y | | Y | |
| | | SGS AXYS MLA-010 | MLA-010 | Y | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | | |
| | PCB 132/168 | EPA 8270 | MLA-007 | | | | | | | | | Y | | | | | | | | | | | | | | | | | | | |
| | PCB 133 2,2',3,3',5,5'-Hexachlorobiphenyl | EPA 1668 | MLA-010 | | | | Y | | Y | Y | Y | Y | Y | | | | | | | | | | Y | | Y | Y | Y | Y | | Y | |
| | | EPA 8270 | MLA-007 | | | | | | | | | Y | | | | | | | | | | | | | | | | | | | |
| | | SGS AXYS MLA-010 | MLA-010 | Y | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | | |
| | PCB 134 2,2',3,3',5,6-Hexachlorobiphenyl | EPA 1668 | MLA-010 | | | | Y | | Y | Y | Y | Y | Y | | | | | | | | | | Y | | Y | Y | Y | Y | | Y | |
| | | SGS AXYS MLA-010 | MLA-010 | Y | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | | |
| | PCB 134/143 | EPA 8270 | MLA-007 | | | | | | | | | Y | | | | | | | | | | | | | | | | | | | |
| | | SGS AXYS MLA-007 | MLA-007 | | Y | | | | | | | | | | Y | | | | | | Y | | | | | | | | | | |
| | PCB 135 2,2',3,3',5,6'-Hexachlorobiphenyl | EPA 1668 | MLA-010 | | | | Y | | Y | Y | Y | Y | Y | | | | | | | | | | Y | | Y | Y | Y | Y | | Y | |
| | | SGS AXYS MLA-010 | MLA-010 | Y | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | | |
| | PCB 136 2,2',3,3',6,6'-Hexachlorobiphenyl | EPA 1668 | MLA-010 | | | | Y | | Y | Y | Y | Y | Y | | | | | | | | | | Y | | Y | Y | Y | Y | | Y | |
| | | EPA 8270 | MLA-007 | | | | | | | | | Y | | | | | | | | | | | | | | | | | | | |
| | | SGS AXYS MLA-010 | MLA-010 | Y | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | | |
| | | SGS AXYS MLA-007 | MLA-007 | | Y | | | | | | | | | | Y | | | | | | Y | | | | | | | | | | |
| | PCB 137 2,2',3,4,4',5-Hexachlorobiphenyl | EPA 1668 | MLA-010 | | | | Y | | Y | Y | Y | Y | Y | | | | | | | | | | Y | | Y | Y | Y | Y | | Y | |
| | | EPA 8270 | MLA-007 | | | | | | | | | Y | | | | | | | | | | | | | | | | | | | |
| | | SGS AXYS MLA-010 | MLA-010 | Y | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | | |
| | | SGS AXYS MLA-007 | MLA-007 | | Y | | | | | | | | | | Y | | | | | | Y | | | | | | | | | | |
| | PCB 138 2,2',3,4,4',5'-Hexachlorobiphenyl | EPA 1668 | MLA-010 | | | | Y | | Y | Y | Y | Y | Y | | | | | | | | | | Y | | Y | Y | Y | Y | | Y | |
| | | SGS AXYS MLA-010 | MLA-010 | Y | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | | |
| | | SGS AXYS MLA-901 | MLA-901 | Y | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | PCB 138/163/164 | EPA 8270 | MLA-007 | | | | | | | | | Y | | | | | | | | | | | | | | | | | | | |
| | | SGS AXYS MLA-007 | MLA-007 | | Y | | | | | | | | | | Y | | | | | | Y | | | | | | | | | | |
| | PCB 139 2,2',3,4,4',6-Hexachlorobiphenyl | EPA 1668 | MLA-010 | | | | Y | | Y | Y | Y | Y | Y | | | | | | | | | | Y | | Y | Y | Y | Y | | Y | |
| | | SGS AXYS MLA-010 | MLA-010 | Y | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | | |
| | PCB 14 3,5-Dichlorobiphenyl | EPA 1668 | MLA-010 | | | | Y | | Y | Y | Y | Y | Y | | | | | | | | | | Y | | Y | Y | Y | Y | | Y | |
| | | EPA 8270 | MLA-007 | | | | | | | | | Y | | | | | | | | | | | | | | | | | | | |
| | | SGS AXYS MLA-010 | MLA-010 | Y | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | | |
| | PCB 140 2,2',3,4,4',6'-Hexachlorobiphenyl | EPA 1668 | MLA-010 | | | | Y | | Y | Y | Y | Y | Y | | | | | | | | | | Y | | Y | Y | Y | Y | | Y | |
| | | EPA 8270 | MLA-007 | | | | | | | | | Y | | | | | | | | | | | | | | | | | | | |
| | | SGS AXYS MLA-010 | MLA-010 | Y | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | | |
| | PCB 141 2,2',3,4,5,5'-Hexachlorobiphenyl | EPA 1668 | MLA-010 | | | | Y | | Y | Y | Y | Y | Y | | | | | | | | | | Y | | Y | Y | Y | Y | | Y | |
| | | EPA 8270 | MLA-007 | | | | | | | | | Y | | | | | | | | | | | | | | | | | | | |
| | | SGS AXYS MLA-010 | MLA-010 | Y | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | | |
| | PCB 142 2,2',3,4,5,6-Hexachlorobiphenyl | EPA 1668 | MLA-010 | | | | Y | | Y | Y | Y | Y | Y | | | | | | | | | | Y | | Y | Y | Y | Y | | Y | |
| | | SGS AXYS MLA-010 | MLA-010 | Y | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | | |
| | PCB 143 2,2',3,4,5,6'-Hexachlorobiphenyl | EPA 1668 | MLA-010 | | | | Y | | Y | Y | Y | Y | Y | | | | | | | | | | Y | | Y | Y | Y | Y | | Y | |
| | | SGS AXYS MLA-010 | MLA-010 | Y | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | | |
| | PCB 144 2,2',3,4,5',6-Hexachlorobiphenyl | EPA 1668 | MLA-010 | | | | Y | | Y | Y | Y | Y | Y | | | | | | | | | | Y | | Y | Y | Y | Y | | Y | |
| | | SGS AXYS MLA-010 | MLA-010 | Y | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | | |
| | PCB 144/135 | EPA 8270 | MLA-007 | | | | | | | | | Y | | | | | | | | | | | | | | | | | | | |
| | | SGS AXYS MLA-007 | MLA-007 | | Y | | | | | | | | | | Y | | | | | | Y | | | | | | | | | | |
| | PCB 145 2,2',3,4,6,6'-Hexachlorobiphenyl | EPA 1668 | MLA-010 | | | | Y | | Y | Y | Y | Y | Y | | | | | | | | | | Y | | Y | Y | Y | Y | | Y | |
| | | EPA 8270 | MLA-007 | | | | | | | | | Y | | | | | | | | | | | | | | | | | | | |
| | | SGS AXYS MLA-010 | MLA-010 | Y | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | | |
| | PCB 146 2,2',3,4',5,5'-Hexachlorobiphenyl | EPA 1668 | MLA-010 | | | | Y | | Y | Y | Y | Y | Y | | | | | | | | | | Y | | Y | Y | Y | Y | | Y | |
| | | EPA 8270 | MLA-007 | | | | | | | | | Y | | | | | | | | | | | | | | | | | | | |
| | | SGS AXYS MLA-010 | MLA-010 | Y | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | | |

# Accreditation Scope

SGS AXYS Analytical Services Ltd.
file ref.: ACC-101 Rev. 42

| Compound Class | Compound | Accredited Method ID | SGS AXYS Method ID | Serum | Solids | | | | | | | | | Tissue | | | | | Urine | Water | Water, Non-Potable | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | CALA | CALA | California DPH | Florida DOH | Minnesota DOH | New Jersey DEP | New York DOH | Virginia DGS | Washington DE | Maine DOH | ANAB DoD ** | CALA | Florida DOH | Minnesota DOH | New Jersey DEP | Virginia DGS | CALA | CALA | California DPH | Florida DOH | Minnesota DOH | New Jersey DEP | New York DOH | Virginia DGS | Washington DE * | Maine DOH | Pennsylvania DEP | ANAB DoD ** |
| | | SGS AXYS MLA-007 | MLA-007 | | Y | | | | | | | | | | Y | | | | | | Y | | | | | | | | | |
| | | SGS AXYS MLA-901 | MLA-901 | Y | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | PCB 147 2,2',3,4',5,6-Hexachlorobiphenyl | EPA 1668 | MLA-010 | | | | Y | | Y | Y | Y | Y | Y | | | | | | | | | | Y | | Y | Y | Y | Y | | Y | |
| | | EPA 8270 | MLA-007 | | | | | | | | | Y | | | | | | | | | | | | | | | | | | | |
| | | SGS AXYS MLA-010 | MLA-010 | Y | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | | |
| | PCB 148 2,2',3,4',5,6'-Hexachlorobiphenyl | EPA 1668 | MLA-010 | | | | Y | | Y | Y | Y | Y | Y | | | | | | | | | | Y | | Y | Y | Y | Y | | Y | |
| | | EPA 8270 | MLA-007 | | | | | | | | | Y | | | | | | | | | | | | | | | | | | | |
| | | SGS AXYS MLA-010 | MLA-010 | Y | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | | |
| | PCB 149 2,2',3,4',5',6-Hexachlorobiphenyl | EPA 1668 | MLA-010 | | | | Y | | Y | Y | Y | Y | Y | | | | | | | | | | Y | | Y | Y | Y | Y | | Y | |
| | | SGS AXYS MLA-010 | MLA-010 | Y | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | | |
| | PCB 149/139 | EPA 8270 | MLA-007 | | | | | | | | | Y | | | | | | | | | | | | | | | | | | | |
| | | SGS AXYS MLA-007 | MLA-007 | | Y | | | | | | | | | | Y | | | | | | Y | | | | | | | | | | |
| | PCB 15 4,4'-Dichlorobiphenyl | EPA 1668 | MLA-010 | | | | Y | | Y | Y | Y | Y | Y | | | | | | | | | | Y | | Y | Y | Y | Y | | Y | |
| | | EPA 8270 | MLA-007 | | | | | | | | | Y | | | | | | | | | | | | | | | | | | | |
| | | SGS AXYS MLA-010 | MLA-010 | Y | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | | |
| | | SGS AXYS MLA-007 | MLA-007 | | Y | | | | | | | | | | Y | | | | | | Y | | | | | | | | | | |
| | PCB 150 2,2',3,4',6,6'-Hexachlorobiphenyl | EPA 1668 | MLA-010 | | | | Y | | Y | Y | Y | Y | Y | | | | | | | | | | Y | | Y | Y | Y | Y | | Y | |
| | | EPA 8270 | MLA-007 | | | | | | | | | Y | | | | | | | | | | | | | | | | | | | |
| | | SGS AXYS MLA-010 | MLA-010 | Y | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | | |
| | PCB 151 2,2',3,5,5',6-Hexachlorobiphenyl | EPA 1668 | MLA-010 | | | | Y | | Y | Y | Y | Y | Y | | | | | | | | | | Y | | Y | Y | Y | Y | | Y | |
| | | EPA 8270 | MLA-007 | | | | | | | | | Y | | | | | | | | | | | | | | | | | | | |
| | | SGS AXYS MLA-010 | MLA-010 | Y | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | | |
| | | SGS AXYS MLA-007 | MLA-007 | | Y | | | | | | | | | | Y | | | | | | Y | | | | | | | | | | |
| | PCB 152 2,2',3,5,6,6'-Hexachlorobiphenyl | EPA 1668 | MLA-010 | | | | Y | | Y | Y | Y | Y | Y | | | | | | | | | | Y | | Y | Y | Y | Y | | Y | |
| | | EPA 8270 | MLA-007 | | | | | | | | | Y | | | | | | | | | | | | | | | | | | | |
| | | SGS AXYS MLA-010 | MLA-010 | Y | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | | |
| | PCB 153 2,2',4,4',5,5'-Hexachlorobiphenyl | EPA 1668 | MLA-010 | | | | Y | | Y | Y | Y | Y | Y | | | | | | | | | | Y | | Y | Y | Y | Y | | Y | |
| | | EPA 8270 | MLA-007 | | | | | | | | | Y | | | | | | | | | | | | | | | | | | | |
| | | SGS AXYS MLA-010 | MLA-010 | Y | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | | |
| | | SGS AXYS MLA-007 | MLA-007 | | Y | | | | | | | | | | Y | | | | | | Y | | | | | | | | | | |
| | | SGS AXYS MLA-901 | MLA-901 | Y | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | PCB 154 2,2',4,4',5,6'-Hexachlorobiphenyl | EPA 1668 | MLA-010 | | | | Y | | Y | Y | Y | Y | Y | | | | | | | | | | Y | | Y | Y | Y | Y | | Y | |
| | | EPA 8270 | MLA-007 | | | | | | | | | Y | | | | | | | | | | | | | | | | | | | |
| | | SGS AXYS MLA-010 | MLA-010 | Y | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | | |
| | PCB 155 2,2',4,4',6,6'-Hexachlorobiphenyl | EPA 1668 | MLA-010 | | | | Y | | Y | Y | Y | Y | Y | | | | | | | | | | Y | | Y | Y | Y | Y | | Y | |
| | | EPA 8270 | MLA-007 | | | | | | | | | Y | | | | | | | | | | | | | | | | | | | |
| | | SGS AXYS MLA-010 | MLA-010 | Y | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | | |
| | PCB 156 2,3,3',4,4',5-Hexachlorobiphenyl | EPA 1668 | MLA-010 | | | | Y | | Y | Y | Y | Y | Y | | | | | | | | | | Y | | Y | Y | Y | Y | | Y | |
| | | EPA 8270 | MLA-007 | | | | | | | | | Y | | | | | | | | | | | | | | | | | | | |
| | | SGS AXYS MLA-010 | MLA-010 | Y | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | | |
| | | SGS AXYS MLA-007 | MLA-007 | | Y | | | | | | | | | | Y | | | | | | Y | | | | | | | | | | |
| | | SGS AXYS MLA-901 | MLA-901 | Y | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | PCB 157 2,3,3',4,4',5'-Hexachlorobiphenyl | EPA 1668 | MLA-010 | | | | Y | | Y | Y | Y | Y | Y | | | | | | | | | | Y | | Y | Y | Y | Y | | Y | |
| | | EPA 8270 | MLA-007 | | | | | | | | | Y | | | | | | | | | | | | | | | | | | | |
| | | SGS AXYS MLA-010 | MLA-010 | Y | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | | |
| | | SGS AXYS MLA-007 | MLA-007 | | Y | | | | | | | | | | Y | | | | | | Y | | | | | | | | | | |
| | PCB 158 2,3,3',4,4',6-Hexachlorobiphenyl | EPA 1668 | MLA-010 | | | | Y | | Y | Y | Y | Y | Y | | | | | | | | | | Y | | Y | Y | Y | Y | | Y | |
| | | SGS AXYS MLA-010 | MLA-010 | Y | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | | |
| | PCB 158/160 | EPA 8270 | MLA-007 | | | | | | | | | Y | | | | | | | | | | | | | | | | | | | |
| | | SGS AXYS MLA-007 | MLA-007 | | Y | | | | | | | | | | Y | | | | | | Y | | | | | | | | | | |

# Accreditation Scope

SGS AXYS Analytical Services Ltd.
file ref.: ACC-101 Rev. 42

| | | | | Serum | Solids | | | | | | | | | | Tissue | | | | | Urine | Water | Water, Non-Potable | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Compound Class | Compound | Accredited Method ID | SGS AXYS Method ID | CALA | CALA | California DPH | Florida DOH | Minnesota DOH | New Jersey DEP | New York DOH | Virginia DGS | Washington DE | Maine DOH | ANAB DoD ** | CALA | Florida DOH | Minnesota DOH | New Jersey DEP | Virginia DGS | CALA | CALA | California DPH | Florida DOH | Minnesota DOH | New Jersey DEP | New York DOH | Virginia DGS | Washington DE * | Maine DOH | Pennsylvania DEP | ANAB DoD ** |
| | PCB 159 2,3,3',4,5,5'-Hexachlorobiphenyl | EPA 1668 | MLA-010 | | | | Y | | Y | Y | Y | Y | Y | | | | | | | | | | Y | | Y | Y | Y | Y | | Y | |
| | | EPA 8270 | MLA-007 | | | | | | | | | Y | | | | | | | | | | | | | | | | | | | |
| | | SGS AXYS MLA-010 | MLA-010 | Y | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | | |
| | | SGS AXYS MLA-007 | MLA-007 | | Y | | | | | | | | | | Y | | | | | | Y | | | | | | | | | | |
| | PCB 16 2,2',3-Trichlorobiphenyl | EPA 1668 | MLA-010 | | | | Y | | Y | Y | Y | Y | Y | | | | | | | | | | Y | | Y | Y | Y | Y | | Y | |
| | | SGS AXYS MLA-010 | MLA-010 | Y | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | | |
| | PCB 16/32 | EPA 8270 | MLA-007 | | | | | | | | | Y | | | | | | | | | | | | | | | | | | | |
| | | SGS AXYS MLA-007 | MLA-007 | | Y | | | | | | | | | | Y | | | | | | Y | | | | | | | | | | |
| | PCB 160 2,3,3',4,5,6-Hexachlorobiphenyl | EPA 1668 | MLA-010 | | | | Y | | Y | Y | Y | Y | Y | | | | | | | | | | Y | | Y | Y | Y | Y | | Y | |
| | | SGS AXYS MLA-010 | MLA-010 | Y | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | | |
| | | SGS AXYS MLA-007 | MLA-007 | | Y | | | | | | | | | | Y | | | | | | Y | | | | | | | | | | |
| | PCB 161 2,3,3',4,5',6-Hexachlorobiphenyl | EPA 1668 | MLA-010 | | | | Y | | Y | Y | Y | Y | Y | | | | | | | | | | Y | | Y | Y | Y | Y | | Y | |
| | | EPA 8270 | MLA-007 | | | | | | | | | Y | | | | | | | | | | | | | | | | | | | |
| | | SGS AXYS MLA-010 | MLA-010 | Y | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | | |
| | | SGS AXYS MLA-007 | MLA-007 | | Y | | | | | | | | | | Y | | | | | | Y | | | | | | | | | | |
| | PCB 162 2,3,3',4',5,5'-Hexachlorobiphenyl | EPA 1668 | MLA-010 | | | | Y | | Y | Y | Y | Y | Y | | | | | | | | | | Y | | Y | Y | Y | Y | | Y | |
| | | EPA 8270 | MLA-007 | | | | | | | | | Y | | | | | | | | | | | | | | | | | | | |
| | | SGS AXYS MLA-010 | MLA-010 | Y | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | | |
| | PCB 163 2,3,3',4',5,6-Hexachlorobiphenyl | EPA 1668 | MLA-010 | | | | Y | | Y | Y | Y | Y | Y | | | | | | | | | | Y | | Y | Y | Y | Y | | Y | |
| | | SGS AXYS MLA-010 | MLA-010 | Y | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | | |
| | PCB 164 2,3,3',4',5',6-Hexachlorobiphenyl | EPA 1668 | MLA-010 | | | | Y | | Y | Y | Y | Y | Y | | | | | | | | | | Y | | Y | Y | Y | Y | | Y | |
| | | SGS AXYS MLA-010 | MLA-010 | Y | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | | |
| | PCB 165 2,3,3',5,5',6-Hexachlorobiphenyl | EPA 1668 | MLA-010 | | | | Y | | Y | Y | Y | Y | Y | | | | | | | | | | Y | | Y | Y | Y | Y | | Y | |
| | | EPA 8270 | MLA-007 | | | | | | | | | Y | | | | | | | | | | | | | | | | | | | |
| | | SGS AXYS MLA-010 | MLA-010 | Y | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | | |
| | PCB 166 2,3,4,4',5,6-Hexachlorobiphenyl | EPA 1668 | MLA-010 | | | | Y | | Y | Y | Y | Y | Y | | | | | | | | | | Y | | Y | Y | Y | Y | | Y | |
| | | EPA 8270 | MLA-007 | | | | | | | | | Y | | | | | | | | | | | | | | | | | | | |
| | | SGS AXYS MLA-010 | MLA-010 | Y | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | | |
| | PCB 167 2,3',4,4',5,5'-Hexachlorobiphenyl | EPA 1668 | MLA-010 | | | | Y | | Y | Y | Y | Y | Y | | | | | | | | | | Y | | Y | Y | Y | Y | | Y | |
| | | EPA 8270 | MLA-007 | | | | | | | | | Y | | | | | | | | | | | | | | | | | | | |
| | | SGS AXYS MLA-010 | MLA-010 | Y | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | | |
| | PCB 168 2,3',4,4',5',6-Hexachlorobiphenyl | EPA 1668 | MLA-010 | | | | Y | | Y | Y | Y | Y | Y | | | | | | | | | | Y | | Y | Y | Y | Y | | Y | |
| | | SGS AXYS MLA-010 | MLA-010 | Y | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | | |
| | PCB 169 3,3',4,4',5,5'-Hexachlorobiphenyl | EPA 1668 | MLA-010 | | | | Y | | Y | Y | Y | Y | Y | | | | | | | | | | Y | | Y | Y | Y | Y | | Y | |
| | | EPA 8270 | MLA-007 | | | | | | | | | Y | | | | | | | | | | | | | | | | | | | |
| | | SGS AXYS MLA-010 | MLA-010 | Y | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | | |
| | | SGS AXYS MLA-007 | MLA-007 | | Y | | | | | | | | | | Y | | | | | | Y | | | | | | | | | | |
| | PCB 17 2,2',4-Trichlorobiphenyl | EPA 1668 | MLA-010 | | | | Y | | Y | Y | Y | Y | Y | | | | | | | | | | Y | | Y | Y | Y | Y | | Y | |
| | | EPA 8270 | MLA-007 | | | | | | | | | Y | | | | | | | | | | | | | | | | | | | |
| | | SGS AXYS MLA-010 | MLA-010 | Y | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | | |
| | | SGS AXYS MLA-007 | MLA-007 | | Y | | | | | | | | | | Y | | | | | | Y | | | | | | | | | | |
| | PCB 170 2,2',3,3',4,4',5-Heptachlorobiphenyl | EPA 1668 | MLA-010 | | | | Y | | Y | Y | Y | Y | Y | | | | | | | | | | Y | | Y | Y | Y | Y | | Y | |
| | | SGS AXYS MLA-010 | MLA-010 | Y | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | | |
| | | SGS AXYS MLA-901 | MLA-901 | Y | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | PCB 170/190 | EPA 8270 | MLA-007 | | | | | | | | | Y | | | | | | | | | | | | | | | | | | | |
| | | SGS AXYS MLA-007 | MLA-007 | | Y | | | | | | | | | | Y | | | | | | Y | | | | | | | | | | |
| | PCB 171 2,2',3,3',4,4',6-Heptachlorobiphenyl | EPA 1668 | MLA-010 | | | | Y | | Y | Y | Y | Y | Y | | | | | | | | | | Y | | Y | Y | Y | Y | | Y | |
| | | EPA 8270 | MLA-007 | | | | | | | | | Y | | | | | | | | | | | | | | | | | | | |
| | | SGS AXYS MLA-010 | MLA-010 | Y | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | | |
| | | SGS AXYS MLA-007 | MLA-007 | | Y | | | | | | | | | | Y | | | | | | Y | | | | | | | | | | |

