CONESTOGA-ROVERS
& ASSOCIATES

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Plainwell, Michigan 49080-1397
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www.CRAworld.com

March 3, 2015 Reference No. 017360

Mr. Peter Ramanauskas
United States Environmental Protection Agency – Region 5
77 West Jackson Boulevard, LU-9J
Chicago, Illinois 60604-3507

Dear Mr. Ramanauskas:

Re: Addendum 2 to Risk-Based Polychlorinated Biphenyl (PCB) Cleanup Plan
Former General Motors (GM) Grand Rapids Metal Plant Property
300 36th Street SW
Wyoming, Kent County, Michigan

Conestoga-Rovers & Associates, Inc. (CRA), on behalf of Revitalizing Auto Communities Environmental Response (RACER) Trust, submitted a Risk-Based PCB Cleanup Plan (Plan) to the United States Environmental Protection Agency (U.S. EPA) and the Michigan Department of Environmental Quality (MDEQ) on August 26, 2014 for a coordinated review and approval. Based on discussions with Ms. Darlene Stringer of the MDEQ and Ms. Jean Greensley of the U.S. EPA, several comments were generated as a result of each agency's review of the Plan. The comments were addressed in a letter dated November 18, 2014, which was submitted to the U.S. EPA, and through the implementation of additional sampling described herein.

1.0 Porous Surface Material Sampling

Based on the discussions with U.S. EPA, concrete and asphalt surface materials currently covering the two proposed excavation areas of PCB-containing soil require sampling for characterization of the materials for disposal. Additionally, one sample from a small (i.e., 2 feet by 2 feet) area of mastic on the concrete was collected. Porous surface material samples were collected on November 26, 2014 from each area in accordance with self-implementing cleanup procedures presented in 40 CFR 761.61(a) and U.S. EPA's *Standard Operating Procedure for Sampling Porous Surfaces for Polychlorinated Biphenyls* (U.S. EPA, 2011).

Porous surface material sample locations in each area were selected based on a 3-meter grid placed over the proposed area of surface material removal. A minimum of three samples of each type of porous surface material were collected from each area pursuant to

40 CFR 761.283(a), with the exception of the mastic due to the size of the area. Due to the size of the area of the mastic, collection of three samples could not be completed due to insufficient sample volume for analysis. Samples collected from each type of material were composited (to the extent possible) in accordance with 40 CFR 761.286. The grid placement and composite sample locations are presented on Figures 1 and 2 for the former Tar House and Bulk Unload Areas, respectively. Samples were collected from the upper 3 inches of porous material. Pulverized porous material samples were collected utilizing a rotary impact hammer drill, placed in laboratory-cleaned sample jars, placed on ice, and submitted to the analytical laboratory under standard Chain-of-Custody (COC) protocol.

1.1 Former Tar House

The surface material in the proposed area of excavation in the former Tar House Area is primarily composed of concrete, with a portion covered by asphalt and a small (i.e., 2 feet by 2 feet) area of mastic. Based on the size of the proposed excavation area, three composite samples of asphalt (EB-001, EB-006 and EB-007), three composite samples of concrete (EB-002, EB-003, EB-004, and EB-005 [duplicate of EB-004]), and one discrete sample of mastic (EB-011) were collected for laboratory analysis for PCBs. Figure 1 presents the sample locations.

1.2 Bulk Unload Area

The surface material in the proposed area of excavation in the Bulk Unload Area is composed of asphalt. Based on the size of the proposed area of excavation, three composite samples of asphalt (EB-008 (MS/MSD), EB-009 and EB-010) were collected for laboratory analysis for PCBs. Figure 2 presents the sample locations.

2.0 Porous Surface Material Results

2.1 Former Tar House

No PCBs were detected in the concrete, asphalt or mastic samples collected. Analytical results are presented in Attachment A.

2.2 Bulk Unload Area

PCBs (Aroclor 1260) were detected in composite asphalt samples EB-008 and EB-010 at concentrations of 2.2 and 0.085 parts per million (ppm), respectively. PCBs were not detected in composite asphalt sample EB-009. Analytical results are presented in Attachment A.

3.0 Conclusions

Based on the pre-cleanup characterization, all overlying materials to be removed during the implementation of the remedial activities (i.e., concrete, asphalt and/or mastic) have a PCB concentration of less than 50 ppm. Consistent with 40 CFR 761.61(a)(5)(i)(B)(2)(ii), the overlying materials with PCB concentrations less than 50 ppm will be disposed of at Waste Management's Autumn Hills Landfill in Zeeland, Michigan, upon profile approval.

Please contact the undersigned at 269.685.5181 should you have any questions regarding this letter.