# Accreditation Scope

SGS AXYS Analytical Services Ltd.
file ref.: ACC-101 Rev. 42

| | | | | Serum | Solids | | | | | | | | | | Tissue | | | | | Urine | Water | Water, Non-Potable | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Compound Class | Compound | Accredited Method ID | SGS AXYS Method ID | CALA | CALA | California DPH | Florida DOH | Minnesota DOH | New Jersey DEP | New York DOH | Virginia DGS | Washington DE | Maine DOH | ANAB DoD ** | CALA | Florida DOH | Minnesota DOH | New Jersey DEP | Virginia DGS | CALA | CALA | California DPH | Florida DOH | Minnesota DOH | New Jersey DEP | New York DOH | Virginia DGS | Washington DE * | Maine DOH | Pennsylvania DEP | ANAB DoD ** |
| | PCB 172 2,2',3,3',4,5,5'-Heptachlorobiphenyl | EPA 1668 | MLA-010 | | | | Y | | Y | Y | Y | Y | | | | | | | | | | | Y | | Y | Y | Y | Y | | Y | |
| | | SGS AXYS MLA-010 | MLA-010 | Y | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | | |
| | PCB 172/192 | EPA 8270 | MLA-007 | | | | | | | | | Y | | | | | | | | | | | | | | | | | | | |
| | | SGS AXYS MLA-007 | MLA-007 | | Y | | | | | | | | | | Y | | | | | | Y | | | | | | | | | | |
| | PCB 173 2,2',3,3',4,5,6-Heptachlorobiphenyl | EPA 1668 | MLA-010 | | | | Y | | Y | Y | Y | Y | | | | | | | | | | | Y | | Y | Y | Y | Y | | Y | |
| | | EPA 8270 | MLA-007 | | | | | | | | | Y | | | | | | | | | | | | | | | | | | | |
| | | SGS AXYS MLA-010 | MLA-010 | Y | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | | |
| | PCB 174 2,2',3,3',4,5,6'-Heptachlorobiphenyl | EPA 1668 | MLA-010 | | | | Y | | Y | Y | Y | Y | Y | | | | | | | | | | Y | | Y | Y | Y | Y | | Y | |
| | | SGS AXYS MLA-010 | MLA-010 | Y | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | | |
| | PCB 174/181 | EPA 8270 | MLA-007 | | | | | | | | | Y | | | | | | | | | | | | | | | | | | | |
| | | SGS AXYS MLA-007 | MLA-007 | | Y | | | | | | | | | | Y | | | | | | Y | | | | | | | | | | |
| | PCB 175 2,2',3,3',4,5',6-Heptachlorobiphenyl | EPA 1668 | MLA-010 | | | | Y | | Y | Y | Y | Y | Y | | | | | | | | | | Y | | Y | Y | Y | Y | | Y | |
| | | EPA 8270 | MLA-007 | | | | | | | | | Y | | | | | | | | | | | | | | | | | | | |
| | | SGS AXYS MLA-010 | MLA-010 | Y | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | | |
| | | SGS AXYS MLA-007 | MLA-007 | | Y | | | | | | | | | | Y | | | | | | Y | | | | | | | | | | |
| | PCB 176 2,2',3,3',4,6,6'-Heptachlorobiphenyl | EPA 1668 | MLA-010 | | | | Y | | Y | Y | Y | Y | Y | | | | | | | | | | Y | | Y | Y | Y | Y | | Y | |
| | | EPA 8270 | MLA-007 | | | | | | | | | Y | | | | | | | | | | | | | | | | | | | |
| | | SGS AXYS MLA-010 | MLA-010 | Y | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | | |
| | | SGS AXYS MLA-007 | MLA-007 | | Y | | | | | | | | | | Y | | | | | | Y | | | | | | | | | | |
| | PCB 177 2,2',3,3',4,5',6'-Heptachlorobiphenyl | EPA 1668 | MLA-010 | | | | Y | | Y | Y | Y | Y | Y | | | | | | | | | | Y | | Y | Y | Y | Y | | Y | |
| | | EPA 8270 | MLA-007 | | | | | | | | | Y | | | | | | | | | | | | | | | | | | | |
| | | SGS AXYS MLA-010 | MLA-010 | Y | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | | |
| | | SGS AXYS MLA-007 | MLA-007 | | Y | | | | | | | | | | Y | | | | | | Y | | | | | | | | | | |
| | PCB 178 2,2',3,3',5,5',6-Heptachlorobiphenyl | EPA 1668 | MLA-010 | | | | Y | | Y | Y | Y | Y | Y | | | | | | | | | | Y | | Y | Y | Y | Y | | Y | |
| | | EPA 8270 | MLA-007 | | | | | | | | | Y | | | | | | | | | | | | | | | | | | | |
| | | SGS AXYS MLA-010 | MLA-010 | Y | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | | |
| | | SGS AXYS MLA-007 | MLA-007 | | Y | | | | | | | | | | Y | | | | | | Y | | | | | | | | | | |
| | PCB 179 2,2',3,3',5,6,6'-Heptachlorobiphenyl | EPA 1668 | MLA-010 | | | | Y | | Y | Y | Y | Y | Y | | | | | | | | | | Y | | Y | Y | Y | Y | | Y | |
| | | EPA 8270 | MLA-007 | | | | | | | | | Y | | | | | | | | | | | | | | | | | | | |
| | | SGS AXYS MLA-010 | MLA-010 | Y | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | | |
| | | SGS AXYS MLA-007 | MLA-007 | | Y | | | | | | | | | | Y | | | | | | Y | | | | | | | | | | |
| | PCB 18 2,2',5-Trichlorobiphenyl | EPA 1668 | MLA-010 | | | | Y | | Y | Y | Y | Y | Y | | | | | | | | | | Y | | Y | Y | Y | Y | | Y | |
| | | EPA 8270 | MLA-007 | | | | | | | | | Y | | | | | | | | | | | | | | | | | | | |
| | | SGS AXYS MLA-010 | MLA-010 | Y | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | | |
| | | SGS AXYS MLA-007 | MLA-007 | | Y | | | | | | | | | | Y | | | | | | Y | | | | | | | | | | |
| | PCB 180 2,2',3,4,4',5,5'-Heptachlorobiphenyl | EPA 1668 | MLA-010 | | | | Y | | Y | Y | Y | Y | Y | | | | | | | | | | Y | | Y | Y | Y | Y | | Y | |
| | | EPA 8270 | MLA-007 | | | | | | | | | Y | | | | | | | | | | | | | | | | | | | |
| | | SGS AXYS MLA-010 | MLA-010 | Y | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | | |
| | | SGS AXYS MLA-007 | MLA-007 | | Y | | | | | | | | | | Y | | | | | | Y | | | | | | | | | | |
| | | SGS AXYS MLA-901 | MLA-901 | Y | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | PCB 181 2,2',3,4,4',5,6-Heptachlorobiphenyl | EPA 1668 | MLA-010 | | | | Y | | Y | Y | Y | Y | Y | | | | | | | | | | Y | | Y | Y | Y | Y | | Y | |
| | | SGS AXYS MLA-010 | MLA-010 | Y | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | | |
| | PCB 182 2,2',3,4,4',5,6'-Heptachlorobiphenyl | EPA 1668 | MLA-010 | | | | Y | | Y | Y | Y | Y | Y | | | | | | | | | | Y | | Y | Y | Y | Y | | Y | |
| | | SGS AXYS MLA-010 | MLA-010 | Y | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | | |
| | PCB 183 2,2',3,4,4',5',6-Heptachlorobiphenyl | EPA 1668 | MLA-010 | | | | Y | | Y | Y | Y | Y | Y | | | | | | | | | | Y | | Y | Y | Y | Y | | Y | |
| | | EPA 8270 | MLA-007 | | | | | | | | | Y | | | | | | | | | | | | | | | | | | | |
| | | SGS AXYS MLA-010 | MLA-010 | Y | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | | |
| | | SGS AXYS MLA-007 | MLA-007 | | Y | | | | | | | | | | Y | | | | | | Y | | | | | | | | | | |
| | PCB 184 2,2',3,4,4',6,6'-Heptachlorobiphenyl | EPA 1668 | MLA-010 | | | | Y | | Y | Y | Y | Y | Y | | | | | | | | | | Y | | Y | Y | Y | Y | | Y | |
| | | EPA 8270 | MLA-007 | | | | | | | | | Y | | | | | | | | | | | | | | | | | | | |

# Accreditation Scope

SGS AXYS Analytical Services Ltd.
file ref.: ACC-101 Rev. 42

| | | | | Serum | Solids | | | | | | | | | | Tissue | | | | | Urine | Water | Water, Non-Potable | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Compound Class | Compound | Accredited Method ID | SGS AXYS Method ID | CALA | CALA | California DPH | Florida DOH | Minnesota DOH | New Jersey DEP | New York DOH | Virginia DGS | Washington DE | Maine DOH | ANAB DoD ** | CALA | Florida DOH | Minnesota DOH | New Jersey DEP | Virginia DGS | CALA | CALA | California DPH | Florida DOH | Minnesota DOH | New Jersey DEP | New York DOH | Virginia DGS | Washington DE * | Maine DOH | Pennsylvania DEP | ANAB DoD ** |
| | | SGS AXYS MLA-010 | MLA-010 | Y | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | | |
| | PCB 185 2,2',3,4,5,5',6-Heptachlorobiphenyl | EPA 1668 | MLA-010 | | | | Y | | Y | Y | Y | Y | Y | | | | | | | | | | Y | | Y | Y | Y | Y | | Y | | |
| | | EPA 8270 | MLA-007 | | | | | | | | | Y | | | | | | | | | | | | | | | | | | | | |
| | | SGS AXYS MLA-010 | MLA-010 | Y | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | | |
| | | SGS AXYS MLA-007 | MLA-007 | | Y | | | | | | | | | | Y | | | | | | Y | | | | | | | | | | |
| | PCB 186 2,2',3,4,5,6,6'-Heptachlorobiphenyl | EPA 1668 | MLA-010 | | | | Y | | Y | Y | Y | Y | Y | | | | | | | | | | Y | | Y | Y | Y | Y | | Y | | |
| | | EPA 8270 | MLA-007 | | | | | | | | | Y | | | | | | | | | | | | | | | | | | | | |
| | | SGS AXYS MLA-010 | MLA-010 | Y | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | | |
| | PCB 187 2,2',3,4',5,5',6-Heptachlorobiphenyl | EPA 1668 | MLA-010 | | | | Y | | Y | Y | Y | Y | Y | | | | | | | | | | Y | | Y | Y | Y | Y | | Y | | |
| | | SGS AXYS MLA-010 | MLA-010 | Y | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | | |
| | | SGS AXYS MLA-901 | MLA-901 | Y | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | PCB 187/182 | EPA 8270 | MLA-007 | | | | | | | | | Y | | | | | | | | | | | | | | | | | | | | |
| | | SGS AXYS MLA-007 | MLA-007 | | Y | | | | | | | | | | Y | | | | | | Y | | | | | | | | | | |
| | PCB 188 2,2',3,4',5,6,6'-Heptachlorobiphenyl | EPA 1668 | MLA-010 | | | | Y | | Y | Y | Y | Y | Y | | | | | | | | | | Y | | Y | Y | Y | Y | | Y | | |
| | | EPA 8270 | MLA-007 | | | | | | | | | Y | | | | | | | | | | | | | | | | | | | | |
| | | SGS AXYS MLA-010 | MLA-010 | Y | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | | |
| | PCB 189 2,3,3',4,4',5,5'-Heptachlorobiphenyl | EPA 1668 | MLA-010 | | | | Y | | Y | Y | Y | Y | Y | | | | | | | | | | Y | | Y | Y | Y | Y | | Y | | |
| | | EPA 8270 | MLA-007 | | | | | | | | | Y | | | | | | | | | | | | | | | | | | | | |
| | | SGS AXYS MLA-010 | MLA-010 | Y | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | | |
| | | SGS AXYS MLA-007 | MLA-007 | | Y | | | | | | | | | | Y | | | | | | Y | | | | | | | | | | |
| | PCB 19 2,2',6-Trichlorobiphenyl | EPA 1668 | MLA-010 | | | | Y | | Y | Y | Y | Y | Y | | | | | | | | | | Y | | Y | Y | Y | Y | | Y | | |
| | | EPA 8270 | MLA-007 | | | | | | | | | Y | | | | | | | | | | | | | | | | | | | | |
| | | SGS AXYS MLA-010 | MLA-010 | Y | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | | |
| | | SGS AXYS MLA-007 | MLA-007 | | Y | | | | | | | | | | Y | | | | | | Y | | | | | | | | | | |
| | PCB 190 2,3,3',4,4',5,6-Heptachlorobiphenyl | EPA 1668 | MLA-010 | | | | Y | | Y | Y | Y | Y | Y | | | | | | | | | | Y | | Y | Y | Y | Y | | Y | | |
| | | SGS AXYS MLA-010 | MLA-010 | Y | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | | |
| | PCB 191 2,3,3',4,4',5',6-Heptachlorobiphenyl | EPA 1668 | MLA-010 | | | | Y | | Y | Y | Y | Y | Y | | | | | | | | | | Y | | Y | Y | Y | Y | | Y | | |
| | | EPA 8270 | MLA-007 | | | | | | | | | Y | | | | | | | | | | | | | | | | | | | | |
| | | SGS AXYS MLA-010 | MLA-010 | Y | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | | |
| | | SGS AXYS MLA-007 | MLA-007 | | Y | | | | | | | | | | Y | | | | | | Y | | | | | | | | | | |
| | PCB 192 2,3,3',4,5,5',6-Heptachlorobiphenyl | EPA 1668 | MLA-010 | | | | Y | | Y | Y | Y | Y | Y | | | | | | | | | | Y | | Y | Y | Y | Y | | Y | | |
| | | SGS AXYS MLA-010 | MLA-010 | Y | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | | |
| | PCB 193 2,3,3',4',5,5',6-Heptachlorobiphenyl | EPA 1668 | MLA-010 | | | | Y | | Y | Y | Y | Y | Y | | | | | | | | | | Y | | Y | Y | Y | Y | | Y | | |
| | | EPA 8270 | MLA-007 | | | | | | | | | Y | | | | | | | | | | | | | | | | | | | | |
| | | SGS AXYS MLA-010 | MLA-010 | Y | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | | |
| | | SGS AXYS MLA-007 | MLA-007 | | Y | | | | | | | | | | Y | | | | | | Y | | | | | | | | | | |
| | PCB 194 2,2',3,3',4,4',5,5'-Octachlorobiphenyl | EPA 1668 | MLA-010 | | | | Y | | Y | Y | Y | Y | Y | | | | | | | | | | Y | | Y | Y | Y | Y | | Y | | |
| | | EPA 8270 | MLA-007 | | | | | | | | | Y | | | | | | | | | | | | | | | | | | | | |
| | | SGS AXYS MLA-010 | MLA-010 | Y | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | | |
| | | SGS AXYS MLA-007 | MLA-007 | | Y | | | | | | | | | | Y | | | | | | Y | | | | | | | | | | |
| | | SGS AXYS MLA-901 | MLA-901 | Y | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | PCB 195 2,2',3,3',4,4',5,6-Octachlorobiphenyl | EPA 1668 | MLA-010 | | | | Y | | Y | Y | Y | Y | Y | | | | | | | | | | Y | | Y | Y | Y | Y | | Y | | |
| | | EPA 8270 | MLA-007 | | | | | | | | | Y | | | | | | | | | | | | | | | | | | | | |
| | | SGS AXYS MLA-010 | MLA-010 | Y | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | | |
| | | SGS AXYS MLA-007 | MLA-007 | | Y | | | | | | | | | | Y | | | | | | Y | | | | | | | | | | |
| | PCB 196 2,2',3,3',4,4',5,6'-Octachlorobiphenyl | EPA 1668 | MLA-010 | | | | Y | | Y | Y | Y | Y | Y | | | | | | | | | | Y | | Y | Y | Y | Y | | Y | | |
| | | SGS AXYS MLA-010 | MLA-010 | Y | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | | |
| | PCB 196/203 | EPA 8270 | MLA-007 | | | | | | | | | Y | | | | | | | | | | | | | | | | | | | | |
| | | SGS AXYS MLA-007 | MLA-007 | | Y | | | | | | | | | | Y | | | | | | Y | | | | | | | | | | |
| | PCB 197 2,2',3,3',4,4',6,6'-Octachlorobiphenyl | EPA 1668 | MLA-010 | | | | Y | | Y | Y | Y | Y | | | | | | | | | | | Y | | Y | Y | Y | Y | | Y | | |

# Accreditation Scope

SGS AXYS Analytical Services Ltd.
file ref.: ACC-101 Rev. 42

| | | | | Serum | Solids | | | | | | | | | | Tissue | | | | | Urine | Water | Water, Non-Potable | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Compound Class | Compound | Accredited Method ID | SGS AXYS Method ID | CALA | CALA | California DPH | Florida DOH | Minnesota DOH | New Jersey DEP | New York DOH | Virginia DGS | Washington DE | Maine DOH | ANAB DoD ** | CALA | Florida DOH | Minnesota DOH | New Jersey DEP | Virginia DGS | CALA | CALA | California DPH | Florida DOH | Minnesota DOH | New Jersey DEP | New York DOH | Virginia DGS | Washington DE * | Maine DOH | Pennsylvania DEP | ANAB DoD ** |
| | | EPA 8270 | MLA-007 | | | | | | | | | Y | | | | | | | | | | | | | | | | | | | |
| | | SGS AXYS MLA-010 | MLA-010 | Y | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | | |
| | | SGS AXYS MLA-007 | MLA-007 | | Y | | | | | | | | | | Y | | | | | | Y | | | | | | | | | | |
| | PCB 198 2,2',3,3',4,5,5',6-Octachlorobiphenyl | EPA 1668 | MLA-010 | | | | Y | | Y | Y | Y | Y | Y | | | | | | | | | | Y | | Y | Y | Y | Y | | Y | |
| | | EPA 8270 | MLA-007 | | | | | | | | | Y | | | | | | | | | | | | | | | | | | | |
| | | SGS AXYS MLA-010 | MLA-010 | Y | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | | |
| | | SGS AXYS MLA-007 | MLA-007 | | Y | | | | | | | | | | Y | | | | | | Y | | | | | | | | | | |
| | PCB 199 2,2',3,3',4,5,5',6'-Octachlorobiphenyl | EPA 1668 | MLA-010 | | | | Y | | Y | Y | Y | Y | | | | | | | | | | | Y | | Y | Y | Y | Y | | Y | |
| | | EPA 8270 | MLA-007 | | | | | | | | | Y | | | | | | | | | | | | | | | | | | | |
| | | SGS AXYS MLA-010 | MLA-010 | Y | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | | |
| | | SGS AXYS MLA-007 | MLA-007 | | Y | | | | | | | | | | Y | | | | | | Y | | | | | | | | | | |
| | PCB 2 3-Chlorobiphenyl | EPA 1668 | MLA-010 | | | | Y | | Y | Y | Y | Y | Y | | | | | | | | | | Y | | Y | Y | Y | Y | | Y | |
| | | EPA 8270 | MLA-007 | | | | | | | | | Y | | | | | | | | | | | | | | | | | | | |
| | | SGS AXYS MLA-010 | MLA-010 | Y | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | | |
| | PCB 20 2,3,3'-Trichlorobiphenyl | EPA 1668 | MLA-010 | | | | Y | | Y | Y | Y | Y | Y | | | | | | | | | | Y | | Y | Y | Y | Y | | Y | |
| | | SGS AXYS MLA-010 | MLA-010 | Y | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | | |
| | PCB 200 2,2',3,3',4,5,6,6'-Octachlorobiphenyl | EPA 1668 | MLA-010 | | | | Y | | Y | Y | Y | Y | Y | | | | | | | | | | Y | | Y | Y | Y | Y | | Y | |
| | | EPA 8270 | MLA-007 | | | | | | | | | Y | | | | | | | | | | | | | | | | | | | |
| | | SGS AXYS MLA-010 | MLA-010 | Y | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | | |
| | PCB 201 2,2',3,3',4,5',6,6'-Octachlorobiphenyl | EPA 1668 | MLA-010 | | | | Y | | Y | Y | Y | Y | | | | | | | | | | | Y | | Y | Y | Y | Y | | Y | |
| | | EPA 8270 | MLA-007 | | | | | | | | | Y | | | | | | | | | | | | | | | | | | | |
| | | SGS AXYS MLA-010 | MLA-010 | Y | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | | |
| | | SGS AXYS MLA-007 | MLA-007 | | Y | | | | | | | | | | Y | | | | | | Y | | | | | | | | | | |
| | PCB 202 2,2',3,3',5,5',6,6'-Octachlorobiphenyl | EPA 1668 | MLA-010 | | | | Y | | Y | Y | Y | Y | Y | | | | | | | | | | Y | | Y | Y | Y | Y | | Y | |
| | | EPA 8270 | MLA-007 | | | | | | | | | Y | | | | | | | | | | | | | | | | | | | |
| | | SGS AXYS MLA-010 | MLA-010 | Y | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | | |
| | PCB 203 2,2',3,4,4',5,5',6-Octachlorobiphenyl | EPA 1668 | MLA-010 | | | | Y | | Y | Y | Y | Y | Y | | | | | | | | | | Y | | Y | Y | Y | Y | | Y | |
| | | SGS AXYS MLA-010 | MLA-010 | Y | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | | |
| | PCB 204 2,2',3,4,4',5,6,6'-Octachlorobiphenyl | EPA 1668 | MLA-010 | | | | Y | | Y | Y | Y | Y | Y | | | | | | | | | | Y | | Y | Y | Y | Y | | Y | |
| | | EPA 8270 | MLA-007 | | | | | | | | | Y | | | | | | | | | | | | | | | | | | | |
| | | SGS AXYS MLA-010 | MLA-010 | Y | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | | |
| | PCB 205 2,3,3',4,4',5,5',6-Octachlorobiphenyl | EPA 1668 | MLA-010 | | | | Y | | Y | Y | Y | Y | Y | | | | | | | | | | Y | | Y | Y | Y | Y | | Y | |
| | | EPA 8270 | MLA-007 | | | | | | | | | Y | | | | | | | | | | | | | | | | | | | |
| | | SGS AXYS MLA-010 | MLA-010 | Y | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | | |
| | | SGS AXYS MLA-007 | MLA-007 | | Y | | | | | | | | | | Y | | | | | | Y | | | | | | | | | | |
| | PCB 206 2,2',3,3',4,4',5,5',6-Nonachlorobiphenyl | EPA 1668 | MLA-010 | | | | Y | | Y | Y | Y | Y | Y | | | | | | | | | | Y | | Y | Y | Y | Y | | Y | |
| | | EPA 8270 | MLA-007 | | | | | | | | | Y | | | | | | | | | | | | | | | | | | | |
| | | SGS AXYS MLA-010 | MLA-010 | Y | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | | |
| | | SGS AXYS MLA-007 | MLA-007 | | Y | | | | | | | | | | Y | | | | | | Y | | | | | | | | | | |
| | PCB 207 2,2',3,3',4,4',5,6,6'-Nonachlorobiphenyl | EPA 1668 | MLA-010 | | | | Y | | Y | Y | Y | Y | | | | | | | | | | | Y | | Y | Y | Y | Y | | Y | |
| | | EPA 8270 | MLA-007 | | | | | | | | | Y | | | | | | | | | | | | | | | | | | | |
| | | SGS AXYS MLA-010 | MLA-010 | Y | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | | |
| | | SGS AXYS MLA-007 | MLA-007 | | Y | | | | | | | | | | Y | | | | | | Y | | | | | | | | | | |
| | PCB 208 2,2',3,3',4,5,5',6,6'-Nonachlorobiphenyl | EPA 1668 | MLA-010 | | | | Y | | Y | Y | Y | Y | | | | | | | | | | | Y | | Y | Y | Y | Y | | Y | |
| | | EPA 8270 | MLA-007 | | | | | | | | | Y | | | | | | | | | | | | | | | | | | | |
| | | SGS AXYS MLA-010 | MLA-010 | Y | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | | |
| | | SGS AXYS MLA-007 | MLA-007 | | Y | | | | | | | | | | Y | | | | | | Y | | | | | | | | | | |
| | PCB 209 Decachlorobiphenyl | EPA 1668 | MLA-010 | | | | Y | | Y | Y | Y | Y | Y | | | | | | | | | | Y | | Y | Y | Y | Y | | Y | |
| | | EPA 8270 | MLA-007 | | | | | | | | | Y | | | | | | | | | | | | | | | | | | | |
| | | SGS AXYS MLA-010 | MLA-010 | Y | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | | |

# Accreditation Scope

SGS AXYS Analytical Services Ltd.
file ref.: ACC-101 Rev. 42

| | | | | Serum | Solids | | | | | | | | | | Tissue | | | | | Urine | Water | Water, Non-Potable | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Compound Class | Compound | Accredited Method ID | SGS AXYS Method ID | CALA | CALA | California DPH | Florida DOH | Minnesota DOH | New Jersey DEP | New York DOH | Virginia DGS | Washington DE | Maine DOH | ANAB DoD ** | CALA | Florida DOH | Minnesota DOH | New Jersey DEP | Virginia DGS | CALA | CALA | California DPH | Florida DOH | Minnesota DOH | New Jersey DEP | New York DOH | Virginia DGS | Washington DE * | Maine DOH | Pennsylvania DEP | ANAB DoD ** |
| | | SGS AXYS MLA-007 | MLA-007 | | Y | | | | | | | | | | Y | | | | | | Y | | | | | | | | | | |
| | PCB 21 2,3,4-Trichlorobiphenyl | EPA 1668 | MLA-010 | | | | Y | | Y | Y | Y | Y | Y | | | | | | | | | | Y | | Y | Y | Y | Y | | Y | |
| | | SGS AXYS MLA-010 | MLA-010 | | Y | Y | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | | |
| | PCB 22 2,3,4'-Trichlorobiphenyl | EPA 1668 | MLA-010 | | | | Y | | Y | Y | Y | Y | Y | | | | | | | | | | Y | | Y | Y | Y | Y | | Y | |
| | | EPA 8270 | MLA-007 | | | | | | | | | Y | | | | | | | | | | | | | | | | | | | |
| | | SGS AXYS MLA-010 | MLA-010 | | Y | Y | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | | |
| | | SGS AXYS MLA-007 | MLA-007 | | | Y | | | | | | | | | Y | | | | | | Y | | | | | | | | | | |
| | PCB 23 2,3,5-Trichlorobiphenyl | EPA 1668 | MLA-010 | | | | Y | | Y | Y | Y | Y | | | | | | | | | | | Y | | Y | Y | Y | Y | | Y | |
| | | SGS AXYS MLA-010 | MLA-010 | | Y | Y | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | | |
| | PCB 23/34 | EPA 8270 | MLA-007 | | | | | | | | | Y | | | | | | | | | | | | | | | | | | | |
| | PCB 24 2,3,6-Trichlorobiphenyl | EPA 1668 | MLA-010 | | | | Y | | Y | Y | Y | Y | Y | | | | | | | | | | Y | | Y | Y | Y | Y | | Y | |
| | | SGS AXYS MLA-010 | MLA-010 | | Y | Y | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | | |
| | PCB 24/27 | EPA 8270 | MLA-007 | | | | | | | | | Y | | | | | | | | | | | | | | | | | | | |
| | | SGS AXYS MLA-007 | MLA-007 | | Y | | | | | | | | | | Y | | | | | | Y | | | | | | | | | | |
| | PCB 25 2,3',4-Trichlorobiphenyl | EPA 1668 | MLA-010 | | | | Y | | Y | Y | Y | Y | Y | | | | | | | | | | Y | | Y | Y | Y | Y | | Y | |
| | | EPA 8270 | MLA-007 | | | | | | | | | Y | | | | | | | | | | | | | | | | | | | |
| | | SGS AXYS MLA-010 | MLA-010 | | Y | Y | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | | |
| | | SGS AXYS MLA-007 | MLA-007 | | | Y | | | | | | | | | Y | | | | | | Y | | | | | | | | | | |
| | PCB 26 2,3',5-Trichlorobiphenyl | EPA 1668 | MLA-010 | | | | Y | | Y | Y | Y | Y | Y | | | | | | | | | | Y | | Y | Y | Y | Y | | Y | |
| | | EPA 8270 | MLA-007 | | | | | | | | | Y | | | | | | | | | | | | | | | | | | | |
| | | SGS AXYS MLA-010 | MLA-010 | | Y | Y | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | | |
| | | SGS AXYS MLA-007 | MLA-007 | | | Y | | | | | | | | | Y | | | | | | Y | | | | | | | | | | |
| | PCB 27 2,3',6-Trichlorobiphenyl | EPA 1668 | MLA-010 | | | | Y | | Y | Y | Y | Y | Y | | | | | | | | | | Y | | Y | Y | Y | Y | | Y | |
| | | SGS AXYS MLA-010 | MLA-010 | | Y | Y | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | | |
| | PCB 28 2,4,4'-Trichlorobiphenyl | EPA 1668 | MLA-010 | | | | Y | | Y | Y | Y | Y | Y | | | | | | | | | | Y | | Y | Y | Y | Y | | Y | |
| | | EPA 8270 | MLA-007 | | | | | | | | | Y | | | | | | | | | | | | | | | | | | | |
| | | SGS AXYS MLA-010 | MLA-010 | | Y | Y | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | | |
| | | SGS AXYS MLA-007 | MLA-007 | | | Y | | | | | | | | | Y | | | | | | Y | | | | | | | | | | |
| | PCB 29 2,4,5-Trichlorobiphenyl | EPA 1668 | MLA-010 | | | | Y | | Y | Y | Y | Y | | | | | | | | | | | Y | | Y | Y | Y | Y | | Y | |
| | | SGS AXYS MLA-010 | MLA-010 | | Y | Y | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | | |
| | PCB 3 4-Chlorobiphenyl | EPA 1668 | MLA-010 | | | | Y | | Y | Y | Y | Y | Y | | | | | | | | | | Y | | Y | Y | Y | Y | | Y | |
| | | EPA 8270 | MLA-007 | | | | | | | | | Y | | | | | | | | | | | | | | | | | | | |
| | | SGS AXYS MLA-010 | MLA-010 | | Y | Y | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | | |
| | PCB 30 2,4,6-Trichlorobiphenyl | EPA 1668 | MLA-010 | | | | Y | | Y | Y | Y | Y | Y | | | | | | | | | | Y | | Y | Y | Y | Y | | Y | |
| | | SGS AXYS MLA-010 | MLA-010 | | Y | Y | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | | |
| | PCB 31 2,4',5-Trichlorobiphenyl | EPA 1668 | MLA-010 | | | | Y | | Y | Y | Y | Y | Y | | | | | | | | | | Y | | Y | Y | Y | Y | | Y | |
| | | EPA 8270 | MLA-007 | | | | | | | | | Y | | | | | | | | | | | | | | | | | | | |
| | | SGS AXYS MLA-010 | MLA-010 | | Y | Y | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | | |
| | | SGS AXYS MLA-007 | MLA-007 | | | Y | | | | | | | | | Y | | | | | | Y | | | | | | | | | | |
| | PCB 32 2,4',6-Trichlorobiphenyl | EPA 1668 | MLA-010 | | | | Y | | Y | Y | Y | Y | Y | | | | | | | | | | Y | | Y | Y | Y | Y | | Y | |
| | | SGS AXYS MLA-010 | MLA-010 | | Y | Y | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | | |
| | PCB 33 2,3',4'-Trichlorobiphenyl | EPA 1668 | MLA-010 | | | | Y | | Y | Y | Y | Y | Y | | | | | | | | | | Y | | Y | Y | Y | Y | | Y | |
| | | SGS AXYS MLA-010 | MLA-010 | | Y | Y | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | | |
| | PCB 33/20/21 | EPA 8270 | MLA-007 | | | | | | | | | Y | | | | | | | | | | | | | | | | | | | |
| | | SGS AXYS MLA-007 | MLA-007 | | Y | | | | | | | | | | Y | | | | | | Y | | | | | | | | | | |
| | PCB 34 2,3',5'-Trichlorobiphenyl | EPA 1668 | MLA-010 | | | | Y | | Y | Y | Y | Y | Y | | | | | | | | | | Y | | Y | Y | Y | Y | | Y | |
| | | SGS AXYS MLA-010 | MLA-010 | | Y | Y | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | | |
| | | SGS AXYS MLA-007 | MLA-007 | | | Y | | | | | | | | | Y | | | | | | Y | | | | | | | | | | |
| | PCB 35 3,3',4-Trichlorobiphenyl | EPA 1668 | MLA-010 | | | | Y | | Y | Y | Y | Y | Y | | | | | | | | | | Y | | Y | Y | Y | Y | | Y | |
| | | EPA 8270 | MLA-007 | | | | | | | | | Y | | | | | | | | | | | | | | | | | | | |

## Accreditation Scope

SGS AXYS Analytical Services Ltd.
file ref.: ACC-101 Rev. 42

| | | | | Serum | Solids | | | | | | | | | Tissue | | | | | Urine | Water | Water, Non-Potable | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Compound Class | Compound | Accredited Method ID | SGS AXYS Method ID | CALA | CALA | California DPH | Florida DOH | Minnesota DOH | New Jersey DEP | New York DOH | Virginia DGS | Washington DE | Maine DOH | ANAB DoD ** | CALA | Florida DOH | Minnesota DOH | New Jersey DEP | Virginia DGS | CALA | CALA | California DPH | Florida DOH | Minnesota DOH | New Jersey DEP | New York DOH | Virginia DGS | Washington DE * | Maine DOH | Pennsylvania DEP | ANAB DoD ** |
| | | SGS AXYS MLA-010 | MLA-010 | Y | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | | |
| | PCB 36 3,3',5-Trichlorobiphenyl | EPA 1668 | MLA-010 | | | | Y | | Y | Y | Y | Y | Y | | | | | | | | | | Y | | Y | Y | Y | Y | | Y | |
| | | EPA 8270 | MLA-007 | | | | | | | | | Y | | | | | | | | | | | | | | | | | | | |
| | | SGS AXYS MLA-010 | MLA-010 | Y | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | | |
| | PCB 37 3,4,4'-Trichlorobiphenyl | EPA 1668 | MLA-010 | | | | Y | | Y | Y | Y | Y | Y | | | | | | | | | | Y | | Y | Y | Y | Y | | Y | |
| | | EPA 8270 | MLA-007 | | | | | | | | | Y | | | | | | | | | | | | | | | | | | | |
| | | SGS AXYS MLA-010 | MLA-010 | Y | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | | |
| | PCB 38 3,4,5-Trichlorobiphenyl | EPA 1668 | MLA-010 | | | | Y | | Y | Y | Y | Y | Y | | | | | | | | | | Y | | Y | Y | Y | Y | | Y | |
| | | EPA 8270 | MLA-007 | | | | | | | | | Y | | | | | | | | | | | | | | | | | | | |
| | | SGS AXYS MLA-010 | MLA-010 | Y | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | | |
| | PCB 39 3,4',5-Trichlorobiphenyl | EPA 1668 | MLA-010 | | | | Y | | Y | Y | Y | Y | Y | | | | | | | | | | Y | | Y | Y | Y | Y | | Y | |
| | | EPA 8270 | MLA-007 | | | | | | | | | Y | | | | | | | | | | | | | | | | | | | |
| | | SGS AXYS MLA-010 | MLA-010 | Y | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | | |
| | PCB 4 2,2'-Dichlorobiphenyl | EPA 1668 | MLA-010 | | | | Y | | Y | Y | Y | Y | Y | | | | | | | | | | Y | | Y | Y | Y | Y | | Y | |
| | | SGS AXYS MLA-010 | MLA-010 | Y | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | | |
| | PCB 4/10 | EPA 8270 | MLA-007 | | | | | | | | | Y | | | | | | | | | | | | | | | | | | | |
| | PCB 40 2,2',3,3'-Tetrachlorobiphenyl | EPA 1668 | MLA-010 | | | | Y | | Y | Y | Y | Y | Y | | | | | | | | | | Y | | Y | Y | Y | Y | | Y | |
| | | EPA 8270 | MLA-007 | | | | | | | | | Y | | | | | | | | | | | | | | | | | | | |
| | | SGS AXYS MLA-010 | MLA-010 | Y | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | | |
| | | SGS AXYS MLA-007 | MLA-007 | | Y | | | | | | | | | | Y | | | | | | Y | | | | | | | | | | |
| | PCB 41 2,2',3,4-Tetrachlorobiphenyl | EPA 1668 | MLA-010 | | | | Y | | Y | Y | Y | Y | Y | | | | | | | | | | Y | | Y | Y | Y | Y | | Y | |
| | | SGS AXYS MLA-010 | MLA-010 | Y | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | | |
| | PCB 41/71/64/68 | EPA 8270 | MLA-007 | | | | | | | | | Y | | | | | | | | | | | | | | | | | | | |
| | | SGS AXYS MLA-007 | MLA-007 | | Y | | | | | | | | | | Y | | | | | | Y | | | | | | | | | | |
| | PCB 42 2,2',3,4'-Tetrachlorobiphenyl | EPA 1668 | MLA-010 | | | | Y | | Y | Y | Y | Y | Y | | | | | | | | | | Y | | Y | Y | Y | Y | | Y | |
| | | SGS AXYS MLA-010 | MLA-010 | Y | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | | |
| | PCB 42/59 | EPA 8270 | MLA-007 | | | | | | | | | Y | | | | | | | | | | | | | | | | | | | |
| | | SGS AXYS MLA-007 | MLA-007 | | Y | | | | | | | | | | Y | | | | | | Y | | | | | | | | | | |
| | PCB 43 2,2',3,5-Tetrachlorobiphenyl | EPA 1668 | MLA-010 | | | | Y | | Y | Y | Y | Y | Y | | | | | | | | | | Y | | Y | Y | Y | Y | | Y | |
| | | SGS AXYS MLA-010 | MLA-010 | Y | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | | |
| | PCB 44 2,2',3,5'-Tetrachlorobiphenyl | EPA 1668 | MLA-010 | | | | Y | | Y | Y | Y | Y | Y | | | | | | | | | | Y | | Y | Y | Y | Y | | Y | |
| | | EPA 8270 | MLA-007 | | | | | | | | | Y | | | | | | | | | | | | | | | | | | | |
| | | SGS AXYS MLA-010 | MLA-010 | Y | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | | |
| | | SGS AXYS MLA-007 | MLA-007 | | Y | | | | | | | | | | Y | | | | | | Y | | | | | | | | | | |
| | PCB 45 2,2',3,6-Tetrachlorobiphenyl | EPA 1668 | MLA-010 | | | | Y | | Y | Y | Y | Y | Y | | | | | | | | | | Y | | Y | Y | Y | Y | | Y | |
| | | EPA 8270 | MLA-007 | | | | | | | | | Y | | | | | | | | | | | | | | | | | | | |
| | | SGS AXYS MLA-010 | MLA-010 | Y | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | | |
| | | SGS AXYS MLA-007 | MLA-007 | | Y | | | | | | | | | | Y | | | | | | Y | | | | | | | | | | |
| | PCB 46 2,2',3,6'-Tetrachlorobiphenyl | EPA 1668 | MLA-010 | | | | Y | | Y | Y | Y | Y | Y | | | | | | | | | | Y | | Y | Y | Y | Y | | Y | |
| | | EPA 8270 | MLA-007 | | | | | | | | | Y | | | | | | | | | | | | | | | | | | | |
| | | SGS AXYS MLA-010 | MLA-010 | Y | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | | |
| | | SGS AXYS MLA-007 | MLA-007 | | Y | | | | | | | | | | Y | | | | | | Y | | | | | | | | | | |
| | PCB 47 2,2',4,4'-Tetrachlorobiphenyl | EPA 1668 | MLA-010 | | | | Y | | Y | Y | Y | Y | Y | | | | | | | | | | Y | | Y | Y | Y | Y | | Y | |
| | | SGS AXYS MLA-010 | MLA-010 | Y | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | | |
| | PCB 47/48/75 | EPA 8270 | MLA-007 | | | | | | | | | Y | | | | | | | | | | | | | | | | | | | |
| | | SGS AXYS MLA-007 | MLA-007 | | Y | | | | | | | | | | Y | | | | | | Y | | | | | | | | | | |
| | PCB 48 2,2',4,5-Tetrachlorobiphenyl | EPA 1668 | MLA-010 | | | | Y | | Y | Y | Y | Y | Y | | | | | | | | | | Y | | Y | Y | Y | Y | | Y | |
| | | SGS AXYS MLA-010 | MLA-010 | Y | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | | |
| | PCB 49 2,2',4,5'-Tetrachlorobiphenyl | EPA 1668 | MLA-010 | | | | Y | | Y | Y | Y | Y | Y | | | | | | | | | | Y | | Y | Y | Y | Y | | Y | |
| | | SGS AXYS MLA-010 | MLA-010 | Y | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | | |

# Accreditation Scope

SGS AXYS Analytical Services Ltd.
file ref.: ACC-101 Rev. 42

| | | | | Serum | Solids | | | | | | | | | | Tissue | | | | | Urine | Water | Water, Non-Potable | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Compound Class | Compound | Accredited Method ID | SGS AXYS Method ID | CALA | CALA | California DPH | Florida DOH | Minnesota DOH | New Jersey DEP | New York DOH | Virginia DGS | Washington DE | Maine DOH | ANAB DoD ** | CALA | Florida DOH | Minnesota DOH | New Jersey DEP | Virginia DGS | CALA | CALA | California DPH | Florida DOH | Minnesota DOH | New Jersey DEP | New York DOH | Virginia DGS | Washington DE * | Maine DOH | Pennsylvania DEP | ANAB DoD ** |
| | PCB 49/43 | EPA 8270 | MLA-007 | | | | | | | | | Y | | | | | | | | | | | | | | | | | | | |
| | | SGS AXYS MLA-007 | MLA-007 | | Y | | | | | | | | | | Y | | | | | | Y | | | | | | | | | | |
| | PCB 5 2,3-Dichlorobiphenyl | EPA 1668 | MLA-010 | | | | Y | | Y | Y | Y | Y | Y | | | | | | | | | | Y | | Y | Y | Y | Y | | Y | |
| | | SGS AXYS MLA-010 | MLA-010 | Y | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | | |
| | PCB 50 2,2',4,6-Tetrachlorobiphenyl | EPA 1668 | MLA-010 | | | | Y | | Y | Y | Y | Y | Y | | | | | | | | | | Y | | Y | Y | Y | Y | | Y | |
| | | EPA 8270 | MLA-007 | | | | | | | | | Y | | | | | | | | | | | | | | | | | | | |
| | | SGS AXYS MLA-010 | MLA-010 | Y | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | | |
| | | SGS AXYS MLA-007 | MLA-007 | | Y | | | | | | | | | | Y | | | | | | Y | | | | | | | | | | |
| | PCB 51 2,2',4,6'-Tetrachlorobiphenyl | EPA 1668 | MLA-010 | | | | Y | | Y | Y | Y | Y | Y | | | | | | | | | | Y | | Y | Y | Y | Y | | Y | |
| | | EPA 8270 | MLA-007 | | | | | | | | | Y | | | | | | | | | | | | | | | | | | | |
| | | SGS AXYS MLA-010 | MLA-010 | Y | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | | |
| | PCB 52 2,2',5,5'-Tetrachlorobiphenyl | EPA 1668 | MLA-010 | | | | Y | | Y | Y | Y | Y | Y | | | | | | | | | | Y | | Y | Y | Y | Y | | Y | |
| | | SGS AXYS MLA-010 | MLA-010 | Y | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | | |
| | PCB 52/73 | EPA 8270 | MLA-007 | | | | | | | | | Y | | | | | | | | | | | | | | | | | | | |
| | | SGS AXYS MLA-007 | MLA-007 | | Y | | | | | | | | | | Y | | | | | | Y | | | | | | | | | | |
| | PCB 53 2,2',5,6'-Tetrachlorobiphenyl | EPA 1668 | MLA-010 | | | | Y | | Y | Y | Y | Y | Y | | | | | | | | | | Y | | Y | Y | Y | Y | | Y | |
| | | EPA 8270 | MLA-007 | | | | | | | | | Y | | | | | | | | | | | | | | | | | | | |
| | | SGS AXYS MLA-010 | MLA-010 | Y | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | | |
| | PCB 54 2,2',6,6'-Tetrachlorobiphenyl | EPA 1668 | MLA-010 | | | | Y | | Y | Y | Y | Y | Y | | | | | | | | | | Y | | Y | Y | Y | Y | | Y | |
| | | EPA 8270 | MLA-007 | | | | | | | | | Y | | | | | | | | | | | | | | | | | | | |
| | | SGS AXYS MLA-010 | MLA-010 | Y | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | | |
| | PCB 55 2,3,3',4-Tetrachlorobiphenyl | EPA 1668 | MLA-010 | | | | Y | | Y | Y | Y | Y | Y | | | | | | | | | | Y | | Y | Y | Y | Y | | Y | |
| | | EPA 8270 | MLA-007 | | | | | | | | | Y | | | | | | | | | | | | | | | | | | | |
| | | SGS AXYS MLA-010 | MLA-010 | Y | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | | |
| | PCB 56 2,3,3',4'-Tetrachlorobiphenyl | EPA 1668 | MLA-010 | | | | Y | | Y | Y | Y | Y | Y | | | | | | | | | | Y | | Y | Y | Y | Y | | Y | |
| | | SGS AXYS MLA-010 | MLA-010 | Y | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | | |
| | PCB 56/60 | EPA 8270 | MLA-007 | | | | | | | | | Y | | | | | | | | | | | | | | | | | | | |
| | | SGS AXYS MLA-007 | MLA-007 | | Y | | | | | | | | | | Y | | | | | | Y | | | | | | | | | | |
| | PCB 57 2,3,3',5-Tetrachlorobiphenyl | EPA 1668 | MLA-010 | | | | Y | | Y | Y | Y | Y | Y | | | | | | | | | | Y | | Y | Y | Y | Y | | Y | |
| | | EPA 8270 | MLA-007 | | | | | | | | | Y | | | | | | | | | | | | | | | | | | | |
| | | SGS AXYS MLA-010 | MLA-010 | Y | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | | |
| | PCB 58 2,3,3',5'-Tetrachlorobiphenyl | EPA 1668 | MLA-010 | | | | Y | | Y | Y | Y | Y | Y | | | | | | | | | | Y | | Y | Y | Y | Y | | Y | |
| | | EPA 8270 | MLA-007 | | | | | | | | | Y | | | | | | | | | | | | | | | | | | | |
| | | SGS AXYS MLA-010 | MLA-010 | Y | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | | |
| | PCB 59 2,3,3',6-Tetrachlorobiphenyl | EPA 1668 | MLA-010 | | | | Y | | Y | Y | Y | Y | Y | | | | | | | | | | Y | | Y | Y | Y | Y | | Y | |
| | | SGS AXYS MLA-010 | MLA-010 | Y | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | | |
| | PCB 6 2,3'-Dichlorobiphenyl | EPA 1668 | MLA-010 | | | | Y | | Y | Y | Y | Y | Y | | | | | | | | | | Y | | Y | Y | Y | Y | | Y | |
| | | EPA 8270 | MLA-007 | | | | | | | | | Y | | | | | | | | | | | | | | | | | | | |
| | | SGS AXYS MLA-010 | MLA-010 | Y | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | | |
| | PCB 60 2,3,4,4'-Tetrachlorobiphenyl | EPA 1668 | MLA-010 | | | | Y | | Y | Y | Y | Y | Y | | | | | | | | | | Y | | Y | Y | Y | Y | | Y | |
| | | SGS AXYS MLA-010 | MLA-010 | Y | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | | |
| | PCB 61 2,3,4,5-Tetrachlorobiphenyl | EPA 1668 | MLA-010 | | | | Y | | Y | Y | Y | Y | Y | | | | | | | | | | Y | | Y | Y | Y | Y | | Y | |
| | | SGS AXYS MLA-010 | MLA-010 | Y | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | | |
| | PCB 62 2,3,4,6-Tetrachlorobiphenyl | EPA 1668 | MLA-010 | | | | Y | | Y | Y | Y | Y | Y | | | | | | | | | | Y | | Y | Y | Y | Y | | Y | |
| | | SGS AXYS MLA-010 | MLA-010 | Y | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | | |
| | PCB 62/65 | EPA 8270 | MLA-007 | | | | | | | | | Y | | | | | | | | | | | | | | | | | | | |
| | PCB 63 2,3,4',5-Tetrachlorobiphenyl | EPA 1668 | MLA-010 | | | | Y | | Y | Y | Y | Y | Y | | | | | | | | | | Y | | Y | Y | Y | Y | | Y | |
| | | EPA 8270 | MLA-007 | | | | | | | | | Y | | | | | | | | | | | | | | | | | | | |
| | | SGS AXYS MLA-010 | MLA-010 | Y | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | | |
| | PCB 64 2,3,4',6-Tetrachlorobiphenyl | EPA 1668 | MLA-010 | | | | Y | | Y | Y | Y | Y | Y | | | | | | | | | | Y | | Y | Y | Y | Y | | Y | |

# Accreditation Scope

SGS AXYS Analytical Services Ltd.
file ref.: ACC-101 Rev. 42

| | | | | Serum | Solids | | | | | | | | | | Tissue | | | | | Urine | Water | Water, Non-Potable | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Compound Class | Compound | Accredited Method ID | SGS AXYS Method ID | CALA | CALA | California DPH | Florida DOH | Minnesota DOH | New Jersey DEP | New York DOH | Virginia DGS | Washington DE | Maine DOH | ANAB DoD ** | CALA | Florida DOH | Minnesota DOH | New Jersey DEP | Virginia DGS | CALA | CALA | California DPH | Florida DOH | Minnesota DOH | New Jersey DEP | New York DOH | Virginia DGS | Washington DE * | Maine DOH | Pennsylvania DEP | ANAB DoD ** |
| | | SGS AXYS MLA-010 | MLA-010 | Y | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | | |
| | PCB 65 2,3,5,6-Tetrachlorobiphenyl | EPA 1668 | MLA-010 | | | | Y | | Y | Y | Y | Y | Y | | | | | | | | | | Y | | Y | Y | Y | Y | | Y | |
| | | SGS AXYS MLA-010 | MLA-010 | Y | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | | |
| | PCB 66 2,3',4,4'-Tetrachlorobiphenyl | EPA 1668 | MLA-010 | | | | Y | | Y | Y | Y | Y | Y | | | | | | | | | | Y | | Y | Y | Y | Y | | Y | |
| | | SGS AXYS MLA-010 | MLA-010 | Y | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | | |
| | PCB 66/80 | EPA 8270 | MLA-007 | | | | | | | | | Y | | | | | | | | | | | | | | | | | | | |
| | | SGS AXYS MLA-007 | MLA-007 | | Y | | | | | | | | | | Y | | | | | | Y | | | | | | | | | | |
| | PCB 67 2,3',4,5-Tetrachlorobiphenyl | EPA 1668 | MLA-010 | | | | Y | | Y | Y | Y | Y | Y | | | | | | | | | | Y | | Y | Y | Y | Y | | Y | |
| | | EPA 8270 | MLA-007 | | | | | | | | | Y | | | | | | | | | | | | | | | | | | | |
| | | SGS AXYS MLA-010 | MLA-010 | Y | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | | |
| | PCB 68 2,3',4,5'-Tetrachlorobiphenyl | EPA 1668 | MLA-010 | | | | Y | | Y | Y | Y | Y | Y | | | | | | | | | | Y | | Y | Y | Y | Y | | Y | |
| | | SGS AXYS MLA-010 | MLA-010 | Y | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | | |
| | PCB 69 2,3',4,6-Tetrachlorobiphenyl | EPA 1668 | MLA-010 | | | | Y | | Y | Y | Y | Y | Y | | | | | | | | | | Y | | Y | Y | Y | Y | | Y | |
| | | EPA 8270 | MLA-007 | | | | | | | | | Y | | | | | | | | | | | | | | | | | | | |
| | | SGS AXYS MLA-010 | MLA-010 | Y | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | | |
| | PCB 7 2,4-Dichlorobiphenyl | EPA 1668 | MLA-010 | | | | Y | | Y | Y | Y | Y | Y | | | | | | | | | | Y | | Y | Y | Y | Y | | Y | |
| | | SGS AXYS MLA-010 | MLA-010 | Y | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | | |
| | PCB 7/9 | EPA 8270 | MLA-007 | | | | | | | | | Y | | | | | | | | | | | | | | | | | | | |
| | PCB 70 2,3',4',5-Tetrachlorobiphenyl | EPA 1668 | MLA-010 | | | | Y | | Y | Y | Y | Y | Y | | | | | | | | | | Y | | Y | Y | Y | Y | | Y | |
| | | SGS AXYS MLA-010 | MLA-010 | Y | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | | |
| | PCB 70/76 | EPA 8270 | MLA-007 | | | | | | | | | Y | | | | | | | | | | | | | | | | | | | |
| | | SGS AXYS MLA-007 | MLA-007 | | Y | | | | | | | | | | Y | | | | | | Y | | | | | | | | | | |
| | PCB 71 2,3',4',6-Tetrachlorobiphenyl | EPA 1668 | MLA-010 | | | | Y | | Y | Y | Y | Y | Y | | | | | | | | | | Y | | Y | Y | Y | Y | | Y | |
| | | SGS AXYS MLA-010 | MLA-010 | Y | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | | |
| | PCB 72 2,3',5,5'-Tetrachlorobiphenyl | EPA 1668 | MLA-010 | | | | Y | | Y | Y | Y | Y | Y | | | | | | | | | | Y | | Y | Y | Y | Y | | Y | |
| | | EPA 8270 | MLA-007 | | | | | | | | | Y | | | | | | | | | | | | | | | | | | | |
| | | SGS AXYS MLA-010 | MLA-010 | Y | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | | |
| | PCB 73 2,3',5',6-Tetrachlorobiphenyl | EPA 1668 | MLA-010 | | | | Y | | Y | Y | Y | Y | Y | | | | | | | | | | Y | | Y | Y | Y | Y | | Y | |
| | | SGS AXYS MLA-010 | MLA-010 | Y | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | | |
| | PCB 74 2,4,4',5-Tetrachlorobiphenyl | EPA 1668 | MLA-010 | | | | Y | | Y | Y | Y | Y | Y | | | | | | | | | | Y | | Y | Y | Y | Y | | Y | |
| | | SGS AXYS MLA-010 | MLA-010 | Y | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | | |
| | | SGS AXYS MLA-901 | MLA-901 | Y | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | PCB 74/61 | EPA 8270 | MLA-007 | | | | | | | | | Y | | | | | | | | | | | | | | | | | | | |
| | | SGS AXYS MLA-007 | MLA-007 | | Y | | | | | | | | | | Y | | | | | | Y | | | | | | | | | | |
| | PCB 75 2,4,4',6-Tetrachlorobiphenyl | EPA 1668 | MLA-010 | | | | Y | | Y | Y | Y | Y | Y | | | | | | | | | | Y | | Y | Y | Y | Y | | Y | |
| | | SGS AXYS MLA-010 | MLA-010 | Y | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | | |
| | PCB 76 2,3',4',5'-Tetrachlorobiphenyl | EPA 1668 | MLA-010 | | | | Y | | Y | Y | Y | Y | Y | | | | | | | | | | Y | | Y | Y | Y | Y | | Y | |
| | | SGS AXYS MLA-010 | MLA-010 | Y | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | | |
| | PCB 77 3,3',4,4'-Tetrachlorobiphenyl | EPA 1668 | MLA-010 | | | | Y | | Y | Y | Y | Y | Y | | | | | | | | | | Y | | Y | Y | Y | Y | | Y | |
| | | EPA 8270 | MLA-007 | | | | | | | | | Y | | | | | | | | | | | | | | | | | | | |
| | | SGS AXYS MLA-010 | MLA-010 | Y | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | | |
| | | SGS AXYS MLA-007 | MLA-007 | | Y | | | | | | | | | | Y | | | | | | Y | | | | | | | | | | |
| | PCB 78 3,3',4,5-Tetrachlorobiphenyl | EPA 1668 | MLA-010 | | | | Y | | Y | Y | Y | Y | Y | | | | | | | | | | Y | | Y | Y | Y | Y | | Y | |
| | | EPA 8270 | MLA-007 | | | | | | | | | Y | | | | | | | | | | | | | | | | | | | |
| | | SGS AXYS MLA-010 | MLA-010 | Y | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | | |
| | PCB 79 3,3',4,5'-Tetrachlorobiphenyl | EPA 1668 | MLA-010 | | | | Y | | Y | Y | Y | Y | Y | | | | | | | | | | Y | | Y | Y | Y | Y | | Y | |
| | | EPA 8270 | MLA-007 | | | | | | | | | Y | | | | | | | | | | | | | | | | | | | |
| | | SGS AXYS MLA-010 | MLA-010 | Y | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | | |
| | PCB 8 2,4'-Dichlorobiphenyl | EPA 1668 | MLA-010 | | | | Y | | Y | Y | Y | Y | Y | | | | | | | | | | Y | | Y | Y | Y | Y | | Y | |
| | | SGS AXYS MLA-010 | MLA-010 | Y | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | | |

# Accreditation Scope

SGS AXYS Analytical Services Ltd.
file ref.: ACC-101 Rev. 42

| | | | | Serum | Solids | | | | | | | | | | Tissue | | | | | Urine | Water | Water, Non-Potable | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Compound Class | Compound | Accredited Method ID | SGS AXYS Method ID | CALA | CALA | California DPH | Florida DOH | Minnesota DOH | New Jersey DEP | New York DOH | Virginia DGS | Washington DE | Maine DOH | ANAB DoD ** | CALA | Florida DOH | Minnesota DOH | New Jersey DEP | Virginia DGS | CALA | CALA | California DPH | Florida DOH | Minnesota DOH | New Jersey DEP | New York DOH | Virginia DGS | Washington DE * | Maine DOH | Pennsylvania DEP | ANAB DoD ** |
| | PCB 8/5 | EPA 8270 | MLA-007 | | | | | | | | | Y | | | | | | | | | | | | | | | | | | | |
| | | SGS AXYS MLA-007 | MLA-007 | | Y | | | | | | | | | | Y | | | | | | Y | | | | | | | | | | |
| | PCB 80 3,3',5,5'-Tetrachlorobiphenyl | EPA 1668 | MLA-010 | | | | Y | | Y | Y | Y | Y | Y | | | | | | | | | | Y | | Y | Y | Y | Y | | Y | |
| | | SGS AXYS MLA-010 | MLA-010 | Y | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | | |
| | PCB 81 3,4,4',5-Tetrachlorobiphenyl | EPA 1668 | MLA-010 | | | | Y | | Y | Y | Y | Y | Y | | | | | | | | | | Y | | Y | Y | Y | Y | | Y | |
| | | EPA 8270 | MLA-007 | | | | | | | | | Y | | | | | | | | | | | | | | | | | | | |
| | | SGS AXYS MLA-010 | MLA-010 | Y | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | | |
| | PCB 82 2,2',3,3',4-Pentachlorobiphenyl | EPA 1668 | MLA-010 | | | | Y | | Y | Y | Y | Y | Y | | | | | | | | | | Y | | Y | Y | Y | Y | | Y | |
| | | EPA 8270 | MLA-007 | | | | | | | | | Y | | | | | | | | | | | | | | | | | | | |
| | | SGS AXYS MLA-010 | MLA-010 | Y | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | | |
| | PCB 83 2,2',3,3',5-Pentachlorobiphenyl | EPA 1668 | MLA-010 | | | | Y | | Y | Y | Y | Y | Y | | | | | | | | | | Y | | Y | Y | Y | Y | | Y | |
| | | SGS AXYS MLA-010 | MLA-010 | Y | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | | |
| | PCB 83/108 | EPA 8270 | MLA-007 | | | | | | | | | Y | | | | | | | | | | | | | | | | | | | |
| | | SGS AXYS MLA-007 | MLA-007 | | Y | | | | | | | | | | Y | | | | | | Y | | | | | | | | | | |
| | PCB 84 2,2',3,3',6-Pentachlorobiphenyl | EPA 1668 | MLA-010 | | | | Y | | Y | Y | Y | Y | | | | | | | | | | | Y | | Y | Y | Y | Y | | Y | |
| | | EPA 8270 | MLA-007 | | | | | | | | | Y | | | | | | | | | | | | | | | | | | | |
| | | SGS AXYS MLA-010 | MLA-010 | Y | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | | |
| | | SGS AXYS MLA-007 | MLA-007 | | Y | | | | | | | | | | Y | | | | | | Y | | | | | | | | | | |
| | PCB 85 2,2',3,4,4'-Pentachlorobiphenyl | EPA 1668 | MLA-010 | | | | Y | | Y | Y | Y | Y | Y | | | | | | | | | | Y | | Y | Y | Y | Y | | Y | |
| | | SGS AXYS MLA-010 | MLA-010 | Y | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | | |
| | PCB 85/120 | EPA 8270 | MLA-007 | | | | | | | | | Y | | | | | | | | | | | | | | | | | | | |
| | | SGS AXYS MLA-007 | MLA-007 | | Y | | | | | | | | | | Y | | | | | | Y | | | | | | | | | | |
| | PCB 86 2,2',3,4,5-Pentachlorobiphenyl | EPA 1668 | MLA-010 | | | | Y | | Y | Y | Y | Y | Y | | | | | | | | | | Y | | Y | Y | Y | Y | | Y | |
| | | SGS AXYS MLA-010 | MLA-010 | Y | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | | |
| | PCB 87 2,2',3,4,5'-Pentachlorobiphenyl | EPA 1668 | MLA-010 | | | | Y | | Y | Y | Y | Y | Y | | | | | | | | | | Y | | Y | Y | Y | Y | | Y | |
| | | SGS AXYS MLA-010 | MLA-010 | Y | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | | |
| | PCB 87/115/116 | EPA 8270 | MLA-007 | | | | | | | | | Y | | | | | | | | | | | | | | | | | | | |
| | | SGS AXYS MLA-007 | MLA-007 | | Y | | | | | | | | | | Y | | | | | | Y | | | | | | | | | | |
| | PCB 88 2,2',3,4,6-Pentachlorobiphenyl | EPA 1668 | MLA-010 | | | | Y | | Y | Y | Y | Y | Y | | | | | | | | | | Y | | Y | Y | Y | Y | | Y | |
| | | SGS AXYS MLA-010 | MLA-010 | Y | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | | |
| | PCB 88/121 | EPA 8270 | MLA-007 | | | | | | | | | Y | | | | | | | | | | | | | | | | | | | |
| | PCB 89 2,2',3,4,6'-Pentachlorobiphenyl | EPA 1668 | MLA-010 | | | | Y | | Y | Y | Y | Y | Y | | | | | | | | | | Y | | Y | Y | Y | Y | | Y | |
| | | SGS AXYS MLA-010 | MLA-010 | Y | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | | |
| | PCB 9 2,5-Dichlorobiphenyl | EPA 1668 | MLA-010 | | | | Y | | Y | Y | Y | Y | | | | | | | | | | | Y | | Y | Y | Y | Y | | Y | |
| | | SGS AXYS MLA-010 | MLA-010 | Y | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | | |
| | PCB 90 2,2',3,4',5-Pentachlorobiphenyl | EPA 1668 | MLA-010 | | | | Y | | Y | Y | Y | Y | Y | | | | | | | | | | Y | | Y | Y | Y | Y | | Y | |
| | | SGS AXYS MLA-010 | MLA-010 | Y | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | | |
| | PCB 91 2,2',3,4',6-Pentachlorobiphenyl | EPA 1668 | MLA-010 | | | | Y | | Y | Y | Y | Y | Y | | | | | | | | | | Y | | Y | Y | Y | Y | | Y | |
| | | EPA 8270 | MLA-007 | | | | | | | | | Y | | | | | | | | | | | | | | | | | | | |
| | | SGS AXYS MLA-010 | MLA-010 | Y | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | | |
| | | SGS AXYS MLA-007 | MLA-007 | | Y | | | | | | | | | | Y | | | | | | Y | | | | | | | | | | |
| | PCB 92 2,2',3,5,5'-Pentachlorobiphenyl | EPA 1668 | MLA-010 | | | | Y | | Y | Y | Y | Y | Y | | | | | | | | | | Y | | Y | Y | Y | Y | | Y | |
| | | EPA 8270 | MLA-007 | | | | | | | | | Y | | | | | | | | | | | | | | | | | | | |
| | | SGS AXYS MLA-010 | MLA-010 | Y | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | | |
| | PCB 93 2,2',3,5,6-Pentachlorobiphenyl | EPA 1668 | MLA-010 | | | | Y | | Y | Y | Y | Y | Y | | | | | | | | | | Y | | Y | Y | Y | Y | | Y | |
| | | SGS AXYS MLA-010 | MLA-010 | Y | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | | |
| | PCB 94 2,2',3,5,6'-Pentachlorobiphenyl | EPA 1668 | MLA-010 | | | | Y | | Y | Y | Y | Y | Y | | | | | | | | | | Y | | Y | Y | Y | Y | | Y | |
| | | EPA 8270 | MLA-007 | | | | | | | | | Y | | | | | | | | | | | | | | | | | | | |
| | | SGS AXYS MLA-010 | MLA-010 | Y | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | | |
| | PCB 95 2,2',3,5',6-Pentachlorobiphenyl | EPA 1668 | MLA-010 | | | | Y | | Y | Y | Y | Y | Y | | | | | | | | | | Y | | Y | Y | Y | Y | | Y | |

# Accreditation Scope

SGS AXYS Analytical Services Ltd.
file ref.: ACC-101 Rev. 42

| | | | | Serum | Solids | | | | | | | | | | Tissue | | | | | Urine | Water | Water, Non-Potable | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Compound Class | Compound | Accredited Method ID | SGS AXYS Method ID | CALA | CALA | California DPH | Florida DOH | Minnesota DOH | New Jersey DEP | New York DOH | Virginia DGS | Washington DE | Maine DOH | ANAB DoD ** | CALA | Florida DOH | Minnesota DOH | New Jersey DEP | Virginia DGS | CALA | CALA | California DPH | Florida DOH | Minnesota DOH | New Jersey DEP | New York DOH | Virginia DGS | Washington DE * | Maine DOH | Pennsylvania DEP | ANAB DoD ** |
| | | SGS AXYS MLA-010 | MLA-010 | Y | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | | |
| | PCB 95/93 | EPA 8270 | MLA-007 | | | | | | | | | Y | | | | | | | | | | | | | | | | | | | |
| | | SGS AXYS MLA-007 | MLA-007 | | Y | | | | | | | | | | Y | | | | | | Y | | | | | | | | | | |
| | PCB 96 2,2',3,6,6'-Pentachlorobiphenyl | EPA 1668 | MLA-010 | | | | Y | | Y | Y | Y | Y | Y | | | | | | | | | | Y | | Y | Y | Y | Y | | Y | |
| | | EPA 8270 | MLA-007 | | | | | | | | | Y | | | | | | | | | | | | | | | | | | | |
| | | SGS AXYS MLA-010 | MLA-010 | Y | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | | |
| | PCB 97 2,2',3,4',5'-Pentachlorobiphenyl | EPA 1668 | MLA-010 | | | | Y | | Y | Y | Y | Y | Y | | | | | | | | | | Y | | Y | Y | Y | Y | | Y | |
| | | SGS AXYS MLA-010 | MLA-010 | Y | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | | |
| | PCB 97/86 | EPA 8270 | MLA-007 | | | | | | | | | Y | | | | | | | | | | | | | | | | | | | |
| | | SGS AXYS MLA-007 | MLA-007 | | Y | | | | | | | | | | Y | | | | | | Y | | | | | | | | | | |
| | PCB 98 2,2',3,4',6'-Pentachlorobiphenyl | EPA 1668 | MLA-010 | | | | Y | | Y | Y | Y | Y | Y | | | | | | | | | | Y | | Y | Y | Y | Y | | Y | |
| | | SGS AXYS MLA-010 | MLA-010 | Y | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | | |
| | PCB 98/102 | EPA 8270 | MLA-007 | | | | | | | | | Y | | | | | | | | | | | | | | | | | | | |
| | PCB 99 2,2',4,4',5-Pentachlorobiphenyl | EPA 1668 | MLA-010 | | | | Y | | Y | Y | Y | Y | Y | | | | | | | | | | Y | | Y | Y | Y | Y | | Y | |
| | | EPA 8270 | MLA-007 | | | | | | | | | Y | | | | | | | | | | | | | | | | | | | |
| | | SGS AXYS MLA-010 | MLA-010 | Y | Y | | Y | | | | | | | | Y | | | | | | Y | | Y | | | | | | | | |
| | | SGS AXYS MLA-007 | MLA-007 | | Y | | | | | | | | | | Y | | | | | | Y | | | | | | | | | | |
| | | SGS AXYS MLA-901 | MLA-901 | Y | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | PCB congeners, total | EPA 1668 | MLA-010 | | | | | | | Y | | | | | | | | | | | | | | | | Y | | | | | |
| | Total Dichlorobiphenyls | EPA 8270 | MLA-007 | | | | | | | | | Y | | | | | | | | | | | | | | | | | | | |
| | | SGS AXYS MLA-010 | MLA-010 | Y | Y | | | | | | | | | | Y | | | | | | Y | | | | | | | | | | |
| | | SGS AXYS MLA-007 | MLA-007 | | Y | | | | | | | | | | Y | | | | | | Y | | | | | | | | | | |
| | Total Heptachlorobiphenyls | EPA 8270 | MLA-007 | | | | | | | | | Y | | | | | | | | | | | | | | | | | | | |
| | | SGS AXYS MLA-010 | MLA-010 | Y | Y | | | | | | | | | | Y | | | | | | Y | | | | | | | | | | |
| | | SGS AXYS MLA-007 | MLA-007 | | Y | | | | | | | | | | Y | | | | | | Y | | | | | | | | | | |
| | Total Hexachlorobiphenyls | EPA 8270 | MLA-007 | | | | | | | | | Y | | | | | | | | | | | | | | | | | | | |
| | | SGS AXYS MLA-010 | MLA-010 | Y | Y | | | | | | | | | | Y | | | | | | Y | | | | | | | | | | |
| | | SGS AXYS MLA-007 | MLA-007 | | Y | | | | | | | | | | Y | | | | | | Y | | | | | | | | | | |
| | Total Monochlorobiphenyls | SGS AXYS MLA-010 | MLA-010 | Y | Y | | | | | | | | | | Y | | | | | | Y | | | | | | | | | | |
| | Total Nonachlorobiphenyls | EPA 8270 | MLA-007 | | | | | | | | | Y | | | | | | | | | | | | | | | | | | | |
| | | SGS AXYS MLA-010 | MLA-010 | Y | Y | | | | | | | | | | Y | | | | | | Y | | | | | | | | | | |
| | | SGS AXYS MLA-007 | MLA-007 | | Y | | | | | | | | | | Y | | | | | | Y | | | | | | | | | | |
| | Total Octachlorobiphenyls | EPA 8270 | MLA-007 | | | | | | | | | Y | | | | | | | | | | | | | | | | | | | |
| | | SGS AXYS MLA-010 | MLA-010 | Y | Y | | | | | | | | | | Y | | | | | | Y | | | | | | | | | | |
| | | SGS AXYS MLA-007 | MLA-007 | | Y | | | | | | | | | | Y | | | | | | Y | | | | | | | | | | |
| | Total Pentachlorobiphenyls | EPA 8270 | MLA-007 | | | | | | | | | Y | | | | | | | | | | | | | | | | | | | |
| | | SGS AXYS MLA-010 | MLA-010 | Y | Y | | | | | | | | | | Y | | | | | | Y | | | | | | | | | | |
| | | SGS AXYS MLA-007 | MLA-007 | | Y | | | | | | | | | | Y | | | | | | Y | | | | | | | | | | |
| | Total Polychlorinated biphenyls | SGS AXYS MLA-007 | MLA-007 | | Y | | | | | | | | | | Y | | | | | | Y | | | | | | | | | | |
| | Total Tetrachlorobiphenyls | EPA 8270 | MLA-007 | | | | | | | | | Y | | | | | | | | | | | | | | | | | | | |
| | | SGS AXYS MLA-010 | MLA-010 | Y | Y | | | | | | | | | | Y | | | | | | Y | | | | | | | | | | |
| | | SGS AXYS MLA-007 | MLA-007 | | Y | | | | | | | | | | Y | | | | | | Y | | | | | | | | | | |
| | Total Trichlorobiphenyls | EPA 8270 | MLA-007 | | | | | | | | | Y | | | | | | | | | | | | | | | | | | | |
| | | SGS AXYS MLA-010 | MLA-010 | Y | Y | | | | | | | | | | Y | | | | | | Y | | | | | | | | | | |
| | | SGS AXYS MLA-007 | MLA-007 | | Y | | | | | | | | | | Y | | | | | | Y | | | | | | | | | | |
| PCDDF | "Dioxins and Dibenzofurans" category (CA only) | EPA 1613 | MLA-017 | | | | | | | | | | | | | | | | | | | Y | | | | | | | | | |
| | | EPA 8290 | MLA-017 | | | Y | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 1,2,3,4,6,7,8-HpCDD | EPA 1613 | MLA-017 | | | | | | | | | Y | | | | | | | | | | | Y | | Y | Y | Y | Y | Y | | |
| | | EPA 8290 | MLA-017 | | | | Y | | Y | Y | Y | | Y | | | Y | | Y | Y | | | | Y | | | Y | Y | | | | |
| | | SGS AXYS MLA-017 | MLA-017 | Y | Y | | Y | | | | | | | | Y | Y | | | | | Y | | Y | | | | | | | | |

# Accreditation Scope

SGS AXYS Analytical Services Ltd.
file ref.: ACC-101 Rev. 42

| | | | | Serum | Solids | | | | | | | | | | Tissue | | | | | | Urine | Water | Water, Non-Potable | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Compound Class | Compound | Accredited Method ID | SGS AXYS Method ID | CALA | CALA | California DPH | Florida DOH | Minnesota DOH | New Jersey DEP | New York DOH | Virginia DGS | Washington DE | Maine DOH | ANAB DoD ** | CALA | Florida DOH | Minnesota DOH | New Jersey DEP | Virginia DGS | | CALA | CALA | California DPH | Florida DOH | Minnesota DOH | New Jersey DEP | New York DOH | Virginia DGS | Washington DE * | Maine DOH | Pennsylvania DEP | ANAB DoD ** |
| | 1,2,3,4,6,7,8-HpCDF | EPA 1613 | MLA-017 | | | | | | | | | Y | | | | | | | | | | | | Y | | Y | Y | Y | Y | Y | | |
| | | EPA 8290 | MLA-017 | | | | Y | | Y | Y | Y | | Y | | | Y | | Y | Y | | | | | Y | | | Y | Y | | | | |
| | | SGS AXYS MLA-017 | MLA-017 | Y | Y | | Y | | | | | | | | Y | Y | | | | | | Y | | Y | | | | | | | | |
| | 1,2,3,4,7,8,9-HpCDF | EPA 1613 | MLA-017 | | | | | | | | | Y | | | | | | | | | | | | Y | | Y | Y | Y | Y | Y | | |
| | | EPA 8290 | MLA-017 | | | | Y | | Y | Y | Y | | Y | | | Y | | Y | Y | | | | | Y | | | Y | Y | | | | |
| | | SGS AXYS MLA-017 | MLA-017 | Y | Y | | Y | | | | | | | | Y | Y | | | | | | Y | | Y | | | | | | | | |
| | 1,2,3,4,7,8-HxCDD | EPA 1613 | MLA-017 | | | | | | | | | Y | | | | | | | | | | | | Y | | Y | Y | Y | Y | Y | | |
| | | EPA 8290 | MLA-017 | | | | Y | | Y | Y | Y | | Y | | | Y | | Y | Y | | | | | Y | | | Y | Y | | | | |
| | | SGS AXYS MLA-017 | MLA-017 | Y | Y | | Y | | | | | | | | Y | Y | | | | | | Y | | Y | | | | | | | | |
| | 1,2,3,4,7,8-HxCDF | EPA 1613 | MLA-017 | | | | | | | | | Y | | | | | | | | | | | | Y | | Y | Y | Y | Y | Y | | |
| | | EPA 8290 | MLA-017 | | | | Y | | Y | Y | Y | | Y | | | Y | | Y | Y | | | | | Y | | | Y | Y | | | | |
| | | SGS AXYS MLA-017 | MLA-017 | Y | Y | | Y | | | | | | | | Y | Y | | | | | | Y | | Y | | | | | | | | |
| | 1,2,3,6,7,8-HxCDD | EPA 1613 | MLA-017 | | | | | | | | | Y | | | | | | | | | | | | Y | | Y | Y | Y | Y | Y | | |
| | | EPA 8290 | MLA-017 | | | | Y | | Y | Y | Y | | Y | | | Y | | Y | Y | | | | | Y | | | Y | Y | | | | |
| | | SGS AXYS MLA-017 | MLA-017 | Y | Y | | Y | | | | | | | | Y | Y | | | | | | Y | | Y | | | | | | | | |
| | 1,2,3,6,7,8-HxCDF | EPA 1613 | MLA-017 | | | | | | | | | Y | | | | | | | | | | | | Y | | Y | Y | Y | Y | Y | | |
| | | EPA 8290 | MLA-017 | | | | Y | | Y | Y | Y | | Y | | | Y | | Y | Y | | | | | Y | | | Y | Y | | | | |
| | | SGS AXYS MLA-017 | MLA-017 | Y | Y | | Y | | | | | | | | Y | Y | | | | | | Y | | Y | | | | | | | | |
| | 1,2,3,7,8,9-HxCDD | EPA 1613 | MLA-017 | | | | | | | | | Y | | | | | | | | | | | | Y | | Y | Y | Y | Y | Y | | |
| | | EPA 8290 | MLA-017 | | | | Y | | Y | Y | Y | | Y | | | Y | | Y | Y | | | | | Y | | | Y | Y | | | | |
| | | SGS AXYS MLA-017 | MLA-017 | Y | Y | | Y | | | | | | | | Y | Y | | | | | | Y | | Y | | | | | | | | |
| | 1,2,3,7,8,9-HxCDF | EPA 1613 | MLA-017 | | | | | | | | | Y | | | | | | | | | | | | Y | | Y | Y | Y | Y | Y | | |
| | | EPA 8290 | MLA-017 | | | | Y | | Y | Y | Y | | Y | | | Y | | Y | Y | | | | | Y | | | Y | Y | | | | |
| | | SGS AXYS MLA-017 | MLA-017 | Y | Y | | Y | | | | | | | | Y | Y | | | | | | Y | | Y | | | | | | | | |
| | 1,2,3,7,8-PeCDD | EPA 1613 | MLA-017 | | | | | | | | | Y | | | | | | | | | | | | Y | | Y | Y | Y | Y | Y | | |
| | | EPA 8290 | MLA-017 | | | | Y | | Y | Y | Y | | Y | | | Y | | Y | Y | | | | | Y | | | Y | Y | | | | |
| | | SGS AXYS MLA-017 | MLA-017 | Y | Y | | Y | | | | | | | | Y | Y | | | | | | Y | | Y | | | | | | | | |
| | 1,2,3,7,8-PeCDF | EPA 1613 | MLA-017 | | | | | | | | | Y | | | | | | | | | | | | Y | | Y | Y | Y | Y | Y | | |
| | | EPA 8290 | MLA-017 | | | | Y | | Y | Y | Y | | Y | | | Y | | Y | Y | | | | | Y | | | Y | Y | | | | |
| | | SGS AXYS MLA-017 | MLA-017 | Y | Y | | Y | | | | | | | | Y | Y | | | | | | Y | | Y | | | | | | | | |
| | 2,3,4,6,7,8-HxCDF | EPA 1613 | MLA-017 | | | | | | | | | Y | | | | | | | | | | | | Y | | Y | Y | Y | Y | Y | | |
| | | EPA 8290 | MLA-017 | | | | Y | | Y | Y | Y | | Y | | | Y | | Y | Y | | | | | Y | | | Y | Y | | | | |
| | | SGS AXYS MLA-017 | MLA-017 | Y | Y | | Y | | | | | | | | Y | Y | | | | | | Y | | Y | | | | | | | | |
| | 2,3,4,7,8-PeCDF | EPA 1613 | MLA-017 | | | | | | | | | Y | | | | | | | | | | | | Y | | Y | Y | Y | Y | Y | | |
| | | EPA 8290 | MLA-017 | | | | Y | | Y | Y | Y | | Y | | | Y | | Y | Y | | | | | Y | | | Y | Y | | | | |
| | | SGS AXYS MLA-017 | MLA-017 | Y | Y | | Y | | | | | | | | Y | Y | | | | | | Y | | Y | | | | | | | | |
| | 2,3,7,8-TCDD | EPA 1613 | MLA-017 | | | | | | | | | Y | | | | | | | | | | | | Y | | Y | Y | Y | Y | Y | | |
| | | EPA 8290 | MLA-017 | | | | Y | | Y | Y | Y | | Y | | | Y | | Y | Y | | | | | Y | | | Y | Y | | | | |
| | | SGS AXYS MLA-017 | MLA-017 | Y | Y | | Y | | | | | | | | Y | Y | | | | | | Y | | Y | | | | | | | | |
| | 2,3,7,8-TCDF | EPA 1613 | MLA-017 | | | | | | | | | Y | | | | | | | | | | | | Y | | Y | Y | Y | Y | Y | | |
| | | EPA 8290 | MLA-017 | | | | Y | | Y | Y | Y | | Y | | | Y | | Y | Y | | | | | Y | | | Y | Y | | | | |
| | | SGS AXYS MLA-017 | MLA-017 | Y | Y | | Y | | | | | | | | Y | Y | | | | | | Y | | Y | | | | | | | | |
| | OCDD | EPA 1613 | MLA-017 | | | | | | | | | Y | | | | | | | | | | | | Y | | Y | Y | Y | Y | Y | | |
| | | EPA 8290 | MLA-017 | | | | Y | | Y | Y | Y | | Y | | | Y | | Y | Y | | | | | Y | | | Y | Y | | | | |
| | | SGS AXYS MLA-017 | MLA-017 | Y | Y | | Y | | | | | | | | Y | Y | | | | | | Y | | Y | | | | | | | | |
| | OCDF | EPA 1613 | MLA-017 | | | | | | | | | Y | | | | | | | | | | | | Y | | Y | Y | Y | Y | Y | | |
| | | EPA 8290 | MLA-017 | | | | Y | | Y | Y | Y | | Y | | | Y | | Y | Y | | | | | Y | | | Y | Y | | | | |
| | | SGS AXYS MLA-017 | MLA-017 | Y | Y | | Y | | | | | | | | Y | Y | | | | | | Y | | Y | | | | | | | | |
| | Total HpCDD | EPA 1613 | MLA-017 | | | | | | | | | | | | | | | | | | | | | Y | | | | | | | Y | |
| | | EPA 8290 | MLA-017 | | | | Y | | Y | | Y | | Y | | | Y | | Y | Y | | | | | Y | | | | | | Y | | | |

# Accreditation Scope

SGS AXYS Analytical Services Ltd.
file ref.: ACC-101 Rev. 42

| | | | | Serum | Solids | | | | | | | | | Tissue | | | | | | Urine | Water | Water, Non-Potable | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Compound Class | Compound | Accredited Method ID | SGS AXYS Method ID | CALA | CALA | California DPH | Florida DOH | Minnesota DOH | New Jersey DEP | New York DOH | Virginia DGS | Washington DE | Maine DOH | ANAB DoD ** | CALA | Florida DOH | Minnesota DOH | New Jersey DEP | Virginia DGS | CALA | CALA | California DPH | Florida DOH | Minnesota DOH | New Jersey DEP | New York DOH | Virginia DGS | Washington DE * | Maine DOH | Pennsylvania DEP | ANAB DoD ** |
| | | SGS AXYS MLA-017 | MLA-017 | | | | Y | | | | | | | | | Y | | | | | | | Y | | | | | | | | | |
| | Total HpCDF | EPA 1613 | MLA-017 | | | | | | | | | | | | | | | | | | | | Y | | | | | | | Y | | |
| | | EPA 8290 | MLA-017 | | | | Y | | Y | | Y | | Y | | | Y | | Y | Y | | | | Y | | | | | Y | | | | |
| | | SGS AXYS MLA-017 | MLA-017 | | | | Y | | | | | | | | | Y | | | | | | | Y | | | | | | | | | |
| | Total HxCDD | EPA 1613 | MLA-017 | | | | | | | | | | | | | | | | | | | | Y | | | | | | | Y | | |
| | | EPA 8290 | MLA-017 | | | | Y | | Y | | Y | | Y | | | Y | | Y | Y | | | | Y | | | | | Y | | | | |
| | | SGS AXYS MLA-017 | MLA-017 | | | | Y | | | | | | | | | Y | | | | | | | Y | | | | | | | | | |
| | Total HxCDF | EPA 1613 | MLA-017 | | | | | | | | | | | | | | | | | | | | Y | | | | | | | Y | | |
| | | EPA 8290 | MLA-017 | | | | Y | | Y | | Y | | Y | | | Y | | Y | Y | | | | Y | | | | | Y | | | | |
| | | SGS AXYS MLA-017 | MLA-017 | | | | Y | | | | | | | | | Y | | | | | | | Y | | | | | | | | | |
| | Total PeCDD | EPA 1613 | MLA-017 | | | | | | | | | | | | | | | | | | | | Y | | | | | | | Y | | |
| | | EPA 8290 | MLA-017 | | | | Y | | Y | | Y | | Y | | | Y | | Y | Y | | | | Y | | | | | Y | | | | |
| | | SGS AXYS MLA-017 | MLA-017 | | | | Y | | | | | | | | | Y | | | | | | | Y | | | | | | | | | |
| | Total PeCDF | EPA 1613 | MLA-017 | | | | | | | | | | | | | | | | | | | | Y | | | | | | | Y | | |
| | | EPA 8290 | MLA-017 | | | | Y | | Y | | Y | | Y | | | Y | | Y | Y | | | | Y | | | | | Y | | | | |
| | | SGS AXYS MLA-017 | MLA-017 | | | | Y | | | | | | | | | Y | | | | | | | Y | | | | | | | | | |
| | Total TCDD | EPA 1613 | MLA-017 | | | | | | | | | | | | | | | | | | | | Y | | | | | | | Y | | |
| | | EPA 8290 | MLA-017 | | | | Y | | Y | | Y | | Y | | | Y | | Y | Y | | | | Y | | | | | Y | | | | |
| | | SGS AXYS MLA-017 | MLA-017 | | | | Y | | | | | | | | | Y | | | | | | | Y | | | | | | | | | |
| | Total TCDF | EPA 1613 | MLA-017 | | | | | | | | | | | | | | | | | | | | Y | | | | | | | Y | | |
| | | EPA 8290 | MLA-017 | | | | Y | | Y | | Y | | Y | | | Y | | Y | Y | | | | Y | | | | | Y | | | | |
| | | SGS AXYS MLA-017 | MLA-017 | | | | Y | | | | | | | | | Y | | | | | | | Y | | | | | | | | | |
| PFAS | 4:2 Fluorotelomersulfonate (4:2 FTS) | SGS AXYS MLA-110 | MLA-110 | | Y | | Y | Y | | | | Y | | Y | | | | | | | Y | | Y | Y | | | | | Y | | | Y |
| | 6:2 Fluorotelomersulfonate (6:2 FTS) | SGS AXYS MLA-110 | MLA-110 | | Y | | Y | Y | | | | Y | | Y | | | | | | | Y | | Y | Y | | | | | Y | | | Y |
| | 8:2 Fluorotelomersulfonate (8:2 FTS) | SGS AXYS MLA-110 | MLA-110 | | Y | | Y | Y | | | | Y | | Y | | | | | | | Y | | Y | Y | | | | | Y | | | Y |
| | N-Ethylperfluorooctanesulfonamide (N-EtFOSA) | SGS AXYS MLA-110 | MLA-110 | | Y | | | | | | | Y | | | | | | | | | Y | | | | | | | | Y | | | |
| | N-Ethylperfluorooctanesulfonamidoacetic acid (N-EtFOSAA) | SGS AXYS MLA-110 | MLA-110 | | Y | | Y | Y | | | | Y | | Y | | | | | | | Y | | Y | Y | | | | | Y | | | Y |
| | N-Ethylperfluorooctanesulfonamidoethanol (N-EtFOSE) | SGS AXYS MLA-110 | MLA-110 | | Y | | | | | | | Y | | | | | | | | | Y | | | | | | | | Y | | | |
| | N-Methylperfluorooctanesulfonamide (N-MeFOSA) | SGS AXYS MLA-110 | MLA-110 | | Y | | | | | | | Y | | | | | | | | | Y | | | | | | | | Y | | | |
| | N-Methylperfluorooctanesulfonamidoacetic acid (N-MeFOSAA) | SGS AXYS MLA-110 | MLA-110 | | Y | | Y | Y | | | | Y | | Y | | | | | | | Y | | Y | Y | | | | | Y | | | Y |
| | N-Methylperfluorooctanesulfonamidoethanol (N-MeFOSE) | SGS AXYS MLA-110 | MLA-110 | | Y | | | | | | | Y | | | | | | | | | Y | | | | | | | | Y | | | |
| | Perfluorobutanesulfonate (PFBS) | SGS AXYS MLA-060 | MLA-060 | | | | | | | | | | | | | | | | | | Y | | Y | Y | Y | | | | | | |
| | | SGS AXYS MLA-041 | MLA-041 | | Y | | Y | Y | Y | | | | | | | | | | | | | | | | | | | | | | | |
| | | SGS AXYS MLA-043 | MLA-043 | | | | | | | | | | | | Y | Y | Y | Y | | | | | | | | | | | | | | |
| | | SGS AXYS MLA-042 | MLA-042 | Y | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | SGS AXYS MLA-110 | MLA-110 | | Y | | Y | Y | | | | Y | | Y | | | | | | | Y | | Y | Y | | | | | Y | | | Y |
| | Perfluorobutanoate (PFBA) | SGS AXYS MLA-060 | MLA-060 | | | | | | | | | | | | | | | | | | Y | | Y | Y | Y | | | | | | |
| | | SGS AXYS MLA-041 | MLA-041 | | Y | | Y | Y | Y | | | | | | | | | | | | | | | | | | | | | | | |
| | | SGS AXYS MLA-043 | MLA-043 | | | | | | | | | | | | Y | Y | Y | Y | | | | | | | | | | | | | | |
| | | SGS AXYS MLA-042 | MLA-042 | Y | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | SGS AXYS MLA-110 | MLA-110 | | Y | | Y | Y | | | | Y | | Y | | | | | | | Y | | Y | Y | | | | | Y | | | Y |
| | Perfluorodecanesulfonate (PFDS) | SGS AXYS MLA-110 | MLA-110 | | Y | | Y | Y | | | | Y | | Y | | | | | | | Y | | Y | Y | | | | | Y | | | Y |
| | Perfluorodecanoate (PFDA) | SGS AXYS MLA-060 | MLA-060 | | | | | | | | | | | | | | | | | | Y | | Y | Y | Y | | | | | | |
| | | SGS AXYS MLA-041 | MLA-041 | | Y | | Y | Y | Y | | | | | | | | | | | | | | | | | | | | | | | |
| | | SGS AXYS MLA-043 | MLA-043 | | | | | | | | | | | | Y | Y | Y | Y | | | | | | | | | | | | | | |
| | | SGS AXYS MLA-042 | MLA-042 | Y | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | SGS AXYS MLA-110 | MLA-110 | | Y | | Y | Y | | | | Y | | Y | | | | | | | Y | | Y | Y | | | | | Y | | | Y |
| | Perfluorododecanesulfonate (PFDoS) | SGS AXYS MLA-110 | MLA-110 | | Y | | | | | | | Y | | | | | | | | | Y | | | | | | | | Y | | | |
| | Perfluorododecanoate (PFDoA) | SGS AXYS MLA-060 | MLA-060 | | | | | | | | | | | | | | | | | | Y | | Y | Y | Y | | | | | | |
| | | SGS AXYS MLA-041 | MLA-041 | | Y | | Y | Y | Y | | | | | | | | | | | | | | | | | | | | | | | |

# Accreditation Scope

SGS AXYS Analytical Services Ltd.
file ref.: ACC-101 Rev. 42

| Compound Class | Compound | Accredited Method ID | SGS AXYS Method ID | Serum | Solids | | | | | | | | | Tissue | | | | | | Urine | Water | Water, Non-Potable | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | CALA | CALA | California DPH | Florida DOH | Minnesota DOH | New Jersey DEP | New York DOH | Virginia DGS | Washington DE | Maine DOH | ANAB DoD ** | CALA | Florida DOH | Minnesota DOH | New Jersey DEP | Virginia DGS | CALA | CALA | California DPH | Florida DOH | Minnesota DOH | New Jersey DEP | New York DOH | Virginia DGS | Washington DE * | Maine DOH | Pennsylvania DEP | ANAB DoD ** |
| | | SGS AXYS MLA-043 | MLA-043 | | | | | | | | | | | | Y | Y | Y | Y | | | | | | | | | | | | | |
| | | SGS AXYS MLA-042 | MLA-042 | Y | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | SGS AXYS MLA-110 | MLA-110 | | Y | | Y | Y | | | | Y | | Y | | | | | | | Y | | Y | Y | | | | | Y | | | Y |
| | Perfluoroheptanesulfonate (PFHpS) | SGS AXYS MLA-110 | MLA-110 | | Y | | Y | Y | | | | Y | | Y | | | | | | | Y | | Y | Y | | | | | Y | | | Y |
| | Perfluoroheptanoate (PFHpA) | SGS AXYS MLA-060 | MLA-060 | | | | | | | | | | | | | | | | | | Y | | Y | Y | Y | | | | | | |
| | | SGS AXYS MLA-041 | MLA-041 | | Y | | Y | Y | Y | | | | | | | | | | | | | | | | | | | | | | |
| | | SGS AXYS MLA-043 | MLA-043 | | | | | | | | | | | | Y | Y | Y | Y | | | | | | | | | | | | | |
| | | SGS AXYS MLA-042 | MLA-042 | Y | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | SGS AXYS MLA-110 | MLA-110 | | Y | | Y | Y | | | | Y | | Y | | | | | | | Y | | Y | Y | | | | | Y | | | Y |
| | Perfluorohexanesulfonate (PFHxS) | SGS AXYS MLA-060 | MLA-060 | | | | | | | | | | | | | | | | | | Y | | Y | Y | Y | | | | | | |
| | | SGS AXYS MLA-041 | MLA-041 | | Y | | Y | Y | Y | | | | | | | | | | | | | | | | | | | | | | |
| | | SGS AXYS MLA-043 | MLA-043 | | | | | | | | | | | | Y | Y | Y | Y | | | | | | | | | | | | | |
| | | SGS AXYS MLA-042 | MLA-042 | Y | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | SGS AXYS MLA-110 | MLA-110 | | Y | | Y | Y | | | | Y | | Y | | | | | | | Y | | Y | Y | | | | | Y | | | Y |
| | Perfluorohexanoate (PFHxA) | SGS AXYS MLA-060 | MLA-060 | | | | | | | | | | | | | | | | | | Y | | Y | Y | Y | | | | | | |
| | | SGS AXYS MLA-041 | MLA-041 | | Y | | Y | Y | Y | | | | | | | | | | | | | | | | | | | | | | |
| | | SGS AXYS MLA-043 | MLA-043 | | | | | | | | | | | | Y | Y | Y | Y | | | | | | | | | | | | | |
| | | SGS AXYS MLA-042 | MLA-042 | Y | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | SGS AXYS MLA-110 | MLA-110 | | Y | | Y | Y | | | | Y | | Y | | | | | | | Y | | Y | Y | | | | | Y | | | Y |
| | Perfluorononanesulfonate (PFNS) | SGS AXYS MLA-110 | MLA-110 | | Y | | Y | Y | | | | Y | | Y | | | | | | | Y | | Y | Y | | | | | Y | | | Y |
| | Perfluorononanoate (PFNA) | SGS AXYS MLA-060 | MLA-060 | | | | | | | | | | | | | | | | | | Y | | Y | Y | Y | | | | | | |
| | | SGS AXYS MLA-041 | MLA-041 | | Y | | Y | Y | Y | | | | | | | | | | | | | | | | | | | | | | |
| | | SGS AXYS MLA-043 | MLA-043 | | | | | | | | | | | | Y | Y | Y | Y | | | | | | | | | | | | | |
| | | SGS AXYS MLA-042 | MLA-042 | Y | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | SGS AXYS MLA-110 | MLA-110 | | Y | | Y | Y | | | | Y | | Y | | | | | | | Y | | Y | Y | | | | | Y | | | Y |
| | Perfluorooctanesulfonamide (PFOSA), a.k.a. FOSA | SGS AXYS MLA-060 | MLA-060 | | | | | | | | | | | | | | | | | | Y | | Y | Y | Y | | | | | | |
| | | SGS AXYS MLA-041 | MLA-041 | | Y | | Y | Y | Y | | | | | | | | | | | | | | | | | | | | | | |
| | | SGS AXYS MLA-043 | MLA-043 | | | | | | | | | | | | Y | Y | Y | Y | | | | | | | | | | | | | |
| | | SGS AXYS MLA-042 | MLA-042 | Y | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | SGS AXYS MLA-110 | MLA-110 | | Y | | Y | Y | | | | Y | | Y | | | | | | | Y | | Y | Y | | | | | Y | | | Y |
| | Perfluorooctanesulfonate (PFOS) | SGS AXYS MLA-060 | MLA-060 | | | | | | | | | | | | | | | | | | Y | | Y | Y | Y | | | | | | |
| | | SGS AXYS MLA-041 | MLA-041 | | Y | | Y | Y | Y | | | | | | | | | | | | | | | | | | | | | | |
| | | SGS AXYS MLA-043 | MLA-043 | | | | | | | | | | | | Y | Y | Y | Y | | | | | | | | | | | | | |
| | | SGS AXYS MLA-042 | MLA-042 | Y | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | SGS AXYS MLA-110 | MLA-110 | | Y | | Y | Y | | | | Y | | Y | | | | | | | Y | | Y | Y | | | | | Y | | | Y |
| | Perfluorooctanoate (PFOA) | SGS AXYS MLA-060 | MLA-060 | | | | | | | | | | | | | | | | | | Y | | Y | Y | Y | | | | | | |
| | | SGS AXYS MLA-041 | MLA-041 | | Y | | Y | Y | Y | | | | | | | | | | | | | | | | | | | | | | |
| | | SGS AXYS MLA-043 | MLA-043 | | | | | | | | | | | | Y | Y | Y | Y | | | | | | | | | | | | | |
| | | SGS AXYS MLA-042 | MLA-042 | Y | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | SGS AXYS MLA-110 | MLA-110 | | Y | | Y | Y | | | | Y | | Y | | | | | | | Y | | Y | Y | | | | | Y | | | Y |
| | Perfluoropentanesulfonate (PFPeS) | SGS AXYS MLA-110 | MLA-110 | | Y | | Y | Y | | | | Y | | Y | | | | | | | Y | | Y | Y | | | | | Y | | | Y |
| | Perfluoropentanoate (PFPeA) | SGS AXYS MLA-060 | MLA-060 | | | | | | | | | | | | | | | | | | Y | | Y | Y | Y | | | | | | |
| | | SGS AXYS MLA-041 | MLA-041 | | Y | | Y | Y | Y | | | | | | | | | | | | | | | | | | | | | | |
| | | SGS AXYS MLA-043 | MLA-043 | | | | | | | | | | | | Y | Y | Y | Y | | | | | | | | | | | | | |
| | | SGS AXYS MLA-042 | MLA-042 | Y | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | SGS AXYS MLA-110 | MLA-110 | | Y | | Y | Y | | | | Y | | Y | | | | | | | Y | | Y | Y | | | | | Y | | | Y |
| | Perfluorotetradecanoate (PFTeDA) | SGS AXYS MLA-110 | MLA-110 | | Y | | Y | Y | | | | Y | | | | | | | | | Y | | Y | Y | | | | | Y | | | Y |
| | Perfluorotridecanoate (PFTrDA) | SGS AXYS MLA-110 | MLA-110 | | Y | | Y | Y | | | | Y | | | | | | | | | Y | | Y | Y | | | | | Y | | | Y |
| | Perfluoroundecanoate (PFUnA) | SGS AXYS MLA-060 | MLA-060 | | | | | | | | | | | | | | | | | | Y | | Y | Y | Y | | | | | | |
| | | SGS AXYS MLA-041 | MLA-041 | | Y | | Y | Y | Y | | | | | | | | | | | | | | | | | | | | | | |