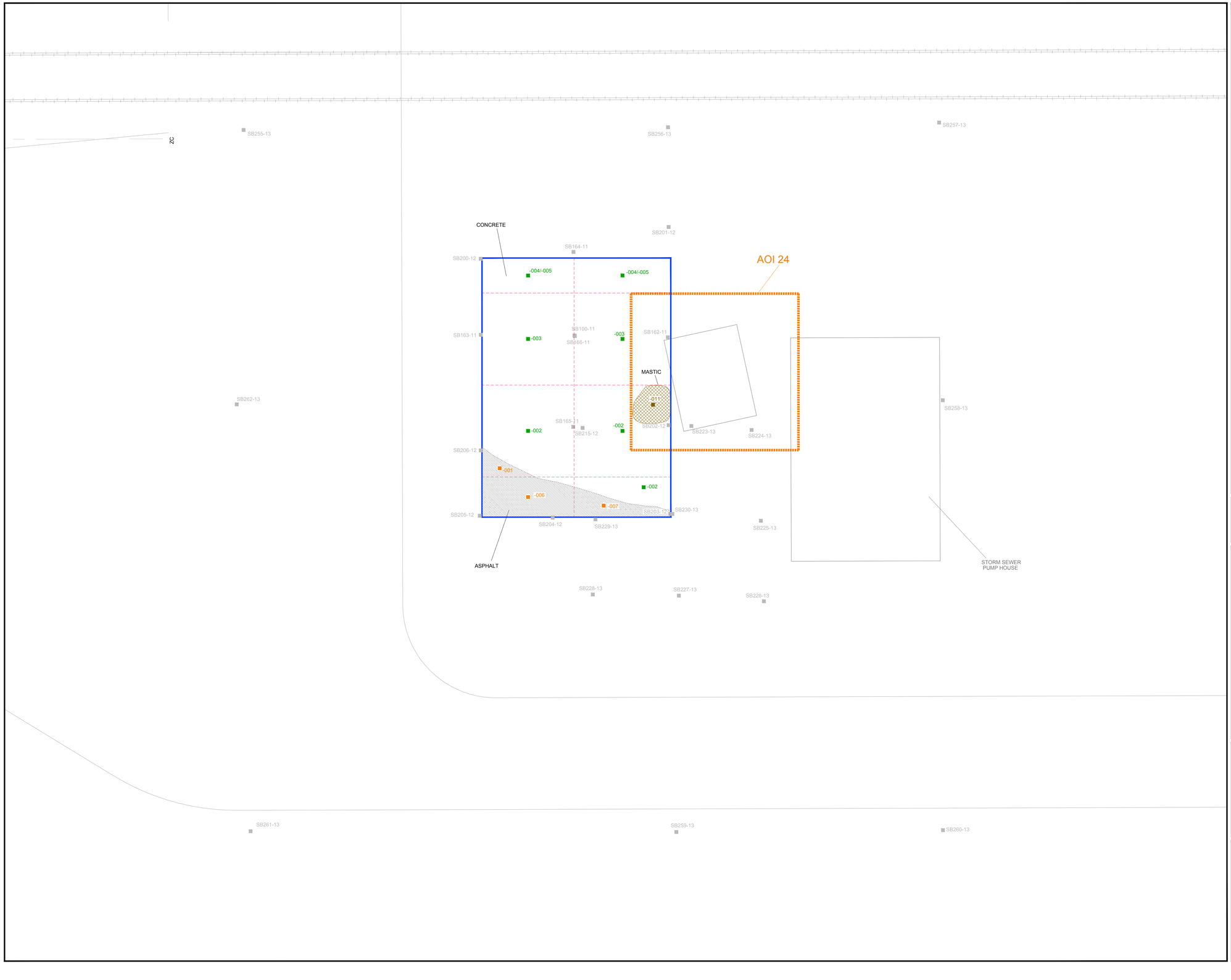
Yours truly,

CONESTOGA-ROVERS & ASSOCIATES

Jennifer L. Quigley, P.E.

JQ/ds/2/Pwl.
Encl.

cc: Jean Greensley, U.S. EPA, Region 5
Darlene Stringer, MDEQ
Deborah MacKenzie-Taylor, MDEQ
Adam London, Kent County Health Department
David Favero, RACER Trust

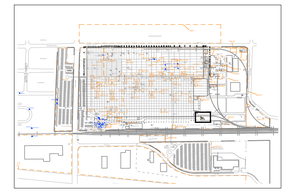


No	Revision	Date	Initial

0 3 5ft

LEGEND

- SB261-13 SOIL BORING LOCATIONS
- APPROXIMATE SITE BOUNDARY
- FENCE
- RAILROAD
- APPROXIMATE AOI
- APPROXIMATE EXCAVATION AREA
- 3-METER GRID FOR SAMPLE SELECTION
- CONCRETE CORE COMPOSITE SAMPLE LOCATION
- ASPHALT CORE SAMPLE LOCATION
- MASTIC SAMPLE LOCATION



KEY MAP

SCALE VERIFICATION

THIS BAR MEASURES 1" ON ORIGINAL. ADJUST SCALE ACCORDINGLY.