# Accreditation Scope

SGS AXYS Analytical Services Ltd.
file ref.: ACC-101 Rev. 42

| Compound Class | Compound | Accredited Method ID | SGS AXYS Method ID | Serum | Solids | | | | | | | | | Tissue | | | | | | Urine | Water | Water, Non-Potable | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | CALA | CALA | California DPH | Florida DOH | Minnesota DOH | New Jersey DEP | New York DOH | Virginia DGS | Washington DE | Maine DOH | ANAB DoD ** | CALA | Florida DOH | Minnesota DOH | New Jersey DEP | Virginia DGS | CALA | CALA | California DPH | Florida DOH | Minnesota DOH | New Jersey DEP | New York DOH | Virginia DGS | Washington DE * | Maine DOH | Pennsylvania DEP | ANAB DoD ** |
| | | SGS AXYS MLA-043 | MLA-043 | | | | | | | | | | | | Y | Y | Y | Y | | | | | | | | | | | | | |
| | | SGS AXYS MLA-042 | MLA-042 | Y | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | SGS AXYS MLA-110 | MLA-110 | | Y | | | Y | Y | | | | Y | | Y | | | | | | | Y | | | | | | | Y | | | Y |
| PPCP | 1,7-Dimethylxanthine | EPA 1694 | MLA-075 | | | | | | | | | | Y | | | | | | | | | | | | | | | | Y | | |
| | | SGS AXYS MLA-075 | MLA-075 | | Y | | | | | | | | | | | | | | | | Y | | | | | | | | | | | |
| | 10-hydroxy-amitriptyline | SGS AXYS MLA-075 | MLA-075 | | Y | | | | | | | | | | | | | | | | Y | | | | | | | | | | | |
| | 2-hydroxy-ibuprofen | SGS AXYS MLA-075 | MLA-075 | | Y | | | | | | | | | | | | | | | | Y | | | | | | | | | | | |
| | 4-Epianhydrochlortetracycline (EACTC) | EPA 1694 | MLA-075 | | | | | | | | | | Y | | | | | | | | | | | | | | | | Y | | |
| | | SGS AXYS MLA-075 | MLA-075 | | Y | | | | | | | | | | | | | | | | Y | | | | | | | | | | | |
| | 4-Epianhydrotetracycline (EATC) | EPA 1694 | MLA-075 | | | | | | | | | | Y | | | | | | | | | | | | | | | | Y | | |
| | | SGS AXYS MLA-075 | MLA-075 | | Y | | | | | | | | | | | | | | | | Y | | | | | | | | | | | |
| | 4-Epichlortetracycline (ECTC) | EPA 1694 | MLA-075 | | | | | | | | | | Y | | | | | | | | | | | | | | | | Y | | |
| | | SGS AXYS MLA-075 | MLA-075 | | Y | | | | | | | | | | | | | | | | Y | | | | | | | | | | | |
| | 4-Epioxytetracycline (EOTC) | EPA 1694 | MLA-075 | | | | | | | | | | Y | | | | | | | | | | | | | | | | Y | | |
| | | SGS AXYS MLA-075 | MLA-075 | | Y | | | | | | | | | | | | | | | | Y | | | | | | | | | | | |
| | 4-Epitetracycline (ETC) | EPA 1694 | MLA-075 | | | | | | | | | | Y | | | | | | | | | | | | | | | | Y | | |
| | | SGS AXYS MLA-075 | MLA-075 | | Y | | | | | | | | | | | | | | | | Y | | | | | | | | | | | |
| | Acetaminophen | EPA 1694 | MLA-075 | | | | | | | | | | Y | | | | | | | | | | | | | | | | Y | | |
| | | SGS AXYS MLA-075 | MLA-075 | | Y | | | | | | | | | | | | | | | | Y | | | | | | | | | | | |
| | Albuterol | EPA 1694 | MLA-075 | | | | | | | | | | Y | | | | | | | | | | | | | | | | Y | | |
| | | SGS AXYS MLA-075 | MLA-075 | | Y | | | | | | | | | | | | | | | | Y | | | | | | | | | | | |
| | Alprazolam | SGS AXYS MLA-075 | MLA-075 | | Y | | | | | | | | | | | | | | | | Y | | | | | | | | | | | |
| | Amitriptyline | SGS AXYS MLA-075 | MLA-075 | | Y | | | | | | | | | | | | | | | | Y | | | | | | | | | | | |
| | Amlodipine | SGS AXYS MLA-075 | MLA-075 | | Y | | | | | | | | | | | | | | | | Y | | | | | | | | | | | |
| | Amphetamine | SGS AXYS MLA-075 | MLA-075 | | Y | | | | | | | | | | | | | | | | Y | | | | | | | | | | | |
| | Anhydrochlortetracycline (ACTC) | EPA 1694 | MLA-075 | | | | | | | | | | Y | | | | | | | | | | | | | | | | Y | | |
| | | SGS AXYS MLA-075 | MLA-075 | | Y | | | | | | | | | | | | | | | | Y | | | | | | | | | | | |
| | Anhydrotetracycline (ATC) | EPA 1694 | MLA-075 | | | | | | | | | | Y | | | | | | | | | | | | | | | | Y | | |
| | | SGS AXYS MLA-075 | MLA-075 | | Y | | | | | | | | | | | | | | | | Y | | | | | | | | | | | |
| | Atenolol | SGS AXYS MLA-075 | MLA-075 | | Y | | | | | | | | | | | | | | | | Y | | | | | | | | | | | |
| | Atorvastatin | SGS AXYS MLA-075 | MLA-075 | | Y | | | | | | | | | | | | | | | | Y | | | | | | | | | | | |
| | Azithromycin | EPA 1694 | MLA-075 | | | | | | | | | | Y | | | | | | | | | | | | | | | | Y | | |
| | | SGS AXYS MLA-075 | MLA-075 | | Y | | | | | | | | | | | | | | | | Y | | | | | | | | | | | |
| | Benzoylecgonine | SGS AXYS MLA-075 | MLA-075 | | Y | | | | | | | | | | | | | | | | Y | | | | | | | | | | | |
| | Benztropine | SGS AXYS MLA-075 | MLA-075 | | Y | | | | | | | | | | | | | | | | Y | | | | | | | | | | | |
| | Betamethasone | SGS AXYS MLA-075 | MLA-075 | | Y | | | | | | | | | | | | | | | | Y | | | | | | | | | | | |
| | Bisphenol A | EPA 1694 | MLA-075 | | | | | | | | | | Y | | | | | | | | | | | | | | | | Y | | |
| | | SGS AXYS MLA-075 | MLA-075 | | Y | | | | | | | | | | | | | | | | Y | | | | | | | | | | | |
| | Caffeine | EPA 1694 | MLA-075 | | | | | | | | | | Y | | | | | | | | | | | | | | | | Y | | |
| | | SGS AXYS MLA-075 | MLA-075 | | Y | | | | | | | | | | | | | | | | Y | | | | | | | | | | | |
| | Carbadox | EPA 1694 | MLA-075 | | | | | | | | | | Y | | | | | | | | | | | | | | | | Y | | |
| | | SGS AXYS MLA-075 | MLA-075 | | Y | | | | | | | | | | | | | | | | Y | | | | | | | | | | | |
| | Carbamazepine | EPA 1694 | MLA-075 | | | | | | | | | | Y | | | | | | | | | | | | | | | | Y | | |
| | | SGS AXYS MLA-075 | MLA-075 | | Y | | | | | | | | | | | | | | | | Y | | | | | | | | | | | |
| | Cefotaxime | EPA 1694 | MLA-075 | | | | | | | | | | Y | | | | | | | | | | | | | | | | Y | | |
| | | SGS AXYS MLA-075 | MLA-075 | | Y | | | | | | | | | | | | | | | | Y | | | | | | | | | | | |
| | Chlortetracycline (CTC) | EPA 1694 | MLA-075 | | | | | | | | | | Y | | | | | | | | | | | | | | | | Y | | |
| | | SGS AXYS MLA-075 | MLA-075 | | Y | | | | | | | | | | | | | | | | Y | | | | | | | | | | | |
| | Cimetidine | EPA 1694 | MLA-075 | | | | | | | | | | Y | | | | | | | | | | | | | | | | Y | | |
| | | SGS AXYS MLA-075 | MLA-075 | | Y | | | | | | | | | | | | | | | | Y | | | | | | | | | | | |

# Accreditation Scope

SGS AXYS Analytical Services Ltd.
file ref.: ACC-101 Rev. 42

| Compound Class | Compound | Accredited Method ID | SGS AXYS Method ID | Serum | Solids | | | | | | | | | | Tissue | | | | | Urine | Water | Water, Non-Potable | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | CALA | CALA | California DPH | Florida DOH | Minnesota DOH | New Jersey DEP | New York DOH | Virginia DGS | Washington DE | Maine DOH | ANAB DoD ** | CALA | Florida DOH | Minnesota DOH | New Jersey DEP | Virginia DGS | CALA | CALA | California DPH | Florida DOH | Minnesota DOH | New Jersey DEP | New York DOH | Virginia DGS | Washington DE * | Maine DOH | Pennsylvania DEP | ANAB DoD ** |
| | Ciprofloxacin | EPA 1694 | MLA-075 | | | | | | | | | Y | | | | | | | | | | | | | | | | | Y | | |
| | | SGS AXYS MLA-075 | MLA-075 | | Y | | | | | | | | | | | | | | | | Y | | | | | | | | | | |
| | Clarithromycin | EPA 1694 | MLA-075 | | | | | | | | | Y | | | | | | | | | | | | | | | | | Y | | |
| | | SGS AXYS MLA-075 | MLA-075 | | Y | | | | | | | | | | | | | | | | Y | | | | | | | | | | |
| | Clinafloxacin | EPA 1694 | MLA-075 | | | | | | | | | Y | | | | | | | | | | | | | | | | | Y | | |
| | | SGS AXYS MLA-075 | MLA-075 | | Y | | | | | | | | | | | | | | | | Y | | | | | | | | | | |
| | Clonidine | SGS AXYS MLA-075 | MLA-075 | | Y | | | | | | | | | | | | | | | | Y | | | | | | | | | | |
| | Cloxacillin | EPA 1694 | MLA-075 | | | | | | | | | Y | | | | | | | | | | | | | | | | | Y | | |
| | | SGS AXYS MLA-075 | MLA-075 | | Y | | | | | | | | | | | | | | | | Y | | | | | | | | | | |
| | Cocaine | SGS AXYS MLA-075 | MLA-075 | | Y | | | | | | | | | | | | | | | | Y | | | | | | | | | | |
| | Codeine | EPA 1694 | MLA-075 | | | | | | | | | Y | | | | | | | | | | | | | | | | | Y | | |
| | | SGS AXYS MLA-075 | MLA-075 | | Y | | | | | | | | | | | | | | | | Y | | | | | | | | | | |
| | Cotinine | EPA 1694 | MLA-075 | | | | | | | | | Y | | | | | | | | | | | | | | | | | Y | | |
| | | SGS AXYS MLA-075 | MLA-075 | | Y | | | | | | | | | | | | | | | | Y | | | | | | | | | | |
| | DEET (N,N-diethyl-m-toluamide) | SGS AXYS MLA-075 | MLA-075 | | Y | | | | | | | | | | | | | | | | Y | | | | | | | | | | |
| | Dehydronifedipine | EPA 1694 | MLA-075 | | | | | | | | | Y | | | | | | | | | | | | | | | | | Y | | |
| | | SGS AXYS MLA-075 | MLA-075 | | Y | | | | | | | | | | | | | | | | Y | | | | | | | | | | |
| | Demeclocycline | EPA 1694 | MLA-075 | | | | | | | | | Y | | | | | | | | | | | | | | | | | Y | | |
| | | SGS AXYS MLA-075 | MLA-075 | | Y | | | | | | | | | | | | | | | | Y | | | | | | | | | | |
| | Desmethyldiltiazem | SGS AXYS MLA-075 | MLA-075 | | Y | | | | | | | | | | | | | | | | Y | | | | | | | | | | |
| | Diazepam | SGS AXYS MLA-075 | MLA-075 | | Y | | | | | | | | | | | | | | | | Y | | | | | | | | | | |
| | Digoxigenin | EPA 1694 | MLA-075 | | | | | | | | | Y | | | | | | | | | | | | | | | | | Y | | |
| | | SGS AXYS MLA-075 | MLA-075 | | Y | | | | | | | | | | | | | | | | Y | | | | | | | | | | |
| | Digoxin | EPA 1694 | MLA-075 | | | | | | | | | Y | | | | | | | | | | | | | | | | | Y | | |
| | | SGS AXYS MLA-075 | MLA-075 | | Y | | | | | | | | | | | | | | | | Y | | | | | | | | | | |
| | Diltiazem | EPA 1694 | MLA-075 | | | | | | | | | Y | | | | | | | | | | | | | | | | | Y | | |
| | | SGS AXYS MLA-075 | MLA-075 | | Y | | | | | | | | | | | | | | | | Y | | | | | | | | | | |
| | Diphenhydramine | EPA 1694 | MLA-075 | | | | | | | | | Y | | | | | | | | | | | | | | | | | Y | | |
| | | SGS AXYS MLA-075 | MLA-075 | | Y | | | | | | | | | | | | | | | | Y | | | | | | | | | | |
| | Doxycycline | EPA 1694 | MLA-075 | | | | | | | | | Y | | | | | | | | | | | | | | | | | Y | | |
| | | SGS AXYS MLA-075 | MLA-075 | | Y | | | | | | | | | | | | | | | | Y | | | | | | | | | | |
| | Enalapril | EPA 1694 | MLA-075 | | | | | | | | | Y | | | | | | | | | | | | | | | | | Y | | |
| | | SGS AXYS MLA-075 | MLA-075 | | Y | | | | | | | | | | | | | | | | Y | | | | | | | | | | |
| | Enrofloxacin | EPA 1694 | MLA-075 | | | | | | | | | Y | | | | | | | | | | | | | | | | | Y | | |
| | | SGS AXYS MLA-075 | MLA-075 | | Y | | | | | | | | | | | | | | | | Y | | | | | | | | | | |
| | Erythromycin | SGS AXYS MLA-075 | MLA-075 | | Y | | | | | | | | | | | | | | | | Y | | | | | | | | | | |
| | Erythromycin anydrate | EPA 1694 | MLA-075 | | | | | | | | | Y | | | | | | | | | | | | | | | | | Y | | |
| | Flumequine | EPA 1694 | MLA-075 | | | | | | | | | Y | | | | | | | | | | | | | | | | | Y | | |
| | | SGS AXYS MLA-075 | MLA-075 | | Y | | | | | | | | | | | | | | | | Y | | | | | | | | | | |
| | Fluocinonide | SGS AXYS MLA-075 | MLA-075 | | Y | | | | | | | | | | | | | | | | Y | | | | | | | | | | |
| | Fluoxetine | EPA 1694 | MLA-075 | | | | | | | | | Y | | | | | | | | | | | | | | | | | Y | | |
| | | SGS AXYS MLA-075 | MLA-075 | | Y | | | | | | | | | | | | | | | | Y | | | | | | | | | | |
| | Fluticasone propionate | SGS AXYS MLA-075 | MLA-075 | | Y | | | | | | | | | | | | | | | | Y | | | | | | | | | | |
| | Furosemide | SGS AXYS MLA-075 | MLA-075 | | Y | | | | | | | | | | | | | | | | Y | | | | | | | | | | |
| | Gemfibrozil | EPA 1694 | MLA-075 | | | | | | | | | Y | | | | | | | | | | | | | | | | | Y | | |
| | | SGS AXYS MLA-075 | MLA-075 | | Y | | | | | | | | | | | | | | | | Y | | | | | | | | | | |
| | Glipizide | SGS AXYS MLA-075 | MLA-075 | | Y | | | | | | | | | | | | | | | | Y | | | | | | | | | | |
| | Glyburide | SGS AXYS MLA-075 | MLA-075 | | Y | | | | | | | | | | | | | | | | Y | | | | | | | | | | |
| | Hydrochlorothiazide | SGS AXYS MLA-075 | MLA-075 | | Y | | | | | | | | | | | | | | | | Y | | | | | | | | | | |
| | Hydrocodone | SGS AXYS MLA-075 | MLA-075 | | Y | | | | | | | | | | | | | | | | Y | | | | | | | | | | |

# Accreditation Scope

SGS AXYS Analytical Services Ltd.
file ref.: ACC-101 Rev. 42

| Compound Class | Compound | Accredited Method ID | SGS AXYS Method ID | Serum | Solids | | | | | | | | | | Tissue | | | | | | Urine | Water | Water, Non-Potable | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | CALA | CALA | California DPH | Florida DOH | Minnesota DOH | New Jersey DEP | New York DOH | Virginia DGS | Washington DE | Maine DOH | ANAB DoD ** | CALA | Florida DOH | Minnesota DOH | New Jersey DEP | New York DOH | Virginia DGS | CALA | CALA | California DPH | Florida DOH | Minnesota DOH | New Jersey DEP | New York DOH | Virginia DGS | Washington DE * | Maine DOH | Pennsylvania DEP | ANAB DoD ** |
| | Hydrocortisone | SGS AXYS MLA-075 | MLA-075 | | Y | | | | | | | | | | | | | | | | | Y | | | | | | | | | | |
| | Ibuprofen | EPA 1694 | MLA-075 | | | | | | | | | | Y | | | | | | | | | | | | | | | | | | Y | |
| | | SGS AXYS MLA-075 | MLA-075 | | Y | | | | | | | | | | | | | | | | | Y | | | | | | | | | | |
| | Isochlortetracycline (ICTC) | EPA 1694 | MLA-075 | | | | | | | | | | Y | | | | | | | | | | | | | | | | | | Y | |
| | | SGS AXYS MLA-075 | MLA-075 | | Y | | | | | | | | | | | | | | | | | Y | | | | | | | | | | |
| | Lincomycin | EPA 1694 | MLA-075 | | | | | | | | | | Y | | | | | | | | | | | | | | | | | | Y | |
| | | SGS AXYS MLA-075 | MLA-075 | | Y | | | | | | | | | | | | | | | | | Y | | | | | | | | | | |
| | Lomefloxacin | EPA 1694 | MLA-075 | | | | | | | | | | Y | | | | | | | | | | | | | | | | | | Y | |
| | | SGS AXYS MLA-075 | MLA-075 | | Y | | | | | | | | | | | | | | | | | Y | | | | | | | | | | |
| | Meprobamate | SGS AXYS MLA-075 | MLA-075 | | Y | | | | | | | | | | | | | | | | | Y | | | | | | | | | | |
| | Metformin | EPA 1694 | MLA-075 | | | | | | | | | | Y | | | | | | | | | | | | | | | | | | Y | |
| | | SGS AXYS MLA-075 | MLA-075 | | Y | | | | | | | | | | | | | | | | | Y | | | | | | | | | | |
| | Methylprednisolone | SGS AXYS MLA-075 | MLA-075 | | Y | | | | | | | | | | | | | | | | | Y | | | | | | | | | | |
| | Metoprolol | SGS AXYS MLA-075 | MLA-075 | | Y | | | | | | | | | | | | | | | | | Y | | | | | | | | | | |
| | Miconazole | EPA 1694 | MLA-075 | | | | | | | | | | Y | | | | | | | | | | | | | | | | | | Y | |
| | | SGS AXYS MLA-075 | MLA-075 | | Y | | | | | | | | | | | | | | | | | Y | | | | | | | | | | |
| | Minocycline | EPA 1694 | MLA-075 | | | | | | | | | | Y | | | | | | | | | | | | | | | | | | Y | |
| | | SGS AXYS MLA-075 | MLA-075 | | Y | | | | | | | | | | | | | | | | | Y | | | | | | | | | | |
| | Naproxen | EPA 1694 | MLA-075 | | | | | | | | | | Y | | | | | | | | | | | | | | | | | | Y | |
| | | SGS AXYS MLA-075 | MLA-075 | | Y | | | | | | | | | | | | | | | | | Y | | | | | | | | | | |
| | Norfloxacin | EPA 1694 | MLA-075 | | | | | | | | | | Y | | | | | | | | | | | | | | | | | | Y | |
| | | SGS AXYS MLA-075 | MLA-075 | | Y | | | | | | | | | | | | | | | | | Y | | | | | | | | | | |
| | Norfluoxetine | SGS AXYS MLA-075 | MLA-075 | | Y | | | | | | | | | | | | | | | | | Y | | | | | | | | | | |
| | Norgestimate | EPA 1694 | MLA-075 | | | | | | | | | | Y | | | | | | | | | | | | | | | | | | Y | |
| | | SGS AXYS MLA-075 | MLA-075 | | Y | | | | | | | | | | | | | | | | | Y | | | | | | | | | | |
| | Norverapamil | SGS AXYS MLA-075 | MLA-075 | | Y | | | | | | | | | | | | | | | | | Y | | | | | | | | | | |
| | Ofloxacin | EPA 1694 | MLA-075 | | | | | | | | | | Y | | | | | | | | | | | | | | | | | | Y | |
| | | SGS AXYS MLA-075 | MLA-075 | | Y | | | | | | | | | | | | | | | | | Y | | | | | | | | | | |
| | Ormetoprim | EPA 1694 | MLA-075 | | | | | | | | | | Y | | | | | | | | | | | | | | | | | | Y | |
| | | SGS AXYS MLA-075 | MLA-075 | | Y | | | | | | | | | | | | | | | | | Y | | | | | | | | | | |
| | Oxacillin | EPA 1694 | MLA-075 | | | | | | | | | | Y | | | | | | | | | | | | | | | | | | Y | |
| | | SGS AXYS MLA-075 | MLA-075 | | Y | | | | | | | | | | | | | | | | | Y | | | | | | | | | | |
| | Oxolinic acid | EPA 1694 | MLA-075 | | | | | | | | | | Y | | | | | | | | | | | | | | | | | | Y | |
| | | SGS AXYS MLA-075 | MLA-075 | | Y | | | | | | | | | | | | | | | | | Y | | | | | | | | | | |
| | Oxycodone | EPA 1694 | MLA-075 | | | | | | | | | | Y | | | | | | | | | | | | | | | | | | Y | |
| | | SGS AXYS MLA-075 | MLA-075 | | Y | | | | | | | | | | | | | | | | | Y | | | | | | | | | | |
| | Oxytetracycline (OTC) | EPA 1694 | MLA-075 | | | | | | | | | | Y | | | | | | | | | | | | | | | | | | Y | |
| | | SGS AXYS MLA-075 | MLA-075 | | Y | | | | | | | | | | | | | | | | | Y | | | | | | | | | | |
| | Paroxetine | EPA 1694 | MLA-075 | | | | | | | | | | Y | | | | | | | | | | | | | | | | | | Y | |
| | | SGS AXYS MLA-075 | MLA-075 | | Y | | | | | | | | | | | | | | | | | Y | | | | | | | | | | |
| | Penicillin G | EPA 1694 | MLA-075 | | | | | | | | | | Y | | | | | | | | | | | | | | | | | | Y | |
| | | SGS AXYS MLA-075 | MLA-075 | | Y | | | | | | | | | | | | | | | | | Y | | | | | | | | | | |
| | Penicillin V | EPA 1694 | MLA-075 | | | | | | | | | | Y | | | | | | | | | | | | | | | | | | Y | |
| | | SGS AXYS MLA-075 | MLA-075 | | Y | | | | | | | | | | | | | | | | | Y | | | | | | | | | | |
| | Prednisolone | SGS AXYS MLA-075 | MLA-075 | | Y | | | | | | | | | | | | | | | | | Y | | | | | | | | | | |
| | Prednisone | SGS AXYS MLA-075 | MLA-075 | | Y | | | | | | | | | | | | | | | | | Y | | | | | | | | | | |
| | Promethazine | SGS AXYS MLA-075 | MLA-075 | | Y | | | | | | | | | | | | | | | | | Y | | | | | | | | | | |
| | Propoxyphene | SGS AXYS MLA-075 | MLA-075 | | Y | | | | | | | | | | | | | | | | | Y | | | | | | | | | | |
| | Propranolol | SGS AXYS MLA-075 | MLA-075 | | Y | | | | | | | | | | | | | | | | | Y | | | | | | | | | | |
| | Ranitidine | EPA 1694 | MLA-075 | | | | | | | | | | Y | | | | | | | | | | | | | | | | | | Y | |

# Accreditation Scope

SGS AXYS Analytical Services Ltd.
file ref.: ACC-101 Rev. 42

| Compound Class | Compound | Accredited Method ID | SGS AXYS Method ID | Serum | Solids | | | | | | | | | | Tissue | | | | | Urine | Water | Water, Non-Potable | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | CALA | CALA | California DPH | Florida DOH | Minnesota DOH | New Jersey DEP | New York DOH | Virginia DGS | Washington DE | Maine DOH | ANAB DoD ** | CALA | Florida DOH | Minnesota DOH | New Jersey DEP | Virginia DGS | CALA | CALA | California DPH | Florida DOH | Minnesota DOH | New Jersey DEP | New York DOH | Virginia DGS | Washington DE * | Maine DOH | Pennsylvania DEP | ANAB DoD ** |
| | | SGS AXYS MLA-075 | MLA-075 | | Y | | | | | | | | | | | | | | | | Y | | | | | | | | | | |
| | Roxithromycin | EPA 1694 | MLA-075 | | | | | | | | | | Y | | | | | | | | | | | | | | | | | Y | |
| | | SGS AXYS MLA-075 | MLA-075 | | Y | | | | | | | | | | | | | | | | Y | | | | | | | | | | |
| | Sarafloxacin | EPA 1694 | MLA-075 | | | | | | | | | | Y | | | | | | | | | | | | | | | | | Y | |
| | | SGS AXYS MLA-075 | MLA-075 | | Y | | | | | | | | | | | | | | | | Y | | | | | | | | | | |
| | Sertraline | SGS AXYS MLA-075 | MLA-075 | | Y | | | | | | | | | | | | | | | | Y | | | | | | | | | | |
| | Simvastatin | SGS AXYS MLA-075 | MLA-075 | | Y | | | | | | | | | | | | | | | | Y | | | | | | | | | | |
| | Sulfachloropyridazine | EPA 1694 | MLA-075 | | | | | | | | | | Y | | | | | | | | | | | | | | | | | Y | |
| | | SGS AXYS MLA-075 | MLA-075 | | Y | | | | | | | | | | | | | | | | Y | | | | | | | | | | |
| | Sulfadiazine | EPA 1694 | MLA-075 | | | | | | | | | | Y | | | | | | | | | | | | | | | | | Y | |
| | | SGS AXYS MLA-075 | MLA-075 | | Y | | | | | | | | | | | | | | | | Y | | | | | | | | | | |
| | Sulfadimethoxine | EPA 1694 | MLA-075 | | | | | | | | | | Y | | | | | | | | | | | | | | | | | Y | |
| | | SGS AXYS MLA-075 | MLA-075 | | Y | | | | | | | | | | | | | | | | Y | | | | | | | | | | |
| | Sulfamerazine | EPA 1694 | MLA-075 | | | | | | | | | | Y | | | | | | | | | | | | | | | | | Y | |
| | | SGS AXYS MLA-075 | MLA-075 | | Y | | | | | | | | | | | | | | | | Y | | | | | | | | | | |
| | Sulfamethazine | EPA 1694 | MLA-075 | | | | | | | | | | Y | | | | | | | | | | | | | | | | | Y | |
| | | SGS AXYS MLA-075 | MLA-075 | | Y | | | | | | | | | | | | | | | | Y | | | | | | | | | | |
| | Sulfamethizole | EPA 1694 | MLA-075 | | | | | | | | | | Y | | | | | | | | | | | | | | | | | Y | |
| | | SGS AXYS MLA-075 | MLA-075 | | Y | | | | | | | | | | | | | | | | Y | | | | | | | | | | |
| | Sulfamethoxazole | EPA 1694 | MLA-075 | | | | | | | | | | Y | | | | | | | | | | | | | | | | | Y | |
| | | SGS AXYS MLA-075 | MLA-075 | | Y | | | | | | | | | | | | | | | | Y | | | | | | | | | | |
| | Sulfanilamide | EPA 1694 | MLA-075 | | | | | | | | | | Y | | | | | | | | | | | | | | | | | Y | |
| | | SGS AXYS MLA-075 | MLA-075 | | Y | | | | | | | | | | | | | | | | Y | | | | | | | | | | |
| | Sulfathiazole | EPA 1694 | MLA-075 | | | | | | | | | | Y | | | | | | | | | | | | | | | | | Y | |
| | | SGS AXYS MLA-075 | MLA-075 | | Y | | | | | | | | | | | | | | | | Y | | | | | | | | | | |
| | Tetracycline (TC) | EPA 1694 | MLA-075 | | | | | | | | | | Y | | | | | | | | | | | | | | | | | Y | |
| | | SGS AXYS MLA-075 | MLA-075 | | Y | | | | | | | | | | | | | | | | Y | | | | | | | | | | |
| | Theophylline | SGS AXYS MLA-075 | MLA-075 | | Y | | | | | | | | | | | | | | | | Y | | | | | | | | | | |
| | Thiabendazole | EPA 1694 | MLA-075 | | | | | | | | | | Y | | | | | | | | | | | | | | | | | Y | |
| | | SGS AXYS MLA-075 | MLA-075 | | Y | | | | | | | | | | | | | | | | Y | | | | | | | | | | |
| | Trenbolone | SGS AXYS MLA-075 | MLA-075 | | Y | | | | | | | | | | | | | | | | Y | | | | | | | | | | |
| | Trenbolone acetate | SGS AXYS MLA-075 | MLA-075 | | Y | | | | | | | | | | | | | | | | Y | | | | | | | | | | |
| | Triamterene | SGS AXYS MLA-075 | MLA-075 | | Y | | | | | | | | | | | | | | | | Y | | | | | | | | | | |
| | Triclocarban | EPA 1694 | MLA-075 | | | | | | | | | | Y | | | | | | | | | | | | | | | | | Y | |
| | | SGS AXYS MLA-075 | MLA-075 | | Y | | | | | | | | | | | | | | | | Y | | | | | | | | | | |
| | Triclosan | EPA 1694 | MLA-075 | | | | | | | | | | Y | | | | | | | | | | | | | | | | | Y | |
| | | SGS AXYS MLA-075 | MLA-075 | | Y | | | | | | | | | | | | | | | | Y | | | | | | | | | | |
| | Trimethoprim | EPA 1694 | MLA-075 | | | | | | | | | | Y | | | | | | | | | | | | | | | | | Y | |
| | | SGS AXYS MLA-075 | MLA-075 | | Y | | | | | | | | | | | | | | | | Y | | | | | | | | | | |
| | Tylosin | EPA 1694 | MLA-075 | | | | | | | | | | Y | | | | | | | | | | | | | | | | | Y | |
| | | SGS AXYS MLA-075 | MLA-075 | | Y | | | | | | | | | | | | | | | | Y | | | | | | | | | | |
| | Valsartan | SGS AXYS MLA-075 | MLA-075 | | Y | | | | | | | | | | | | | | | | Y | | | | | | | | | | |
| | Verapamil | SGS AXYS MLA-075 | MLA-075 | | Y | | | | | | | | | | | | | | | | Y | | | | | | | | | | |
| | Virginiamycin | EPA 1694 | MLA-075 | | | | | | | | | | Y | | | | | | | | | | | | | | | | | Y | |
| | | SGS AXYS MLA-075 | MLA-075 | | Y | | | | | | | | | | | | | | | | Y | | | | | | | | | | |
| | Warfarin | EPA 1694 | MLA-075 | | | | | | | | | | Y | | | | | | | | | | | | | | | | | Y | |
| | | SGS AXYS MLA-075 | MLA-075 | | Y | | | | | | | | | | | | | | | | Y | | | | | | | | | | |
| Targeted Metabolites | 11, 14, 17-eicosatrienoic acid (eicosatrienoic acid) | SGS AXYS MLM-001 | MLM-001 | | | | | | | | | | | | Y | | | | | | | | | | | | | | | | |
| | 11, 14-eicosadienoic acid | SGS AXYS MLM-001 | MLM-001 | | | | | | | | | | | | Y | | | | | | | | | | | | | | | | |
| | 3-hydroxytyrosine | SGS AXYS MLM-001 | MLM-001 | Y | | | | | | | | | | | Y | | | | | Y | | | | | | | | | | | |