Approved

DRAWING STATUS

Status	Date	Initial

POROUS SURFACE SAMPLE LOCATIONS

FORMER TAR HOUSE

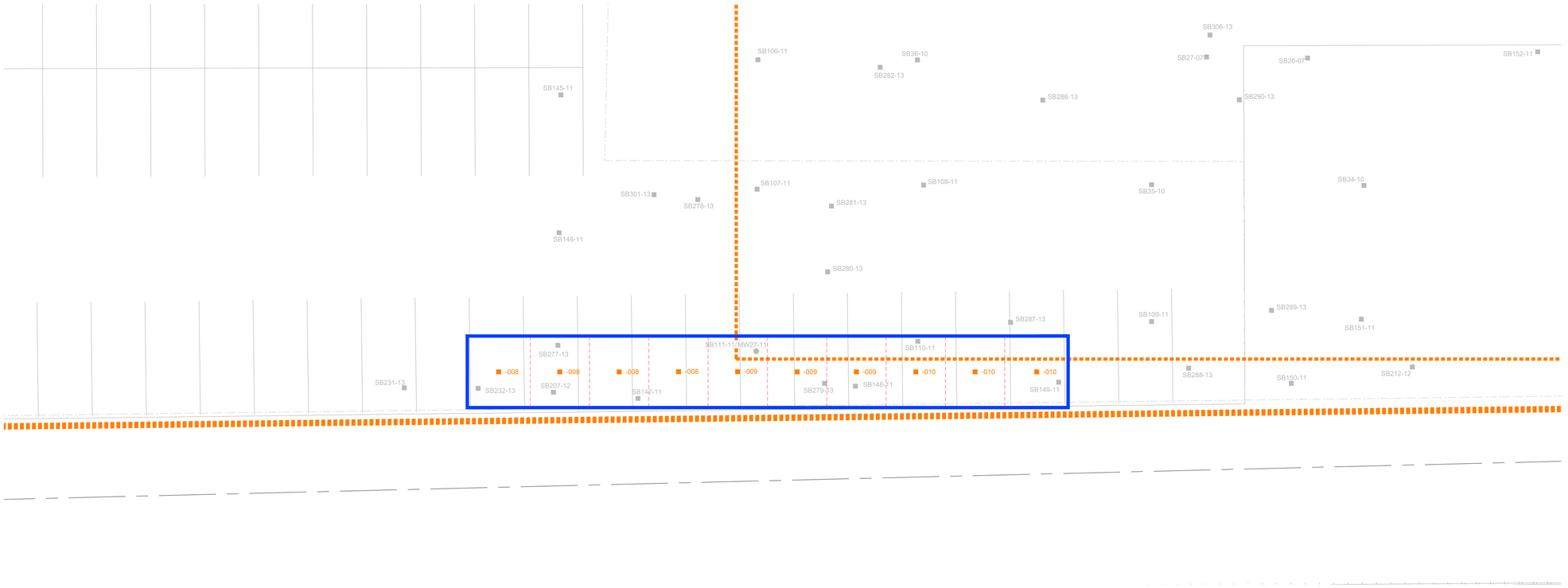
FORMER GRAND RAPIDS METAL PLANT
WYOMING, MICHIGAN

CONESTOGA-ROVERS & ASSOCIATES

Source Reference:

Project Manager:	Reviewed By:	Date:	
J. Q.	E. B.	MARCH 2015	
Scale: 1:5	Project No: 017360-T12	Report No: RAMA002	Drawing No: Figure 1

017360-T12(RAMA002)GN-DE001 MAR 2/2015



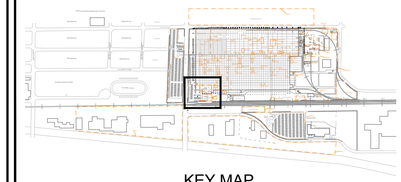
Nº	Revision	Date	Initial

N

0 5 10ft

LEGEND

- SB295-13 SOIL BORING LOCATIONS
- APPROXIMATE SITE BOUNDARY
- FENCE
- RAILROAD
- APPROXIMATE AOI
- APPROXIMATE EXCAVATION AREA
- 3-METER GRID FOR SAMPLE SELECTION
- ASPHALT CORE COMPOSITE SAMPLE LOCATION



KEY MAP

SCALE VERIFICATION

THIS BAR MEASURES 1" ON ORIGINAL. ADJUST SCALE ACCORDINGLY.

Approved

DRAWING STATUS

Status	Date	Initial

POROUS SURFACE SAMPLE LOCATIONS

BULK UNLOAD AREA

FORMER GRAND RAPIDS METAL PLANT
WYOMING, MICHIGAN

CONESTOGA-ROVERS & ASSOCIATES

Source Reference:

Project Manager:	Reviewed By:	Date:	
J.Q.	E.B.	MARCH 2015	
Scale: 1:15	Project Nº: 017360-T12	Report Nº: RAMA002	Drawing Nº: Figure 2

017360-T12(RAMA002)GN-DE002 MAR 2/2015

Attachment A

Analytical Laboratory Data

08-Dec-2014

Rawa Fleisher
Conestoga-Rovers & Associates
14496 Sheldon Road
Suite 200
Plymouth, MI 48170

Re: **Former GRMP (17360)** Work Order: **14111385**

Dear Rawa,

ALS Environmental received 11 samples on 26-Nov-2014 11:50 AM for the analyses presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested.

Sample results are compliant with NELAP standard requirements and QC results achieved laboratory specifications. Any exceptions are noted in the Case Narrative, or noted with qualifiers in the report or QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained from ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

The total number of pages in this report is 21.

If you have any questions regarding this report, please feel free to contact me.

Sincerely,

Chad Whelton

Electronically approved by: Chad Whelton

Chad Whelton
Project Manager

Certificate No: MN 532786

Report of Laboratory Analysis

ALS Group USA, Corp

Date: 08-Dec-14

Client: Conestoga-Rovers & Associates
Project: Former GRMP (17360)
Work Order: **14111385**

Work Order Sample Summary

Lab Samp ID	Client Sample ID	Matrix	Tag Number	Collection Date	Date Received	Hold
14111385-01	CC-173360-112514-EB-001	Solid		11/25/2014 14:30	11/26/2014 11:50	☐
14111385-02	CC-17360-112514-EB-002	Solid		11/25/2014 14:40	11/26/2014 11:50	☐
14111385-03	CC-17360-112514-EB-003	Solid		11/25/2014 14:55	11/26/2014 11:50	☐
14111385-04	CC-17360-112514-EB-004	Solid		11/25/2014 15:20	11/26/2014 11:50	☐
14111385-05	CC-17360-112514-EB-005	Solid		11/25/2014 15:40	11/26/2014 11:50	☐
14111385-06	CC-17360-112614-EB-006	Solid		11/25/2014 09:15	11/26/2014 11:50	☐
14111385-07	CC-17360-112614-EB-007	Solid		11/26/2014 09:25	11/26/2014 11:50	☐
14111385-08	CC-17360-112614-EB-008	Solid		11/26/2014 09:45	11/26/2014 11:50	☐
14111385-09	CC-17360-112614-EB-009	Solid		11/26/2014 09:55	11/26/2014 11:50	☐
14111385-10	CC-17360-112614-EB-010	Solid		11/26/2014 10:15	11/26/2014 11:50	☐
14111385-11	M-17360-112614-EB-011	Solid		11/26/2014 10:30	11/26/2014 11:50	☐

ALS Group USA, Corp

Date: 08-Dec-14

Client: Conestoga-Rovers & Associates
Project: Former GRMP (17360)
Work Order: 14111385

Case Narrative

Batch 65525, Method PCB_8082_S, Sample 14111385-08A MSD: The MSD recovery for Aroclor 1260 was outside of the control limit. However, the MS recovery and the RPD between the MS and MSD was in control. No qualification is required.

Batch R153498, Method MOISTURE, Sample 14111385-08A DUP: Duplicate moisture analysis failed, so the sample was reprepped in another batch and run as a duplicate again. Both of those results matched the original analytical results. No qualification is required.

ALS Group USA, Corp

Date: 08-Dec-14

Client: Conestoga-Rovers & Associates
Project: Former GRMP (17360)
WorkOrder: **14111385**

QUALIFIERS, ACRONYMS, UNITS

Qualifier	Description
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte is present at an estimated concentration between the MDL and Report Limit
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL

Acronym	Description
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
LOD	Limit of Detection (see MDL)
LOQ	Limit of Quantitation (see PQL)
MBLK	Method Blank
MDL	Method Detection Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PQL	Practical Quantitation Limit
RPD	Relative Percent Difference
TDL	Target Detection Limit
TNTC	Too Numerous To Count
A	APHA Standard Methods
D	ASTM
E	EPA
SW	SW-846 Update III

Units Reported	Description
% of sample	Percent of Sample
µg/Kg-dry	Micrograms per Kilogram Dry Weight

ALS Group USA, Corp

Date: *08-Dec-14*

Client: Conestoga-Rovers & Associates
Project: Former GRMP (17360)
Work Order: 14111385
Sample ID: CC-173360-112514-EB-001
Lab ID: 14111385-01
Collection Date: 11/25/2014 02:30 PM
Matrix: SOLID

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
PCBS			**SW8082**		Prep: SW3541 / 12/1/14	Analyst: **BLM**
Aroclor 1016	ND		110	µg/Kg-dry	1	12/1/2014 08:46 PM
Aroclor 1221	ND		110	µg/Kg-dry	1	12/1/2014 08:46 PM
Aroclor 1232	ND		110	µg/Kg-dry	1	12/1/2014 08:46 PM
Aroclor 1242	ND		110	µg/Kg-dry	1	12/1/2014 08:46 PM
Aroclor 1248	ND		110	µg/Kg-dry	1	12/1/2014 08:46 PM
Aroclor 1254	ND		110	µg/Kg-dry	1	12/1/2014 08:46 PM
Aroclor 1260	ND		110	µg/Kg-dry	1	12/1/2014 08:46 PM
Surr: Decachlorobiphenyl	*45.0*		*40-140*	*%REC*	1	12/1/2014 08:46 PM
MOISTURE			**A2540 G**			Analyst: **EVB**
Moisture	**22**		**0.050**	**% of sample**	1	12/1/2014 10:20 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group USA, Corp

Date: *08-Dec-14*

Client: Conestoga-Rovers & Associates
Project: Former GRMP (17360)
Work Order: 14111385
Sample ID: CC-17360-112514-EB-002
Lab ID: 14111385-02
Collection Date: 11/25/2014 02:40 PM
Matrix: SOLID

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
PCBS			**SW8082**		Prep: SW3541 / 12/1/14	Analyst: **BLM**
Aroclor 1016	ND		97	µg/Kg-dry	1	12/1/2014 07:09 PM
Aroclor 1221	ND		97	µg/Kg-dry	1	12/1/2014 07:09 PM
Aroclor 1232	ND		97	µg/Kg-dry	1	12/1/2014 07:09 PM
Aroclor 1242	ND		97	µg/Kg-dry	1	12/1/2014 07:09 PM
Aroclor 1248	ND		97	µg/Kg-dry	1	12/1/2014 07:09 PM
Aroclor 1254	ND		97	µg/Kg-dry	1	12/1/2014 07:09 PM
Aroclor 1260	ND		97	µg/Kg-dry	1	12/1/2014 07:09 PM
Surr: Decachlorobiphenyl	*82.1*		*40-140*	*%REC*	1	12/1/2014 07:09 PM
MOISTURE			**A2540 G**			Analyst: **EVB**
Moisture	**19**		**0.050**	**% of sample**	1	12/1/2014 10:20 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group USA, Corp

Date: *08-Dec-14*

Client: Conestoga-Rovers & Associates
Project: Former GRMP (17360)
Work Order: 14111385
Sample ID: CC-17360-112514-EB-003
Lab ID: 14111385-03
Collection Date: 11/25/2014 02:55 PM
Matrix: SOLID

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
PCBS			**SW8082**		Prep: SW3541 / 12/1/14	Analyst: **BLM**
Aroclor 1016	ND		98	µg/Kg-dry	1	12/1/2014 07:25 PM
Aroclor 1221	ND		98	µg/Kg-dry	1	12/1/2014 07:25 PM
Aroclor 1232	ND		98	µg/Kg-dry	1	12/1/2014 07:25 PM
Aroclor 1242	ND		98	µg/Kg-dry	1	12/1/2014 07:25 PM
Aroclor 1248	ND		98	µg/Kg-dry	1	12/1/2014 07:25 PM
Aroclor 1254	ND		98	µg/Kg-dry	1	12/1/2014 07:25 PM
Aroclor 1260	ND		98	µg/Kg-dry	1	12/1/2014 07:25 PM
Surr: Decachlorobiphenyl	*77.1*		*40-140*	*%REC*	1	12/1/2014 07:25 PM
MOISTURE			**A2540 G**			Analyst: **EVB**
Moisture	**17**		**0.050**	**% of sample**	1	12/1/2014 10:20 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group USA, Corp

Date: *08-Dec-14*

Client: Conestoga-Rovers & Associates
Project: Former GRMP (17360)
Work Order: 14111385
Sample ID: CC-17360-112514-EB-004
Lab ID: 14111385-04
Collection Date: 11/25/2014 03:20 PM
Matrix: SOLID