# Accreditation Scope

SGS AXYS Analytical Services Ltd.
file ref.: ACC-101 Rev. 42

| | | | | Serum | Solids | | | | | | | | | | Tissue | | | | | Urine | Water | Water, Non-Potable | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Compound Class | Compound | Accredited Method ID | SGS AXYS Method ID | CALA | CALA | California DPH | Florida DOH | Minnesota DOH | New Jersey DEP | New York DOH | Virginia DGS | Washington DE | Maine DOH | ANAB DoD ** | CALA | Florida DOH | Minnesota DOH | New Jersey DEP | Virginia DGS | CALA | CALA | California DPH | Florida DOH | Minnesota DOH | New Jersey DEP | New York DOH | Virginia DGS | Washington DE * | Maine DOH | Pennsylvania DEP | ANAB DoD ** |
| | Acetylcarnitine | SGS AXYS MLM-001 | MLM-001 | Y | | | | | | | | | | | Y | | | | | Y | | | | | | | | | | | |
| | Acetylornithine | SGS AXYS MLM-001 | MLM-001 | Y | | | | | | | | | | | Y | | | | | Y | | | | | | | | | | | |
| | Alanine | SGS AXYS MLM-001 | MLM-001 | Y | | | | | | | | | | | Y | | | | | Y | | | | | | | | | | | |
| | alpha-Aminoadipic acid | SGS AXYS MLM-001 | MLM-001 | Y | | | | | | | | | | | Y | | | | | Y | | | | | | | | | | | |
| | Arginine | SGS AXYS MLM-001 | MLM-001 | Y | | | | | | | | | | | Y | | | | | Y | | | | | | | | | | | |
| | Asparagine | SGS AXYS MLM-001 | MLM-001 | Y | | | | | | | | | | | Y | | | | | Y | | | | | | | | | | | |
| | Aspartate | SGS AXYS MLM-001 | MLM-001 | Y | | | | | | | | | | | Y | | | | | Y | | | | | | | | | | | |
| | Asymmetric dimethylarginine | SGS AXYS MLM-001 | MLM-001 | Y | | | | | | | | | | | Y | | | | | Y | | | | | | | | | | | |
| | Butenylcarnitine | SGS AXYS MLM-001 | MLM-001 | Y | | | | | | | | | | | Y | | | | | Y | | | | | | | | | | | |
| | Butyrylcarnitine | SGS AXYS MLM-001 | MLM-001 | Y | | | | | | | | | | | Y | | | | | Y | | | | | | | | | | | |
| | C22:5 ISOMER 1 (tentatively all-cis-4, 8, 12, 15, 19-docosapentaenoic acid) | SGS AXYS MLM-001 | MLM-001 | | | | | | | | | | | | Y | | | | | | | | | | | | | | | | |
| | C22:5 ISOMER 2 (all-cis-7,10,13,16,19-docosapentaenoic acid (DPA) | SGS AXYS MLM-001 | MLM-001 | | | | | | | | | | | | Y | | | | | | | | | | | | | | | | |
| | C22:5 ISOMER 3 (tentatively all-cis-4, 7, 10, 13, 16-docosapentaenoic acid) | SGS AXYS MLM-001 | MLM-001 | | | | | | | | | | | | Y | | | | | | | | | | | | | | | | |
| | Carnitine | SGS AXYS MLM-001 | MLM-001 | Y | | | | | | | | | | | Y | | | | | Y | | | | | | | | | | | |
| | Carnosine | SGS AXYS MLM-001 | MLM-001 | Y | | | | | | | | | | | Y | | | | | Y | | | | | | | | | | | |
| | chenodeoxycholic acid | SGS AXYS MLM-001 | MLM-001 | Y | | | | | | | | | | | Y | | | | | Y | | | | | | | | | | | |
| | cholic acid | SGS AXYS MLM-001 | MLM-001 | Y | | | | | | | | | | | Y | | | | | Y | | | | | | | | | | | |
| | Citrulline | SGS AXYS MLM-001 | MLM-001 | Y | | | | | | | | | | | Y | | | | | Y | | | | | | | | | | | |
| | Creatinine | SGS AXYS MLM-001 | MLM-001 | Y | | | | | | | | | | | Y | | | | | Y | | | | | | | | | | | |
| | Decadienylcarnitine | SGS AXYS MLM-001 | MLM-001 | Y | | | | | | | | | | | Y | | | | | Y | | | | | | | | | | | |
| | decanoic acid (capric acid) | SGS AXYS MLM-001 | MLM-001 | | | | | | | | | | | | Y | | | | | | | | | | | | | | | | |
| | Decanoylcarnitine | SGS AXYS MLM-001 | MLM-001 | Y | | | | | | | | | | | Y | | | | | Y | | | | | | | | | | | |
| | Decenoylcarnitine | SGS AXYS MLM-001 | MLM-001 | Y | | | | | | | | | | | Y | | | | | Y | | | | | | | | | | | |
| | deoxycholic acid | SGS AXYS MLM-001 | MLM-001 | Y | | | | | | | | | | | Y | | | | | Y | | | | | | | | | | | |
| | docosahexaenoic acid (DHA) | SGS AXYS MLM-001 | MLM-001 | | | | | | | | | | | | Y | | | | | | | | | | | | | | | | |
| | docosatetraenoic acid (adrenic acid) | SGS AXYS MLM-001 | MLM-001 | | | | | | | | | | | | Y | | | | | | | | | | | | | | | | |
| | Dodecanedioylcarnitine | SGS AXYS MLM-001 | MLM-001 | Y | | | | | | | | | | | Y | | | | | Y | | | | | | | | | | | |
| | Dodecanoylcarnitine | SGS AXYS MLM-001 | MLM-001 | Y | | | | | | | | | | | Y | | | | | Y | | | | | | | | | | | |
| | Dodecenoylcarnitine | SGS AXYS MLM-001 | MLM-001 | Y | | | | | | | | | | | Y | | | | | Y | | | | | | | | | | | |
| | Dopamine | SGS AXYS MLM-001 | MLM-001 | Y | | | | | | | | | | | Y | | | | | Y | | | | | | | | | | | |
| | eicosapentaenoic acid (EPA) | SGS AXYS MLM-001 | MLM-001 | | | | | | | | | | | | Y | | | | | | | | | | | | | | | | |
| | Eicosatetraenoic acid (arachidonic acid) | SGS AXYS MLM-001 | MLM-001 | | | | | | | | | | | | Y | | | | | | | | | | | | | | | | |
| | eicosatrienoic acid (dihomo-γ-linolenic acid) | SGS AXYS MLM-001 | MLM-001 | | | | | | | | | | | | Y | | | | | | | | | | | | | | | | |
| | Glutaconylcarnitine | SGS AXYS MLM-001 | MLM-001 | Y | | | | | | | | | | | Y | | | | | Y | | | | | | | | | | | |
| | Glutamate | SGS AXYS MLM-001 | MLM-001 | Y | | | | | | | | | | | Y | | | | | Y | | | | | | | | | | | |
| | Glutamine | SGS AXYS MLM-001 | MLM-001 | Y | | | | | | | | | | | Y | | | | | Y | | | | | | | | | | | |
| | Glutarylcarnitine (Hydroxyhexanoylcarnitine) | SGS AXYS MLM-001 | MLM-001 | Y | | | | | | | | | | | Y | | | | | Y | | | | | | | | | | | |
| | Glycine | SGS AXYS MLM-001 | MLM-001 | Y | | | | | | | | | | | Y | | | | | Y | | | | | | | | | | | |
| | glycochenodeoxycholic acid | SGS AXYS MLM-001 | MLM-001 | Y | | | | | | | | | | | Y | | | | | Y | | | | | | | | | | | |
| | glycocholic acid | SGS AXYS MLM-001 | MLM-001 | Y | | | | | | | | | | | Y | | | | | Y | | | | | | | | | | | |
| | glycodeoxycholic acid | SGS AXYS MLM-001 | MLM-001 | Y | | | | | | | | | | | Y | | | | | Y | | | | | | | | | | | |
| | Hexadecadienylcarnitine | SGS AXYS MLM-001 | MLM-001 | Y | | | | | | | | | | | Y | | | | | Y | | | | | | | | | | | |
| | hexadecanoic acid (palmitic acid) | SGS AXYS MLM-001 | MLM-001 | | | | | | | | | | | | Y | | | | | | | | | | | | | | | | |
| | Hexadecanoylcarnitine | SGS AXYS MLM-001 | MLM-001 | Y | | | | | | | | | | | Y | | | | | Y | | | | | | | | | | | |
| | hexadecenoic acid (palmitoleic acid) | SGS AXYS MLM-001 | MLM-001 | | | | | | | | | | | | Y | | | | | | | | | | | | | | | | |
| | Hexadecenoylcarnitine | SGS AXYS MLM-001 | MLM-001 | Y | | | | | | | | | | | Y | | | | | Y | | | | | | | | | | | |
| | Hexanoylcarnitine (Fumarylcarnitine) | SGS AXYS MLM-001 | MLM-001 | Y | | | | | | | | | | | Y | | | | | Y | | | | | | | | | | | |
| | Hexenoylcarnitine | SGS AXYS MLM-001 | MLM-001 | Y | | | | | | | | | | | Y | | | | | Y | | | | | | | | | | | |
| | Hexose (sum isomers) | SGS AXYS MLM-001 | MLM-001 | Y | | | | | | | | | | | Y | | | | | Y | | | | | | | | | | | |
| | Histamine | SGS AXYS MLM-001 | MLM-001 | Y | | | | | | | | | | | Y | | | | | Y | | | | | | | | | | | |
| | Histidine | SGS AXYS MLM-001 | MLM-001 | Y | | | | | | | | | | | Y | | | | | Y | | | | | | | | | | | |
| | Hydroxyhexadecadienylcarnitine | SGS AXYS MLM-001 | MLM-001 | Y | | | | | | | | | | | Y | | | | | Y | | | | | | | | | | | |
| | Hydroxyhexadecanoylcarnitine | SGS AXYS MLM-001 | MLM-001 | Y | | | | | | | | | | | Y | | | | | Y | | | | | | | | | | | |
| | Hydroxyhexadecenoylcarnitine | SGS AXYS MLM-001 | MLM-001 | Y | | | | | | | | | | | Y | | | | | Y | | | | | | | | | | | |
| | Hydroxylbutyrylcarnitine | SGS AXYS MLM-001 | MLM-001 | Y | | | | | | | | | | | Y | | | | | Y | | | | | | | | | | | |
| | Hydroxyoctadecenoylcarnitine | SGS AXYS MLM-001 | MLM-001 | Y | | | | | | | | | | | Y | | | | | Y | | | | | | | | | | | |
| | Hydroxyproline | SGS AXYS MLM-001 | MLM-001 | Y | | | | | | | | | | | Y | | | | | Y | | | | | | | | | | | |

# Accreditation Scope

SGS AXYS Analytical Services Ltd.
file ref.: ACC-101 Rev. 42

| | | | | Serum | Solids | | | | | | | | | | Tissue | | | | | | Urine | Water | Water, Non-Potable | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Compound Class | Compound | Accredited Method ID | SGS AXYS Method ID | CALA | CALA | California DPH | Florida DOH | Minnesota DOH | New Jersey DEP | New York DOH | Virginia DGS | Washington DE | Maine DOH | ANAB DoD ** | CALA | Florida DOH | Minnesota DOH | New Jersey DEP | Virginia DGS | CALA | CALA | California DPH | Florida DOH | Minnesota DOH | New Jersey DEP | New York DOH | Virginia DGS | Washington DE * | Maine DOH | Pennsylvania DEP | ANAB DoD ** |
| | Hydroxypropionylcarnitine | SGS AXYS MLM-001 | MLM-001 | Y | | | | | | | | | | | Y | | | | | Y | | | | | | | | | | | |
| | Hydroxysphingomyeline C14:1 | SGS AXYS MLM-001 | MLM-001 | Y | | | | | | | | | | | Y | | | | | Y | | | | | | | | | | | |
| | Hydroxysphingomyeline C16:1 | SGS AXYS MLM-001 | MLM-001 | Y | | | | | | | | | | | Y | | | | | Y | | | | | | | | | | | |
| | Hydroxysphingomyeline C22:1 | SGS AXYS MLM-001 | MLM-001 | Y | | | | | | | | | | | Y | | | | | Y | | | | | | | | | | | |
| | Hydroxysphingomyeline C22:2 | SGS AXYS MLM-001 | MLM-001 | Y | | | | | | | | | | | Y | | | | | Y | | | | | | | | | | | |
| | Hydroxysphingomyeline C24:1 | SGS AXYS MLM-001 | MLM-001 | Y | | | | | | | | | | | Y | | | | | Y | | | | | | | | | | | |
| | Hydroxytetradecadienylcarnitine | SGS AXYS MLM-001 | MLM-001 | Y | | | | | | | | | | | Y | | | | | Y | | | | | | | | | | | |
| | Hydroxytetradecenoylcarnitine | SGS AXYS MLM-001 | MLM-001 | Y | | | | | | | | | | | Y | | | | | Y | | | | | | | | | | | |
| | Hydroxyvalerylcarnitine (Methylmalonylcarnitine) | SGS AXYS MLM-001 | MLM-001 | Y | | | | | | | | | | | Y | | | | | Y | | | | | | | | | | | |
| | Isoleucine | SGS AXYS MLM-001 | MLM-001 | Y | | | | | | | | | | | Y | | | | | Y | | | | | | | | | | | |
| | Kynurenine | SGS AXYS MLM-001 | MLM-001 | Y | | | | | | | | | | | Y | | | | | Y | | | | | | | | | | | |
| | Leucine | SGS AXYS MLM-001 | MLM-001 | Y | | | | | | | | | | | Y | | | | | Y | | | | | | | | | | | |
| | lithocholic acid | SGS AXYS MLM-001 | MLM-001 | Y | | | | | | | | | | | Y | | | | | Y | | | | | | | | | | | |
| | Lysine | SGS AXYS MLM-001 | MLM-001 | Y | | | | | | | | | | | Y | | | | | Y | | | | | | | | | | | |
| | lysoPhosphatidylcholine acyl C14:0 | SGS AXYS MLM-001 | MLM-001 | Y | | | | | | | | | | | Y | | | | | Y | | | | | | | | | | | |
| | lysoPhosphatidylcholine acyl C16:0 | SGS AXYS MLM-001 | MLM-001 | Y | | | | | | | | | | | Y | | | | | Y | | | | | | | | | | | |
| | lysoPhosphatidylcholine acyl C16:1 | SGS AXYS MLM-001 | MLM-001 | Y | | | | | | | | | | | Y | | | | | Y | | | | | | | | | | | |
| | lysoPhosphatidylcholine acyl C17:0 | SGS AXYS MLM-001 | MLM-001 | Y | | | | | | | | | | | Y | | | | | Y | | | | | | | | | | | |
| | lysoPhosphatidylcholine acyl C18:0 | SGS AXYS MLM-001 | MLM-001 | Y | | | | | | | | | | | Y | | | | | Y | | | | | | | | | | | |
| | lysoPhosphatidylcholine acyl C18:1 | SGS AXYS MLM-001 | MLM-001 | Y | | | | | | | | | | | Y | | | | | Y | | | | | | | | | | | |
| | lysoPhosphatidylcholine acyl C18:2 | SGS AXYS MLM-001 | MLM-001 | Y | | | | | | | | | | | Y | | | | | Y | | | | | | | | | | | |
| | lysoPhosphatidylcholine acyl C20:3 | SGS AXYS MLM-001 | MLM-001 | Y | | | | | | | | | | | Y | | | | | Y | | | | | | | | | | | |
| | lysoPhosphatidylcholine acyl C20:4 | SGS AXYS MLM-001 | MLM-001 | Y | | | | | | | | | | | Y | | | | | Y | | | | | | | | | | | |
| | lysoPhosphatidylcholine acyl C24:0 | SGS AXYS MLM-001 | MLM-001 | Y | | | | | | | | | | | Y | | | | | Y | | | | | | | | | | | |
| | lysoPhosphatidylcholine acyl C26:1 | SGS AXYS MLM-001 | MLM-001 | Y | | | | | | | | | | | Y | | | | | Y | | | | | | | | | | | |
| | lysoPhosphatidylcholine acyl C28:0 | SGS AXYS MLM-001 | MLM-001 | Y | | | | | | | | | | | Y | | | | | Y | | | | | | | | | | | |
| | lysoPhosphatidylcholine acyl C28:1 | SGS AXYS MLM-001 | MLM-001 | Y | | | | | | | | | | | Y | | | | | Y | | | | | | | | | | | |
| | Methionine | SGS AXYS MLM-001 | MLM-001 | Y | | | | | | | | | | | Y | | | | | Y | | | | | | | | | | | |
| | Methioninesulfoxide | SGS AXYS MLM-001 | MLM-001 | Y | | | | | | | | | | | Y | | | | | Y | | | | | | | | | | | |
| | Methylglutarylcarnitine | SGS AXYS MLM-001 | MLM-001 | Y | | | | | | | | | | | Y | | | | | Y | | | | | | | | | | | |
| | Nitrotyrosine | SGS AXYS MLM-001 | MLM-001 | Y | | | | | | | | | | | Y | | | | | Y | | | | | | | | | | | |
| | Nonaylcarnitine | SGS AXYS MLM-001 | MLM-001 | Y | | | | | | | | | | | Y | | | | | Y | | | | | | | | | | | |
| | octadecadienoic acid (linoleic acid) | SGS AXYS MLM-001 | MLM-001 | | | | | | | | | | | | Y | | | | | | | | | | | | | | | | |
| | Octadecadienylcarnitine | SGS AXYS MLM-001 | MLM-001 | Y | | | | | | | | | | | Y | | | | | Y | | | | | | | | | | | |
| | octadecanoic acid (stearic acid) | SGS AXYS MLM-001 | MLM-001 | | | | | | | | | | | | Y | | | | | | | | | | | | | | | | |
| | Octadecanoylcarnitine | SGS AXYS MLM-001 | MLM-001 | Y | | | | | | | | | | | Y | | | | | Y | | | | | | | | | | | |
| | octadecatrienoic acid (γ-linolenic acid) | SGS AXYS MLM-001 | MLM-001 | | | | | | | | | | | | Y | | | | | | | | | | | | | | | | |
| | Octadecenoylcarnitine | SGS AXYS MLM-001 | MLM-001 | Y | | | | | | | | | | | Y | | | | | Y | | | | | | | | | | | |
| | Octanoylcarnitine | SGS AXYS MLM-001 | MLM-001 | Y | | | | | | | | | | | Y | | | | | Y | | | | | | | | | | | |
| | Ornithine | SGS AXYS MLM-001 | MLM-001 | Y | | | | | | | | | | | Y | | | | | Y | | | | | | | | | | | |
| | Phenylalanine | SGS AXYS MLM-001 | MLM-001 | Y | | | | | | | | | | | Y | | | | | Y | | | | | | | | | | | |
| | Phenylethylamine | SGS AXYS MLM-001 | MLM-001 | Y | | | | | | | | | | | Y | | | | | Y | | | | | | | | | | | |
| | Phosphatidylcholine acyl-alkyl C30:0 | SGS AXYS MLM-001 | MLM-001 | Y | | | | | | | | | | | Y | | | | | Y | | | | | | | | | | | |
| | Phosphatidylcholine acyl-alkyl C30:1 | SGS AXYS MLM-001 | MLM-001 | Y | | | | | | | | | | | Y | | | | | Y | | | | | | | | | | | |
| | Phosphatidylcholine acyl-alkyl C30:2 | SGS AXYS MLM-001 | MLM-001 | Y | | | | | | | | | | | Y | | | | | Y | | | | | | | | | | | |
| | Phosphatidylcholine acyl-alkyl C32:1 | SGS AXYS MLM-001 | MLM-001 | Y | | | | | | | | | | | Y | | | | | Y | | | | | | | | | | | |
| | Phosphatidylcholine acyl-alkyl C32:2 | SGS AXYS MLM-001 | MLM-001 | Y | | | | | | | | | | | Y | | | | | Y | | | | | | | | | | | |
| | Phosphatidylcholine acyl-alkyl C34:0 | SGS AXYS MLM-001 | MLM-001 | Y | | | | | | | | | | | Y | | | | | Y | | | | | | | | | | | |
| | Phosphatidylcholine acyl-alkyl C34:1 | SGS AXYS MLM-001 | MLM-001 | Y | | | | | | | | | | | Y | | | | | Y | | | | | | | | | | | |
| | Phosphatidylcholine acyl-alkyl C34:2 | SGS AXYS MLM-001 | MLM-001 | Y | | | | | | | | | | | Y | | | | | Y | | | | | | | | | | | |
| | Phosphatidylcholine acyl-alkyl C34:3 | SGS AXYS MLM-001 | MLM-001 | Y | | | | | | | | | | | Y | | | | | Y | | | | | | | | | | | |
| | Phosphatidylcholine acyl-alkyl C36:0 | SGS AXYS MLM-001 | MLM-001 | Y | | | | | | | | | | | Y | | | | | Y | | | | | | | | | | | |
| | Phosphatidylcholine acyl-alkyl C36:1 | SGS AXYS MLM-001 | MLM-001 | Y | | | | | | | | | | | Y | | | | | Y | | | | | | | | | | | |
| | Phosphatidylcholine acyl-alkyl C36:2 | SGS AXYS MLM-001 | MLM-001 | Y | | | | | | | | | | | Y | | | | | Y | | | | | | | | | | | |
| | Phosphatidylcholine acyl-alkyl C36:3 | SGS AXYS MLM-001 | MLM-001 | Y | | | | | | | | | | | Y | | | | | Y | | | | | | | | | | | |
| | Phosphatidylcholine acyl-alkyl C36:4 | SGS AXYS MLM-001 | MLM-001 | Y | | | | | | | | | | | Y | | | | | Y | | | | | | | | | | | |
| | Phosphatidylcholine acyl-alkyl C36:5 | SGS AXYS MLM-001 | MLM-001 | Y | | | | | | | | | | | Y | | | | | Y | | | | | | | | | | | |
| | Phosphatidylcholine acyl-alkyl C38:0 | SGS AXYS MLM-001 | MLM-001 | Y | | | | | | | | | | | Y | | | | | Y | | | | | | | | | | | |

# Accreditation Scope

SGS AXYS Analytical Services Ltd.
file ref.: ACC-101 Rev. 42

| | | | | Serum | Solids | | | | | | | | | | Tissue | | | | | Urine | Water | Water, Non-Potable | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Compound Class | Compound | Accredited Method ID | SGS AXYS Method ID | CALA | CALA | California DPH | Florida DOH | Minnesota DOH | New Jersey DEP | New York DOH | Virginia DGS | Washington DE | Maine DOH | ANAB DoD ** | CALA | Florida DOH | Minnesota DOH | New Jersey DEP | Virginia DGS | CALA | CALA | California DPH | Florida DOH | Minnesota DOH | New Jersey DEP | New York DOH | Virginia DGS | Washington DE * | Maine DOH | Pennsylvania DEP | ANAB DoD ** |
| | Phosphatidylcholine acyl-alkyl C38:1 | SGS AXYS MLM-001 | MLM-001 | Y | | | | | | | | | | | Y | | | | | Y | | | | | | | | | | | |
| | Phosphatidylcholine acyl-alkyl C38:2 | SGS AXYS MLM-001 | MLM-001 | Y | | | | | | | | | | | Y | | | | | Y | | | | | | | | | | | |
| | Phosphatidylcholine acyl-alkyl C38:3 | SGS AXYS MLM-001 | MLM-001 | Y | | | | | | | | | | | Y | | | | | Y | | | | | | | | | | | |
| | Phosphatidylcholine acyl-alkyl C38:5 | SGS AXYS MLM-001 | MLM-001 | Y | | | | | | | | | | | Y | | | | | Y | | | | | | | | | | | |
| | Phosphatidylcholine acyl-alkyl C38:6 | SGS AXYS MLM-001 | MLM-001 | Y | | | | | | | | | | | Y | | | | | Y | | | | | | | | | | | |
| | Phosphatidylcholine acyl-alkyl C40:1 | SGS AXYS MLM-001 | MLM-001 | Y | | | | | | | | | | | Y | | | | | Y | | | | | | | | | | | |
| | Phosphatidylcholine acyl-alkyl C40:2 | SGS AXYS MLM-001 | MLM-001 | Y | | | | | | | | | | | Y | | | | | Y | | | | | | | | | | | |
| | Phosphatidylcholine acyl-alkyl C40:3 | SGS AXYS MLM-001 | MLM-001 | Y | | | | | | | | | | | Y | | | | | Y | | | | | | | | | | | |
| | Phosphatidylcholine acyl-alkyl C40:4 | SGS AXYS MLM-001 | MLM-001 | Y | | | | | | | | | | | Y | | | | | Y | | | | | | | | | | | |
| | Phosphatidylcholine acyl-alkyl C40:5 | SGS AXYS MLM-001 | MLM-001 | Y | | | | | | | | | | | Y | | | | | Y | | | | | | | | | | | |
| | Phosphatidylcholine acyl-alkyl C40:6 | SGS AXYS MLM-001 | MLM-001 | Y | | | | | | | | | | | Y | | | | | Y | | | | | | | | | | | |
| | Phosphatidylcholine acyl-alkyl C42:0 | SGS AXYS MLM-001 | MLM-001 | Y | | | | | | | | | | | Y | | | | | Y | | | | | | | | | | | |
| | Phosphatidylcholine acyl-alkyl C42:1 | SGS AXYS MLM-001 | MLM-001 | Y | | | | | | | | | | | Y | | | | | Y | | | | | | | | | | | |
| | Phosphatidylcholine acyl-alkyl C42:2 | SGS AXYS MLM-001 | MLM-001 | Y | | | | | | | | | | | Y | | | | | Y | | | | | | | | | | | |
| | Phosphatidylcholine acyl-alkyl C42:3 | SGS AXYS MLM-001 | MLM-001 | Y | | | | | | | | | | | Y | | | | | Y | | | | | | | | | | | |
| | Phosphatidylcholine acyl-alkyl C42:4 | SGS AXYS MLM-001 | MLM-001 | Y | | | | | | | | | | | Y | | | | | Y | | | | | | | | | | | |
| | Phosphatidylcholine acyl-alkyl C42:5 | SGS AXYS MLM-001 | MLM-001 | Y | | | | | | | | | | | Y | | | | | Y | | | | | | | | | | | |
| | Phosphatidylcholine acyl-alkyl C44:3 | SGS AXYS MLM-001 | MLM-001 | Y | | | | | | | | | | | Y | | | | | Y | | | | | | | | | | | |
| | Phosphatidylcholine acyl-alkyl C44:4 | SGS AXYS MLM-001 | MLM-001 | Y | | | | | | | | | | | Y | | | | | Y | | | | | | | | | | | |
| | Phosphatidylcholine acyl-alkyl C44:5 | SGS AXYS MLM-001 | MLM-001 | Y | | | | | | | | | | | Y | | | | | Y | | | | | | | | | | | |
| | Phosphatidylcholine acyl-alkyl C44:6 | SGS AXYS MLM-001 | MLM-001 | Y | | | | | | | | | | | Y | | | | | Y | | | | | | | | | | | |
| | Phosphatidylcholine diacyl C24:0 | SGS AXYS MLM-001 | MLM-001 | Y | | | | | | | | | | | Y | | | | | Y | | | | | | | | | | | |
| | Phosphatidylcholine diacyl C26:0 | SGS AXYS MLM-001 | MLM-001 | Y | | | | | | | | | | | Y | | | | | Y | | | | | | | | | | | |
| | Phosphatidylcholine diacyl C28:1 | SGS AXYS MLM-001 | MLM-001 | Y | | | | | | | | | | | Y | | | | | Y | | | | | | | | | | | |
| | Phosphatidylcholine diacyl C30:0 | SGS AXYS MLM-001 | MLM-001 | Y | | | | | | | | | | | Y | | | | | Y | | | | | | | | | | | |
| | Phosphatidylcholine diacyl C30:2 | SGS AXYS MLM-001 | MLM-001 | Y | | | | | | | | | | | Y | | | | | Y | | | | | | | | | | | |
| | Phosphatidylcholine diacyl C32:0 | SGS AXYS MLM-001 | MLM-001 | Y | | | | | | | | | | | Y | | | | | Y | | | | | | | | | | | |
| | Phosphatidylcholine diacyl C32:1 | SGS AXYS MLM-001 | MLM-001 | Y | | | | | | | | | | | Y | | | | | Y | | | | | | | | | | | |
| | Phosphatidylcholine diacyl C32:2 | SGS AXYS MLM-001 | MLM-001 | Y | | | | | | | | | | | Y | | | | | Y | | | | | | | | | | | |
| | Phosphatidylcholine diacyl C32:3 | SGS AXYS MLM-001 | MLM-001 | Y | | | | | | | | | | | Y | | | | | Y | | | | | | | | | | | |
| | Phosphatidylcholine diacyl C34:1 | SGS AXYS MLM-001 | MLM-001 | Y | | | | | | | | | | | Y | | | | | Y | | | | | | | | | | | |
| | Phosphatidylcholine diacyl C34:2 | SGS AXYS MLM-001 | MLM-001 | Y | | | | | | | | | | | Y | | | | | Y | | | | | | | | | | | |
| | Phosphatidylcholine diacyl C34:3 | SGS AXYS MLM-001 | MLM-001 | Y | | | | | | | | | | | Y | | | | | Y | | | | | | | | | | | |
| | Phosphatidylcholine diacyl C34:4 | SGS AXYS MLM-001 | MLM-001 | Y | | | | | | | | | | | Y | | | | | Y | | | | | | | | | | | |
| | Phosphatidylcholine diacyl C36:0 | SGS AXYS MLM-001 | MLM-001 | Y | | | | | | | | | | | Y | | | | | Y | | | | | | | | | | | |
| | Phosphatidylcholine diacyl C36:1 | SGS AXYS MLM-001 | MLM-001 | Y | | | | | | | | | | | Y | | | | | Y | | | | | | | | | | | |
| | Phosphatidylcholine diacyl C36:2 | SGS AXYS MLM-001 | MLM-001 | Y | | | | | | | | | | | Y | | | | | Y | | | | | | | | | | | |
| | Phosphatidylcholine diacyl C36:3 | SGS AXYS MLM-001 | MLM-001 | Y | | | | | | | | | | | Y | | | | | Y | | | | | | | | | | | |
| | Phosphatidylcholine diacyl C36:4 | SGS AXYS MLM-001 | MLM-001 | Y | | | | | | | | | | | Y | | | | | Y | | | | | | | | | | | |
| | Phosphatidylcholine diacyl C36:5 | SGS AXYS MLM-001 | MLM-001 | Y | | | | | | | | | | | Y | | | | | Y | | | | | | | | | | | |
| | Phosphatidylcholine diacyl C36:6 | SGS AXYS MLM-001 | MLM-001 | Y | | | | | | | | | | | Y | | | | | Y | | | | | | | | | | | |
| | Phosphatidylcholine diacyl C38:0 | SGS AXYS MLM-001 | MLM-001 | Y | | | | | | | | | | | Y | | | | | Y | | | | | | | | | | | |
| | Phosphatidylcholine diacyl C38:1 | SGS AXYS MLM-001 | MLM-001 | Y | | | | | | | | | | | Y | | | | | Y | | | | | | | | | | | |
| | Phosphatidylcholine diacyl C38:3 | SGS AXYS MLM-001 | MLM-001 | Y | | | | | | | | | | | Y | | | | | Y | | | | | | | | | | | |
| | Phosphatidylcholine diacyl C38:4 | SGS AXYS MLM-001 | MLM-001 | Y | | | | | | | | | | | Y | | | | | Y | | | | | | | | | | | |
| | Phosphatidylcholine diacyl C38:5 | SGS AXYS MLM-001 | MLM-001 | Y | | | | | | | | | | | Y | | | | | Y | | | | | | | | | | | |
| | Phosphatidylcholine diacyl C38:6 | SGS AXYS MLM-001 | MLM-001 | Y | | | | | | | | | | | Y | | | | | Y | | | | | | | | | | | |
| | Phosphatidylcholine diacyl C40:1 | SGS AXYS MLM-001 | MLM-001 | Y | | | | | | | | | | | Y | | | | | Y | | | | | | | | | | | |
| | Phosphatidylcholine diacyl C40:2 | SGS AXYS MLM-001 | MLM-001 | Y | | | | | | | | | | | Y | | | | | Y | | | | | | | | | | | |
| | Phosphatidylcholine diacyl C40:3 | SGS AXYS MLM-001 | MLM-001 | Y | | | | | | | | | | | Y | | | | | Y | | | | | | | | | | | |
| | Phosphatidylcholine diacyl C40:4 | SGS AXYS MLM-001 | MLM-001 | Y | | | | | | | | | | | Y | | | | | Y | | | | | | | | | | | |
| | Phosphatidylcholine diacyl C40:5 | SGS AXYS MLM-001 | MLM-001 | Y | | | | | | | | | | | Y | | | | | Y | | | | | | | | | | | |
| | Phosphatidylcholine diacyl C40:6 | SGS AXYS MLM-001 | MLM-001 | Y | | | | | | | | | | | Y | | | | | Y | | | | | | | | | | | |
| | Phosphatidylcholine diacyl C42:0 | SGS AXYS MLM-001 | MLM-001 | Y | | | | | | | | | | | Y | | | | | Y | | | | | | | | | | | |
| | Phosphatidylcholine diacyl C42:1 | SGS AXYS MLM-001 | MLM-001 | Y | | | | | | | | | | | Y | | | | | Y | | | | | | | | | | | |
| | Phosphatidylcholine diacyl C42:2 | SGS AXYS MLM-001 | MLM-001 | Y | | | | | | | | | | | Y | | | | | Y | | | | | | | | | | | |
| | Phosphatidylcholine diacyl C42:4 | SGS AXYS MLM-001 | MLM-001 | Y | | | | | | | | | | | Y | | | | | Y | | | | | | | | | | | |
| | Phosphatidylcholine diacyl C42:5 | SGS AXYS MLM-001 | MLM-001 | Y | | | | | | | | | | | Y | | | | | Y | | | | | | | | | | | |

# Accreditation Scope

SGS AXYS Analytical Services Ltd.
file ref.: ACC-101 Rev. 42

| | | | | Serum | Solids | | | | | | | | | | Tissue | | | | | | Urine | Water | Water, Non-Potable | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Compound Class | Compound | Accredited Method ID | SGS AXYS Method ID | CALA | CALA | California DPH | Florida DOH | Minnesota DOH | New Jersey DEP | New York DOH | Virginia DGS | Washington DE | Maine DOH | ANAB DoD ** | CALA | Florida DOH | Minnesota DOH | New Jersey DEP | Virginia DGS | CALA | CALA | California DPH | Florida DOH | Minnesota DOH | New Jersey DEP | New York DOH | Virginia DGS | Washington DE * | Maine DOH | Pennsylvania DEP | ANAB DoD ** |
| | Phosphatidylcholine diacyl C42:6 | SGS AXYS MLM-001 | MLM-001 | Y | | | | | | | | | | | Y | | | | | Y | | | | | | | | | | | |
| | Pimelylcarnitine | SGS AXYS MLM-001 | MLM-001 | Y | | | | | | | | | | | Y | | | | | Y | | | | | | | | | | | |
| | Proline | SGS AXYS MLM-001 | MLM-001 | Y | | | | | | | | | | | Y | | | | | Y | | | | | | | | | | | |
| | Propenoylcarnitine | SGS AXYS MLM-001 | MLM-001 | Y | | | | | | | | | | | Y | | | | | Y | | | | | | | | | | | |
| | Propionylcarnitine | SGS AXYS MLM-001 | MLM-001 | Y | | | | | | | | | | | Y | | | | | Y | | | | | | | | | | | |
| | Putrescine | SGS AXYS MLM-001 | MLM-001 | Y | | | | | | | | | | | Y | | | | | Y | | | | | | | | | | | |
| | Sarcosine | SGS AXYS MLM-001 | MLM-001 | Y | | | | | | | | | | | Y | | | | | Y | | | | | | | | | | | |
| | Serine | SGS AXYS MLM-001 | MLM-001 | Y | | | | | | | | | | | Y | | | | | Y | | | | | | | | | | | |
| | Serotonin | SGS AXYS MLM-001 | MLM-001 | Y | | | | | | | | | | | Y | | | | | Y | | | | | | | | | | | |
| | Spermidine | SGS AXYS MLM-001 | MLM-001 | Y | | | | | | | | | | | Y | | | | | Y | | | | | | | | | | | |
| | Spermine | SGS AXYS MLM-001 | MLM-001 | Y | | | | | | | | | | | Y | | | | | Y | | | | | | | | | | | |
| | Sphingomyeline C16:0 | SGS AXYS MLM-001 | MLM-001 | Y | | | | | | | | | | | Y | | | | | Y | | | | | | | | | | | |
| | Sphingomyeline C16:1 | SGS AXYS MLM-001 | MLM-001 | Y | | | | | | | | | | | Y | | | | | Y | | | | | | | | | | | |
| | Sphingomyeline C18:0 | SGS AXYS MLM-001 | MLM-001 | Y | | | | | | | | | | | Y | | | | | Y | | | | | | | | | | | |
| | Sphingomyeline C18:1 | SGS AXYS MLM-001 | MLM-001 | Y | | | | | | | | | | | Y | | | | | Y | | | | | | | | | | | |
| | Sphingomyeline C20:2 | SGS AXYS MLM-001 | MLM-001 | Y | | | | | | | | | | | Y | | | | | Y | | | | | | | | | | | |
| | Sphingomyeline C22:3 | SGS AXYS MLM-001 | MLM-001 | Y | | | | | | | | | | | Y | | | | | Y | | | | | | | | | | | |
| | Sphingomyeline C24:0 | SGS AXYS MLM-001 | MLM-001 | Y | | | | | | | | | | | Y | | | | | Y | | | | | | | | | | | |
| | Sphingomyeline C24:1 | SGS AXYS MLM-001 | MLM-001 | Y | | | | | | | | | | | Y | | | | | Y | | | | | | | | | | | |
| | Sphingomyeline C26:0 | SGS AXYS MLM-001 | MLM-001 | Y | | | | | | | | | | | Y | | | | | Y | | | | | | | | | | | |
| | Sphingomyeline C26:1 | SGS AXYS MLM-001 | MLM-001 | Y | | | | | | | | | | | Y | | | | | Y | | | | | | | | | | | |
| | Symmetric dimethylarginine | SGS AXYS MLM-001 | MLM-001 | Y | | | | | | | | | | | Y | | | | | Y | | | | | | | | | | | |
| | Taurine | SGS AXYS MLM-001 | MLM-001 | Y | | | | | | | | | | | Y | | | | | Y | | | | | | | | | | | |
| | taurochenodeoxycholic acid | SGS AXYS MLM-001 | MLM-001 | Y | | | | | | | | | | | Y | | | | | Y | | | | | | | | | | | |
| | taurocholic acid | SGS AXYS MLM-001 | MLM-001 | Y | | | | | | | | | | | Y | | | | | Y | | | | | | | | | | | |
| | taurodeoxycholic acid | SGS AXYS MLM-001 | MLM-001 | Y | | | | | | | | | | | Y | | | | | Y | | | | | | | | | | | |
| | taurolithocholic acid | SGS AXYS MLM-001 | MLM-001 | Y | | | | | | | | | | | Y | | | | | Y | | | | | | | | | | | |
| | tauroursodexoycholic acid | SGS AXYS MLM-001 | MLM-001 | Y | | | | | | | | | | | Y | | | | | Y | | | | | | | | | | | |
| | Tetradecadienylcarnitine | SGS AXYS MLM-001 | MLM-001 | Y | | | | | | | | | | | Y | | | | | Y | | | | | | | | | | | |
| | tetradecanoic acid (myristic acid) | SGS AXYS MLM-001 | MLM-001 | | | | | | | | | | | | Y | | | | | | | | | | | | | | | | |
| | Tetradecanoylcarnitine | SGS AXYS MLM-001 | MLM-001 | Y | | | | | | | | | | | Y | | | | | Y | | | | | | | | | | | |
| | Tetradecenoylcarnitine | SGS AXYS MLM-001 | MLM-001 | Y | | | | | | | | | | | Y | | | | | Y | | | | | | | | | | | |
| | Threonine | SGS AXYS MLM-001 | MLM-001 | Y | | | | | | | | | | | Y | | | | | Y | | | | | | | | | | | |
| | Tiglylcarnitine | SGS AXYS MLM-001 | MLM-001 | Y | | | | | | | | | | | Y | | | | | Y | | | | | | | | | | | |
| | Total dimethylarginine | SGS AXYS MLM-001 | MLM-001 | Y | | | | | | | | | | | Y | | | | | Y | | | | | | | | | | | |
| | Tryptophan | SGS AXYS MLM-001 | MLM-001 | Y | | | | | | | | | | | Y | | | | | Y | | | | | | | | | | | |
| | Tyrosine | SGS AXYS MLM-001 | MLM-001 | Y | | | | | | | | | | | Y | | | | | Y | | | | | | | | | | | |
| | ursodexoycholic acid | SGS AXYS MLM-001 | MLM-001 | Y | | | | | | | | | | | Y | | | | | Y | | | | | | | | | | | |
| | Valerylcarnitine | SGS AXYS MLM-001 | MLM-001 | Y | | | | | | | | | | | Y | | | | | Y | | | | | | | | | | | |
| | Valine | SGS AXYS MLM-001 | MLM-001 | Y | | | | | | | | | | | Y | | | | | Y | | | | | | | | | | | |
| TBBPA | Tetrabromobisphenol A | SGS AXYS MLA-079 | MLA-079 | Y | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| TOP | Perfluorobutanesulfonate (PFBS) | SGS AXYS MLA-111 | MLA-111 | | Y | | | | | | | | | | | | | | | | Y | | | | | | | | | | |
| | Perfluorobutanoate (PFBA) | SGS AXYS MLA-111 | MLA-111 | | Y | | | | | | | | | | | | | | | | Y | | | | | | | | | | |
| | Perfluorodecanesulfonate (PFDS) | SGS AXYS MLA-111 | MLA-111 | | Y | | | | | | | | | | | | | | | | Y | | | | | | | | | | |
| | Perfluorodecanoate (PFDA) | SGS AXYS MLA-111 | MLA-111 | | Y | | | | | | | | | | | | | | | | Y | | | | | | | | | | |
| | Perfluorododecanesulfonate (PFDoS) | SGS AXYS MLA-111 | MLA-111 | | Y | | | | | | | | | | | | | | | | Y | | | | | | | | | | |
| | Perfluorododecanoate (PFDoA) | SGS AXYS MLA-111 | MLA-111 | | Y | | | | | | | | | | | | | | | | Y | | | | | | | | | | |
| | Perfluoroheptanesulfonate (PFHpS) | SGS AXYS MLA-111 | MLA-111 | | Y | | | | | | | | | | | | | | | | Y | | | | | | | | | | |
| | Perfluoroheptanoate (PFHpA) | SGS AXYS MLA-111 | MLA-111 | | Y | | | | | | | | | | | | | | | | Y | | | | | | | | | | |
| | Perfluorohexanesulfonate (PFHxS) | SGS AXYS MLA-111 | MLA-111 | | Y | | | | | | | | | | | | | | | | Y | | | | | | | | | | |
| | Perfluorohexanoate (PFHxA) | SGS AXYS MLA-111 | MLA-111 | | Y | | | | | | | | | | | | | | | | Y | | | | | | | | | | |
| | Perfluorononanesulfonate (PFNS) | SGS AXYS MLA-111 | MLA-111 | | Y | | | | | | | | | | | | | | | | Y | | | | | | | | | | |
| | Perfluorononanoate (PFNA) | SGS AXYS MLA-111 | MLA-111 | | Y | | | | | | | | | | | | | | | | Y | | | | | | | | | | |
| | Perfluorooctanesulfonate (PFOS) | SGS AXYS MLA-111 | MLA-111 | | Y | | | | | | | | | | | | | | | | Y | | | | | | | | | | |
| | Perfluorooctanoate (PFOA) | SGS AXYS MLA-111 | MLA-111 | | Y | | | | | | | | | | | | | | | | Y | | | | | | | | | | |
| | Perfluoropentanesulfonate (PFPeS) | SGS AXYS MLA-111 | MLA-111 | | Y | | | | | | | | | | | | | | | | Y | | | | | | | | | | |
| | Perfluoropentanoate (PFPeA) | SGS AXYS MLA-111 | MLA-111 | | Y | | | | | | | | | | | | | | | | Y | | | | | | | | | | |
| | Perfluorotetradecanoate (PFTeDA) | SGS AXYS MLA-111 | MLA-111 | | Y | | | | | | | | | | | | | | | | Y | | | | | | | | | | |

# Accreditation Scope

SGS AXYS Analytical Services Ltd.
file ref.: ACC-101 Rev. 42

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|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Serum | Solids | | | | | | | | | | Tissue | | | | | | Urine | Water | Water, Non-Potable | | | | | | | | | | | | | |
| Compound Class | Compound | Accredited Method ID | SGS AXYS Method ID | CALA | CALA | California DPH | Florida DOH | Minnesota DOH | New Jersey DEP | New York DOH | Virginia DGS | Washington DE | Maine DOH | ANAB DoD ** | CALA | Florida DOH | Minnesota DOH | New Jersey DEP | Virginia DGS | CALA | CALA | CALA | California DPH | Florida DOH | Minnesota DOH | New Jersey DEP | New York DOH | Virginia DGS | Washington DE * | Maine DOH | Pennsylvania DEP | ANAB DoD ** | | | | |
| | Perfluorotridecanoate (PFTrDA) | SGS AXYS MLA-111 | MLA-111 | | Y | | | | | | | | | | | | | | | | | Y | | | | | | | | | | | | | |
| | Perfluoroundecanoate (PFUnA) | SGS AXYS MLA-111 | MLA-111 | | Y | | | | | | | | | | | | | | | | | Y | | | | | | | | | | | | | |
| Note * | Analysis of pesticides and PCBs in non-potable water samples by SGS AXYS method MLA-007, with the exception of NPDES or State permitted discharges and Stormwater applications, may fall within the scope of Washington State Department of Ecology solids matrix accreditation, subject to approval of the Ecology Project Manager. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Note ** | PFAS by LC-MS/MS compliant with US DoD QSM 5.1.1 table B-15 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

**Legend**

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|---|---|
| Y | Accreditation scope |
| BFR | Brominated flame retardants (non-PBDPE) |
| BPA and mPE | Bisphenol A and mono-Phthalate Esters |
| HBCDD | Hexabromocyclododecane |
| OC Pesticides | Organochlorine Pesticides |
| PAH | Polycyclic Aromatic Hydrocarbons |
| PBDPE | Polybrominated diphenylethers |
| PCB | Polychlorinated Biphenyls |
| PCDDF | Polychlorinated dibenzodioxins/furans |
| PFAS | Per- and Polyfluoroalkyl Substances |
| PPCP | Pharmaceutical and Personal Care Products |
| TBBPA | Tetrabromobisphenol A |
| TOP | Total Oxidizable Precursors |
| California DPH | California Department of Public Health, Lab ID 2911 |
| Florida DOH | Florida Department of Health, Lab ID E871007, (NELAC Standard) |
| Pennsylvania DEP | Pennsylvania Department of Environmental Protection |
| Minnesota DOH | Minnesota Department of Health, Lab ID 232-999-430, (NELAC Standard) |
| New Jersey DEP | New Jersey Department of Environmental Protection, Lab ID CANA005, (NELAC Standard) |
| New York DOH | New York Department of Health, Lab ID 11674, (NELAC Standard) |
| Washington DE | Washington Department of Ecology, Lab ID C404 |
| Virginia DGS | Virginia Department of General Services, Division of Consolidated Laboratory Services, Lab ID 460224, (NELAC Standard) |
| Maine DOH | Maine Center for Disease Control and Prevention, Department of Health and Human Services, Lab ID CN00003 |
| ANAB DoD | ANSI-ASQ National Accreditation Board, certificate ADE-1861, (US DoD QSM 5.1.1 Standard) |
| CALA | Canadian Association for Laboratory Accreditation Inc., Lab ID A2637, (ISO/IEC 17025:2005 Standard) |