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
PCBS			**SW8082**		Prep: SW3541 / 12/1/14	Analyst: **BLM**
Aroclor 1016	ND		89	µg/Kg-dry	1	12/1/2014 07:41 PM
Aroclor 1221	ND		89	µg/Kg-dry	1	12/1/2014 07:41 PM
Aroclor 1232	ND		89	µg/Kg-dry	1	12/1/2014 07:41 PM
Aroclor 1242	ND		89	µg/Kg-dry	1	12/1/2014 07:41 PM
Aroclor 1248	ND		89	µg/Kg-dry	1	12/1/2014 07:41 PM
Aroclor 1254	ND		89	µg/Kg-dry	1	12/1/2014 07:41 PM
Aroclor 1260	ND		89	µg/Kg-dry	1	12/1/2014 07:41 PM
Surr: Decachlorobiphenyl	*84.1*		*40-140*	*%REC*	1	12/1/2014 07:41 PM
MOISTURE			**A2540 G**			Analyst: **EVB**
Moisture	**7.4**		**0.050**	**% of sample**	1	12/1/2014 10:20 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group USA, Corp

Date: *08-Dec-14*

Client: Conestoga-Rovers & Associates
Project: Former GRMP (17360)
Work Order: 14111385
Sample ID: CC-17360-112514-EB-005
Lab ID: 14111385-05
Collection Date: 11/25/2014 03:40 PM
Matrix: SOLID

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
PCBS			**SW8082**		Prep: SW3541 / 12/1/14	Analyst: **BLM**
Aroclor 1016	ND		86	µg/Kg-dry	1	12/1/2014 07:58 PM
Aroclor 1221	ND		86	µg/Kg-dry	1	12/1/2014 07:58 PM
Aroclor 1232	ND		86	µg/Kg-dry	1	12/1/2014 07:58 PM
Aroclor 1242	ND		86	µg/Kg-dry	1	12/1/2014 07:58 PM
Aroclor 1248	ND		86	µg/Kg-dry	1	12/1/2014 07:58 PM
Aroclor 1254	ND		86	µg/Kg-dry	1	12/1/2014 07:58 PM
Aroclor 1260	ND		86	µg/Kg-dry	1	12/1/2014 07:58 PM
Surr: Decachlorobiphenyl	*83.1*		*40-140*	*%REC*	1	12/1/2014 07:58 PM
MOISTURE			**A2540 G**			Analyst: **EVB**
Moisture	**8.9**		**0.050**	**% of sample**	1	12/1/2014 03:00 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group USA, Corp

Date: *08-Dec-14*

Client: Conestoga-Rovers & Associates
Project: Former GRMP (17360)
Work Order: 14111385
Sample ID: CC-17360-112614-EB-006
Lab ID: 14111385-06
Collection Date: 11/25/2014 09:15 AM
Matrix: SOLID

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
PCBS			**SW8082**		Prep: SW3541 / 12/1/14	Analyst: **BLM**
Aroclor 1016	ND		92	µg/Kg-dry	1	12/1/2014 09:02 PM
Aroclor 1221	ND		92	µg/Kg-dry	1	12/1/2014 09:02 PM
Aroclor 1232	ND		92	µg/Kg-dry	1	12/1/2014 09:02 PM
Aroclor 1242	ND		92	µg/Kg-dry	1	12/1/2014 09:02 PM
Aroclor 1248	ND		92	µg/Kg-dry	1	12/1/2014 09:02 PM
Aroclor 1254	ND		92	µg/Kg-dry	1	12/1/2014 09:02 PM
Aroclor 1260	ND		92	µg/Kg-dry	1	12/1/2014 09:02 PM
Surr: Decachlorobiphenyl	*47.0*		*40-140*	*%REC*	1	12/1/2014 09:02 PM
MOISTURE			**A2540 G**			Analyst: **EVB**
Moisture	**9.3**		**0.050**	**% of sample**	1	12/1/2014 03:00 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group USA, Corp

Date: *08-Dec-14*

Client: Conestoga-Rovers & Associates
Project: Former GRMP (17360) **Work Order:** 14111385
Sample ID: CC-17360-112614-EB-007 **Lab ID:** 14111385-07
Collection Date: 11/26/2014 09:25 AM **Matrix:** SOLID

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
PCBS			**SW8082**		Prep: SW3541 / 12/1/14	Analyst: **BLM**
Aroclor 1016	ND		89	µg/Kg-dry	1	12/1/2014 09:18 PM
Aroclor 1221	ND		89	µg/Kg-dry	1	12/1/2014 09:18 PM
Aroclor 1232	ND		89	µg/Kg-dry	1	12/1/2014 09:18 PM
Aroclor 1242	ND		89	µg/Kg-dry	1	12/1/2014 09:18 PM
Aroclor 1248	ND		89	µg/Kg-dry	1	12/1/2014 09:18 PM
Aroclor 1254	ND		89	µg/Kg-dry	1	12/1/2014 09:18 PM
Aroclor 1260	ND		89	µg/Kg-dry	1	12/1/2014 09:18 PM
Surr: Decachlorobiphenyl	*41.0*		*40-140*	*%REC*	1	12/1/2014 09:18 PM
MOISTURE			**A2540 G**			Analyst: **EVB**
Moisture	**6.7**		**0.050**	**% of sample**	1	12/1/2014 03:00 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group USA, Corp

Date: *08-Dec-14*

Client: Conestoga-Rovers & Associates
Project: Former GRMP (17360)
Work Order: 14111385
Sample ID: CC-17360-112614-EB-008
Lab ID: 14111385-08
Collection Date: 11/26/2014 09:45 AM
Matrix: SOLID

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
PCBS			**SW8082**		Prep: SW3541 / 12/2/14	Analyst: **BLM**
Aroclor 1016	ND		170	µg/Kg-dry	2	12/2/2014 08:58 PM
Aroclor 1221	ND		170	µg/Kg-dry	2	12/2/2014 08:58 PM
Aroclor 1232	ND		170	µg/Kg-dry	2	12/2/2014 08:58 PM
Aroclor 1242	ND		170	µg/Kg-dry	2	12/2/2014 08:58 PM
Aroclor 1248	ND		170	µg/Kg-dry	2	12/2/2014 08:58 PM
Aroclor 1254	ND		170	µg/Kg-dry	2	12/2/2014 08:58 PM
Aroclor 1260	**2,200**		**170**	**µg/Kg-dry**	2	12/2/2014 08:58 PM
Surr: Decachlorobiphenyl	*62.1*		*40-140*	*%REC*	2	12/2/2014 08:58 PM
MOISTURE			**A2540 G**			Analyst: **EVB**
Moisture	**3.5**		**0.050**	**% of sample**	1	12/1/2014 03:00 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group USA, Corp

Date: *08-Dec-14*

Client: Conestoga-Rovers & Associates
Project: Former GRMP (17360)
Work Order: 14111385
Sample ID: CC-17360-112614-EB-009
Lab ID: 14111385-09
Collection Date: 11/26/2014 09:55 AM
Matrix: SOLID

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
PCBS			**SW8082**		Prep: SW3541 / 12/1/14	Analyst: **BLM**
Aroclor 1016	ND		85	µg/Kg-dry	1	12/1/2014 10:23 PM
Aroclor 1221	ND		85	µg/Kg-dry	1	12/1/2014 10:23 PM
Aroclor 1232	ND		85	µg/Kg-dry	1	12/1/2014 10:23 PM
Aroclor 1242	ND		85	µg/Kg-dry	1	12/1/2014 10:23 PM
Aroclor 1248	ND		85	µg/Kg-dry	1	12/1/2014 10:23 PM
Aroclor 1254	ND		85	µg/Kg-dry	1	12/1/2014 10:23 PM
Aroclor 1260	ND		85	µg/Kg-dry	1	12/1/2014 10:23 PM
Surr: Decachlorobiphenyl	*51.1*		*40-140*	*%REC*	1	12/1/2014 10:23 PM
MOISTURE			**A2540 G**			Analyst: **EVB**
Moisture	**3.8**		**0.050**	**% of sample**	1	12/1/2014 03:00 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group USA, Corp

Date: *08-Dec-14*

Client: Conestoga-Rovers & Associates
Project: Former GRMP (17360)
Work Order: 14111385
Sample ID: CC-17360-112614-EB-010
Lab ID: 14111385-10
Collection Date: 11/26/2014 10:15 AM
Matrix: SOLID

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
PCBS			**SW8082**		Prep: SW3541 / 12/1/14	Analyst: **BLM**
Aroclor 1016	ND		81	µg/Kg-dry	1	12/1/2014 10:39 PM
Aroclor 1221	ND		81	µg/Kg-dry	1	12/1/2014 10:39 PM
Aroclor 1232	ND		81	µg/Kg-dry	1	12/1/2014 10:39 PM
Aroclor 1242	ND		81	µg/Kg-dry	1	12/1/2014 10:39 PM
Aroclor 1248	ND		81	µg/Kg-dry	1	12/1/2014 10:39 PM
Aroclor 1254	ND		81	µg/Kg-dry	1	12/1/2014 10:39 PM
Aroclor 1260	**85**		**81**	**µg/Kg-dry**	1	12/1/2014 10:39 PM
Surr: Decachlorobiphenyl	*53.1*		*40-140*	*%REC*	1	12/1/2014 10:39 PM
MOISTURE			**A2540 G**			Analyst: **EVB**
Moisture	**2.3**		**0.050**	**% of sample**	1	12/1/2014 03:00 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group USA, Corp

Date: *08-Dec-14*

Client: Conestoga-Rovers & Associates
Project: Former GRMP (17360)
Work Order: 14111385
Sample ID: M-17360-112614-EB-011
Lab ID: 14111385-11
Collection Date: 11/26/2014 10:30 AM
Matrix: SOLID

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
PCBS			**SW8082**		Prep: SW3541 / 12/1/14	Analyst: **BLM**
Aroclor 1016	ND		240	µg/Kg-dry	1	12/1/2014 08:14 PM
Aroclor 1221	ND		240	µg/Kg-dry	1	12/1/2014 08:14 PM
Aroclor 1232	ND		240	µg/Kg-dry	1	12/1/2014 08:14 PM
Aroclor 1242	ND		240	µg/Kg-dry	1	12/1/2014 08:14 PM
Aroclor 1248	ND		240	µg/Kg-dry	1	12/1/2014 08:14 PM
Aroclor 1254	ND		240	µg/Kg-dry	1	12/1/2014 08:14 PM
Aroclor 1260	ND		240	µg/Kg-dry	1	12/1/2014 08:14 PM
Surr: Decachlorobiphenyl	*84.1*		*40-140*	*%REC*	1	12/1/2014 08:14 PM
MOISTURE			**A2540 G**			Analyst: **EVB**
Moisture	**0.76**		**0.050**	**% of sample**	1	12/1/2014 03:00 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group USA, Corp

Date: 08-Dec-14

Client: Conestoga-Rovers & Associates

Work Order: 14111385

Project: Former GRMP (17360)

QC BATCH REPORT

Batch ID: **65525** Instrument ID **GC14** Method: **SW8082**

MBLK Sample ID: **PBLKS1-65525-65525** Units: **µg/Kg** Analysis Date: **12/1/2014 06:21 PM**

Client ID: Run ID: **GC14_141201A** SeqNo: **3057186** Prep Date: **12/1/2014** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aroclor 1016	ND	83								
Aroclor 1221	ND	83								
Aroclor 1232	ND	83								
Aroclor 1242	ND	83								
Aroclor 1248	ND	83								
Aroclor 1254	ND	83								
Aroclor 1260	ND	83								
Surr: Decachlorobiphenyl	*28.67*	0	*33.3*	0	*86.1*	*40-140*	0			

LCS Sample ID: **PLCSS1-65525-65525** Units: **µg/Kg** Analysis Date: **12/1/2014 06:37 PM**

Client ID: Run ID: **GC14_141201A** SeqNo: **3057187** Prep Date: **12/1/2014** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aroclor 1016	761	83	833	0	91.4	50-130	0			
Aroclor 1260	782.7	83	833	0	94	50-130	0			
Surr: Decachlorobiphenyl	*30.33*	0	*33.3*	0	*91.1*	*40-140*	0			

MS Sample ID: **14111385-08A MS** Units: **µg/Kg** Analysis Date: **12/1/2014 09:51 PM**

Client ID: **CC-17360-112614-EB-008** Run ID: **GC14_141201A** SeqNo: **3057197** Prep Date: **12/1/2014** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aroclor 1016	516.1	82	824.2	0	62.6	40-140	0			
Aroclor 1260	1643	82	824.2	627.1	123	40-140	0			
Surr: Decachlorobiphenyl	*14.51*	0	*32.95*	0	*44*	*40-140*	0			

MSD Sample ID: **14111385-08A MSD** Units: **µg/Kg** Analysis Date: **12/1/2014 10:07 PM**

Client ID: **CC-17360-112614-EB-008** Run ID: **GC14_141201A** SeqNo: **3057198** Prep Date: **12/1/2014** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aroclor 1016	620.5	83	824.8	0	75.2	40-140	516.1	18.4	50	
Aroclor 1260	2559	83	824.8	627.1	234	40-140	1643	43.6	50	S
Surr: Decachlorobiphenyl	*17.16*	0	*32.97*	0	*52.1*	*40-140*	14.51	*16.7*	*50*	

The following samples were analyzed in this batch:

14111385-01A	14111385-02A	14111385-03A
14111385-04A	14111385-05A	14111385-06A
14111385-07A	14111385-08A	14111385-09A
14111385-10A	14111385-11A	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Conestoga-Rovers & Associates
Work Order: 14111385
Project: Former GRMP (17360)

QC BATCH REPORT

Batch ID: **65554** Instrument ID **GC14** Method: **SW8082**

MBLK Sample ID: **PBLKS1-65554-65554** Units: **µg/Kg** Analysis Date: **12/2/2014 08:09 PM**
Client ID: Run ID: **GC14_141202A** SeqNo: **3060135** Prep Date: **12/2/2014** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aroclor 1016	ND	83								
Aroclor 1221	ND	83								
Aroclor 1232	ND	83								
Aroclor 1242	ND	83								
Aroclor 1248	ND	83								
Aroclor 1254	ND	83								
Aroclor 1260	ND	83								
Surr: Decachlorobiphenyl	*30.67*	0	*33.3*	0	*92.1*	*40-140*	0			

LCS Sample ID: **PLCSS1-65554-65554** Units: **µg/Kg** Analysis Date: **12/2/2014 08:25 PM**
Client ID: Run ID: **GC14_141202A** SeqNo: **3060136** Prep Date: **12/2/2014** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aroclor 1016	824	83	833	0	98.9	50-130	0			
Aroclor 1260	842.3	83	833	0	101	50-130	0			
Surr: Decachlorobiphenyl	*31.67*	0	*33.3*	0	*95.1*	*40-140*	0			

MS Sample ID: **1412004-02A MS** Units: **µg/Kg** Analysis Date: **12/2/2014 10:03 PM**
Client ID: Run ID: **GC14_141202A** SeqNo: **3060140** Prep Date: **12/2/2014** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aroclor 1016	814	81	813.3	0	100	40-140	0			
Aroclor 1260	967.3	81	813.3	0	119	40-140	0			
Surr: Decachlorobiphenyl	*27.01*	0	*32.51*	0	*83.1*	*40-140*	0			

MSD Sample ID: **1412004-02A MSD** Units: **µg/Kg** Analysis Date: **12/2/2014 10:19 PM**
Client ID: Run ID: **GC14_141202A** SeqNo: **3060141** Prep Date: **12/2/2014** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aroclor 1016	806.4	82	821.6	0	98.2	40-140	814	0.93	50	
Aroclor 1260	920.5	82	821.6	0	112	40-140	967.3	4.95	50	
Surr: Decachlorobiphenyl	*26.63*	0	*32.84*	0	*81.1*	*40-140*	27.01	*1.43*	*50*	

The following samples were analyzed in this batch: 14111385-08A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Conestoga-Rovers & Associates
Work Order: 14111385
Project: Former GRMP (17360)

QC BATCH REPORT

Batch ID: **R153454** Instrument ID **MOIST** Method: **A2540 G**

MBLK	Sample ID: **WBLKS-R153454**				Units: **% of sample**			Analysis Date: **12/1/2014 10:20 AM**		
Client ID:	Run ID: **MOIST_141201A**				SeqNo: **3057580**		Prep Date:		DF: **1**	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	ND	0.050								

LCS	Sample ID: **LCS-R153454**				Units: **% of sample**			Analysis Date: **12/1/2014 10:20 AM**		
Client ID:	Run ID: **MOIST_141201A**				SeqNo: **3057576**		Prep Date:		DF: **1**	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	100	0.050	100	0	100	99.5-100.5	0			

DUP	Sample ID: **14111343-01B DUP**				Units: **% of sample**			Analysis Date: **12/1/2014 10:20 AM**		
Client ID:	Run ID: **MOIST_141201A**				SeqNo: **3057532**		Prep Date:		DF: **1**	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	12.87	0.050	0	0	0	0-0	13.13	2	20	

DUP	Sample ID: **14111343-11B DUP**				Units: **% of sample**			Analysis Date: **12/1/2014 10:20 AM**		
Client ID:	Run ID: **MOIST_141201A**				SeqNo: **3057555**		Prep Date:		DF: **1**	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	12.48	0.050	0	0	0	0-0	13.11	4.92	20	

The following samples were analyzed in this batch:

14111385-01A	14111385-02A	14111385-03A
14111385-04A		

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Conestoga-Rovers & Associates
Work Order: 14111385
Project: Former GRMP (17360)

QC BATCH REPORT

Batch ID: **R153498** Instrument ID **MOIST** Method: **A2540 G**

MBLK Sample ID: **WBLKS-R153498** Units: **% of sample** Analysis Date: **12/1/2014 03:00 PM**
Client ID: Run ID: **MOIST_141201B** SeqNo: **3058625** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	ND	0.050								

LCS Sample ID: **LCS-R153498** Units: **% of sample** Analysis Date: **12/1/2014 03:00 PM**
Client ID: Run ID: **MOIST_141201B** SeqNo: **3058624** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	100	0.050	100	0	100	99.5-100.5	0			

DUP Sample ID: **14111372-01B DUP** Units: **% of sample** Analysis Date: **12/1/2014 03:00 PM**
Client ID: Run ID: **MOIST_141201B** SeqNo: **3058603** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	15.82	0.050	0	0	0	0-0	15.37	2.89	20	

DUP Sample ID: **14111385-08A DUP** Units: **% of sample** Analysis Date: **12/1/2014 03:00 PM**
Client ID: **CC-17360-112614-EB-008** Run ID: **MOIST_141201B** SeqNo: **3058609** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	4.52	0.050	0	0	0	0-0	3.51	25.2	20	R

The following samples were analyzed in this batch:

14111385-05A	14111385-06A	14111385-07A
14111385-08A	14111385-09A	14111385-10A
14111385-11A		

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

ALS Environmental

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Chain of Custody Form

Page 1 of 1

COC ID: 19577

ALS Project Manager: | ALS Work Order #: 1411385

Customer Information		Project Information		Parameter/Method Request for Analysis	
Purchase Order	4067604	Project Name	RACER - Former GR Plant	A	PCBs
Work Order	017360	Project Number	017360-T12744-02414	B	
Company Name	Conestoga-Rovers & Associates	Bill To Company	CRA	C	
Send Report To	Rawa Fleisher - CRA Plymouth	Invoice Attn	R. Fleisher	D	
Address	14496 Sheldon Rd Ste. 200	Address	← same	E	
City/State/Zip	Plymouth, MI 48170	City/State/Zip		F	
Phone		Phone		G	
Fax		Fax		H	
e-Mail Address	chendel@craworld.com	e-Mail Address		I	
				J	

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	CC-17360-112514-EB-001	11/25/14	1430	Concrete/Asphalt (EB)	none	1	X										
2	-002		1440	concrete		1											
3	-003		1455			1											
4	-004		1520			1											
5	-005		1540			1											
6	CC-17360-112614-EB-006	11/26/14	915	Asphalt		1											
7	-007		925			1											
8	-008		945			2		MS/MSD									
9	-009		955			1											
10	-010		1015														
11	MW-17360-112614-EB-011		1030	Matrix		1											

Sampler(s) Please Print & Sign: Eric Butenburg

Shipment Method: Drop @ lab

Required Turnaround Time: (Check Box) ☐ Other ☒ STD 10 Wk Days ☐ 5 Wk Days ☐ 2 Wk Days ☐ 24 Hour

Results Due Date:

Relinquished by: | Date: 11-26-14 | Time: 1 | Received by:

Relinquished by: | Date: 11/26/14 | Time: 1150 | Received by (Laboratory):

Logged by (Laboratory): KW | Date: 11/26/14 | Time: 1330 | Checked by (Laboratory):

Notes: Sample -011 is assumed to be matrix...

Cooler ID	Cooler Temp
	4.2°C

QC Package: (Check One Box Below)
☐ Level II Std QC ☐ TRRP Checklist
☐ Level III Std QC/Raw Data ☒ TRRP Level IV
☐ Level IV SW846/CLP
☐ Other

Preservative Key: 1-HCl 2-HNO_3 3-H_2SO_4 4-NaOH 5-$Na_2S_2O_3$ 6-$NaHSO_4$ 7-Other 8-4°C 9-5035

Note: 1. Any changes must be made in writing once samples and COC Form have been submitted to ALS Environmental.
2. Unless otherwise agreed in a formal contract, services provided by ALS Environmental are expressly limited to the terms and conditions stated on the reverse.
3. The Chain of Custody is a legal document. All information must be completed accurately.

ALS Group USA, Corp

Sample Receipt Checklist

Client Name: **CRA - PLYMOUTH** Date/Time Received: **26-Nov-14 11:50**

Work Order: **14111385** Received by: **KRW**

Checklist completed by Keith Wierenga (eSignature) 26-Nov-14 (Date) Reviewed by: Chad Whelton (eSignature) 26-Nov-14 (Date)

Matrices: Solid

Carrier name: Client

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☐	No ☐	Not Present ☑
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐	
Sample(s) received on ice?	Yes ☑	No ☐	
Temperature(s)/Thermometer(s):	4.2 C		
Cooler(s)/Kit(s):			
Date/Time sample(s) sent to storage:	11/26/2014 1:38:15 PM		
Water - VOA vials have zero headspace?	Yes ☐	No ☐	No VOA vials submitted ☑
Water - pH acceptable upon receipt?	Yes ☐	No ☐	N/A ☑
pH adjusted?	Yes ☐	No ☐	N/A ☑
pH adjusted by:	-		

Login Notes:

Client Contacted: Date Contacted: Person Contacted:

Contacted By: Regarding:

Comments:

CorrectiveAction: