Kevin Schneider

From: Clifford Yantz
Sent: Tuesday, November 20, 2012 11:22 AM
To: Kaysen.Michelle@epamail.epa.gov
Cc: Dave Favero; Bhooma Sundar (Sundar.Bhooma@epamail.epa.gov); GARY CYGAN (Cygan.Gary@epamail.epa.gov); Kevin Schneider
Subject: RACER - 12960 - Dort Hwy Land - 2nd Quarterly Sampling Results
Attachments: Figure 5 - Exceedence Map (09-27-2012).pdf; Table 2 GW Results 09-2012.pdf; Table 1-DTW -09-2012.pdf; 54059.OBG.QCFIN.121003.PDF; RPT.COC.S54059.01(01)_RACER_DORT_HWY_LAND.PDF

Michelle,
The analytical results for the second quarterly sampling event for the RACER Dort Highway Land site (#12960) is attached per our agreed upon scope of work. Tables 1 and 2 provide summaries of the water levels and analytical results, respectively, for the site for the first two sampling events. Figure 5 provides the current groundwater contours and exceedances (Figures 1 through 4 were provided in the original GWI Report).

The water level for MW-5 contours well with the rest of the groundwater elevation data, and indicates that it has stabilized (took longer than the 2 weeks allowed for stabilization before the first round of sampling, which indicates how low the permeability of the clay is). The groundwater elevations range from 827.32 ft aMSL at MW-9 to 818.60 ft aMSL at MW-4, and are considered a reasonable representation of the piezometric heads (vs. groundwater table) for the Site, and provide an indication of the groundwater flow direction at the Site. The groundwater contours indicate a flow pattern originating from the southeastern and northern portions of the Site with a general overall westerly/south westerly flow direction. The groundwater contours during this event indicate a similar flow pattern as observed in June.

The samples were analyzed for arsenic and lead during this round, and both were detected in one or more samples during this event. Arsenic was detected above the Michigan Department of Environmental Quality (MDEQ) nonresidential drinking water and groundwater surface water interface (GSI) criteria of 0.01 mg/L at MW-2, MW2-1 and MW-7, the same as for the June monitoring event. The total arsenic detections ranged from 0.028 mg/L at MW-7 to 0.035 mg/L at MW-2 (Co-Located sample). The dissolved arsenic detections ranged from 0.030 mg/L at MW-7 to 0.035 mg/L at MW-2. The arsenic results were slightly higher than the first round of sampling. Lead, which had been detected above the nonresidential drinking water criterion at MW-9 last sampling round was either not detected or detected at the detection limit of 0.003 mg/L, which is below the drinking water criterion.

We will plan on collecting the next round of samples in December 2012 and will update the tables and create a new figure summarizing those results in January 2013.

Thank you and have a great day,
CSY

O'BRIEN & GERE
Clifford S. Yantz
TECHNICAL ASSOCIATE

O'BRIEN & GERE
37000 Grand River Ave. | Suite 260
Farmington Hills, MI 48335-2887
p 248-477-5701 ext. 16| *f 248*-477-5962

Table 1
RACER Trust- Dort Hwy Land
Depth to Groundwater Levels in Monitoring Wells

Well	Top Of Casing Elev. (ft) *	Top of Sand Pack Elev. (ft)	Bottom of Sand Pack Elev. (ft)	Date	Depth To Water (ft)	Static Water Elev. (ft)
MW-1	831.76	825.69	819.69	27-Jun-12	6.06	825.70
				27-Sep-12	8.96	822.80
MW-2	829.31	814.64	806.84	27-Jun-12	7.09	822.22
				27-Sep-12	9.05	820.26
MW2-1	832.33	821.05	812.35	27-Jun-12	8.69	823.64
				27-Sep-12	10.56	821.77
MW-3	824.99	816.81	807.81	27-Jun-12	5.30	819.69
				27-Sep-12	4.32	820.67
MW-4	824.03	818.12	812.12	27-Jun-12	5.60	818.43
				27-Sep-12	5.43	818.60
MW-5	829.58	811.43	803.43	27-Jun-12	21.00	808.58
				27-Sep-12	7.76	821.82
MW-6	828.63	816.25	808.25	27-Jun-12	3.95	824.68
				27-Sep-12	7.20	821.43
MW-7	834.20	818.26	811.86	27-Jun-12	9.51	824.69
				27-Sep-12	11.04	823.16
MW-8	833.22	820.20	811.20	27-Jun-12	5.39	827.83
				27-Sep-12	8.15	825.07
MW-9	835.45	817.48	809.98	27-Jun-12	8.05	827.40
				27-Sep-12	8.13	827.32

Notes

* Casing elevations were provided by CTI Engineers and are in feet relative to National Geodetic Vertical Datum

Table 2
Summary of Detected Groundwater Analytical Results
RACER Trust
Grand Blanc, Michigan

Parameter		MDEQ Criteria: Nonresidential Drinking Water Criteria & RBSLs	MDEQ Criteria: Groundwater Surface Water Interface Criteria & RBSLs	MDEQ Criteria: Non-Residential Groundwater Volatilization to Indoor Air Inhalation Criteria & RBSLs	MDEQ Criteria: Groundwater Contact Criteria & RBSLs	MW-1		MW-2 (CO-LOCATED)						MW2-1				MW-3	MW-4			MW-5	MW-6
						28-Jun-12		28-Jun-12		27-Sep-12		27-Sep-12		28-Jun-12		27-Sep-12		29-Jun-12	29-Jun-12	27-Sep-12		29-Jun-12	2-Jul-12
						Dissolved	Total	Dissolved	Total	Dissolved	Total	Dissolved	Total	Dissolved	Total	Dissolved	Total	Total	Total	Dissolved	Total	Total	Total
Metals																							
Arsenic	mg/L	0.01 (A)	0.01	NLV	4.3	<0.002	<0.002	0.027	0.028	0.035	0.034	0.034	0.035	0.020	0.018	0.026	0.032	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Barium	mg/L	2 (A)	0.67 (G,X)	NLV	14000	0.084	0.098	0.042	0.045	--	--	--	--	0.081	0.083	--	--	0.094	0.135	--	--	0.054	0.046
Lead (Total)	mg/L	0.004 (L)	0.014 (G,X)	NLV	ID	<0.003	<0.003	<0.003	<0.003	<0.003	0.004	<0.003	0.004	<0.003	<0.003	<0.003	0.004	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
SVOCs																							
Dimethyl phthalate	µg/L	210,000	NA	NLV	4.2E+06 (S)	<5	10*	<5	5*	--	--	--	--	<5	8*	--	--	<5	<5	--	--	8*	<5
VOCs																							
Bromodichloromethane	µg/L	80 (A,W)	ID	37,000	14,000	<1	<1	<1	<1	--	--	--	--	<1	<1	--	--	<1	<1	--	--	<1	<1
Chloroform	µg/L	80 (A,W)	350	1.80E+05	1.50E+05	<1	<1	<1	<1	--	--	--	--	<1	<1	--	--	<1	<1	--	--	<1	<1
1,1-Dichloroethane	µg/L	2,500	740	2.30E+06	2.40E+06	<1	<1	<1	<1	--	--	--	--	<1	<1	--	--	6	<1	--	--	<1	<1

Notes:
Exceeds residential drinking water criteria or both GSI and drinking water criteria
* Compound also found in associated method blank.
(A) Criterion is the state of Michigan drinking water standard.
(G) Groundwater surface water interface (GSI) criterion depends on the pH or water hardness, or both, of the receiving surface water. The final chronic value (FCV) for the protection of aquatic life shall be calculated based on the pH or hardness of the receiving surface water
(S) Criterion defaults to the hazardous substance-specific water solubility limit.
(L) Criteria for lead are derived using a biologically based model, as allowed for under Section 20120a(10) of the NREPA, and are not calculated using the algorithms and assumptions specified in pathway-specific rules.
(W) Concentrations of trihalomethanes in groundwater shall be added together to determine compliance with the Michigan drinking water standard of 80 µg/L.
(X) The GSI criterion shown in the generic cleanup criteria tables is not protective for surface water that is used as a drinking water source.
(NLV) Means hazardous substance is not likely to volatilize under most conditions.
(ID) Means insufficient data to develop criterion.
(ND) Not detected.

Table 2
Summary of Detected Groundwater Analytical Results
RACER Trust
Grand Blanc, Michigan

Parameter		MDEQ Criteria: Nonresidential Drinking Water Criteria & RBSLs	MDEQ Criteria: Groundwater Surface Water Interface Criteria & RBSLs	MDEQ Criteria: Non-Residential Groundwater Volatilization to Indoor Air Inhalation Criteria & RBSLs	MDEQ Criteria: Groundwater Contact Criteria & RBSLs	MW-7 (CO-LOCATED) 28-Jun-12 Dissolved	MW-7 (CO-LOCATED) 28-Jun-12 Total	MW-7 (CO-LOCATED) 28-Jun-12 Dissolved	MW-7 (CO-LOCATED) 28-Jun-12 Total	MW-7 (CO-LOCATED) 27-Sep-12 Dissolved	MW-7 (CO-LOCATED) 27-Sep-12 Total	MW-8 (DUP-1) 2-Jul-12 Total	MW-8 (DUP-1) 2-Jul-12 Total	MW-9 27-Jun-12 Dissolved	MW-9 27-Jun-12 Total	MW-9 27-Sep-12 Dissolved	MW-9 27-Sep-12 Total	MW-9 (DUP-1) 27-Sep-12 Dissolved	MW-9 (DUP-1) 27-Sep-12 Total	FB-1 (Field Blank) 2-Jul-12	EB-1 (Equip Blank) 2-Jul-12	EB-1 (Equip Blank) 27-Sep-12	TB-3 (Trip Blank) 2-Jul-12
Metals																							
Arsenic	mg/L	0.01 (A)	0.01	NLV	4.3	0.023	0.024	0.024	0.029	0.030	0.028	<0.002	<0.002	<0.002	0.002	0.003	0.004	0.003	0.003	<0.002	<0.002	<0.002	<0.002
Barium	mg/L	2 (A)	0.67 (G,X)	NLV	14000	0.090	0.092	0.090	0.112	--	--	0.105	0.111	0.076	0.086	--	--	--	--	<0.005	<0.005	--	<0.005
Lead (Total)	mg/L	0.004 (L)	0.014 (G,X)	NLV	ID	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	0.004	0.006	<0.003	0.003	<0.003	<0.003	<0.003	<0.003	0.003	<0.003
SVOCs																							
Dimethyl phthalate	µg/L	210,000	NA	NLV	4.2E+06 (S)	<5	<5	<5	<5	--	--	8*	10*	<5	<5	--	--	--	--	9*	<5	--	<5
VOCs																							
Bromodichloromethane	µg/L	80 (A,W)	ID	37,000	14,000	<1	<1	<1	<1	--	--	<1	<1	<1	<1	--	--	--	--	<1	2	--	<1
Chloroform	µg/L	80 (A,W)	350	1.80E+05	1.50E+05	<1	<1	<1	<1	--	--	<1	<1	<1	<1	--	--	--	--	<1	9	--	5
1,1-Dichloroethane	µg/L	2,500	740	2.30E+06	2.40E+06	<1	<1	<1	<1	--	--	<1	<1	<1	<1	--	--	--	--	<1	<1	--	<1

Notes:

Exceeds residential drinking water criteria or both GSI and drinking water criteria

* Compound also found in associated method blank.

(A) Criterion is the state of Michigan drinking water standard.

(G) Groundwater surface water interface (GSI) criterion depends on the pH or water hardness, or both, of the receiving surface water. The final chronic value (FCV) for the protection of aquatic life shall be calculated based on the pH or hardness of the receiving surface water

(S) Criterion defaults to the hazardous substance-specific water solubility limit.

(L) Criteria for lead are derived using a biologically based model, as allowed for under Section 20120a(10) of the NREPA, and are not calculated using the algorithms and assumptions specified in pathway-specific rules.

(W) Concentrations of trihalomethanes in groundwater shall be added together to determine compliance with the Michigan drinking water standard of 80 µg/L.

(X) The GSI criterion shown in the generic cleanup criteria tables is not protective for surface water that is used as a drinking water source.

(NLV) Means hazardous substance is not likely to volatilize under most conditions.

(ID) Means insufficient data to develop criterion.

(ND) Not detected.

FIGURE 5

TRUE NORTH

FORMER FLOOR BLOCK AREA

MW-2 (9/27/2012)

ANALYTE	RESULT (mg/L) ORIGINAL	RESULT (mg/L) CO-LOCATED	CRITERIA*
ARSENIC (DISSOLVED)	0.035	0.034	0.010
ARSENIC (TOTAL)	0.034	0.035	0.010

MW2-1 (9/27/2012)

ANALYTE	RESULT (mg/L)	CRITERIA*
ARSENIC (DISSOLVED)	0.026	0.010
ARSENIC (TOTAL)	0.032	0.010

MW-7 (9/27/2012)

ANALYTE	RESULT (mg/L)	CRITERIA*
ARSENIC (DISSOLVED)	0.030	0.010
ARSENIC (TOTAL)	0.028	0.010

LEGEND

- TEMPORARY MONITORING WELL LOCATION
- MONITORING WELL LOCATION
- APPROXIMATE RACER TRUST PROPERTY LINE
- FORMER TANK TEST TRACK AND DIE STORAGE ACCESS ROADS
- APPROXIMATE FENCE LOCATION
- DELINEATION/ CONFIRMATION SOIL SAMPLE LOCATION
- FLOOR BLOCK AREA SOIL SAMPLE LOCATION
- GROUND WATER CONTOUR
- GROUND WATER FLOW

RACER TRUST
DORT HIGHWAY LAND
GRAND BLANC, MICHIGAN

GROUNDWATER CONTOUR MAP (SEPT. 27, 2012) WITH EXCEEDANCES

1"=200' 200 0 200

15388/48631.008
JULY 2012

O'BRIEN & GERE ENGINEERS INC.

** NOTES:

1. THE GROUNDWATER FLOW PATTERN IN MANY SHALLOW PERCHED/PRIMARILY CLAYEY NEAR SURFACE HYDROGEOLOGIC SETTINGS CAN BE COMPLEX, LOCALLY VARIABLE, AND IN SOME CASES CONTOURS OF GROUNDWATER ELEVATIONS MAY EVEN INDICATE THAT THE GROUNDWATER ELEVATIONS SHOULD NOT BE CONTOURED. HOWEVER, THE GROUNDWATER FLOW DIRECTION INDICATED BY THE CONTOURS OF THE GROUNDWATER ELEVATIONS IN THE MONITORING WELLS AT THE SITE AGREES WITH THE PREDICTED FLOW DIRECTION BASED ON TOPOGRAPHIC AND SURFACE WATER INFORMATION FOR THE SITE AREA.

2. CRITERIA FOR ARSENIC ARE THE MDEQ GROUNDWATER / SURFACE WATER INTERFACE CRITERIA AND THE NON-RESIDENTIAL DRINING WATER (WHICH ARE THE SAME). CRITERIA FOR LEAD ARE THE NON-RESIDENTIAL DRINKING WATER CRITERIA.

PLOT DATE: 11/6/2012 jmo

I:\Racer-Trust.15388\48631.Racer-12960-Dor\Docs\DWG\Sheets\009

Analytical Laboratory Report

Report ID: S54059.01(01)
Generated on 10/01/2012

Report to

Attention: Clifford Yantz
O'Brien & Gere Engineers, Inc.
37000 Grand River Ave.
Suite 260
Farmington, MI 48335

Phone: 248-477-5701 FAX:
Email: YantzCS@obg.com/

Report produced by

Merit Laboratories
2680 East Lansing Drive
East Lansing, MI 48823

Phone: (517) 332-0167 FAX: (517) 332-6333

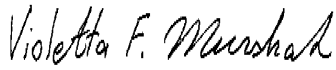
Report Summary

Lab Sample ID(s): S54059.01-S54059.11
Project: RACER Dort Hwy Land
Collected Date: 09/27/2012
Submitted Date/Time: 09/28/2012 09:00
Sampled by: Kevin Schneider
P.O. #: 11210767

Report Notes

Results relate only to items tested as received by the laboratory.
Methods may be modified for improved performance.
Results reported on a dry weight basis where applicable.
"Not detected" indicates that parameter was not found at a level equal to or greater than the RL.
Samples are held by the lab for 30 days from the sample submittal date unless a written request to hold longer is provided by the client.

Laboratory Certifications:
Michigan DNRE (#9956), DOD/ISO 17025 (#L11-184), WBENC (#2005110032)
Ohio EPA (#CL0002), IN Drinking Water (#C-MI-07), NELAC NY (#11814), NELAC FL (#E871045)
Some analytes reported may not be certified. Full certification lists are available upon request.



Violetta F. Murshak
Laboratory Director

Analytical Laboratory Report

Sample Summary (11 samples)

Sample ID	Sample Tag	Matrix	Collected Date/Time
S54059.01	MW-2	Groundwater	09/27/2012 11:30
S54059.02	MW-2 Co-Located	Groundwater	09/27/2012 11:30
S54059.03	MW-4	Groundwater	09/27/2012 13:20
S54059.04	MW-2-1	Groundwater	09/27/2012 14:25
S54059.05	MW-2-1 MS	Groundwater	09/27/2012 14:25
S54059.06	MW-2-1 MSD	Groundwater	09/27/2012 14:25
S54059.07	MW-7	Groundwater	09/27/2012 16:30
S54059.08	FB-1	Groundwater	09/27/2012 17:15
S54059.09	MW-9	Groundwater	09/27/2012 18:10
S54059.10	DUP-1	Groundwater	09/27/2012 00:01
S54059.11	EB-1	Groundwater	09/27/2012 18:30

Analytical Laboratory Report

Lab Sample ID: S54059.01
Sample Tag: MW-2
Collected Date/Time: 09/27/2012 11:30
Matrix: Groundwater
COC Reference: 71028

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
2	125ml Plastic	HNO3	Yes	5.3	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
Metal Digestion	Completed			3015A	10/01/12 01:00	SLR		
Metal Digestion	Completed			3015A	10/01/12 01:00	SLR		
Metals								
Arsenic, Dissolved	0.035	mg/L	0.002	E200.8	10/01/12 13:07	SLS	7440-38-2	
Arsenic	0.034	mg/L	0.002	E200.8	10/01/12 13:04	SLS	7440-38-2	
Lead, Dissolved	Not detected	mg/L	0.003	E200.8	10/01/12 13:07	SLS	7439-92-1	
Lead	0.004	mg/L	0.003	E200.8	10/01/12 13:04	SLS	7439-92-1	
Selenium, Dissolved	Not detected	mg/L	0.005	E200.8	10/01/12 13:07	SLS	7782-49-2	
Selenium	Not detected	mg/L	0.005	E200.8	10/01/12 13:04	SLS	7782-49-2	
Silver, Dissolved	Not detected	mg/L	0.0002	E200.8	10/01/12 16:50	SLS	7440-22-4	
Silver	Not detected	mg/L	0.0002	E200.8	10/01/12 16:48	SLS	7440-22-4	

Analytical Laboratory Report

Lab Sample ID: S54059.02
Sample Tag: MW-2 Co-Located
Collected Date/Time: 09/27/2012 11:30
Matrix: Groundwater
COC Reference: 71028

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
2	125ml Plastic	HNO3	Yes	5.3	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
Metal Digestion	Completed			3015A	10/01/12 01:00	SLR		
Metal Digestion	Completed			3015A	10/01/12 01:00	SLR		
Metals								
Arsenic, Dissolved	0.034	mg/L	0.002	E200.8	10/01/12 13:13	SLS	7440-38-2	
Arsenic	0.035	mg/L	0.002	E200.8	10/01/12 13:10	SLS	7440-38-2	
Lead, Dissolved	Not detected	mg/L	0.003	E200.8	10/01/12 13:13	SLS	7439-92-1	
Lead	0.004	mg/L	0.003	E200.8	10/01/12 13:10	SLS	7439-92-1	
Selenium, Dissolved	Not detected	mg/L	0.005	E200.8	10/01/12 13:13	SLS	7782-49-2	
Selenium	Not detected	mg/L	0.005	E200.8	10/01/12 13:10	SLS	7782-49-2	
Silver, Dissolved	Not detected	mg/L	0.0002	E200.8	10/01/12 16:54	SLS	7440-22-4	
Silver	Not detected	mg/L	0.0002	E200.8	10/01/12 16:52	SLS	7440-22-4	

Analytical Laboratory Report

Lab Sample ID: S54059.03
Sample Tag: MW-4
Collected Date/Time: 09/27/2012 13:20
Matrix: Groundwater
COC Reference: 71028

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
2	125ml Plastic	HNO3	Yes	5.3	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
Metal Digestion	Completed			3015A	10/01/12 01:00	SLR		
Metal Digestion	Completed			3015A	10/01/12 01:00	SLR		
Metals								
Arsenic, Dissolved	Not detected	mg/L	0.002	E200.8	10/01/12 13:19	SLS	7440-38-2	
Arsenic	Not detected	mg/L	0.002	E200.8	10/01/12 13:16	SLS	7440-38-2	
Lead, Dissolved	Not detected	mg/L	0.003	E200.8	10/01/12 13:19	SLS	7439-92-1	
Lead	Not detected	mg/L	0.003	E200.8	10/01/12 13:16	SLS	7439-92-1	
Selenium, Dissolved	Not detected	mg/L	0.005	E200.8	10/01/12 13:19	SLS	7782-49-2	
Selenium	Not detected	mg/L	0.005	E200.8	10/01/12 13:16	SLS	7782-49-2	
Silver, Dissolved	Not detected	mg/L	0.0002	E200.8	10/01/12 16:58	SLS	7440-22-4	
Silver	Not detected	mg/L	0.0002	E200.8	10/01/12 16:56	SLS	7440-22-4	

Analytical Laboratory Report

Lab Sample ID: S54059.04
Sample Tag: MW-2-1
Collected Date/Time: 09/27/2012 14:25
Matrix: Groundwater
COC Reference: 71028

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
2	125ml Plastic	HNO3	Yes	5.3	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
Metal Digestion	Completed			3015A	10/01/12 01:00	SLR		
Metal Digestion	Completed			3015A	10/01/12 01:00	SLR		
Metals								
Arsenic, Dissolved	0.026	mg/L	0.002	E200.8	10/01/12 14:03	SLS	7440-38-2	
Arsenic	0.032	mg/L	0.002	E200.8	10/01/12 13:29	SLS	7440-38-2	
Lead, Dissolved	Not detected	mg/L	0.003	E200.8	10/01/12 14:03	SLS	7439-92-1	
Lead	0.004	mg/L	0.003	E200.8	10/01/12 13:29	SLS	7439-92-1	
Selenium, Dissolved	Not detected	mg/L	0.005	E200.8	10/01/12 14:03	SLS	7782-49-2	
Selenium	Not detected	mg/L	0.005	E200.8	10/01/12 13:29	SLS	7782-49-2	
Silver, Dissolved	Not detected	mg/L	0.0002	E200.8	10/01/12 17:27	SLS	7440-22-4	
Silver	Not detected	mg/L	0.0002	E200.8	10/01/12 17:04	SLS	7440-22-4	

Analytical Laboratory Report

Lab Sample ID: S54059.05
Sample Tag: MW-2-1 MS
Collected Date/Time: 09/27/2012 14:25
Matrix: Groundwater
COC Reference: 71028

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
2	125ml Plastic	HNO3	Yes	5.3	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
Metal Digestion	Completed			3015A	10/01/12 01:00	SLR		
Metal Digestion	Completed			3015A	10/01/12 01:00	SLR		
Metals								
Arsenic, Dissolved	0.131	mg/L	0.002	E200.8	10/01/12 14:06	SLS	7440-38-2	
Arsenic	0.140	mg/L	0.002	E200.8	10/01/12 13:32	SLS	7440-38-2	
Lead, Dissolved	0.096	mg/L	0.003	E200.8	10/01/12 14:06	SLS	7439-92-1	
Lead	0.099	mg/L	0.003	E200.8	10/01/12 13:32	SLS	7439-92-1	
Selenium, Dissolved	0.108	mg/L	0.005	E200.8	10/01/12 14:06	SLS	7782-49-2	
Selenium	0.113	mg/L	0.005	E200.8	10/01/12 13:32	SLS	7782-49-2	
Silver, Dissolved	0.0900	mg/L	0.0002	E200.8	10/01/12 17:29	SLS	7440-22-4	
Silver	0.0911	mg/L	0.0002	E200.8	10/01/12 17:06	SLS	7440-22-4	

Analytical Laboratory Report

Lab Sample ID: S54059.06
Sample Tag: MW-2-1 MSD
Collected Date/Time: 09/27/2012 14:25
Matrix: Groundwater
COC Reference: 71028

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
2	125ml Plastic	HNO3	Yes	5.3	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
Metal Digestion	Completed			3015A	10/01/12 01:00	SLR		
Metal Digestion	Completed			3015A	10/01/12 01:00	SLR		
Metals								
Arsenic, Dissolved	0.131	mg/L	0.002	E200.8	10/01/12 14:09	SLS	7440-38-2	
Arsenic	0.139	mg/L	0.002	E200.8	10/01/12 13:35	SLS	7440-38-2	
Lead, Dissolved	0.099	mg/L	0.003	E200.8	10/01/12 14:09	SLS	7439-92-1	
Lead	0.100	mg/L	0.003	E200.8	10/01/12 13:35	SLS	7439-92-1	
Selenium, Dissolved	0.111	mg/L	0.005	E200.8	10/01/12 14:09	SLS	7782-49-2	
Selenium	0.112	mg/L	0.005	E200.8	10/01/12 13:35	SLS	7782-49-2	
Silver, Dissolved	0.0925	mg/L	0.0002	E200.8	10/01/12 17:32	SLS	7440-22-4	
Silver	0.0936	mg/L	0.0002	E200.8	10/01/12 17:09	SLS	7440-22-4	

Analytical Laboratory Report

Lab Sample ID: S54059.07
Sample Tag: MW-7
Collected Date/Time: 09/27/2012 16:30
Matrix: Groundwater
COC Reference: 71028

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
2	125ml Plastic	HNO3	Yes	5.3	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
Metal Digestion	Completed			3015A	10/01/12 01:00	SLR		
Metal Digestion	Completed			3015A	10/01/12 01:00	SLR		
Metals								
Arsenic, Dissolved	0.030	mg/L	0.002	E200.8	10/01/12 13:26	SLS	7440-38-2	
Arsenic	0.028	mg/L	0.002	E200.8	10/01/12 13:22	SLS	7440-38-2	
Lead, Dissolved	Not detected	mg/L	0.003	E200.8	10/01/12 13:26	SLS	7439-92-1	
Lead	Not detected	mg/L	0.003	E200.8	10/01/12 13:22	SLS	7439-92-1	
Selenium, Dissolved	Not detected	mg/L	0.005	E200.8	10/01/12 13:26	SLS	7782-49-2	
Selenium	Not detected	mg/L	0.005	E200.8	10/01/12 13:22	SLS	7782-49-2	
Silver, Dissolved	Not detected	mg/L	0.0002	E200.8	10/01/12 17:02	SLS	7440-22-4	
Silver	Not detected	mg/L	0.0002	E200.8	10/01/12 17:00	SLS	7440-22-4	

Analytical Laboratory Report

Lab Sample ID: S54059.08
Sample Tag: FB-1
Collected Date/Time: 09/27/2012 17:15
Matrix: Groundwater
COC Reference: 71028

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	125ml Plastic	HNO3	Yes	5.3	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
Metal Digestion	Completed			3015A	10/01/12 01:00	SLR		
Metals								
Arsenic	Not detected	mg/L	0.002	E200.8	10/01/12 13:44	SLS	7440-38-2	
Lead	Not detected	mg/L	0.003	E200.8	10/01/12 13:44	SLS	7439-92-1	
Selenium	Not detected	mg/L	0.005	E200.8	10/01/12 13:44	SLS	7782-49-2	
Silver	Not detected	mg/L	0.0002	E200.8	10/01/12 17:16	SLS	7440-22-4	

Analytical Laboratory Report

Lab Sample ID: S54059.09
Sample Tag: MW-9
Collected Date/Time: 09/27/2012 18:10
Matrix: Groundwater
COC Reference: 71028

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
2	125ml Plastic	HNO3	Yes	5.3	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
Metal Digestion	Completed			3015A	10/01/12 01:00	SLR		
Metal Digestion	Completed			3015A	10/01/12 01:00	SLR		
Metals								
Arsenic, Dissolved	0.003	mg/L	0.002	E200.8	10/01/12 13:50	SLS	7440-38-2	
Arsenic	0.004	mg/L	0.002	E200.8	10/01/12 13:47	SLS	7440-38-2	
Lead, Dissolved	Not detected	mg/L	0.003	E200.8	10/01/12 13:50	SLS	7439-92-1	
Lead	0.003	mg/L	0.003	E200.8	10/01/12 13:47	SLS	7439-92-1	
Selenium, Dissolved	Not detected	mg/L	0.005	E200.8	10/01/12 13:50	SLS	7782-49-2	
Selenium	Not detected	mg/L	0.005	E200.8	10/01/12 13:47	SLS	7782-49-2	
Silver, Dissolved	Not detected	mg/L	0.0002	E200.8	10/01/12 17:19	SLS	7440-22-4	
Silver	Not detected	mg/L	0.0002	E200.8	10/01/12 17:17	SLS	7440-22-4	

Analytical Laboratory Report

Lab Sample ID: S54059.10
Sample Tag: DUP-1
Collected Date/Time: 09/27/2012 00:01
Matrix: Groundwater
COC Reference: 71028

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
2	125ml Plastic	HNO3	Yes	5.3	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
Metal Digestion	Completed			3015A	10/01/12 01:00	SLR		
Metal Digestion	Completed			3015A	10/01/12 01:00	SLR		
Metals								
Arsenic, Dissolved	0.003	mg/L	0.002	E200.8	10/01/12 13:57	SLS	7440-38-2	
Arsenic	0.003	mg/L	0.002	E200.8	10/01/12 13:54	SLS	7440-38-2	
Lead, Dissolved	Not detected	mg/L	0.003	E200.8	10/01/12 13:57	SLS	7439-92-1	
Lead	Not detected	mg/L	0.003	E200.8	10/01/12 13:54	SLS	7439-92-1	
Selenium, Dissolved	Not detected	mg/L	0.005	E200.8	10/01/12 13:57	SLS	7782-49-2	
Selenium	Not detected	mg/L	0.005	E200.8	10/01/12 13:54	SLS	7782-49-2	
Silver, Dissolved	Not detected	mg/L	0.0002	E200.8	10/01/12 17:23	SLS	7440-22-4	
Silver	Not detected	mg/L	0.0002	E200.8	10/01/12 17:21	SLS	7440-22-4	

Analytical Laboratory Report

Lab Sample ID: S54059.11
Sample Tag: EB-1
Collected Date/Time: 09/27/2012 18:30
Matrix: Groundwater
COC Reference: 71028

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	125ml Plastic	HNO3	Yes	5.3	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
Metal Digestion	Completed			3015A	10/01/12 01:00	SLR		
Metals								
Arsenic	Not detected	mg/L	0.002	E200.8	10/01/12 14:00	SLS	7440-38-2	
Lead	0.003	mg/L	0.003	E200.8	10/01/12 14:00	SLS	7439-92-1	
Selenium	Not detected	mg/L	0.005	E200.8	10/01/12 14:00	SLS	7782-49-2	
Silver	Not detected	mg/L	0.0002	E200.8	10/01/12 17:25	SLS	7440-22-4	

Merit Laboratories, Inc.

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Phone (517) 332-0167 Fax (517) 332-4034
www.meritlabs.com

C.O.C. PAGE # 1 OF 1

71028

CHAIN OF CUSTODY RECORD

REPORT TO

CONTACT NAME: Clifford Yantz
COMPANY: O'Brien & Gere
ADDRESS: 37000 Grand River
CITY: Farmington Hills STATE: MI ZIP CODE: 48335
PHONE NO.: 248-477-5701 FAX NO.:
P.O. NO.: 125045.07.07
E-MAIL ADDRESS: Clifford.Yantz@OBG.com QUOTE NO.:

INVOICE TO

CONTACT NAME: David Favero ☐ SAME
COMPANY: RACER Trust
ADDRESS: 2930 Eclorse Rd
CITY: Ypsilanti STATE: MI ZIP CODE: 48197
PHONE NO.: 217-741-6235 E-MAIL ADDRESS:

PROJECT NO./NAME: RACER Dort Hwy Land
SAMPLER(S) - PLEASE PRINT/SIGN NAME: Kevin Schneider

TURNAROUND TIME REQUIRED ☐ 1 DAY ☐ 2 DAYS ☐ 3 DAYS ☒ STANDARD ☐ OTHER

DELIVERABLES REQUIRED ☐ LEVEL II ☒ LEVEL III ☐ LEVEL IV ☐ EDD ☐ OTHER

MATRIX CODE: GW=GROUNDWATER WW=WASTEWATER S=SOIL L=LIQUID SD=SOLID SL=SLUDGE DW=DRINKING WATER O=OIL WP=WIPE A=AIR W=WASTE

ANALYSIS (ATTACH LIST IF MORE SPACE IS REQUIRED)

Certifications: ☐ OHIO VAP ☐ Drinking Water ☐ DoD ☐ NPDES

Project Locations: ☐ Detroit ☐ New York ☒ Other Grand Blanc, MI

MERIT LAB NO. FOR LAB USE ONLY	YEAR DATE	TIME	SAMPLE TAG IDENTIFICATION-DESCRIPTION	MATRIX	# OF BOTTLES	# Containers & Preservatives: NONE	HCl	HNO3	H2SO4	NaOH	MeOH	OTHER	Arsenic, Lead, Selenium Silver (TOTAL)	Arsenic, Lead, Selenium Silver (Dissolved)	Special Instructions
54059.01	9/27/12	1130	MW-2	GW	2			2					X	X	
.02		1130	MW-2 CO-LOCATED	GW	2			2					X	X	
.03		1320	MW-4	GW	2			2					X	X	
.04		1425	MW2-1	GW	2			2					X	X	
.05/.06		1425	MW2-1 MS/MSD	GW	4			4					X	X	
.07		1630	MW-7	GW	2			2					X	X	
.08		1715	FB-1	QC	1			1					X		Field Blank
.09		1810	MW-9	GW	2			2					X	X	
.10		—	DUP-1	GW	2			2					X	X	
.11		1830	EB-1	QC	1			1					X		Equipment Blank

RELINQUISHED BY: SIGNATURE/ORGANIZATION		DATE	TIME
	OBG ☒ Sampler	9/28/12	900
RELINQUISHED BY: SIGNATURE/ORGANIZATION		DATE	TIME
RELINQUISHED BY: SIGNATURE/ORGANIZATION		DATE	TIME
RELINQUISHED BY: SIGNATURE/ORGANIZATION		DATE	TIME

RELINQUISHED BY: SIGNATURE/ORGANIZATION	DATE	TIME
RELINQUISHED BY: SIGNATURE/ORGANIZATION Tabitha Fant	DATE 9-28-12	TIME 900

SEAL NO. SEAL INTACT YES ☐ NO ☐ INITIALS

SEAL NO. SEAL INTACT YES ☐ NO ☐ INITIALS

NOTES: TEMP. ON ARRIVAL 5.3

PLEASE NOTE: SIGNING ACKNOWLEDGES ADHERENCE TO MERIT'S SAMPLE ACCEPTANCE POLICY ON REVERSE SIDE

Rev. 1.15.12

MERIT LABORATORIES, INC.
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FULL SERVICE ANALYTICAL TESTING FIELD SERVICES • CONSULTING • TRAINING

O'BRIEN & GERE
RACER DORT HWY LAND

SDG Batch:
54059

Pages 1 - 172

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FULL SERVICE ANALYTICAL TESTING FIELD SERVICES • CONSULTING • TRAINING

O'BRIEN & GERE

PROJECT:
RACER DORT HWY LAND

SDG Batch:
54059.01

Prepared by:
Merit Laboratories, Inc.

October 3, 2012

Laboratory Name: Merit Laboratories, Inc.
City / State: East Lansing, MI
Sample Delivery Group: S54059.01 - .11

	References		Pages		Checklist	
Deliverable	**Form**	**CLP**	**From**	**To**	**Lab**	**Audit**
1. **Inventory Sheet** (not numbered)	This	DC-2			☑	☐
2. **SDG Case Narrative**			1	1	☑	☐
3. **Analytical Summary Report**			2	29	☑	☐
4. **ICP/MS Metals Data**			30	168		
Sequence / Injection Log		F.0			☑	☐
Data Sheet		F. I			☑	☐
Initial Calibration and Calibration Verification		F. IIA			☑	☐
CRDL Standards		F. IIB			☑	☐
Blanks		F. III			☑	☐
Interference Check Sample		F. IVB			☑	☐
Spike Sample Recovery		F. VA			☑	☐
Post-Digest Spike Sample Recovery		F. VB			☑	☐
Duplicates		F. VI			☐	☐
Laboratory Control Sample		F. VII			☑	☐
Serial Dilutions		F. VIII			☑	☐
Analysis Run Log		F. XIII			☑	☐
ICP/MS Tune		F. XIV			☑	☐
Internal Standard Relative Intensity Summary		F. XV			☑	☐
Instrument Detection Limits (IDL) & MDLs		F. IX			☑	☐
Linear Ranges		F. XI			☑	☐
ICP/MS Raw Data					☑	☐
Preparation / Digestion Log		F. XII			☑	☐
5. **Shipping / Receiving Documents**			169	172		
Chain-of-Custody					☑	☐
Sample log-in sheet					☑	
Sample Receipt					☑	☐

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CASE NARRATIVE
CLIENT: O'BRIEN & GERE
PROJECT: RACER DORT HWY LAND
Merit IDs: S54059.01-S54059.11

Field Sampling: Kevin Schneider performed the fieldwork.

Analytical Bottles: All bottles were sent with the appropriate preservation in it. Please see the bottle list attached.

Sample Receiving: All samples were received by the laboratory on ice (09/28/2012). Dates and signatures can be found on the Chain of Custody Records. The sample receipts specify the actual tags and bottles received and logged into the laboratory "vlims" system.

ANALYSES

Metals: All metal analyses were performed according to Method 200.8. The metal digestion was performed according to Method 3015A. The QC requirements were followed for this specific project and method-specified criteria were met. *Outliers:* None

Notes: Dilution test not applicable if measured concentration is less than 100 times MDL.

Data Reporting: The analytical reports are reflective of what is on a given Chain-of-Custody record (COC). Merit's IDs were assigned to the samples as they were delivered and accepted by our log-in staff.

"I certify that this data package is in compliance with the terms and conditions of the program, and project, and contractual requirements both technically and for completeness, for other than the condition detailed above. Release of the data contained in this hardcopy data package and its computer-readable data submitted has been authorized by the Quality Assurance Manager or his/her designee, as verified by the following signature."

Barb Ball
QA Officer

10/03/12
Date

Analytical Laboratory Report

Report ID: S54059.01(01)
Generated on 10/01/2012

Report to

Attention: Clifford Yantz
O'Brien & Gere Engineers, Inc.
37000 Grand River Ave.
Suite 260
Farmington, MI48335

Phone: 248-477-5701 FAX:
Email: YantzCS@obg.com/

Report produced by

Merit Laboratories
2680 East Lansing Drive
East Lansing, MI 48823

Phone: (517) 332-0167 FAX: (517) 332-6333

Report Summary

Lab Sample ID(s): S54059.01-S54059.11
Project: RACER Dort Hwy Land
Collected Date: 09/27/2012
Submitted Date/Time: 09/28/2012 09:00
Sampled by: Kevin Schneider
P.O. #: 11210767

Report Notes

Results relate only to items tested as received by the laboratory.
Methods may be modified for improved performance.
Results reported on a dry weight basis where applicable.
""Not detected"" indicates that parameter was not found at a level equal to or greater than the RL.
Samples are held by the lab for 30 days from the sample submittal date unless a written request to hold longer is provided by the client.

Laboratory Certifications:
Michigan DNRE (#9956), DOD/ISO 17025 (#L11-184), WBENC (#2005110032)
Ohio EPA (#CL0002), IN Drinking Water (#C-MI-07), NELAC NY (#11814), NELAC FL (#E871045)
Some analytes reported may not be certified.Full certification lists are available upon request.

Violetta F. Murshak
Laboratory Director

Sample Summary (11 samples)

Sample ID	Sample Tag	Matrix	Collected Date/Time
S54059.01	MW-2	Groundwater	09/27/2012 11:30
S54059.02	MW-2 Co-Located	Groundwater	09/27/2012 11:30
S54059.03	MW-4	Groundwater	09/27/2012 13:20
S54059.04	MW-2-1	Groundwater	09/27/2012 14:25
S54059.05	MW-2-1 MS	Groundwater	09/27/2012 14:25
S54059.06	MW-2-1 MSD	Groundwater	09/27/2012 14:25
S54059.07	MW-7	Groundwater	09/27/2012 16:30
S54059.08	FB-1	Groundwater	09/27/2012 17:15
S54059.09	MW-9	Groundwater	09/27/2012 18:10
S54059.10	DUP-1	Groundwater	09/27/2012 00:01
S54059.11	EB-1	Groundwater	09/27/2012 18:30

Analytical Laboratory Report

Lab Sample ID: S54059.01
Sample Tag: MW-2
Collected Date/Time: 09/27/2012 11:30
Matrix: Groundwater
COC Reference: 71028

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
2	125ml Plastic	HNO3	Yes	5.3	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
Metal Digestion	Completed			3015A	10/01/12 01:00	SLR		
Metal Digestion	Completed			3015A	10/01/12 01:00	SLR		
Metals								
Arsenic, Dissolved	0.035	mg/L	0.002	E200.8	10/01/12 13:07	SLS	7440-38-2	
Arsenic	0.034	mg/L	0.002	E200.8	10/01/12 13:04	SLS	7440-38-2	
Lead, Dissolved	Not detected	mg/L	0.003	E200.8	10/01/12 13:07	SLS	7439-92-1	
Lead	0.004	mg/L	0.003	E200.8	10/01/12 13:04	SLS	7439-92-1	
Selenium, Dissolved	Not detected	mg/L	0.005	E200.8	10/01/12 13:07	SLS	7782-49-2	
Selenium	Not detected	mg/L	0.005	E200.8	10/01/12 13:04	SLS	7782-49-2	
Silver, Dissolved	Not detected	mg/L	0.0002	E200.8	10/01/12 16:50	SLS	7440-22-4	
Silver	Not detected	mg/L	0.0002	E200.8	10/01/12 16:48	SLS	7440-22-4	

Analytical Laboratory Report

Lab Sample ID: S54059.02
Sample Tag: MW-2 Co-Located
Collected Date/Time: 09/27/2012 11:30
Matrix: Groundwater
COC Reference: 71028

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
2	125ml Plastic	HNO3	Yes	5.3	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
Metal Digestion	Completed			3015A	10/01/12 01:00	SLR		
Metal Digestion	Completed			3015A	10/01/12 01:00	SLR		
Metals								
Arsenic, Dissolved	0.034	mg/L	0.002	E200.8	10/01/12 13:13	SLS	7440-38-2	
Arsenic	0.035	mg/L	0.002	E200.8	10/01/12 13:10	SLS	7440-38-2	
Lead, Dissolved	Not detected	mg/L	0.003	E200.8	10/01/12 13:13	SLS	7439-92-1	
Lead	0.004	mg/L	0.003	E200.8	10/01/12 13:10	SLS	7439-92-1	
Selenium, Dissolved	Not detected	mg/L	0.005	E200.8	10/01/12 13:13	SLS	7782-49-2	
Selenium	Not detected	mg/L	0.005	E200.8	10/01/12 13:10	SLS	7782-49-2	
Silver, Dissolved	Not detected	mg/L	0.0002	E200.8	10/01/12 16:54	SLS	7440-22-4	
Silver	Not detected	mg/L	0.0002	E200.8	10/01/12 16:52	SLS	7440-22-4	

Analytical Laboratory Report

Lab Sample ID: S54059.03
Sample Tag: MW-4
Collected Date/Time: 09/27/2012 13:20
Matrix: Groundwater
COC Reference: 71028

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
2	125ml Plastic	HNO3	Yes	5.3	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
Metal Digestion	Completed			3015A	10/01/12 01:00	SLR		
Metal Digestion	Completed			3015A	10/01/12 01:00	SLR		
Metals								
Arsenic, Dissolved	Not detected	mg/L	0.002	E200.8	10/01/12 13:19	SLS	7440-38-2	
Arsenic	Not detected	mg/L	0.002	E200.8	10/01/12 13:16	SLS	7440-38-2	
Lead, Dissolved	Not detected	mg/L	0.003	E200.8	10/01/12 13:19	SLS	7439-92-1	
Lead	Not detected	mg/L	0.003	E200.8	10/01/12 13:16	SLS	7439-92-1	
Selenium, Dissolved	Not detected	mg/L	0.005	E200.8	10/01/12 13:19	SLS	7782-49-2	
Selenium	Not detected	mg/L	0.005	E200.8	10/01/12 13:16	SLS	7782-49-2	
Silver, Dissolved	Not detected	mg/L	0.0002	E200.8	10/01/12 16:58	SLS	7440-22-4	
Silver	Not detected	mg/L	0.0002	E200.8	10/01/12 16:56	SLS	7440-22-4	

Analytical Laboratory Report

Lab Sample ID: S54059.04
Sample Tag: MW-2-1
Collected Date/Time: 09/27/2012 14:25
Matrix: Groundwater
COC Reference: 71028

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
2	125ml Plastic	HNO3	Yes	5.3	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
Metal Digestion	Completed			3015A	10/01/12 01:00	SLR		
Metal Digestion	Completed			3015A	10/01/12 01:00	SLR		
Metals								
Arsenic, Dissolved	0.026	mg/L	0.002	E200.8	10/01/12 14:03	SLS	7440-38-2	
Arsenic	0.032	mg/L	0.002	E200.8	10/01/12 13:29	SLS	7440-38-2	
Lead, Dissolved	Not detected	mg/L	0.003	E200.8	10/01/12 14:03	SLS	7439-92-1	
Lead	0.004	mg/L	0.003	E200.8	10/01/12 13:29	SLS	7439-92-1	
Selenium, Dissolved	Not detected	mg/L	0.005	E200.8	10/01/12 14:03	SLS	7782-49-2	
Selenium	Not detected	mg/L	0.005	E200.8	10/01/12 13:29	SLS	7782-49-2	
Silver, Dissolved	Not detected	mg/L	0.0002	E200.8	10/01/12 17:27	SLS	7440-22-4	
Silver	Not detected	mg/L	0.0002	E200.8	10/01/12 17:04	SLS	7440-22-4	

Analytical Laboratory Report

Lab Sample ID: S54059.05
Sample Tag: MW-2-1 MS
Collected Date/Time: 09/27/2012 14:25
Matrix: Groundwater
COC Reference: 71028

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
2	125ml Plastic	HNO3	Yes	5.3	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
Metal Digestion	Completed			3015A	10/01/12 01:00	SLR		
Metal Digestion	Completed			3015A	10/01/12 01:00	SLR		
Metals								
Arsenic, Dissolved	0.131	mg/L	0.002	E200.8	10/01/12 14:06	SLS	7440-38-2	
Arsenic	0.140	mg/L	0.002	E200.8	10/01/12 13:32	SLS	7440-38-2	
Lead, Dissolved	0.096	mg/L	0.003	E200.8	10/01/12 14:06	SLS	7439-92-1	
Lead	0.099	mg/L	0.003	E200.8	10/01/12 13:32	SLS	7439-92-1	
Selenium, Dissolved	0.108	mg/L	0.005	E200.8	10/01/12 14:06	SLS	7782-49-2	
Selenium	0.113	mg/L	0.005	E200.8	10/01/12 13:32	SLS	7782-49-2	
Silver, Dissolved	0.0900	mg/L	0.0002	E200.8	10/01/12 17:29	SLS	7440-22-4	
Silver	0.0911	mg/L	0.0002	E200.8	10/01/12 17:06	SLS	7440-22-4	

Analytical Laboratory Report

Lab Sample ID: S54059.06
Sample Tag: MW-2-1 MSD
Collected Date/Time: 09/27/2012 14:25
Matrix: Groundwater
COC Reference: 71028

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
2	125ml Plastic	HNO3	Yes	5.3	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
Metal Digestion	Completed			3015A	10/01/12 01:00	SLR		
Metal Digestion	Completed			3015A	10/01/12 01:00	SLR		
Metals								
Arsenic, Dissolved	0.131	mg/L	0.002	E200.8	10/01/12 14:09	SLS	7440-38-2	
Arsenic	0.139	mg/L	0.002	E200.8	10/01/12 13:35	SLS	7440-38-2	
Lead, Dissolved	0.099	mg/L	0.003	E200.8	10/01/12 14:09	SLS	7439-92-1	
Lead	0.100	mg/L	0.003	E200.8	10/01/12 13:35	SLS	7439-92-1	
Selenium, Dissolved	0.111	mg/L	0.005	E200.8	10/01/12 14:09	SLS	7782-49-2	
Selenium	0.112	mg/L	0.005	E200.8	10/01/12 13:35	SLS	7782-49-2	
Silver, Dissolved	0.0925	mg/L	0.0002	E200.8	10/01/12 17:32	SLS	7440-22-4	
Silver	0.0936	mg/L	0.0002	E200.8	10/01/12 17:09	SLS	7440-22-4	

Analytical Laboratory Report

Lab Sample ID: S54059.07
Sample Tag: MW-7
Collected Date/Time: 09/27/2012 16:30
Matrix: Groundwater
COC Reference: 71028

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
2	125ml Plastic	HNO3	Yes	5.3	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
Metal Digestion	Completed			3015A	10/01/12 01:00	SLR		
Metal Digestion	Completed			3015A	10/01/12 01:00	SLR		
Metals								
Arsenic, Dissolved	0.030	mg/L	0.002	E200.8	10/01/12 13:26	SLS	7440-38-2	
Arsenic	0.028	mg/L	0.002	E200.8	10/01/12 13:22	SLS	7440-38-2	
Lead, Dissolved	Not detected	mg/L	0.003	E200.8	10/01/12 13:26	SLS	7439-92-1	
Lead	Not detected	mg/L	0.003	E200.8	10/01/12 13:22	SLS	7439-92-1	
Selenium, Dissolved	Not detected	mg/L	0.005	E200.8	10/01/12 13:26	SLS	7782-49-2	
Selenium	Not detected	mg/L	0.005	E200.8	10/01/12 13:22	SLS	7782-49-2	
Silver, Dissolved	Not detected	mg/L	0.0002	E200.8	10/01/12 17:02	SLS	7440-22-4	
Silver	Not detected	mg/L	0.0002	E200.8	10/01/12 17:00	SLS	7440-22-4	

Analytical Laboratory Report

Lab Sample ID: S54059.08
Sample Tag: FB-1
Collected Date/Time: 09/27/2012 17:15
Matrix: Groundwater
COC Reference: 71028

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	125ml Plastic	HNO3	Yes	5.3	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
Metal Digestion	Completed			3015A	10/01/12 01:00	SLR		
Metals								
Arsenic	Not detected	mg/L	0.002	E200.8	10/01/12 13:44	SLS	7440-38-2	
Lead	Not detected	mg/L	0.003	E200.8	10/01/12 13:44	SLS	7439-92-1	
Selenium	Not detected	mg/L	0.005	E200.8	10/01/12 13:44	SLS	7782-49-2	
Silver	Not detected	mg/L	0.0002	E200.8	10/01/12 17:16	SLS	7440-22-4	

Analytical Laboratory Report

Lab Sample ID: S54059.09
Sample Tag: MW-9
Collected Date/Time: 09/27/2012 18:10
Matrix: Groundwater
COC Reference: 71028

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
2	125ml Plastic	HNO3	Yes	5.3	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
Metal Digestion	Completed			3015A	10/01/12 01:00	SLR		
Metal Digestion	Completed			3015A	10/01/12 01:00	SLR		
Metals								
Arsenic, Dissolved	0.003	mg/L	0.002	E200.8	10/01/12 13:50	SLS	7440-38-2	
Arsenic	0.004	mg/L	0.002	E200.8	10/01/12 13:47	SLS	7440-38-2	
Lead, Dissolved	Not detected	mg/L	0.003	E200.8	10/01/12 13:50	SLS	7439-92-1	
Lead	0.003	mg/L	0.003	E200.8	10/01/12 13:47	SLS	7439-92-1	
Selenium, Dissolved	Not detected	mg/L	0.005	E200.8	10/01/12 13:50	SLS	7782-49-2	
Selenium	Not detected	mg/L	0.005	E200.8	10/01/12 13:47	SLS	7782-49-2	
Silver, Dissolved	Not detected	mg/L	0.0002	E200.8	10/01/12 17:19	SLS	7440-22-4	
Silver	Not detected	mg/L	0.0002	E200.8	10/01/12 17:17	SLS	7440-22-4	

Analytical Laboratory Report

Lab Sample ID: S54059.10
Sample Tag: DUP-1
Collected Date/Time: 09/27/2012 00:01
Matrix: Groundwater
COC Reference: 71028

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
2	125ml Plastic	HNO3	Yes	5.3	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
Metal Digestion	Completed			3015A	10/01/12 01:00	SLR		
Metal Digestion	Completed			3015A	10/01/12 01:00	SLR		
Metals								
Arsenic, Dissolved	0.003	mg/L	0.002	E200.8	10/01/12 13:57	SLS	7440-38-2	
Arsenic	0.003	mg/L	0.002	E200.8	10/01/12 13:54	SLS	7440-38-2	
Lead, Dissolved	Not detected	mg/L	0.003	E200.8	10/01/12 13:57	SLS	7439-92-1	
Lead	Not detected	mg/L	0.003	E200.8	10/01/12 13:54	SLS	7439-92-1	
Selenium, Dissolved	Not detected	mg/L	0.005	E200.8	10/01/12 13:57	SLS	7782-49-2	
Selenium	Not detected	mg/L	0.005	E200.8	10/01/12 13:54	SLS	7782-49-2	
Silver, Dissolved	Not detected	mg/L	0.0002	E200.8	10/01/12 17:23	SLS	7440-22-4	
Silver	Not detected	mg/L	0.0002	E200.8	10/01/12 17:21	SLS	7440-22-4	

Analytical Laboratory Report

Lab Sample ID: S54059.11
Sample Tag: EB-1
Collected Date/Time: 09/27/2012 18:30
Matrix: Groundwater
COC Reference: 71028

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	125ml Plastic	HNO3	Yes	5.3	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
Metal Digestion	Completed			3015A	10/01/12 01:00	SLR		
Metals								
Arsenic	Not detected	mg/L	0.002	E200.8	10/01/12 14:00	SLS	7440-38-2	
Lead	0.003	mg/L	0.003	E200.8	10/01/12 14:00	SLS	7439-92-1	
Selenium	Not detected	mg/L	0.005	E200.8	10/01/12 14:00	SLS	7782-49-2	
Silver	Not detected	mg/L	0.0002	E200.8	10/01/12 17:25	SLS	7440-22-4	

Quality Control Cover Page

Report ID: S54059.01(01)
Report Date: 10/01/2012
Project: RACER Dort Hwy Land
Lab Sample ID(s): S54059.01-S54059.11

Report to:

Attention: Clifford Yantz
O'Brien & Gere Engineers, Inc.
37000 Grand River Ave.
Suite 260
Farmington, MI 48335

Sample ID	Sample Tag	Collected	Matrix	Analysis Departments
S54059.01	MW-2	09/27/2012 11:30	Groundwater	Extraction / Prep., Metals
S54059.02	MW-2 Co-Located	09/27/2012 11:30	Groundwater	Extraction / Prep., Metals
S54059.03	MW-4	09/27/2012 13:20	Groundwater	Extraction / Prep., Metals
S54059.04	MW-2-1	09/27/2012 14:25	Groundwater	Extraction / Prep., Metals
S54059.05	MW-2-1 MS	09/27/2012 14:25	Groundwater	Extraction / Prep., Metals
S54059.06	MW-2-1 MSD	09/27/2012 14:25	Groundwater	Extraction / Prep., Metals
S54059.07	MW-7	09/27/2012 16:30	Groundwater	Extraction / Prep., Metals
S54059.08	FB-1	09/27/2012 17:15	Groundwater	Extraction / Prep., Metals
S54059.09	MW-9	09/27/2012 18:10	Groundwater	Extraction / Prep., Metals
S54059.10	DUP-1	09/27/2012 00:01	Groundwater	Extraction / Prep., Metals
S54059.11	EB-1	09/27/2012 18:30	Groundwater	Extraction / Prep., Metals

This QC package, to the best of my knowledge, is in compliance with all technical and administrative requirements. If you have any questions, please do not hesitate to contact me at 517-332-0167 (ext. 14) or email me at mayamurshak@meritlabs.com.

Sincerely,

Maya Murshak
Technical Director

Quality Control Report

Report ID: QC-S54059.01(01)
Generated on 10/03/2012

Report to

Attention: Clifford Yantz
O'Brien & Gere Engineers, Inc.
37000 Grand River Ave.
Suite 260
Farmington, MI 48335

Phone: 248-477-5701 FAX:

Report Produced by

Merit Laboratories
2680 East Lansing Drive
East Lansing, MI 48823

Phone: (517) 332-0167 FAX: (517) 332-6333

Report Summary

Lab Sample ID(s): S54059.01-S54059.11
Project: RACER Dort Hwy Land
Submitted Date/Time: 09/28/2012 09:00
Sampled by: Kevin Schneider
P.O. #: 11210767

Report Sections

Report Flag Descriptions

*: QC result is outside of indicated control limits
W: Surrogate result not applicable due to sample dilution

Report Notes

Results relate only to items tested as received by the laboratory.
Methods may be modified for improved performance.
Results reported on a dry weight basis where applicable.
"Not detected" indicates that parameter was not found at a level equal to or greater than the RDL.

Laboratory Certifications:
Michigan DNRE (#9956), Ohio EPA (#CL0002), NELAC NY (#11814), NELAC FL (#E871045), WBENC (#2005110032)
Some analytes reported may not be certified. Full certification lists are available upon request.

Violetta F. Murshak
Violetta F. Murshak
Laboratory Director

QC Report - Analysis Summary

Lab Sample ID: S54059.01
Sample Tag: MW-2
Collected Date/Time: 09/27/2012 11:30
Matrix: Groundwater
COC Reference: 71028

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Metals						
Arsenic, Dissolved	E200.8	10/01/12 13:07	MT3-12-1001B	MTD-100112-2	No	LCS/BLK/MS/MSD
Arsenic	E200.8	10/01/12 13:04	MT3-12-1001B	MTD-100112-2	No	LCS/BLK/MS/MSD
Lead, Dissolved	E200.8	10/01/12 13:07	MT3-12-1001B	MTD-100112-2	No	LCS/BLK/MS/MSD
Lead	E200.8	10/01/12 13:04	MT3-12-1001B	MTD-100112-2	No	LCS/BLK/MS/MSD
Selenium, Dissolved	E200.8	10/01/12 13:07	MT3-12-1001B	MTD-100112-2	No	LCS/BLK/MS/MSD
Selenium	E200.8	10/01/12 13:04	MT3-12-1001B	MTD-100112-2	No	LCS/BLK/MS/MSD
Silver, Dissolved	E200.8	10/01/12 16:50	MT3-12-1001C	MTD-100112-2	No	LCS/BLK/MS/MSD
Silver	E200.8	10/01/12 16:48	MT3-12-1001C	MTD-100112-2	No	LCS/BLK/MS/MSD

QC Report - Analysis Summary

Lab Sample ID: S54059.02
Sample Tag: MW-2 Co-Located
Collected Date/Time: 09/27/2012 11:30
Matrix: Groundwater
COC Reference: 71028

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Metals						
Arsenic, Dissolved	E200.8	10/01/12 13:13	MT3-12-1001B	MTD-100112-2	No	LCS/BLK/MS/MSD
Arsenic	E200.8	10/01/12 13:10	MT3-12-1001B	MTD-100112-2	No	LCS/BLK/MS/MSD
Lead, Dissolved	E200.8	10/01/12 13:13	MT3-12-1001B	MTD-100112-2	No	LCS/BLK/MS/MSD
Lead	E200.8	10/01/12 13:10	MT3-12-1001B	MTD-100112-2	No	LCS/BLK/MS/MSD
Selenium, Dissolved	E200.8	10/01/12 13:13	MT3-12-1001B	MTD-100112-2	No	LCS/BLK/MS/MSD
Selenium	E200.8	10/01/12 13:10	MT3-12-1001B	MTD-100112-2	No	LCS/BLK/MS/MSD
Silver, Dissolved	E200.8	10/01/12 16:54	MT3-12-1001C	MTD-100112-2	No	LCS/BLK/MS/MSD
Silver	E200.8	10/01/12 16:52	MT3-12-1001C	MTD-100112-2	No	LCS/BLK/MS/MSD

QC Report - Analysis Summary

Lab Sample ID: S54059.03
Sample Tag: MW-4
Collected Date/Time: 09/27/2012 13:20
Matrix: Groundwater
COC Reference: 71028

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Metals						
Arsenic, Dissolved	E200.8	10/01/12 13:19	MT3-12-1001B	MTD-100112-2	No	LCS/BLK/MS/MSD
Arsenic	E200.8	10/01/12 13:16	MT3-12-1001B	MTD-100112-2	No	LCS/BLK/MS/MSD
Lead, Dissolved	E200.8	10/01/12 13:19	MT3-12-1001B	MTD-100112-2	No	LCS/BLK/MS/MSD
Lead	E200.8	10/01/12 13:16	MT3-12-1001B	MTD-100112-2	No	LCS/BLK/MS/MSD
Selenium, Dissolved	E200.8	10/01/12 13:19	MT3-12-1001B	MTD-100112-2	No	LCS/BLK/MS/MSD
Selenium	E200.8	10/01/12 13:16	MT3-12-1001B	MTD-100112-2	No	LCS/BLK/MS/MSD
Silver, Dissolved	E200.8	10/01/12 16:58	MT3-12-1001C	MTD-100112-2	No	LCS/BLK/MS/MSD
Silver	E200.8	10/01/12 16:56	MT3-12-1001C	MTD-100112-2	No	LCS/BLK/MS/MSD

QC Report - Analysis Summary

Lab Sample ID: S54059.04
Sample Tag: MW-2-1
Collected Date/Time: 09/27/2012 14:25
Matrix: Groundwater
COC Reference: 71028

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Metals						
Arsenic, Dissolved	E200.8	10/01/12 14:03	MT3-12-1001B	MTD-100112-2	No	LCS/BLK/MS/MSD
Arsenic	E200.8	10/01/12 13:29	MT3-12-1001B	MTD-100112-2	No	LCS/BLK/MS/MSD
Lead, Dissolved	E200.8	10/01/12 14:03	MT3-12-1001B	MTD-100112-2	No	LCS/BLK/MS/MSD
Lead	E200.8	10/01/12 13:29	MT3-12-1001B	MTD-100112-2	No	LCS/BLK/MS/MSD
Selenium, Dissolved	E200.8	10/01/12 14:03	MT3-12-1001B	MTD-100112-2	No	LCS/BLK/MS/MSD
Selenium	E200.8	10/01/12 13:29	MT3-12-1001B	MTD-100112-2	No	LCS/BLK/MS/MSD
Silver, Dissolved	E200.8	10/01/12 17:27	MT3-12-1001C	MTD-100112-2	No	LCS/BLK/MS/MSD
Silver	E200.8	10/01/12 17:04	MT3-12-1001C	MTD-100112-2	No	LCS/BLK/MS/MSD

QC Report - Analysis Summary

Lab Sample ID: S54059.05
Sample Tag: MW-2-1 MS
Collected Date/Time: 09/27/2012 14:25
Matrix: Groundwater
COC Reference: 71028

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Metals						
Arsenic, Dissolved	E200.8	10/01/12 14:06	MT3-12-1001B	MTD-100112-2	No	LCS/BLK/MS/MSD
Arsenic	E200.8	10/01/12 13:32	MT3-12-1001B	MTD-100112-2	No	LCS/BLK/MS/MSD
Lead, Dissolved	E200.8	10/01/12 14:06	MT3-12-1001B	MTD-100112-2	No	LCS/BLK/MS/MSD
Lead	E200.8	10/01/12 13:32	MT3-12-1001B	MTD-100112-2	No	LCS/BLK/MS/MSD
Selenium, Dissolved	E200.8	10/01/12 14:06	MT3-12-1001B	MTD-100112-2	No	LCS/BLK/MS/MSD
Selenium	E200.8	10/01/12 13:32	MT3-12-1001B	MTD-100112-2	No	LCS/BLK/MS/MSD
Silver, Dissolved	E200.8	10/01/12 17:29	MT3-12-1001C	MTD-100112-2	No	LCS/BLK/MS/MSD
Silver	E200.8	10/01/12 17:06	MT3-12-1001C	MTD-100112-2	No	LCS/BLK/MS/MSD

QC Report - Analysis Summary

Lab Sample ID: S54059.06
Sample Tag: MW-2-1 MSD
Collected Date/Time: 09/27/2012 14:25
Matrix: Groundwater
COC Reference: 71028

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Metals						
Arsenic, Dissolved	E200.8	10/01/12 14:09	MT3-12-1001B	MTD-100112-2	No	LCS/BLK/MS/MSD
Arsenic	E200.8	10/01/12 13:35	MT3-12-1001B	MTD-100112-2	No	LCS/BLK/MS/MSD
Lead, Dissolved	E200.8	10/01/12 14:09	MT3-12-1001B	MTD-100112-2	No	LCS/BLK/MS/MSD
Lead	E200.8	10/01/12 13:35	MT3-12-1001B	MTD-100112-2	No	LCS/BLK/MS/MSD
Selenium, Dissolved	E200.8	10/01/12 14:09	MT3-12-1001B	MTD-100112-2	No	LCS/BLK/MS/MSD
Selenium	E200.8	10/01/12 13:35	MT3-12-1001B	MTD-100112-2	No	LCS/BLK/MS/MSD
Silver, Dissolved	E200.8	10/01/12 17:32	MT3-12-1001C	MTD-100112-2	No	LCS/BLK/MS/MSD
Silver	E200.8	10/01/12 17:09	MT3-12-1001C	MTD-100112-2	No	LCS/BLK/MS/MSD

QC Report - Analysis Summary

Lab Sample ID: S54059.07
Sample Tag: MW-7
Collected Date/Time: 09/27/2012 16:30
Matrix: Groundwater
COC Reference: 71028

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Metals						
Arsenic, Dissolved	E200.8	10/01/12 13:26	MT3-12-1001B	MTD-100112-2	No	LCS/BLK/MS/MSD
Arsenic	E200.8	10/01/12 13:22	MT3-12-1001B	MTD-100112-2	No	LCS/BLK/MS/MSD
Lead, Dissolved	E200.8	10/01/12 13:26	MT3-12-1001B	MTD-100112-2	No	LCS/BLK/MS/MSD
Lead	E200.8	10/01/12 13:22	MT3-12-1001B	MTD-100112-2	No	LCS/BLK/MS/MSD
Selenium, Dissolved	E200.8	10/01/12 13:26	MT3-12-1001B	MTD-100112-2	No	LCS/BLK/MS/MSD
Selenium	E200.8	10/01/12 13:22	MT3-12-1001B	MTD-100112-2	No	LCS/BLK/MS/MSD
Silver, Dissolved	E200.8	10/01/12 17:02	MT3-12-1001C	MTD-100112-2	No	LCS/BLK/MS/MSD
Silver	E200.8	10/01/12 17:00	MT3-12-1001C	MTD-100112-2	No	LCS/BLK/MS/MSD

QC Report - Analysis Summary

Lab Sample ID: S54059.08
Sample Tag: FB-1
Collected Date/Time: 09/27/2012 17:15
Matrix: Groundwater
COC Reference: 71028

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Metals						
Arsenic	E200.8	10/01/12 13:44	MT3-12-1001B	MTD-100112-2	No	LCS/BLK/MS/MSD
Lead	E200.8	10/01/12 13:44	MT3-12-1001B	MTD-100112-2	No	LCS/BLK/MS/MSD
Selenium	E200.8	10/01/12 13:44	MT3-12-1001B	MTD-100112-2	No	LCS/BLK/MS/MSD
Silver	E200.8	10/01/12 17:16	MT3-12-1001C	MTD-100112-2	No	LCS/BLK/MS/MSD

QC Report - Analysis Summary

Lab Sample ID: S54059.09
Sample Tag: MW-9
Collected Date/Time: 09/27/2012 18:10
Matrix: Groundwater
COC Reference: 71028

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Metals						
Arsenic, Dissolved	E200.8	10/01/12 13:50	MT3-12-1001B	MTD-100112-2	No	LCS/BLK/MS/MSD
Arsenic	E200.8	10/01/12 13:47	MT3-12-1001B	MTD-100112-2	No	LCS/BLK/MS/MSD
Lead, Dissolved	E200.8	10/01/12 13:50	MT3-12-1001B	MTD-100112-2	No	LCS/BLK/MS/MSD
Lead	E200.8	10/01/12 13:47	MT3-12-1001B	MTD-100112-2	No	LCS/BLK/MS/MSD
Selenium, Dissolved	E200.8	10/01/12 13:50	MT3-12-1001B	MTD-100112-2	No	LCS/BLK/MS/MSD
Selenium	E200.8	10/01/12 13:47	MT3-12-1001B	MTD-100112-2	No	LCS/BLK/MS/MSD
Silver, Dissolved	E200.8	10/01/12 17:19	MT3-12-1001C	MTD-100112-2	No	LCS/BLK/MS/MSD
Silver	E200.8	10/01/12 17:17	MT3-12-1001C	MTD-100112-2	No	LCS/BLK/MS/MSD

QC Report - Analysis Summary

Lab Sample ID: S54059.10
Sample Tag: DUP-1
Collected Date/Time: 09/27/2012 00:01
Matrix: Groundwater
COC Reference: 71028

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Metals						
Arsenic, Dissolved	E200.8	10/01/12 13:57	MT3-12-1001B	MTD-100112-2	No	LCS/BLK/MS/MSD
Arsenic	E200.8	10/01/12 13:54	MT3-12-1001B	MTD-100112-2	No	LCS/BLK/MS/MSD
Lead, Dissolved	E200.8	10/01/12 13:57	MT3-12-1001B	MTD-100112-2	No	LCS/BLK/MS/MSD
Lead	E200.8	10/01/12 13:54	MT3-12-1001B	MTD-100112-2	No	LCS/BLK/MS/MSD
Selenium, Dissolved	E200.8	10/01/12 13:57	MT3-12-1001B	MTD-100112-2	No	LCS/BLK/MS/MSD
Selenium	E200.8	10/01/12 13:54	MT3-12-1001B	MTD-100112-2	No	LCS/BLK/MS/MSD
Silver, Dissolved	E200.8	10/01/12 17:23	MT3-12-1001C	MTD-100112-2	No	LCS/BLK/MS/MSD
Silver	E200.8	10/01/12 17:21	MT3-12-1001C	MTD-100112-2	No	LCS/BLK/MS/MSD

Lab Sample ID: S54059.11
Sample Tag: EB-1
Collected Date/Time: 09/27/2012 18:30
Matrix: Groundwater
COC Reference: 71028

Analysis	Method	Run Date/Time	Batch ID	Prep ID	Surr	QC Types
Metals						
Arsenic	E200.8	10/01/12 14:00	MT3-12-1001B	MTD-100112-2	No	LCS/BLK/MS/MSD
Lead	E200.8	10/01/12 14:00	MT3-12-1001B	MTD-100112-2	No	LCS/BLK/MS/MSD
Selenium	E200.8	10/01/12 14:00	MT3-12-1001B	MTD-100112-2	No	LCS/BLK/MS/MSD
Silver	E200.8	10/01/12 17:25	MT3-12-1001C	MTD-100112-2	No	LCS/BLK/MS/MSD

Metals, Prep Batch ID: MTD-100112-2

Surrogates: No, QC Types: LCS/BLK/MS/MSD

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S54059.01	Arsenic, Dissolved	E200.8	10/01/12 13:07	MT3-12-1001B
S54059.01	Arsenic	E200.8	10/01/12 13:04	MT3-12-1001B
S54059.01	Lead, Dissolved	E200.8	10/01/12 13:07	MT3-12-1001B
S54059.01	Lead	E200.8	10/01/12 13:04	MT3-12-1001B
S54059.01	Selenium, Dissolved	E200.8	10/01/12 13:07	MT3-12-1001B
S54059.01	Selenium	E200.8	10/01/12 13:04	MT3-12-1001B
S54059.01	Silver, Dissolved	E200.8	10/01/12 16:50	MT3-12-1001C
S54059.01	Silver	E200.8	10/01/12 16:48	MT3-12-1001C
S54059.02	Arsenic, Dissolved	E200.8	10/01/12 13:13	MT3-12-1001B
S54059.02	Arsenic	E200.8	10/01/12 13:10	MT3-12-1001B
S54059.02	Lead, Dissolved	E200.8	10/01/12 13:13	MT3-12-1001B
S54059.02	Lead	E200.8	10/01/12 13:10	MT3-12-1001B
S54059.02	Selenium, Dissolved	E200.8	10/01/12 13:13	MT3-12-1001B
S54059.02	Selenium	E200.8	10/01/12 13:10	MT3-12-1001B
S54059.02	Silver, Dissolved	E200.8	10/01/12 16:54	MT3-12-1001C
S54059.02	Silver	E200.8	10/01/12 16:52	MT3-12-1001C
S54059.03	Arsenic, Dissolved	E200.8	10/01/12 13:19	MT3-12-1001B
S54059.03	Arsenic	E200.8	10/01/12 13:16	MT3-12-1001B
S54059.03	Lead, Dissolved	E200.8	10/01/12 13:19	MT3-12-1001B
S54059.03	Lead	E200.8	10/01/12 13:16	MT3-12-1001B
S54059.03	Selenium, Dissolved	E200.8	10/01/12 13:19	MT3-12-1001B
S54059.03	Selenium	E200.8	10/01/12 13:16	MT3-12-1001B
S54059.03	Silver, Dissolved	E200.8	10/01/12 16:58	MT3-12-1001C
S54059.03	Silver	E200.8	10/01/12 16:56	MT3-12-1001C
S54059.04	Arsenic, Dissolved	E200.8	10/01/12 14:03	MT3-12-1001B
S54059.04	Arsenic	E200.8	10/01/12 13:29	MT3-12-1001B
S54059.04	Lead, Dissolved	E200.8	10/01/12 14:03	MT3-12-1001B
S54059.04	Lead	E200.8	10/01/12 13:29	MT3-12-1001B
S54059.04	Selenium, Dissolved	E200.8	10/01/12 14:03	MT3-12-1001B
S54059.04	Selenium	E200.8	10/01/12 13:29	MT3-12-1001B
S54059.04	Silver, Dissolved	E200.8	10/01/12 17:27	MT3-12-1001C
S54059.04	Silver	E200.8	10/01/12 17:04	MT3-12-1001C
S54059.05	Arsenic, Dissolved	E200.8	10/01/12 14:06	MT3-12-1001B
S54059.05	Arsenic	E200.8	10/01/12 13:32	MT3-12-1001B
S54059.05	Lead, Dissolved	E200.8	10/01/12 14:06	MT3-12-1001B
S54059.05	Lead	E200.8	10/01/12 13:32	MT3-12-1001B
S54059.05	Selenium, Dissolved	E200.8	10/01/12 14:06	MT3-12-1001B
S54059.05	Selenium	E200.8	10/01/12 13:32	MT3-12-1001B
S54059.05	Silver, Dissolved	E200.8	10/01/12 17:29	MT3-12-1001C
S54059.05	Silver	E200.8	10/01/12 17:06	MT3-12-1001C
S54059.06	Arsenic, Dissolved	E200.8	10/01/12 14:09	MT3-12-1001B
S54059.06	Arsenic	E200.8	10/01/12 13:35	MT3-12-1001B
S54059.06	Lead, Dissolved	E200.8	10/01/12 14:09	MT3-12-1001B
S54059.06	Lead	E200.8	10/01/12 13:35	MT3-12-1001B
S54059.06	Selenium, Dissolved	E200.8	10/01/12 14:09	MT3-12-1001B
S54059.06	Selenium	E200.8	10/01/12 13:35	MT3-12-1001B
S54059.06	Silver, Dissolved	E200.8	10/01/12 17:32	MT3-12-1001C
S54059.06	Silver	E200.8	10/01/12 17:09	MT3-12-1001C
S54059.07	Arsenic, Dissolved	E200.8	10/01/12 13:26	MT3-12-1001B
S54059.07	Arsenic	E200.8	10/01/12 13:22	MT3-12-1001B

Metals, Prep Batch ID: MTD-100112-2 (continued)

Surrogates: No, QC Types: LCS/BLK/MS/MSD

Sample ID	Analysis	Method	Run Date/Time	Batch ID
S54059.07	Lead, Dissolved	E200.8	10/01/12 13:26	MT3-12-1001B
S54059.07	Lead	E200.8	10/01/12 13:22	MT3-12-1001B
S54059.07	Selenium, Dissolved	E200.8	10/01/12 13:26	MT3-12-1001B
S54059.07	Selenium	E200.8	10/01/12 13:22	MT3-12-1001B
S54059.07	Silver, Dissolved	E200.8	10/01/12 17:02	MT3-12-1001C
S54059.07	Silver	E200.8	10/01/12 17:00	MT3-12-1001C
S54059.08	Arsenic	E200.8	10/01/12 13:44	MT3-12-1001B
S54059.08	Lead	E200.8	10/01/12 13:44	MT3-12-1001B
S54059.08	Selenium	E200.8	10/01/12 13:44	MT3-12-1001B
S54059.08	Silver	E200.8	10/01/12 17:16	MT3-12-1001C
S54059.09	Arsenic, Dissolved	E200.8	10/01/12 13:50	MT3-12-1001B
S54059.09	Arsenic	E200.8	10/01/12 13:47	MT3-12-1001B
S54059.09	Lead, Dissolved	E200.8	10/01/12 13:50	MT3-12-1001B
S54059.09	Lead	E200.8	10/01/12 13:47	MT3-12-1001B
S54059.09	Selenium, Dissolved	E200.8	10/01/12 13:50	MT3-12-1001B
S54059.09	Selenium	E200.8	10/01/12 13:47	MT3-12-1001B
S54059.09	Silver, Dissolved	E200.8	10/01/12 17:19	MT3-12-1001C
S54059.09	Silver	E200.8	10/01/12 17:17	MT3-12-1001C
S54059.10	Arsenic, Dissolved	E200.8	10/01/12 13:57	MT3-12-1001B
S54059.10	Arsenic	E200.8	10/01/12 13:54	MT3-12-1001B
S54059.10	Lead, Dissolved	E200.8	10/01/12 13:57	MT3-12-1001B
S54059.10	Lead	E200.8	10/01/12 13:54	MT3-12-1001B
S54059.10	Selenium, Dissolved	E200.8	10/01/12 13:57	MT3-12-1001B
S54059.10	Selenium	E200.8	10/01/12 13:54	MT3-12-1001B
S54059.10	Silver, Dissolved	E200.8	10/01/12 17:23	MT3-12-1001C
S54059.10	Silver	E200.8	10/01/12 17:21	MT3-12-1001C
S54059.11	Arsenic	E200.8	10/01/12 14:00	MT3-12-1001B
S54059.11	Lead	E200.8	10/01/12 14:00	MT3-12-1001B
S54059.11	Selenium	E200.8	10/01/12 14:00	MT3-12-1001B
S54059.11	Silver	E200.8	10/01/12 17:25	MT3-12-1001C

Form 0: Sequence Log

Data Set ID: MT3-12-1001B
Instrument ID: HP ICP/MS 2
Analysis Date: 10/01/12
Analyst:

Filename	*Run Time*	*Sample ID*	*Matrix*	*QC Type*
001SMPL.D#	Oct 1 2012 12:07 pm	Blank	Liquid	
002SMPL.D#	Oct 1 2012 12:10 pm	0.00	Liquid	
003SMPL.D#	Oct 1 2012 12:14 pm	0.0001	Liquid	
004SMPL.D#	Oct 1 2012 12:17 pm	0.0005	Liquid	
005SMPL.D#	Oct 1 2012 12:20 pm	0.001	Liquid	
006SMPL.D#	Oct 1 2012 12:23 pm	0.005	Liquid	
007SMPL.D#	Oct 1 2012 12:26 pm	0.02	Liquid	
008SMPL.D#	Oct 1 2012 12:29 pm	0.05	Liquid	
009SMPL.D#	Oct 1 2012 12:33 pm	0.20	Liquid	
010SMPL.D#	Oct 1 2012 12:36 pm	ICV-0.10	Liquid	ICV
011SMPL.D#	Oct 1 2012 12:39 pm	ERA-10/1	Liquid	ERA
012SMPL.D#	Oct 1 2012 12:42 pm	10/01 LCS-0.05	Liquid	LCS
013SMPL.D#	Oct 1 2012 12:45 pm	Rinse	Liquid	
014SMPL.D#	Oct 1 2012 12:48 pm	ICB	Liquid	ICB
015SMPL.D#	Oct 1 2012 12:51 pm	LRB	Liquid	LRB
016SMPL.D#	Oct 1 2012 12:55 pm	BS-0.0005	Liquid	BS
017SMPL.D#	Oct 1 2012 12:58 pm	BS-0.001	Liquid	BS
018SMPL.D#	Oct 1 2012 01:01 pm	54059.01 Dil	Liquid	DIL
019SMPL.D#	Oct 1 2012 01:04 pm	54059.01s tot	Liquid	S
020SMPL.D#	Oct 1 2012 01:07 pm	54059.01s dis	Liquid	S
021SMPL.D#	Oct 1 2012 01:10 pm	54059.02s tot	Liquid	S
022SMPL.D#	Oct 1 2012 01:13 pm	54059.02s dis	Liquid	S
023SMPL.D#	Oct 1 2012 01:16 pm	54059.03s tot	Liquid	S
024SMPL.D#	Oct 1 2012 01:19 pm	54059.03s dis	Liquid	S
025SMPL.D#	Oct 1 2012 01:22 pm	54059.07s tot	Liquid	S
026SMPL.D#	Oct 1 2012 01:26 pm	54059.07s dis	Liquid	S
027SMPL.D#	Oct 1 2012 01:29 pm	54059.04s tot	Liquid	S
028SMPL.D#	Oct 1 2012 01:32 pm	54059.05s tot MS-0.05	Liquid	MS
029SMPL.D#	Oct 1 2012 01:35 pm	54059.06s tot MSD	Liquid	MSD
030SMPL.D#	Oct 1 2012 01:38 pm	CCV1-0.10	Liquid	CCV
031SMPL.D#	Oct 1 2012 02:18 pm	CCB1	Liquid	CCB
032SMPL.D#	Oct 1 2012 01:44 pm	54059.08s	Liquid	S
033SMPL.D#	Oct 1 2012 01:47 pm	54059.09s tot	Liquid	S
034SMPL.D#	Oct 1 2012 01:50 pm	54059.09s dis	Liquid	S
035SMPL.D#	Oct 1 2012 01:54 pm	54059.10s tot	Liquid	S
036SMPL.D#	Oct 1 2012 01:57 pm	54059.10s dis	Liquid	S
037SMPL.D#	Oct 1 2012 02:00 pm	54059.11s	Liquid	S
038SMPL.D#	Oct 1 2012 02:03 pm	54059.04s dis	Liquid	S
039SMPL.D#	Oct 1 2012 02:06 pm	54059.05s dis MS-0.05	Liquid	MS
040SMPL.D#	Oct 1 2012 02:09 pm	54059.06s dis MSD	Liquid	MSD
041SMPL.D#	Oct 1 2012 02:12 pm	CCV2-0.10	Liquid	CCV
042SMPL.D#	Oct 1 2012 02:15 pm	CCB2	Liquid	CCB
043SMPL.D#	Oct 1 2012 02:22 pm	Soln-AA	Liquid	AA
044SMPL.D#	Oct 1 2012 02:25 pm	Soln-AB	Liquid	AB

Form 0: Sequence Log

Data Set ID: MT3-12-1001C
Instrument ID: HP ICP/MS 2
Analysis Date: 10/01/12
Analyst:

Filename	*Run Time*	*Sample ID*	*Matrix*	*QC Type*
001SMPL.D#	Oct 1 2012 04:13 pm	Blank	Liquid	
002SMPL.D#	Oct 1 2012 04:15 pm	0.00	Liquid	
003SMPL.D#	Oct 1 2012 04:16 pm	0.0001	Liquid	
004SMPL.D#	Oct 1 2012 04:18 pm	0.0005	Liquid	
005SMPL.D#	Oct 1 2012 04:20 pm	0.005	Liquid	
006SMPL.D#	Oct 1 2012 04:23 pm	0.02	Liquid	
007SMPL.D#	Oct 1 2012 04:25 pm	0.05	Liquid	
008SMPL.D#	Oct 1 2012 04:27 pm	0.20	Liquid	
009SMPL.D#	Oct 1 2012 04:30 pm	ICV-0.10	Liquid	ICV
010SMPL.D#	Oct 1 2012 04:32 pm	ERA-10/1	Liquid	ERA
011SMPL.D#	Oct 1 2012 04:34 pm	10/01 LCS-0.05	Liquid	LCS
012SMPL.D#	Oct 1 2012 04:37 pm	Rinse	Liquid	
013SMPL.D#	Oct 1 2012 04:39 pm	ICB	Liquid	ICB
014SMPL.D#	Oct 1 2012 04:41 pm	LRB	Liquid	LRB
015SMPL.D#	Oct 1 2012 04:43 pm	BS-0.0005	Liquid	BS
016SMPL.D#	Oct 1 2012 04:45 pm	BS-0.001	Liquid	BS
017SMPL.D#	Oct 1 2012 04:47 pm	54059.01 Dil	Liquid	DIL
018SMPL.D#	Oct 1 2012 04:48 pm	54059.01s tot	Liquid	S
019SMPL.D#	Oct 1 2012 04:50 pm	54059.01s dis	Liquid	S
020SMPL.D#	Oct 1 2012 04:52 pm	54059.02s tot	Liquid	S
021SMPL.D#	Oct 1 2012 04:54 pm	54059.02s dis	Liquid	S
022SMPL.D#	Oct 1 2012 04:56 pm	54059.03s tot	Liquid	S
023SMPL.D#	Oct 1 2012 04:58 pm	54059.03s dis	Liquid	S
024SMPL.D#	Oct 1 2012 05:00 pm	54059.07s tot	Liquid	S
025SMPL.D#	Oct 1 2012 05:02 pm	54059.07s dis	Liquid	S
026SMPL.D#	Oct 1 2012 05:04 pm	54059.04s tot	Liquid	S
027SMPL.D#	Oct 1 2012 05:06 pm	54059.05s tot MS-0.05	Liquid	MS
028SMPL.D#	Oct 1 2012 05:09 pm	54059.06s tot MSD	Liquid	MSD
029SMPL.D#	Oct 1 2012 05:11 pm	CCV1-0.10	Liquid	CCV
030SMPL.D#	Oct 1 2012 05:14 pm	CCB1	Liquid	CCB
031SMPL.D#	Oct 1 2012 05:16 pm	54059.08s	Liquid	S
032SMPL.D#	Oct 1 2012 05:17 pm	54059.09s tot	Liquid	S
033SMPL.D#	Oct 1 2012 05:19 pm	54059.09s dis	Liquid	S
034SMPL.D#	Oct 1 2012 05:21 pm	54059.10s tot	Liquid	S
035SMPL.D#	Oct 1 2012 05:23 pm	54059.10s dis	Liquid	S
036SMPL.D#	Oct 1 2012 05:25 pm	54059.11s	Liquid	S
037SMPL.D#	Oct 1 2012 05:27 pm	54059.04s dis	Liquid	S
038SMPL.D#	Oct 1 2012 05:29 pm	54059.05s dis MS-0.05	Liquid	MS
039SMPL.D#	Oct 1 2012 05:32 pm	54059.06s dis MSD	Liquid	MSD
040SMPL.D#	Oct 1 2012 05:34 pm	CCV2-0.10	Liquid	CCV
041SMPL.D#	Oct 1 2012 05:37 pm	CCB2	Liquid	CCB
042SMPL.D#	Oct 1 2012 05:39 pm	Soln-AA	Liquid	AA
043SMPL.D#	Oct 1 2012 05:41 pm	Soln-AB	Liquid	AB

Form 1: Metals Analysis Data Sheet

Data Set ID: MT3-12-1001B
Instrument ID: HP ICP/MS 2
Analysis Date: 10/01/12
Analyst:

Lab Sample ID: S54059.01
Sample Tag: MW-2
Date Collected: 09/27/2012
Matrix: Groundwater

CAS #	Analyte	Result	RL	MDL	Units	Dilute	Run Date	Notes
7440-38-2	Arsenic	0.034	0.002		mg/L	2	10/01/2012	
7439-92-1	Lead	0.004	0.003		mg/L	2	10/01/2012	
7782-49-2	Selenium	Not detected	0.005		mg/L	2	10/01/2012	
7440-38-2	Arsenic, Dissolved	0.035	0.002		mg/L	2	10/01/2012	
7439-92-1	Lead, Dissolved	Not detected	0.003		mg/L	2	10/01/2012	
7782-49-2	Selenium, Dissolved	Not detected	0.005		mg/L	2	10/01/2012	

Form 1: Metals Analysis Data Sheet

Data Set ID: MT3-12-1001C
Instrument ID: HP ICP/MS 2
Analysis Date: 10/01/12
Analyst:

Lab Sample ID: S54059.01
Sample Tag: MW-2
Date Collected: 09/27/2012
Matrix: Groundwater

CAS #	Analyte	Result	RL	MDL	Units	Dilute	Run Date	Notes
7440-22-4	Silver	Not detected	0.0002		mg/L	2	10/01/2012	
7440-22-4	Silver, Dissolved	Not detected	0.0002		mg/L	2	10/01/2012	

Form 1: Metals Analysis Data Sheet

Data Set ID: MT3-12-1001B
Instrument ID: HP ICP/MS 2
Analysis Date: 10/01/12
Analyst:

Lab Sample ID: S54059.02
Sample Tag: MW-2 Co-Located
Date Collected: 09/27/2012
Matrix: Groundwater

CAS #	Analyte	Result	RL	MDL	Units	Dilute	Run Date	Notes
7440-38-2	Arsenic	0.035	0.002		mg/L	2	10/01/2012	
7439-92-1	Lead	0.004	0.003		mg/L	2	10/01/2012	
7782-49-2	Selenium	Not detected	0.005		mg/L	2	10/01/2012	
7440-38-2	Arsenic, Dissolved	0.034	0.002		mg/L	2	10/01/2012	
7439-92-1	Lead, Dissolved	Not detected	0.003		mg/L	2	10/01/2012	
7782-49-2	Selenium, Dissolved	Not detected	0.005		mg/L	2	10/01/2012	

Form 1: Metals Analysis Data Sheet

Data Set ID: MT3-12-1001C
Instrument ID: HP ICP/MS 2
Analysis Date: 10/01/12
Analyst:

Lab Sample ID: S54059.02
Sample Tag: MW-2 Co-Located
Date Collected: 09/27/2012
Matrix: Groundwater

CAS #	Analyte	Result	RL	MDL	Units	Dilute	Run Date	Notes
7440-22-4	Silver	Not detected	0.0002		mg/L	2	10/01/2012	
7440-22-4	Silver, Dissolved	Not detected	0.0002		mg/L	2	10/01/2012	

Form 1: Metals Analysis Data Sheet

Data Set ID: MT3-12-1001B
Instrument ID: HP ICP/MS 2
Analysis Date: 10/01/12
Analyst:

Lab Sample ID: S54059.03
Sample Tag: MW-4
Date Collected: 09/27/2012
Matrix: Groundwater

CAS #	Analyte	Result	RL	MDL	Units	Dilute	Run Date	Notes
7440-38-2	Arsenic	Not detected	0.002		mg/L	2	10/01/2012	
7439-92-1	Lead	Not detected	0.003		mg/L	2	10/01/2012	
7782-49-2	Selenium	Not detected	0.005		mg/L	2	10/01/2012	
7440-38-2	Arsenic, Dissolved	Not detected	0.002		mg/L	2	10/01/2012	
7439-92-1	Lead, Dissolved	Not detected	0.003		mg/L	2	10/01/2012	
7782-49-2	Selenium, Dissolved	Not detected	0.005		mg/L	2	10/01/2012	

Form 1: Metals Analysis Data Sheet

Data Set ID: MT3-12-1001C
Instrument ID: HP ICP/MS 2
Analysis Date: 10/01/12
Analyst:

Lab Sample ID: S54059.03
Sample Tag: MW-4
Date Collected: 09/27/2012
Matrix: Groundwater

CAS #	Analyte	Result	RL	MDL	Units	Dilute	Run Date	Notes
7440-22-4	Silver	Not detected	0.0002		mg/L	2	10/01/2012	
7440-22-4	Silver, Dissolved	Not detected	0.0002		mg/L	2	10/01/2012	

Form 1: Metals Analysis Data Sheet

Data Set ID: MT3-12-1001B
Instrument ID: HP ICP/MS 2
Analysis Date: 10/01/12
Analyst:

Lab Sample ID: S54059.04
Sample Tag: MW-2-1
Date Collected: 09/27/2012
Matrix: Groundwater

CAS #	Analyte	Result	RL	MDL	Units	Dilute	Run Date	Notes
7440-38-2	Arsenic	0.032	0.002		mg/L	2	10/01/2012	
7439-92-1	Lead	0.004	0.003		mg/L	2	10/01/2012	
7782-49-2	Selenium	Not detected	0.005		mg/L	2	10/01/2012	
7440-38-2	Arsenic, Dissolved	0.026	0.002		mg/L	2	10/01/2012	
7439-92-1	Lead, Dissolved	Not detected	0.003		mg/L	2	10/01/2012	
7782-49-2	Selenium, Dissolved	Not detected	0.005		mg/L	2	10/01/2012	

Form 1: Metals Analysis Data Sheet

Data Set ID: MT3-12-1001C
Instrument ID: HP ICP/MS 2
Analysis Date: 10/01/12
Analyst:

Lab Sample ID: S54059.04
Sample Tag: MW-2-1
Date Collected: 09/27/2012
Matrix: Groundwater

CAS #	Analyte	Result	RL	MDL	Units	Dilute	Run Date	Notes
7440-22-4	Silver	Not detected	0.0002		mg/L	2	10/01/2012	
7440-22-4	Silver, Dissolved	Not detected	0.0002		mg/L	2	10/01/2012	

Form 1: Metals Analysis Data Sheet

Data Set ID: MT3-12-1001B
Instrument ID: HP ICP/MS 2
Analysis Date: 10/01/12
Analyst:

Lab Sample ID: S54059.05
Sample Tag: MW-2-1 MS
Date Collected: 09/27/2012
Matrix: Groundwater

CAS #	Analyte	Result	RL	MDL	Units	Dilute	Run Date	Notes
7440-38-2	Arsenic	0.140	0.002		mg/L	2	10/01/2012	
7439-92-1	Lead	0.099	0.003		mg/L	2	10/01/2012	
7782-49-2	Selenium	0.113	0.005		mg/L	2	10/01/2012	
7440-38-2	Arsenic, Dissolved	0.131	0.002		mg/L	2	10/01/2012	
7439-92-1	Lead, Dissolved	0.096	0.003		mg/L	2	10/01/2012	
7782-49-2	Selenium, Dissolved	0.108	0.005		mg/L	2	10/01/2012	

Form 1: Metals Analysis Data Sheet

Data Set ID: MT3-12-1001C
Instrument ID: HP ICP/MS 2
Analysis Date: 10/01/12
Analyst:

Lab Sample ID: S54059.05
Sample Tag: MW-2-1 MS
Date Collected: 09/27/2012
Matrix: Groundwater

CAS #	Analyte	Result	RL	MDL	Units	Dilute	Run Date	Notes
7440-22-4	Silver	0.0911	0.0002		mg/L	2	10/01/2012	
7440-22-4	Silver, Dissolved	0.0900	0.0002		mg/L	2	10/01/2012	

Form 1: Metals Analysis Data Sheet

Data Set ID: MT3-12-1001B
Instrument ID: HP ICP/MS 2
Analysis Date: 10/01/12
Analyst:

Lab Sample ID: S54059.06
Sample Tag: MW-2-1 MSD
Date Collected: 09/27/2012
Matrix: Groundwater

CAS #	Analyte	Result	RL	MDL	Units	Dilute	Run Date	Notes
7440-38-2	Arsenic	0.139	0.002		mg/L	2	10/01/2012	
7439-92-1	Lead	0.100	0.003		mg/L	2	10/01/2012	
7782-49-2	Selenium	0.112	0.005		mg/L	2	10/01/2012	
7440-38-2	Arsenic, Dissolved	0.131	0.002		mg/L	2	10/01/2012	
7439-92-1	Lead, Dissolved	0.099	0.003		mg/L	2	10/01/2012	
7782-49-2	Selenium, Dissolved	0.111	0.005		mg/L	2	10/01/2012	

Form 1: Metals Analysis Data Sheet

Data Set ID: MT3-12-1001C
Instrument ID: HP ICP/MS 2
Analysis Date: 10/01/12
Analyst:

Lab Sample ID: S54059.06
Sample Tag: MW-2-1 MSD
Date Collected: 09/27/2012
Matrix: Groundwater

CAS #	Analyte	Result	RL	MDL	Units	Dilute	Run Date	Notes
7440-22-4	Silver	0.0936	0.0002		mg/L	2	10/01/2012	
7440-22-4	Silver, Dissolved	0.0925	0.0002		mg/L	2	10/01/2012	

Form 1: Metals Analysis Data Sheet

Data Set ID: MT3-12-1001C
Instrument ID: HP ICP/MS 2
Analysis Date: 10/01/12
Analyst:

Lab Sample ID: S54059.07
Sample Tag: MW-7
Date Collected: 09/27/2012
Matrix: Groundwater

CAS #	Analyte	Result	RL	MDL	Units	Dilute	Run Date	Notes
7440-22-4	Silver	Not detected	0.0002		mg/L	2	10/01/2012	
7440-22-4	Silver, Dissolved	Not detected	0.0002		mg/L	2	10/01/2012	

Form 1: Metals Analysis Data Sheet

Data Set ID: MT3-12-1001B
Instrument ID: HP ICP/MS 2
Analysis Date: 10/01/12
Analyst:

Lab Sample ID: S54059.07
Sample Tag: MW-7
Date Collected: 09/27/2012
Matrix: Groundwater

CAS #	Analyte	Result	RL	MDL	Units	Dilute	Run Date	Notes
7440-38-2	Arsenic	0.028	0.002		mg/L	2	10/01/2012	
7439-92-1	Lead	Not detected	0.003		mg/L	2	10/01/2012	
7782-49-2	Selenium	Not detected	0.005		mg/L	2	10/01/2012	
7440-38-2	Arsenic, Dissolved	0.030	0.002		mg/L	2	10/01/2012	
7439-92-1	Lead, Dissolved	Not detected	0.003		mg/L	2	10/01/2012	
7782-49-2	Selenium, Dissolved	Not detected	0.005		mg/L	2	10/01/2012	

Form 1: Metals Analysis Data Sheet

Data Set ID: MT3-12-1001B
Instrument ID: HP ICP/MS 2
Analysis Date: 10/01/12
Analyst:

Lab Sample ID: S54059.08
Sample Tag: FB-1
Date Collected: 09/27/2012
Matrix: Groundwater

CAS #	Analyte	Result	RL	MDL	Units	Dilute	Run Date	Notes
7440-38-2	Arsenic	Not detected	0.002		mg/L	2	10/01/2012	
7439-92-1	Lead	Not detected	0.003		mg/L	2	10/01/2012	
7782-49-2	Selenium	Not detected	0.005		mg/L	2	10/01/2012	

Form 1: Metals Analysis Data Sheet

Data Set ID: MT3-12-1001C
Instrument ID: HP ICP/MS 2
Analysis Date: 10/01/12
Analyst:

Lab Sample ID: S54059.08
Sample Tag: FB-1
Date Collected: 09/27/2012
Matrix: Groundwater

CAS #	Analyte	Result	RL	MDL	Units	Dilute	Run Date	Notes
7440-22-4	Silver	Not detected	0.0002		mg/L	2	10/01/2012	

Form 1: Metals Analysis Data Sheet

Data Set ID: MT3-12-1001B
Instrument ID: HP ICP/MS 2
Analysis Date: 10/01/12
Analyst:

Lab Sample ID: S54059.09
Sample Tag: MW-9
Date Collected: 09/27/2012
Matrix: Groundwater

CAS #	Analyte	Result	RL	MDL	Units	Dilute	Run Date	Notes
7440-38-2	Arsenic	0.004	0.002		mg/L	2	10/01/2012	
7439-92-1	Lead	0.003	0.003		mg/L	2	10/01/2012	
7782-49-2	Selenium	Not detected	0.005		mg/L	2	10/01/2012	
7440-38-2	Arsenic, Dissolved	0.003	0.002		mg/L	2	10/01/2012	
7439-92-1	Lead, Dissolved	Not detected	0.003		mg/L	2	10/01/2012	
7782-49-2	Selenium, Dissolved	Not detected	0.005		mg/L	2	10/01/2012	

Form 1: Metals Analysis Data Sheet

Data Set ID: MT3-12-1001C
Instrument ID: HP ICP/MS 2
Analysis Date: 10/01/12
Analyst:

Lab Sample ID: S54059.09
Sample Tag: MW-9
Date Collected: 09/27/2012
Matrix: Groundwater

CAS #	Analyte	Result	RL	MDL	Units	Dilute	Run Date	Notes
7440-22-4	Silver	Not detected	0.0002		mg/L	2	10/01/2012	
7440-22-4	Silver, Dissolved	Not detected	0.0002		mg/L	2	10/01/2012	

Form 1: Metals Analysis Data Sheet

Data Set ID: MT3-12-1001B
Instrument ID: HP ICP/MS 2
Analysis Date: 10/01/12
Analyst:

Lab Sample ID: S54059.10
Sample Tag: DUP-1
Date Collected: 09/27/2012
Matrix: Groundwater

CAS #	Analyte	Result	RL	MDL	Units	Dilute	Run Date	Notes
7440-38-2	Arsenic	0.003	0.002		mg/L	2	10/01/2012	
7439-92-1	Lead	Not detected	0.003		mg/L	2	10/01/2012	
7782-49-2	Selenium	Not detected	0.005		mg/L	2	10/01/2012	
7440-38-2	Arsenic, Dissolved	0.003	0.002		mg/L	2	10/01/2012	
7439-92-1	Lead, Dissolved	Not detected	0.003		mg/L	2	10/01/2012	
7782-49-2	Selenium, Dissolved	Not detected	0.005		mg/L	2	10/01/2012	

Form 1: Metals Analysis Data Sheet

Data Set ID: MT3-12-1001C
Instrument ID: HP ICP/MS 2
Analysis Date: 10/01/12
Analyst:

Lab Sample ID: S54059.10
Sample Tag: DUP-1
Date Collected: 09/27/2012
Matrix: Groundwater

CAS #	Analyte	Result	RL	MDL	Units	Dilute	Run Date	Notes
7440-22-4	Silver	Not detected	0.0002		mg/L	2	10/01/2012	
7440-22-4	Silver, Dissolved	Not detected	0.0002		mg/L	2	10/01/2012	

Form 1: Metals Analysis Data Sheet

Data Set ID: MT3-12-1001B
Instrument ID: HP ICP/MS 2
Analysis Date: 10/01/12
Analyst:

Lab Sample ID: S54059.11
Sample Tag: EB-1
Date Collected: 09/27/2012
Matrix: Groundwater

CAS #	Analyte	Result	RL	MDL	Units	Dilute	Run Date	Notes
7440-38-2	Arsenic	Not detected	0.002		mg/L	2	10/01/2012	
7439-92-1	Lead	0.003	0.003		mg/L	2	10/01/2012	
7782-49-2	Selenium	Not detected	0.005		mg/L	2	10/01/2012	

Form 1: Metals Analysis Data Sheet

Data Set ID: MT3-12-1001C
Instrument ID: HP ICP/MS 2
Analysis Date: 10/01/12
Analyst:

Lab Sample ID: S54059.11
Sample Tag: EB-1
Date Collected: 09/27/2012
Matrix: Groundwater

CAS #	Analyte	Result	RL	MDL	Units	Dilute	Run Date	Notes
7440-22-4	Silver	Not detected	0.0002		mg/L	2	10/01/2012	

Form 1: Metals Analysis Data Sheet - Flag Description Key

Data Set ID: MT3-12-1001B
Instrument ID: HP ICP/MS 2
Analysis Date: 10/01/12
Analyst:

Note/Qualifier Key	
b	Value detected less than reporting limit, but greater than MDL
e	Reported value estimated due to interference
j	Analyte also found in associated method blank
m	Duplicate injection precision not met
n	Spiked sample recovery outside control limits
s	Reported value determined by the MSA
u	Analyte not detected above reporting limit
A	TIC is a suspected aldol-condensation product
B	Compound also found in associated method blank
C	Analyte presence confirmed by GC/MS
D	Identified in an analysis at a secondary dilution factor
E	Concentration exceeds calibration range
J	Estimated value less than reporting limit, but greater than MDL
N	Presumptive evidence of TIC
P	Pesticide/Aroclor 2-column RPD exceeds limit
U	Analyte not detected above reporting limit
!	Result is outside of stated limit criteria
F	Analysis run outside of holding time
G	Estimated result due to extraction run outside of holding time
H	Sample submitted and run outside of holding time
I	Matrix interference with internal standard
K	Elevated reporting limit due to low total solids
L	Elevated reporting limit due to low sample amount
M	Result reported to MDL not RDL
O	Analysis performed by outside laboratory. See attached report.
Q	Reported result represents most abundant aroclor
R	Preliminary result
S	Surrogate recovery outside of control limits
T	No correction for total solids
V	Accurate value not available due to presence of multiple aroclors
W	Surrogate result not applicable due to sample dilution
X	Elevated reporting limit due to matrix interference
Y	Elevated reporting limit due to high target concentration
Z	Estimated result due to matrix interference
p	Benzo(b)Fluoranthene and Benzo(k)Fluoranthene integrated as one peak.

Form 2A: Initial and Continuing Calibration Verification

Data Set ID: MT3-12-1001B
Instrument ID: HP ICP/MS 2
Analysis Date: 10/01/12
Analyst:

Sample Name	*QC Type*	*Dilute*	*Element*	*Sample Conc*	*Actual Conc*	*%Rec*	*LCL/UCL*	*Units*	*Matrix*
010SMPL.D# ICV-0.10	ICV	1.000	As	0.103	0.10	103	90/110	mg/L	Liquid
			Se	0.105	0.10	105	90/110		
			Pb	0.104	0.10	104	90/110		
030SMPL.D# CCV1-0.10	CCV	1.000	As	0.102	0.10	102	90/110	mg/L	Liquid
			Se	0.106	0.10	106	90/110		
			Pb	0.104	0.10	104	90/110		
041SMPL.D# CCV2-0.10	CCV	1.000	As	0.103	0.10	103	90/110	mg/L	Liquid
			Se	0.106	0.10	106	90/110		
			Pb	0.105	0.10	105	90/110		

Form 2A: Initial and Continuing Calibration Verification

Data Set ID: MT3-12-1001C
Instrument ID: HP ICP/MS 2
Analysis Date: 10/01/12
Analyst:

Sample Name	*QC Type*	*Dilute*	*Element*	*Sample Conc*	*Actual Conc*	*%Rec*	*LCL/UCL*	*Units*	*Matrix*
009SMPL.D# ICV-0.10	ICV	1.000	Ag	0.1048	0.10	105	90/110	mg/L	Liquid
029SMPL.D# CCV1-0.10	CCV	1.000	Ag	0.1028	0.10	103	90/110	mg/L	Liquid
040SMPL.D# CCV2-0.10	CCV	1.000	Ag	0.1035	0.10	104	90/110	mg/L	Liquid

Form 2B: Performance Sample Evaluation

ERA Lot No.: W8121-04

Data Set ID: MT3-12-1001B

Instrument ID: HP ICP/MS 2

Analysis Date: 10/01/12

Analyst:

Sample Name	*Dilute*	*Element*	*Sample Conc*	*Actual Conc*	*%Rec*	*Lower Accept*	*Upper Accept*	*Units*	*Matrix*
011SMPL.D# ERA-10/1	5.000	As	0.900	0.877	103	0.738	1.03	mg/L	Liquid
		Se	1.08	1.03	105	0.815	1.19		
		Pb	1.83	1.76	104	1.55	1.97		

Form 2B: Performance Sample Evaluation

ERA Lot No.: W8121-04

Data Set ID: MT3-12-1001C

Instrument ID: HP ICP/MS 2

Analysis Date: 10/01/12

Analyst:

Sample Name	*Dilute*	*Element*	*Sample Conc*	*Actual Conc*	*%Rec*	*Lower Accept*	*Upper Accept*	*Units*	*Matrix*
010SMPL.D# ERA-10/1	5.000	Ag	0.1885	0.186	101	0.159	0.213	mg/L	Liquid

Form 3: Blanks

Data Set ID: MT3-12-1001B
Instrument ID: HP ICP/MS 2
Analysis Date: 10/01/12
Analyst:

Sample Name	*QC Type*	*Dilute*	*Element*	*Sample Conc*	*Raw Conc*	*Units*	*Matrix*
014SMPL.D# ICB	ICB	1.000	As	<0.0001	0.00003890	mg/L	Liquid
			Se	<0.001	0.0001780		
			Pb	<0.0006	0.00002892		
015SMPL.D# LRB	LRB	1.000	As	<0.0001	0.00002331	mg/L	Liquid
			Se	<0.001	0.00004796		
			Pb	<0.0006	0.00003345		
031SMPL.D# CCB1	CCB	1.000	As	<0.0001	0.00005219	mg/L	Liquid
			Se	<0.001	0.00009261		
			Pb	<0.0006	0.0001990		
042SMPL.D# CCB2	CCB	1.000	As	<0.0001	0.0001125	mg/L	Liquid
			Se	<0.001	0.0003948		
			Pb	<0.0006	0.0003681		

Form 3: Blanks

Data Set ID: MT3-12-1001C
Instrument ID: HP ICP/MS 2
Analysis Date: 10/01/12
Analyst:

Sample Name	*QC Type*	*Dilute*	*Element*	*Sample Conc*	*Raw Conc*	*Units*	*Matrix*
013SMPL.D# ICB	ICB	1.000	Ag	<0.00004	0.000008363	mg/L	Liquid
014SMPL.D# LRB	LRB	1.000	Ag	<0.00004	<0.000	mg/L	Liquid
030SMPL.D# CCB1	CCB	1.000	Ag	<0.0001	0.00006224	mg/L	Liquid
041SMPL.D# CCB2	CCB	1.000	Ag	0.00010	0.0001010	mg/L	Liquid

Form 4B: ICP Interference Check Sample

Data Set ID: MT3-12-1001B
Instrument ID: HP ICP/MS 2
Analysis Date: 10/01/12
Analyst:

Sample Name	*QC Type*	*Dilute*	*Element*	*Sample Conc*	*Actual Conc*	*%Rec*	*LCL/UCL*	*Units*	*Matrix*
043SMPL.D# Soln-AA	AA	1.000	As	<0.002	0.0	N/A	N/A	mg/L	Liquid
			Se	<0.005	0.0	N/A	N/A		
			Pb	<0.005	0.0	N/A	N/A		
044SMPL.D# Soln-AB	AB	1.000	As	0.023	0.02	115	70/135	mg/L	Liquid

Form 4B: ICP Interference Check Sample

Data Set ID: MT3-12-1001C
Instrument ID: HP ICP/MS 2
Analysis Date: 10/01/12
Analyst:

Sample Name	*QC Type*	*Dilute*	*Element*	*Sample Conc*	*Actual Conc*	*%Rec*	*LCL/UCL*	*Units*	*Matrix*
042SMPL.D# Soln-AA	AA	1.000	Ag	<0.002	0.0	N/A	N/A	mg/L	Liquid
043SMPL.D# Soln-AB	AB	1.000	Ag	0.0201	0.020	101	70/135	mg/L	Liquid

Form 5A: Matrix Spike Sample Recovery

Data Set ID: MT3-12-1001B
Instrument ID: HP ICP/MS 2
Analysis Date: 10/01/12
Analyst:

Spike Name	Sample Name	Dilute	Element	Spike Conc	Sample Conc	Spike Amount	%Rec	LCL/UCL	Units	Matrix
016SMPL.D#		1.000	As	0.0005	ND	0.0005	100	70/130	mg/L	Liquid
			Pb	0.0005	ND	0.0005	100	70/130		
017SMPL.D# BS-0.001		1.000	As	0.0010	ND	0.001	100	70/130	mg/L	Liquid
			Se	0.0011	ND	0.001	110	70/130		
			Pb	0.0011	ND	0.001	110	70/130		
028SMPL.D#	**027SMPL.D#**	2.000	As	0.140	0.032	0.10	108	75/125	mg/L	Liquid
			Se	0.113	<0.005	0.10	113	75/125		
			Pb	0.099	0.004	0.10	95	75/125		
039SMPL.D#	**038SMPL.D#**	2.000	As	0.131	0.026	0.10	105	75/125	mg/L	Liquid
			Se	0.108	<0.005	0.10	108	75/125		
			Pb	0.096	0.003	0.10	93	75/125		

Form 5A: Matrix Spike Sample Recovery

Data Set ID: MT3-12-1001C
Instrument ID: HP ICP/MS 2
Analysis Date: 10/01/12
Analyst:

Spike Name	Sample Name	Dilute	Element	Spike Conc	Sample Conc	Spike Amount	%Rec	LCL/UCL	Units	Matrix
015SMPL.D#		1.000	Ag	0.0005	ND	0.0005	100	70/130	mg/L	Liquid
016SMPL.D# BS-0.001		1.000	Ag	0.0010	ND	0.001	100	70/130	mg/L	Liquid
027SMPL.D#	**026SMPL.D#**	2.000	Ag	0.0911	<0.0002	0.10	91	75/125	mg/L	Liquid
038SMPL.D#	**037SMPL.D#**	2.000	Ag	0.0900	<0.0002	0.10	90	75/125	mg/L	Liquid

Form 5B: Matrix Spike Duplicate Evaluation

Data Set ID: MT3-12-1001B
Instrument ID: HP ICP/MS 2
Analysis Date: 10/01/12
Analyst:

Duplicate Name	*Sample Name*	*Dilute*	*Element*	*Dup Conc*	*Samp Conc*	*%RPD*	*LCL/UCL*	*Units*	*Matrix*
029SMPL.D# 54059.06s	**028SMPL.D# 54059.05s**	2.000	As	0.139	0.140	1	0/20	mg/L	Liquid
			Se	0.112	0.113	1	0/20		
			Pb	0.100	0.099	1	0/20		
040SMPL.D# 54059.06s	**039SMPL.D# 54059.05s**	2.000	As	0.131	0.131	0	0/20	mg/L	Liquid
			Se	0.111	0.108	3	0/20		
			Pb	0.099	0.096	3	0/20		

Form 5B: Matrix Spike Duplicate Evaluation

Data Set ID: MT3-12-1001C
Instrument ID: HP ICP/MS 2
Analysis Date: 10/01/12
Analyst:

Duplicate Name	*Sample Name*	*Dilute*	*Element*	*Dup Conc*	*Samp Conc*	*%RPD*	*LCL/UCL*	*Units*	*Matrix*
028SMPL.D# 54059.06s	**027SMPL.D# 54059.05s**	2.000	Ag	0.0936	0.0911	3	0/20	mg/L	Liquid
039SMPL.D# 54059.06s	**038SMPL.D# 54059.05s**	2.000	Ag	0.0925	0.0900	3	0/20	mg/L	Liquid

Form 7: Laboratory Control Sample

Data Set ID: MT3-12-1001B
Instrument ID: HP ICP/MS 2
Analysis Date: 10/01/12
Analyst:

Sample Name	*Dilute*	*Element*	*Sample Conc*	*Actual Conc*	*%Rec*	*LCL/UCL*	*Units*	*Matrix*
012SMPL.D# 10/01 LCS-0.05	1.000	As	0.049	0.05	98	85/115	mg/L	Liquid
		Se	0.052	0.05	104	85/115		
		Pb	0.051	0.05	102	85/115		

Form 7: Laboratory Control Sample

Data Set ID: MT3-12-1001C
Instrument ID: HP ICP/MS 2
Analysis Date: 10/01/12
Analyst:

Sample Name	*Dilute*	*Element*	*Sample Conc*	*Actual Conc*	*%Rec*	*LCL/UCL*	*Units*	*Matrix*
011SMPL.D# 10/01 LCS-0.05	1.000	Ag	0.0503	0.05	101	85/115	mg/L	Liquid

Form 8: Serial Dilutions

Data Set ID: MT3-12-1001B
Instrument ID: HP ICP/MS 2
Analysis Date: 10/01/12
Analyst:

Duplicate Name	*Sample Name*	*Dilute*	*Element*	*Dup Conc*	*Samp Conc*	*%RPD*	*LCL/UCL*	*Units*	*Matrix*
018SMPL.D# 54059.01	**019SMPL.D# 54059.01s**	10.00	As	0.031	0.034	9	0/10	mg/L	Liquid
			Se	<0.005	<0.005	NC	0/10		
			Pb	0.003	0.004	29*	0/10		

Form 8: Serial Dilutions

Data Set ID: MT3-12-1001C
Instrument ID: HP ICP/MS 2
Analysis Date: 10/01/12
Analyst:

Duplicate Name	*Sample Name*	*Dilute*	*Element*	*Dup Conc*	*Samp Conc*	*%RPD*	*LCL/UCL*	*Units*	*Matrix*
017SMPL.D# 54059.01	**018SMPL.D# 54059.01s**	10.00	Ag	<0.0002	<0.0002	NC	0/10	mg/L	Liquid

Form 13: Analysis Run Log

Data Set ID: MT3-12-1001B
Instrument ID: HP ICP/MS 2
Analysis Date: 10/01/12
Analyst:

Filename	*Run Time*	*Matrix*	*Analytes*
001SMPL.D# Blank	Oct 1 2012 12:07 pm	Liquid	As,Pb,Se
002SMPL.D# 0.00	Oct 1 2012 12:10 pm	Liquid	As,Pb,Se
003SMPL.D# 0.0001	Oct 1 2012 12:14 pm	Liquid	As,Pb,Se
004SMPL.D# 0.0005	Oct 1 2012 12:17 pm	Liquid	As,Pb,Se
005SMPL.D# 0.001	Oct 1 2012 12:20 pm	Liquid	As,Pb,Se
006SMPL.D# 0.005	Oct 1 2012 12:23 pm	Liquid	As,Pb,Se
007SMPL.D# 0.02	Oct 1 2012 12:26 pm	Liquid	As,Pb,Se
008SMPL.D# 0.05	Oct 1 2012 12:29 pm	Liquid	As,Pb,Se
009SMPL.D# 0.20	Oct 1 2012 12:33 pm	Liquid	As,Pb,Se
010SMPL.D# ICV-0.10	Oct 1 2012 12:36 pm	Liquid	As,Pb,Se
011SMPL.D# ERA-10/1	Oct 1 2012 12:39 pm	Liquid	As,Pb,Se
012SMPL.D# 10/01 LCS-0.05	Oct 1 2012 12:42 pm	Liquid	As,Pb,Se
013SMPL.D# Rinse	Oct 1 2012 12:45 pm	Liquid	As,Pb,Se
014SMPL.D# ICB	Oct 1 2012 12:48 pm	Liquid	As,Pb,Se
015SMPL.D# LRB	Oct 1 2012 12:51 pm	Liquid	As,Pb,Se
016SMPL.D# BS-0.0005	Oct 1 2012 12:55 pm	Liquid	As,Pb
017SMPL.D# BS-0.001	Oct 1 2012 12:58 pm	Liquid	As,Pb,Se
018SMPL.D# 54059.01 Dil	Oct 1 2012 01:01 pm	Liquid	As,Pb,Se
019SMPL.D# 54059.01s tot	Oct 1 2012 01:04 pm	Liquid	As,Pb,Se
020SMPL.D# 54059.01s dis	Oct 1 2012 01:07 pm	Liquid	As,Pb,Se
021SMPL.D# 54059.02s tot	Oct 1 2012 01:10 pm	Liquid	As,Pb,Se
022SMPL.D# 54059.02s dis	Oct 1 2012 01:13 pm	Liquid	As,Pb,Se
023SMPL.D# 54059.03s tot	Oct 1 2012 01:16 pm	Liquid	As,Pb,Se
024SMPL.D# 54059.03s dis	Oct 1 2012 01:19 pm	Liquid	As,Pb,Se
025SMPL.D# 54059.07s tot	Oct 1 2012 01:22 pm	Liquid	As,Pb,Se
026SMPL.D# 54059.07s dis	Oct 1 2012 01:26 pm	Liquid	As,Pb,Se
027SMPL.D# 54059.04s tot	Oct 1 2012 01:29 pm	Liquid	As,Pb,Se
028SMPL.D# 54059.05s tot	Oct 1 2012 01:32 pm	Liquid	As,Pb,Se
029SMPL.D# 54059.06s tot MSD	Oct 1 2012 01:35 pm	Liquid	As,Pb,Se
030SMPL.D# CCV1-0.10	Oct 1 2012 01:38 pm	Liquid	As,Pb,Se
031SMPL.D# CCB1	Oct 1 2012 02:18 pm	Liquid	As,Pb,Se
032SMPL.D# 54059.08s	Oct 1 2012 01:44 pm	Liquid	As,Pb,Se
033SMPL.D# 54059.09s tot	Oct 1 2012 01:47 pm	Liquid	As,Pb,Se
034SMPL.D# 54059.09s dis	Oct 1 2012 01:50 pm	Liquid	As,Pb,Se
035SMPL.D# 54059.10s tot	Oct 1 2012 01:54 pm	Liquid	As,Pb,Se
036SMPL.D# 54059.10s dis	Oct 1 2012 01:57 pm	Liquid	As,Pb,Se
037SMPL.D# 54059.11s	Oct 1 2012 02:00 pm	Liquid	As,Pb,Se
038SMPL.D# 54059.04s dis	Oct 1 2012 02:03 pm	Liquid	As,Pb,Se
039SMPL.D# 54059.05s dis	Oct 1 2012 02:06 pm	Liquid	As,Pb,Se
040SMPL.D# 54059.06s dis MSD	Oct 1 2012 02:09 pm	Liquid	As,Pb,Se
041SMPL.D# CCV2-0.10	Oct 1 2012 02:12 pm	Liquid	As,Pb,Se
042SMPL.D# CCB2	Oct 1 2012 02:15 pm	Liquid	As,Pb,Se
043SMPL.D# Soln-AA	Oct 1 2012 02:22 pm	Liquid	As,Pb,Se
044SMPL.D# Soln-AB	Oct 1 2012 02:25 pm	Liquid	As

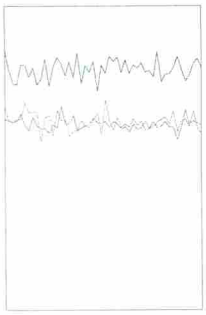
Form 13: Analysis Run Log

Data Set ID: MT3-12-1001C
Instrument ID: HP ICP/MS 2
Analysis Date: 10/01/12
Analyst:

Filename	*Run Time*	*Matrix*	*Analytes*
001SMPL.D# Blank	Oct 1 2012 04:13 pm	Liquid	Ag
002SMPL.D# 0.00	Oct 1 2012 04:15 pm	Liquid	Ag
003SMPL.D# 0.0001	Oct 1 2012 04:16 pm	Liquid	Ag
004SMPL.D# 0.0005	Oct 1 2012 04:18 pm	Liquid	Ag
005SMPL.D# 0.005	Oct 1 2012 04:20 pm	Liquid	Ag
006SMPL.D# 0.02	Oct 1 2012 04:23 pm	Liquid	Ag
007SMPL.D# 0.05	Oct 1 2012 04:25 pm	Liquid	Ag
008SMPL.D# 0.20	Oct 1 2012 04:27 pm	Liquid	Ag
009SMPL.D# ICV-0.10	Oct 1 2012 04:30 pm	Liquid	Ag
010SMPL.D# ERA-10/1	Oct 1 2012 04:32 pm	Liquid	Ag
011SMPL.D# 10/01 LCS-0.05	Oct 1 2012 04:34 pm	Liquid	Ag
012SMPL.D# Rinse	Oct 1 2012 04:37 pm	Liquid	Ag
013SMPL.D# ICB	Oct 1 2012 04:39 pm	Liquid	Ag
014SMPL.D# LRB	Oct 1 2012 04:41 pm	Liquid	Ag
015SMPL.D# BS-0.0005	Oct 1 2012 04:43 pm	Liquid	Ag
016SMPL.D# BS-0.001	Oct 1 2012 04:45 pm	Liquid	Ag
017SMPL.D# 54059.01 Dil	Oct 1 2012 04:47 pm	Liquid	Ag
018SMPL.D# 54059.01s tot	Oct 1 2012 04:48 pm	Liquid	Ag
019SMPL.D# 54059.01s dis	Oct 1 2012 04:50 pm	Liquid	Ag
020SMPL.D# 54059.02s tot	Oct 1 2012 04:52 pm	Liquid	Ag
021SMPL.D# 54059.02s dis	Oct 1 2012 04:54 pm	Liquid	Ag
022SMPL.D# 54059.03s tot	Oct 1 2012 04:56 pm	Liquid	Ag
023SMPL.D# 54059.03s dis	Oct 1 2012 04:58 pm	Liquid	Ag
024SMPL.D# 54059.07s tot	Oct 1 2012 05:00 pm	Liquid	Ag
025SMPL.D# 54059.07s dis	Oct 1 2012 05:02 pm	Liquid	Ag
026SMPL.D# 54059.04s tot	Oct 1 2012 05:04 pm	Liquid	Ag
027SMPL.D# 54059.05s tot	Oct 1 2012 05:06 pm	Liquid	Ag
028SMPL.D# 54059.06s tot MSD	Oct 1 2012 05:09 pm	Liquid	Ag
029SMPL.D# CCV1-0.10	Oct 1 2012 05:11 pm	Liquid	Ag
030SMPL.D# CCB1	Oct 1 2012 05:14 pm	Liquid	Ag
031SMPL.D# 54059.08s	Oct 1 2012 05:16 pm	Liquid	Ag
032SMPL.D# 54059.09s tot	Oct 1 2012 05:17 pm	Liquid	Ag
033SMPL.D# 54059.09s dis	Oct 1 2012 05:19 pm	Liquid	Ag
034SMPL.D# 54059.10s tot	Oct 1 2012 05:21 pm	Liquid	Ag
035SMPL.D# 54059.10s dis	Oct 1 2012 05:23 pm	Liquid	Ag
036SMPL.D# 54059.11s	Oct 1 2012 05:25 pm	Liquid	Ag
037SMPL.D# 54059.04s dis	Oct 1 2012 05:27 pm	Liquid	Ag
038SMPL.D# 54059.05s dis	Oct 1 2012 05:29 pm	Liquid	Ag
039SMPL.D# 54059.06s dis MSD	Oct 1 2012 05:32 pm	Liquid	Ag
040SMPL.D# CCV2-0.10	Oct 1 2012 05:34 pm	Liquid	Ag
041SMPL.D# CCB2	Oct 1 2012 05:37 pm	Liquid	Ag
042SMPL.D# Soln-AA	Oct 1 2012 05:39 pm	Liquid	Ag
043SMPL.D# Soln-AB	Oct 1 2012 05:41 pm	Liquid	Ag

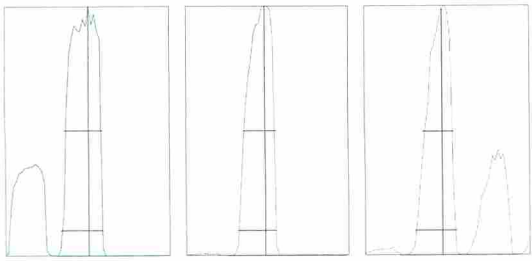
Tune Report

Tune File : nogas.u
Comment :



m/z	Range	Count	Mean	RSD%	Background
7	2,000	1591.0	1584.3	4.09	0.60
89	20,000	12139.0	12202.4	3.10	0.80
205	2,000	1160.0	1236.8	4.71	3.20

Integration Time: 0.1000 sec
Sampling Period: 0.3100 sec
n: 50
Oxide: 156/140 1.721%
Doubly Charged: 70/140 1.941%



m/z:	7	89	205
Height:	1,663	12,116	1,227
Axis:	7.05	89.00	204.95
W-50%:	0.70	0.60	0.55
W-10%:	0.7500	0.700	0.7500

Integration Time: 0.1000 sec
Acquisition Time: 22.7600 sec
Y axis : Linear

===Plasma Condition===		===Ion Lenses===		===Q-Pole Parameters===	
RF Power :	1450 W	Extract 1 :	-79.8 V	AMU Gain :	131
RF Matching :	1.75 V	Extract 2 :	-100.5 V	AMU Offset :	123
Smpl Depth :	9 mm	Omega Bias-ce :	-14 V	Axis Gain :	0.9992
Torch-H :	0.2 mm	Omega Lens-ce :	2 V	Axis Offset :	-0.04
Torch-V :	1.2 mm	Cell Entrance :	-30 V	QP Bias :	-3 V
Carrier Gas :	0.7 L/min	QP Focus :	3 V		
Makeup Gas :	0.27 L/min	Cell Exit :	-34 V	===Detector Parameters===	
Optional Gas :	0 %			Discriminator :	8 mV
Nebulizer Pump :	0.1 rps	===Octopole Parameters===		Analog HV :	1820 V
Sample Pump :	--- rps	OctP RF :	170 V	Pulse HV :	1360 V
S/C Temp :	2 degC	OctP Bias :	-6 V		

===Reaction Cell===
Reaction Mode : OFF
H2 Gas : 0 mL/min He Gas : 0 mL/min Optional Gas : 0 %

Tune File : he.u

		m/z	Count(Mean)	RSD%	
He Gas:	3.5 mL/min	51	146.4	8.83	Integration Time: 0.1000sec
Optional Gas:	0 %	59	2885.6	2.97	
QP Focus:	-7 V	89	2095.3	3.63	
Cell Exit:	-40 V				
OctP Bias:	-18 V				
QP Bias:	-11.5 V				

Tune File : h2.u

		m/z	Count(Mean)	RSD%	
H2 Gas:	4.7 mL/min	59	2749.9	3.34	Integration Time: 0.1000sec
Optional Gas:	0 %	78	2.3	74.66	
QP Focus:	-8 V	89	14341.1	2.67	
Cell Exit:	-40 V				
OctP Bias:	-18 V				
QP Bias:	-15 V				

Generated : Oct 01, 2012 10:10:43
Printed : Oct 01, 2012 10:12:23

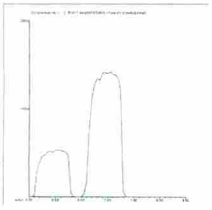
6020 and 200.8 Tune Check Sample

Data File: 0016TUN.D
Date Acquired: Oct 1 2012 10:29 am
Operator:
Sample Name: 10ppb Li, Co, In, Tl
Misc Info: EPA tune solution
Vial Number: 4106
Current Method: TN_62_28.M

QC Tune Summary:
Pass

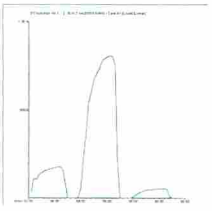
RSD%

Element	Actual	Required	Flag
7 Li	1.71	5.00	0
9 Be	2.73	5.00	
59 Co	0.94	5.00	
115 In	1.21	5.00	
205 Tl	2.67	5.00	
208 Pb	2.19	5.00	

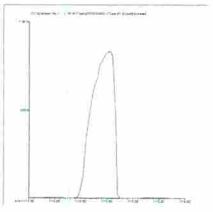


7 Li
Mass Calib.
Actual: 7.00
Required: 6.90 - 7.10
Flag:
Peak Width
Actual: 0.65
Required: 0.75
Flag:

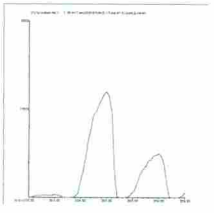
9 Be
Mass Calib.
Actual: 9.05
Required 8.90 - 9.10
Flag:
Peak Width
Actual: 0.65
Required 0.75
Flag:



59 Co
Mass Calib.
Actual: 59.00
Required: 58.90 - 59.10
Flag:
Peak Width
Actual: 0.65
Required: 0.75
Flag:



115 In
Mass Calib.
Actual: 115.00
Required: 114.90 - 115.10
Flag:
Peak Width
Actual: 0.60
Required: 0.75
Flag:



205 Tl
Mass Calib.
Actual: 204.95
Required: 204.90 - 205.10
Flag:
Peak Width
Actual: 0.60
Required: 0.75
Flag:

208 Pb
Mass Calib.
Actual: 207.95
Required: 207.90 - 208.10
Flag:
Peak Width
Actual: 0.55
Required: 0.75
Flag:

Form 15: Internal Standards Summary

IS Check Reference Sample: 001SMPL.D# Blank

Data Set ID: MT3-12-1001B

Instrument ID: HP ICP/MS 2

Analysis Date: 10/01/12

Analyst:

		non-ICB/CCB/ICV/CCV		ICB/CCB/ICV/CCV		
Element	Count	LCL-UCL	Accept.Range	LCL-UCL	Accept.Range	Flags
Y-1	600794	70-125	420556-750993	80-120	480635-720953	0
Rh-2	218487	70-125	152941-273109	80-120	174790-262184	0
Re-2	14554	70-125	10188-18193	80-120	11643-17465	0

Seq ID	QC Type	Y-1	Rh-2	Re-2
001SMPL		100	100	100
002SMPL		102	91	89
003SMPL		103	90	89
004SMPL		103	90	91
005SMPL		102	90	91
006SMPL		101	93	91
007SMPL		102	93	94
008SMPL		106	93	93
009SMPL		109	94	95
010SMPL	ICV	106	93	97
011SMPL	ERA	107	95	99
012SMPL	LCS	104	93	96
013SMPL		101	91	96
014SMPL	ICB	102	90	95
015SMPL	LRB	101	90	94
016SMPL	BS	101	91	96
017SMPL	BS	102	91	96
018SMPL	DIL	110	95	98
019SMPL	S	118	94	97
020SMPL	S	108	94	98
021SMPL	S	109	94	98
022SMPL	S	108	95	101
023SMPL	S	110	95	105
024SMPL	S	108	96	106
025SMPL	S	103	95	103
026SMPL	S	107	97	105
027SMPL	S	103	95	103
028SMPL	MS	103	94	103
029SMPL	MSD	103	94	104
030SMPL	CCV	103	98	106
031SMPL	CCB	100	95	106
032SMPL	S	103	95	105
033SMPL	S	100	90	96
034SMPL	S	98	91	94
035SMPL	S	101	92	94
036SMPL	S	99	91	92
037SMPL	S	106	97	100

Form 15: Internal Standards Summary

IS Check Reference Sample: 001SMPL.D# Blank

Data Set ID: MT3-12-1001B

Instrument ID: HP ICP/MS 2

Analysis Date: 10/01/12

Analyst:

		non-ICB/CCB/ICV/CCV		ICB/CCB/ICV/CCV		
Element	Count	LCL-UCL	Accept.Range	LCL-UCL	Accept.Range	Flags
Y-1	600794	70-125	420556-750993	80-120	480635-720953	0
Rh-2	218487	70-125	152941-273109	80-120	174790-262184	0
Re-2	14554	70-125	10188-18193	80-120	11643-17465	0

Seq ID	QC Type	Y-1	Rh-2	Re-2
038SMPL	S	101	94	103
039SMPL	MS	110	97	109
040SMPL	MSD	104	95	105
041SMPL	CCV	105	98	108
042SMPL	CCB	100	95	107
043SMPL	AA	106	101	113
044SMPL	AB	106	92	102

Form 15: Internal Standards Summary

IS Check Reference Sample: 002SMPL.D# 0.00

Data Set ID: MT3-12-1001C

Instrument ID: HP ICP/MS 2

Analysis Date: 10/01/12

Analyst:

		non-ICB/CCB/ICV/CCV		ICB/CCB/ICV/CCV		
Element	Count	LCL-UCL	Accept.Range	LCL-UCL	Accept.Range	Flags
Rh-3	440653	70-125	308457-550816	80-120	352522-528784	0

Seq ID	QC Type	Rh-3
001SMPL		87
002SMPL		100
003SMPL		90
004SMPL		91
005SMPL		91
006SMPL		94
007SMPL		92
008SMPL		92
009SMPL	ICV	86
010SMPL	ERA	92
011SMPL	LCS	90
012SMPL		89
013SMPL	ICB	90
014SMPL	LRB	90
015SMPL	BS	89
016SMPL	BS	107
017SMPL	DIL	92
018SMPL	S	91
019SMPL	S	95
020SMPL	S	91
021SMPL	S	100
022SMPL	S	87
023SMPL	S	91
024SMPL	S	91
025SMPL	S	97
026SMPL	S	91
027SMPL	MS	92
028SMPL	MSD	98
029SMPL	CCV	89
030SMPL	CCB	91
031SMPL	S	93
032SMPL	S	90
033SMPL	S	89
034SMPL	S	89
035SMPL	S	89
036SMPL	S	96
037SMPL	S	92

Form 15: Internal Standards Summary

IS Check Reference Sample: 002SMPL.D# 0.00

Data Set ID: MT3-12-1001C

Instrument ID: HP ICP/MS 2

Analysis Date: 10/01/12

Analyst:

		non-ICB/CCB/ICV/CCV		ICB/CCB/ICV/CCV		
Element	Count	LCL-UCL	Accept.Range	LCL-UCL	Accept.Range	Flags
Rh-3	440653	70-125	308457-550816	80-120	352522-528784	0

Seq ID	QC Type	Rh-3
038SMPL	MS	93
039SMPL	MSD	90
040SMPL	CCV	94
041SMPL	CCB	91
042SMPL	AA	112
043SMPL	AB	88

Form 9

Analysis Date	varies	
Analytical Method	6020A/6020/200.8	
Digestion Date	varies	
Spiked Value	varies	(ug/L)
Estimated Limit	varies	(ug/L)

Element/Mass	Date	Spike (ug/l)	MDL (ug/l)	Prep Batch
Al-27	4/9/2012	0.50	0.189	MTD-040212-1
Sb-121	3/20/2012	1.00	0.105	MTD-032012-3
As-75	3/20/2012	0.05	0.032	MTD-032012-2
Ba-137	3/20/2012	0.50	0.202	MTD-032012-2
Be-9	4/10/2012	0.10	0.079	MTD-041012-1
B-10	3/20/2012	1.00	0.589	MTD-032012-3
B-11	3/20/2012	1.00	0.277	MTD-032012-3
Cd-111	3/20/2012	0.05	0.038	MTD-032012-2
Cd-114	3/20/2012	0.10	0.030	MTD-032012-2
Cr-52	3/20/2012	0.10	0.023	MTD-032012-2
Cr-53	3/20/2012	0.10	0.054	MTD-032012-2
Co-59	3/20/2012	0.10	0.035	MTD-032012-2
Cu-65	3/20/2012	0.50	0.068	MTD-032012-2
Fe-56	4/9/2012	2.00	0.470	MTD-040912-1
Fe-57	4/9/2012	2.00	0.824	MTD-040912-1
Pb-208	3/20/2012	0.10	0.052	MTD-032012-2
Li-7	3/20/2012	1.00	0.166	MTD-032012-3
Mn-55	3/20/2012	0.10	0.187	MTD-032012-2
Mo-95	4/9/2012	0.50	0.442	MTD-040212-1
Ni-60	4/13/2012	0.10	0.035	MTD-041012-1
Se-78	3/20/2012	0.10	0.058	MTD-032012-2
Se-82	3/20/2012	0.50	0.475	MTD-032012-2
Ag-107	3/20/2012	0.10	0.025	MTD-032012-2
Sr-88	3/20/2012	0.10	0.016	MTD-032012-2
Tl-205	4/9/2012	0.50	0.089	MTD-040212-1
Sn-118	3/20/2012	0.10	0.079	MTD-032012-2
Ti-47	3/20/2012	0.50	0.124	MTD-032012-2
V-51	3/20/2012	0.05	0.018	MTD-032012-2
Zn-66	4/9/2012	2.00	0.366	MTD-040912-1

Element/Mass	Date	Spike (mg/l)	MDL (mg/l)	Prep Batch
Ca-43	4/16/2012	0.01	0.0101	MTD-041012-4
Ca-44	4/16/2012	0.01	0.0041	MTD-041012-4
Mg-24	4/16/2012	0.01	0.0006	MTD-041012-4
K-39	4/16/2012	0.01	0.0030	MTD-041012-4
Na-23	4/16/2012	0.10	0.0101	MTD-041012-4

Linear Range June 2012

		Prep Batch	Run Batch
Aluminum	5.0ppm	MTD-061912-5	MT3-12-0619C
Antimony	5.0ppm	MTD-061912-5	MT3-12-0619C
Arsenic	1.0ppm	MTD-061912-5	MT3-12-0619C
Barium	5.0ppm	MTD-061912-5	MT3-12-0619C
Boron-10	5.0ppm	MTD-061912-5	MT3-12-0619C
Boron-11	5.0ppm	MTD-061912-5	MT3-12-0619C
Beryllium	2.0ppm	MTD-061912-5	MT3-12-0619C
Cadmium-111	5.0ppm	MTD-061912-5	MT3-12-0619C
Cadmium-114	5.0ppm	MTD-061912-5	MT3-12-0619C
Chromium	2.0ppm	MTD-061912-5	MT3-12-0619C
Cobalt	2.0ppm	MTD-061912-5	MT3-12-0619C
Copper	5.0ppm	MTD-061912-5	MT3-12-0619C
Iron-56	5.0ppm	MTD-061912-5	MT3-12-0619C
Iron-57	2.0ppm	MTD-061912-5	MT3-12-0619C
Lead	5.0ppm	MTD-061912-5	MT3-12-0619C
Lithium	2.0ppm	MTD-061912-5	MT3-12-0619C
Manganese	1.0ppm	MTD-061912-5	MT3-12-0619C
Molybdenum	1.0ppm	MTD-061912-5	MT3-12-0619C
Nickel	5.0ppm	MTD-061912-5	MT3-12-0619C
Selenium-78	5.0ppm	MTD-061912-5	MT3-12-0619C
Selenium-82	5.0ppm	MTD-061912-5	MT3-12-0619C
Silver	1.0ppm	MTD-061912-5	MT3-12-0619C
Strontium-86	5.0ppm	MTD-061912-5	MT3-12-0619C
Thallium	5.0ppm	MTD-061912-5	MT3-12-0619C
Tin	1.0ppm	MTD-061912-5	MT3-12-0619C
Titanium	1.0ppm	MTD-061912-5	MT3-12-0619C
Vanadium	1.0ppm	MTD-061912-5	MT3-12-0619C
Zinc	2.0ppm	MTD-061912-5	MT3-12-0619C

Sodium-23	50ppm	MTD-061912-5	MT3-12-0619B
Magnesium-24	50ppm	MTD-061912-5	MT3-12-0619B
Potassium-39	50ppm	MTD-061912-5	MT3-12-0619B
Calcium-43	50ppm	MTD-061912-5	MT3-12-0619B
Calcium-44	50ppm	MTD-061912-5	MT3-12-0619B

Maximum spiking levels are instated to ensure the safety and longevity of the instrument. Any sample results above this level result in extended wash runs and sample dilution.

Data Set: MT3-12-1001B
Run Date: 10/01/12

Metals Quantitation Summary Report

Analyst:
Instrument: HP ICP/MS

Sequence #: 001SMPL.D#
Method: 04-APSA.M
Acq Time: Oct 1 2012 12:07 pm
Sample Name: Blank
Sample Type: CalBlk
Matrix: Liquid
Comments:
Dilution: 1.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib:
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
As	75	103	.0000008206	<0.000	mg/L	148.71	2
Se	78	89	.0000003702	<0.000	mg/L	975.48	1
Pb	208	185	0.1276764	0.00003323	mg/L	64.01	2

Data Set: MT3-12-1001B
Run Date: 10/01/12

Metals Quantitation Summary Report

Analyst:
Instrument: HP ICP/MS

Sequence #: 002SMPL.D#
Method: 04-APSA.M
Acq Time: Oct 1 2012 12:10 pm
Sample Name: 0.00
Sample Type: CalStd
Matrix: Liquid
Comments:
Dilution: 1.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib:
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
As	75	103	.0000009844	<0.000	mg/L	4.0E+9	2
Se	78	89	.0000003851	.0000000000	mg/L	2.4E+9	1
Pb	208	185	0.08935829	.0000000000	mg/L	2.2E+9	2

Data Set: MT3-12-1001B
Run Date: 10/01/12

Metals Quantitation Summary Report

Analyst:
Instrument: HP ICP/MS

Sequence #: 003SMPL.D#
Method: 04-APSA.M
Acq Time: Oct 1 2012 12:14 pm
Sample Name: 0.0001
Sample Type: CalStd
Matrix: Liquid
Comments: Ag, As, Be, Cd, Tl
Dilution: 1.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib:
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
As	75	103	.0000036691	0.00009902	mg/L	22.32	2
Se	78	89	.0000013237	0.0001386	mg/L	20.83	1
Pb	208	185	0.2185098	0.0001120	mg/L	33.35	2

Data Set: MT3-12-1001B
Run Date: 10/01/12

Metals Quantitation Summary Report

Analyst:
Instrument: HP ICP/MS

Sequence #: 004SMPL.D#
Method: 04-APSA.M
Acq Time: Oct 1 2012 12:17 pm
Sample Name: 0.0005
Sample Type: CalStd
Matrix: Liquid
Comments: Cu, Pb, V
Dilution: 1.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib:
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
As	75	103	.0000148218	0.0005103	mg/L	7.04	2
Se	78	89	.0000038199	0.0005073	mg/L	7.82	1
Pb	208	185	0.7072510	0.0005359	mg/L	8.11	2

Data Set: MT3-12-1001B
Run Date: 10/01/12

Metals Quantitation Summary Report

Analyst:
Instrument: HP ICP/MS

Sequence #: 005SMPL.D#
Method: 04-APSA.M
Acq Time: Oct 1 2012 12:20 pm
Sample Name: 0.001
Sample Type: CalStd
Matrix: Liquid
Comments:
Dilution: 1.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib:
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
As	75	103	.0000320398	0.001145	mg/L	9.08	2
Se	78	89	.0000072939	0.001020	mg/L	14.09	1
Pb	208	185	1.372956	0.001113	mg/L	2.09	2

Data Set: MT3-12-1001B
Run Date: 10/01/12

Metals Quantitation Summary Report

Analyst:
Instrument: HP ICP/MS

Sequence #: 006SMPL.D#
Method: 04-APSA.M
Acq Time: Oct 1 2012 12:23 pm
Sample Name: 0.005
Sample Type: CalStd
Matrix: Liquid
Comments:
Dilution: 1.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib:
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
As	75	103	.0001351375	0.004948	mg/L	4.40	2
Se	78	89	.0000350501	0.005120	mg/L	1.05	1
Pb	208	185	6.119202	0.005230	mg/L	2.59	2

Data Set: MT3-12-1001B
Run Date: 10/01/12

Metals Quantitation Summary Report

Analyst:
Instrument: HP ICP/MS

Sequence #: 007SMPL.D#
Method: 04-APSA.M
Acq Time: Oct 1 2012 12:26 pm
Sample Name: 0.02
Sample Type: CalStd
Matrix: Liquid
Comments:
Dilution: 1.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib:
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
As	75	103	.0005475676	0.02016	mg/L	2.43	2
Se	78	89	.0001347973	0.01985	mg/L	2.15	1
Pb	208	185	23.54669	0.02034	mg/L	2.10	2

Data Set: MT3-12-1001B
Run Date: 10/01/12

Metals Quantitation Summary Report

Analyst:
Instrument: HP ICP/MS

Sequence #: 008SMPL.D#
Method: 04-APSA.M
Acq Time: Oct 1 2012 12:29 pm
Sample Name: 0.05
Sample Type: CalStd
Matrix: Liquid
Comments:
Dilution: 1.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib:
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
As	75	103	0.001370878	0.05052	mg/L	2.66	2
Se	78	89	.0003423337	0.05051	mg/L	1.05	1
Pb	208	185	58.42068	0.05059	mg/L	0.71	2

Data Set: MT3-12-1001B
Run Date: 10/01/12

Metals Quantitation Summary Report

Analyst:
Instrument: HP ICP/MS

Sequence #: 009SMPL.D#
Method: 04-APSA.M
Acq Time: Oct 1 2012 12:33 pm
Sample Name: 0.20
Sample Type: CalStd
Matrix: Liquid
Comments:
Dilution: 1.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib:
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
As	75	103	0.005419819	0.1998	mg/L	0.81	2
Se	78	89	0.001353702	0.1999	mg/L	0.73	1
Pb	208	185	230.4726	0.1998	mg/L	1.48	2

Data Set: MT3-12-1001B
Run Date: 10/01/12

Metals Quantitation Summary Report

Analyst:
Instrument: HP ICP/MS

Sequence #: 010SMPL.D#
Method: 04-APSA.M
Acq Time: Oct 1 2012 12:36 pm
Sample Name: ICV-0.10
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib:
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
As	75	103	0.002814607	0.1038	mg/L	0.94	2
Se	78	89	.0007161480	0.1057	mg/L	0.95	1
Pb	208	185	120.7040	0.1046	mg/L	0.90	2

Data Set: MT3-12-1001B
Run Date: 10/01/12

Metals Quantitation Summary Report

Analyst:
Instrument: HP ICP/MS

Sequence #: 011SMPL.D#
Method: 04-APSA.M
Acq Time: Oct 1 2012 12:39 pm
Sample Name: ERA-10/1
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 5.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib:
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
As	75	103	0.004884772	0.9006	mg/L	1.44	2
Se	78	89	0.001463353	1.080	mg/L	1.43	1
Pb	208	185	422.2477	1.831	mg/L	1.29	2

Data Set: MT3-12-1001B
Run Date: 10/01/12

Metals Quantitation Summary Report

Analyst:
Instrument: HP ICP/MS

Sequence #: 012SMPL.D#
Method: 04-APSA.M
Acq Time: Oct 1 2012 12:42 pm
Sample Name: 10/01 LCS-0.05
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-100112-2
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
As	75	103	0.001337701	0.04930	mg/L	0.79	2
Se	78	89	.0003528184	0.05205	mg/L	1.00	1
Pb	208	185	59.45649	0.05149	mg/L	0.49	2

Data Set: MT3-12-1001B
Run Date: 10/01/12

Metals Quantitation Summary Report

Analyst:
Instrument: HP ICP/MS

Sequence #: 013SMPL.D#
Method: 04-APSA.M
Acq Time: Oct 1 2012 12:45 pm
Sample Name: Rinse
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-100112-2
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
As	75	103	.0000034255	0.00009003	mg/L	12.44	2
Se	78	89	.0000027338	0.0003469	mg/L	13.42	1
Pb	208	185	0.1235229	0.00002963	mg/L	74.96	2

Data Set: MT3-12-1001B
Run Date: 10/01/12

Metals Quantitation Summary Report

Analyst:
Instrument: HP ICP/MS

Sequence #: 014SMPL.D#
Method: 04-APSA.M
Acq Time: Oct 1 2012 12:48 pm
Sample Name: ICB
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-100112-2
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
As	75	103	.0000020390	0.00003890	mg/L	75.37	2
Se	78	89	.0000015901	0.0001780	mg/L	34.36	1
Pb	208	185	0.1227058	0.00002892	mg/L	55.91	2

Data Set: MT3-12-1001B
Run Date: 10/01/12

Metals Quantitation Summary Report

Analyst:
Instrument: HP ICP/MS

Sequence #: 015SMPL.D#
Method: 04-APSA.M
Acq Time: Oct 1 2012 12:51 pm
Sample Name: LRB
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-100112-2
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
As	75	103	.0000016165	0.00002331	mg/L	49.21	2
Se	78	89	.0000007098	0.00004796	mg/L	11.97	1
Pb	208	185	0.1279263	0.00003345	mg/L	131.66	2

Data Set: MT3-12-1001B
Run Date: 10/01/12

Metals Quantitation Summary Report

Analyst:
Instrument: HP ICP/MS

Sequence #: 016SMPL.D#
Method: 04-APSA.M
Acq Time: Oct 1 2012 12:55 pm
Sample Name: BS-0.0005
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-100112-2
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
As	75	103	.0000153180	0.0005286	mg/L	2.12	2
Pb	208	185	0.7011556	0.0005306	mg/L	4.60	2

Data Set: MT3-12-1001B
Run Date: 10/01/12

Metals Quantitation Summary Report

Analyst:
Instrument: HP ICP/MS

Sequence #: 017SMPL.D#
Method: 04-APSA.M
Acq Time: Oct 1 2012 12:58 pm
Sample Name: BS-0.001
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-100112-2
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
As	75	103	.0000291761	0.001040	mg/L	11.40	2
Se	78	89	.0000078299	0.001099	mg/L	6.01	1
Pb	208	185	1.305186	0.001054	mg/L	5.57	2

Data Set: MT3-12-1001B
Run Date: 10/01/12

Metals Quantitation Summary Report

Analyst:
Instrument: HP ICP/MS

Sequence #: 018SMPL.D#
Method: 04-APSA.M
Acq Time: Oct 1 2012 01:01 pm
Sample Name: 54059.01 Dil
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 10.00

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-100112-2
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
As	75	103	.0000839518	0.03060	mg/L	7.23	2
Se	78	89	.0000014110	0.001515	mg/L	30.73	1
Pb	208	185	0.4541774	0.003164	mg/L	3.56	2

Data Set: MT3-12-1001B
Run Date: 10/01/12

Metals Quantitation Summary Report

Analyst:
Instrument: HP ICP/MS

Sequence #: 019SMPL.D#
Method: 04-APSA.M
Acq Time: Oct 1 2012 01:04 pm
Sample Name: 54059.01s tot
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 2.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-100112-2
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
As	75	103	.0004635142	0.03412	mg/L	1.38	2
Se	78	89	.0000020214	0.0004833	mg/L	13.56	1
Pb	208	185	2.121966	0.003526	mg/L	3.76	2

Data Set: MT3-12-1001B
Run Date: 10/01/12

Metals Quantitation Summary Report

Analyst:
Instrument: HP ICP/MS

Sequence #: 020SMPL.D#
Method: 04-APSA.M
Acq Time: Oct 1 2012 01:07 pm
Sample Name: 54059.01s dis
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 2.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-100112-2
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
As	75	103	.0004764050	0.03507	mg/L	2.45	2
Se	78	89	.0000015609	0.0003473	mg/L	49.06	1
Pb	208	185	1.457099	0.002372	mg/L	11.97	2

Data Set: MT3-12-1001B
Run Date: 10/01/12

Metals Quantitation Summary Report

Analyst:
Instrument: HP ICP/MS

Sequence #: 021SMPL.D#
Method: 04-APSA.M
Acq Time: Oct 1 2012 01:10 pm
Sample Name: 54059.02s tot
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 2.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-100112-2
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
As	75	103	.0004746413	0.03494	mg/L	4.37	2
Se	78	89	.0000014873	0.0003256	mg/L	34.71	1
Pb	208	185	2.171907	0.003612	mg/L	1.58	2

Data Set: MT3-12-1001B
Run Date: 10/01/12

Metals Quantitation Summary Report

Analyst:
Instrument: HP ICP/MS

Sequence #: 022SMPL.D#
Method: 04-APSA.M
Acq Time: Oct 1 2012 01:13 pm
Sample Name: 54059.02s dis
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 2.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-100112-2
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
As	75	103	.0004685853	0.03449	mg/L	2.14	2
Se	78	89	.0000008753	0.0001448	mg/L	54.35	1
Pb	208	185	1.433530	0.002332	mg/L	4.94	2

Data Set: MT3-12-1001B
Run Date: 10/01/12

Metals Quantitation Summary Report

Analyst:
Instrument: HP ICP/MS

Sequence #: 023SMPL.D#
Method: 04-APSA.M
Acq Time: Oct 1 2012 01:16 pm
Sample Name: 54059.03s tot
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 2.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-100112-2
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
As	75	103	.0000193869	0.001357	mg/L	4.01	2
Se	78	89	.0000009682	0.0001722	mg/L	12.20	1
Pb	208	185	0.8822173	0.001375	mg/L	5.50	2

Data Set: MT3-12-1001B
Run Date: 10/01/12

Metals Quantitation Summary Report

Analyst:
Instrument: HP ICP/MS

Sequence #: 024SMPL.D#
Method: 04-APSA.M
Acq Time: Oct 1 2012 01:19 pm
Sample Name: 54059.03s dis
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 2.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-100112-2
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
As	75	103	.0000162250	0.001124	mg/L	3.13	2
Se	78	89	.0000010029	0.0001825	mg/L	27.45	1
Pb	208	185	0.6886579	0.001040	mg/L	12.52	2

Data Set: MT3-12-1001B
Run Date: 10/01/12

Metals Quantitation Summary Report

Analyst:
Instrument: HP ICP/MS

Sequence #: 025SMPL.D#
Method: 04-APSA.M
Acq Time: Oct 1 2012 01:22 pm
Sample Name: 54059.07s tot
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 2.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-100112-2
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
As	75	103	.0003836451	0.02823	mg/L	4.39	2
Se	78	89	.0000006996	0.00009289	mg/L	138.55	1
Pb	208	185	1.622590	0.002660	mg/L	2.72	2

Data Set: MT3-12-1001B
Run Date: 10/01/12

Metals Quantitation Summary Report

Analyst:
Instrument: HP ICP/MS

Sequence #: 026SMPL.D#
Method: 04-APSA.M
Acq Time: Oct 1 2012 01:26 pm
Sample Name: 54059.07s dis
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 2.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-100112-2
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
As	75	103	.0004136595	0.03044	mg/L	0.48	2
Se	78	89	.0000008614	0.0001407	mg/L	41.44	1
Pb	208	185	1.579071	0.002584	mg/L	5.56	2

Data Set: MT3-12-1001B
Run Date: 10/01/12

Metals Quantitation Summary Report

Analyst:
Instrument: HP ICP/MS

Sequence #: 027SMPL.D#
Method: 04-APSA.M
Acq Time: Oct 1 2012 01:29 pm
Sample Name: 54059.04s tot
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 2.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-100112-2
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
As	75	103	.0004364048	0.03212	mg/L	2.80	2
Se	78	89	.0000008980	0.0001515	mg/L	26.53	1
Pb	208	185	2.590619	0.004339	mg/L	5.06	2

Data Set: MT3-12-1001B
Run Date: 10/01/12

Metals Quantitation Summary Report

Analyst:
Instrument: HP ICP/MS

Sequence #: 028SMPL.D#
Method: 04-APSA.M
Acq Time: Oct 1 2012 01:32 pm
Sample Name: 54059.05s tot MS-0.05
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 2.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-100112-2
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
As	75	103	0.001906720	0.1406	mg/L	1.67	2
Se	78	89	.0003844228	0.1134	mg/L	2.48	1
Pb	208	185	57.14528	0.09897	mg/L	0.74	2

Data Set: MT3-12-1001B
Run Date: 10/01/12

Metals Quantitation Summary Report

Analyst:
Instrument: HP ICP/MS

Sequence #: 029SMPL.D#
Method: 04-APSA.M
Acq Time: Oct 1 2012 01:35 pm
Sample Name: 54059.06s tot MSD
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 2.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-100112-2
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
As	75	103	0.001892305	0.1395	mg/L	1.02	2
Se	78	89	.0003826388	0.1129	mg/L	1.90	1
Pb	208	185	57.47987	0.09955	mg/L	2.91	2

Data Set: MT3-12-1001B
Run Date: 10/01/12

Metals Quantitation Summary Report

Analyst:
Instrument: HP ICP/MS

Sequence #: 030SMPL.D#
Method: 04-APSA.M
Acq Time: Oct 1 2012 01:38 pm
Sample Name: CCV1-0.10
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-100112-2
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
As	75	103	0.002765840	0.1020	mg/L	0.35	2
Se	78	89	.0007208519	0.1064	mg/L	1.14	1
Pb	208	185	120.4418	0.1044	mg/L	1.96	2

Data Set: MT3-12-1001B
Run Date: 10/01/12

Metals Quantitation Summary Report

Analyst:
Instrument: HP ICP/MS

Sequence #: 031SMPL.D#
Method: 04-APSA.M
Acq Time: Oct 1 2012 02:18 pm
Sample Name: CCB1
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-100112-2
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
As	75	103	.0000023995	0.00005219	mg/L	0.88	2
Se	78	89	.0000010122	0.00009261	mg/L	74.44	1
Pb	208	185	0.3188464	0.0001990	mg/L	15.66	2

Data Set: MT3-12-1001B
Run Date: 10/01/12

Metals Quantitation Summary Report

Analyst:
Instrument: HP ICP/MS

Sequence #: 032SMPL.D#
Method: 04-APSA.M
Acq Time: Oct 1 2012 01:44 pm
Sample Name: 54059.08s
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 2.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-100112-2
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
As	75	103	.0000022782	0.00009544	mg/L	49.54	2
Se	78	89	.0000008302	0.0001315	mg/L	86.39	1
Pb	208	185	0.2507792	0.0002800	mg/L	39.04	2

Data Set: MT3-12-1001B
Run Date: 10/01/12

Metals Quantitation Summary Report

Analyst:
Instrument: HP ICP/MS

Sequence #: 033SMPL.D#
Method: 04-APSA.M
Acq Time: Oct 1 2012 01:47 pm
Sample Name: 54059.09s tot
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 2.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-100112-2
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
As	75	103	.0000509266	0.003684	mg/L	2.76	2
Se	78	89	.0000027941	0.0007116	mg/L	30.48	1
Pb	208	185	1.993435	0.003303	mg/L	1.61	2

Data Set: MT3-12-1001B
Run Date: 10/01/12

Metals Quantitation Summary Report

Analyst:
Instrument: HP ICP/MS

Sequence #: 034SMPL.D#
Method: 04-APSA.M
Acq Time: Oct 1 2012 01:50 pm
Sample Name: 54059.09s dis
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 2.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-100112-2
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
As	75	103	.0000364680	0.002617	mg/L	3.99	2
Se	78	89	.0000016531	0.0003745	mg/L	54.95	1
Pb	208	185	1.187877	0.001905	mg/L	6.47	2

Data Set: MT3-12-1001B
Run Date: 10/01/12

Metals Quantitation Summary Report

Analyst:
Instrument: HP ICP/MS

Sequence #: 035SMPL.D#
Method: 04-APSA.M
Acq Time: Oct 1 2012 01:54 pm
Sample Name: 54059.10s tot
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 2.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-100112-2
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
As	75	103	.0000476730	0.003444	mg/L	6.57	2
Se	78	89	.0000013945	0.0002982	mg/L	37.32	1
Pb	208	185	1.734046	0.002853	mg/L	9.93	2

Data Set: MT3-12-1001B
Run Date: 10/01/12

Metals Quantitation Summary Report

Analyst:
Instrument: HP ICP/MS

Sequence #: 036SMPL.D#
Method: 04-APSA.M
Acq Time: Oct 1 2012 01:57 pm
Sample Name: 54059.10s dis
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 2.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-100112-2
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
As	75	103	.0000367001	0.002634	mg/L	9.79	2
Se	78	89	.0000014542	0.0003158	mg/L	33.95	1
Pb	208	185	1.022715	0.001619	mg/L	1.34	2

Data Set: MT3-12-1001B
Run Date: 10/01/12

Metals Quantitation Summary Report

Analyst:
Instrument: HP ICP/MS

Sequence #: 037SMPL.D#
Method: 04-APSA.M
Acq Time: Oct 1 2012 02:00 pm
Sample Name: 54059.11s
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 2.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-100112-2
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
As	75	103	.0000049034	0.0002891	mg/L	28.28	2
Se	78	89	.0000007832	0.0001176	mg/L	42.15	1
Pb	208	185	2.096166	0.003481	mg/L	12.28	2

Data Set: MT3-12-1001B
Run Date: 10/01/12

Metals Quantitation Summary Report

Analyst:
Instrument: HP ICP/MS

Sequence #: 038SMPL.D#
Method: 04-APSA.M
Acq Time: Oct 1 2012 02:03 pm
Sample Name: 54059.04s dis
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 2.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-100112-2
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
As	75	103	.0003503207	0.02577	mg/L	1.35	2
Se	78	89	.0000009401	0.0001639	mg/L	64.37	1
Pb	208	185	1.703110	0.002799	mg/L	5.97	2

Data Set: MT3-12-1001B
Run Date: 10/01/12

Metals Quantitation Summary Report

Analyst:
Instrument: HP ICP/MS

Sequence #: 039SMPL.D#
Method: 04-APSA.M
Acq Time: Oct 1 2012 02:06 pm
Sample Name: 54059.05s dis MS-0.05
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 2.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-100112-2
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
As	75	103	0.001785986	0.1317	mg/L	0.79	2
Se	78	89	.0003684020	0.1087	mg/L	0.60	1
Pb	208	185	55.59016	0.09627	mg/L	1.56	2

Data Set: MT3-12-1001B
Run Date: 10/01/12

Metals Quantitation Summary Report

Analyst:
Instrument: HP ICP/MS

Sequence #: 040SMPL.D#
Method: 04-APSA.M
Acq Time: Oct 1 2012 02:09 pm
Sample Name: 54059.06s dis MSD
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 2.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-100112-2
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
As	75	103	0.001786251	0.1317	mg/L	1.17	2
Se	78	89	.0003781318	0.1116	mg/L	1.20	1
Pb	208	185	57.39120	0.09940	mg/L	1.45	2

Data Set: MT3-12-1001B
Run Date: 10/01/12

Metals Quantitation Summary Report

Analyst:
Instrument: HP ICP/MS

Sequence #: 041SMPL.D#
Method: 04-APSA.M
Acq Time: Oct 1 2012 02:12 pm
Sample Name: CCV2-0.10
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-100112-2
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
As	75	103	0.002804890	0.1034	mg/L	0.93	2
Se	78	89	.0007185564	0.1061	mg/L	1.65	1
Pb	208	185	121.3466	0.1052	mg/L	1.30	2

Data Set: MT3-12-1001B
Run Date: 10/01/12

Metals Quantitation Summary Report

Analyst:
Instrument: HP ICP/MS

Sequence #: 042SMPL.D#
Method: 04-APSA.M
Acq Time: Oct 1 2012 02:15 pm
Sample Name: CCB2
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-100112-2
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
As	75	103	.0000040337	0.0001125	mg/L	37.57	2
Se	78	89	.0000030584	0.0003948	mg/L	12.44	1
Pb	208	185	0.5137967	0.0003681	mg/L	14.19	2

Data Set: MT3-12-1001B
Run Date: 10/01/12

Metals Quantitation Summary Report

Analyst:
Instrument: HP ICP/MS

Sequence #: 043SMPL.D#
Method: 04-APSA.M
Acq Time: Oct 1 2012 02:22 pm
Sample Name: Soln-AA
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-100112-2
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
As	75	103	.0000022055	0.00004504	mg/L	8.32	2
Se	78	89	.0000007192	0.00004934	mg/L	120.63	1
Pb	208	185	0.2641649	0.0001516	mg/L	8.48	2

Data Set: MT3-12-1001B
Run Date: 10/01/12

Metals Quantitation Summary Report

Analyst:
Instrument: HP ICP/MS

Sequence #: 044SMPL.D#
Method: 04-APSA.M
Acq Time: Oct 1 2012 02:25 pm
Sample Name: Soln-AB
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-100112-2
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
As	75	103	.0006258243	0.02305	mg/L	0.88	2

Data Set: MT3-12-1001C
Run Date: 10/01/12

Metals Quantitation Summary Report

Analyst:
Instrument: HP ICP/MS

Sequence #: 001SMPL.D#
Method: 01-Ag.M
Acq Time: Oct 1 2012 04:13 pm
Sample Name: Blank
Sample Type: CalBlk
Matrix: Liquid
Comments:
Dilution: 1.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib:
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Ag	107	103	.0000066100	0.000004194	mg/L	59.23	3

Data Set: MT3-12-1001C
Run Date: 10/01/12

Metals Quantitation Summary Report

Analyst:
Instrument: HP ICP/MS

Sequence #: 002SMPL.D#
Method: 01-Ag.M
Acq Time: Oct 1 2012 04:15 pm
Sample Name: 0.00
Sample Type: CalStd
Matrix: Liquid
Comments:
Dilution: 1.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib:
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Ag	107	103	.0000057845	<0.000	mg/L	1.2E+9	3

Data Set: MT3-12-1001C
Run Date: 10/01/12

Metals Quantitation Summary Report

Analyst:
Instrument: HP ICP/MS

Sequence #: 003SMPL.D#
Method: 01-Ag.M
Acq Time: Oct 1 2012 04:16 pm
Sample Name: 0.0001
Sample Type: CalStd
Matrix: Liquid
Comments: Ag, As, Be, Cd, Tl
Dilution: 1.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib:
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Ag	107	103	.0000217079	0.00008090	mg/L	2.21	3

Data Set: MT3-12-1001C
Run Date: 10/01/12

Metals Quantitation Summary Report

Analyst:
Instrument: HP ICP/MS

Sequence #: 004SMPL.D#
Method: 01-Ag.M
Acq Time: Oct 1 2012 04:18 pm
Sample Name: 0.0005
Sample Type: CalStd
Matrix: Liquid
Comments: Cu, Pb, V
Dilution: 1.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib:
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Ag	107	103	.0000987408	0.0004723	mg/L	6.25	3

Data Set: MT3-12-1001C
Run Date: 10/01/12

Metals Quantitation Summary Report

Analyst:
Instrument: HP ICP/MS

Sequence #: 005SMPL.D#
Method: 01-Ag.M
Acq Time: Oct 1 2012 04:20 pm
Sample Name: 0.005
Sample Type: CalStd
Matrix: Liquid
Comments:
Dilution: 1.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib:
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Ag	107	103	0.001015292	0.005129	mg/L	1.10	3

Data Set: MT3-12-1001C
Run Date: 10/01/12

Metals Quantitation Summary Report

Analyst:
Instrument: HP ICP/MS

Sequence #: 006SMPL.D#
Method: 01-Ag.M
Acq Time: Oct 1 2012 04:23 pm
Sample Name: 0.02
Sample Type: CalStd
Matrix: Liquid
Comments:
Dilution: 1.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib:
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Ag	107	103	0.003884485	0.01970	mg/L	1.35	3

Data Set: MT3-12-1001C
Run Date: 10/01/12

Metals Quantitation Summary Report

Analyst:
Instrument: HP ICP/MS

Sequence #: 007SMPL.D#
Method: 01-Ag.M
Acq Time: Oct 1 2012 04:25 pm
Sample Name: 0.05
Sample Type: CalStd
Matrix: Liquid
Comments:
Dilution: 1.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib:
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Ag	107	103	0.009652906	0.04901	mg/L	0.32	3

Data Set: MT3-12-1001C
Run Date: 10/01/12

Metals Quantitation Summary Report

Analyst:
Instrument: HP ICP/MS

Sequence #: 008SMPL.D#
Method: 01-Ag.M
Acq Time: Oct 1 2012 04:27 pm
Sample Name: 0.20
Sample Type: CalStd
Matrix: Liquid
Comments:
Dilution: 1.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib:
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Ag	107	103	0.03942524	0.2003	mg/L	0.55	3

Data Set: MT3-12-1001C
Run Date: 10/01/12

Metals Quantitation Summary Report

Analyst:
Instrument: HP ICP/MS

Sequence #: 009SMPL.D#
Method: 01-Ag.M
Acq Time: Oct 1 2012 04:30 pm
Sample Name: ICV-0.10
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib:
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Ag	107	103	0.02063173	0.1048	mg/L	0.65	3

Data Set: MT3-12-1001C
Run Date: 10/01/12

Metals Quantitation Summary Report

Analyst:
Instrument: HP ICP/MS

Sequence #: 010SMPL.D#
Method: 01-Ag.M
Acq Time: Oct 1 2012 04:32 pm
Sample Name: ERA-10/1
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 5.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib:
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Ag	107	103	0.007425016	0.1885	mg/L	1.04	3

Data Set: MT3-12-1001C
Run Date: 10/01/12

Metals Quantitation Summary Report

Analyst:
Instrument: HP ICP/MS

Sequence #: 011SMPL.D#
Method: 01-Ag.M
Acq Time: Oct 1 2012 04:34 pm
Sample Name: 10/01 LCS-0.05
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-100112-2
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Ag	107	103	0.009913083	0.05033	mg/L	1.21	3

Data Set: MT3-12-1001C
Run Date: 10/01/12

Metals Quantitation Summary Report

Analyst:
Instrument: HP ICP/MS

Sequence #: 012SMPL.D#
Method: 01-Ag.M
Acq Time: Oct 1 2012 04:37 pm
Sample Name: Rinse
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-100112-2
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Ag	107	103	.0000100350	0.00002159	mg/L	20.64	3

Data Set: MT3-12-1001C
Run Date: 10/01/12

Metals Quantitation Summary Report

Analyst:
Instrument: HP ICP/MS

Sequence #: 013SMPL.D#
Method: 01-Ag.M
Acq Time: Oct 1 2012 04:39 pm
Sample Name: ICB
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-100112-2
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Ag	107	103	.0000074307	0.000008363	mg/L	29.70	3

Data Set: MT3-12-1001C
Run Date: 10/01/12

Metals Quantitation Summary Report

Analyst:
Instrument: HP ICP/MS

Sequence #: 014SMPL.D#
Method: 01-Ag.M
Acq Time: Oct 1 2012 04:41 pm
Sample Name: LRB
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-100112-2
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Ag	107	103	.0000047077	<0.000	mg/L	101.28	3

Data Set: MT3-12-1001C
Run Date: 10/01/12

Metals Quantitation Summary Report

Analyst:
Instrument: HP ICP/MS

Sequence #: 015SMPL.D#
Method: 01-Ag.M
Acq Time: Oct 1 2012 04:43 pm
Sample Name: BS-0.0005
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-100112-2
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Ag	107	103	.0001016891	0.0004872	mg/L	2.24	3

Data Set: MT3-12-1001C
Run Date: 10/01/12

Metals Quantitation Summary Report

Analyst:
Instrument: HP ICP/MS

Sequence #: 016SMPL.D#
Method: 01-Ag.M
Acq Time: Oct 1 2012 04:45 pm
Sample Name: BS-0.001
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-100112-2
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Ag	107	103	.0001973262	0.0009731	mg/L	0.42	3

Data Set: MT3-12-1001C
Run Date: 10/01/12

Metals Quantitation Summary Report

Analyst:
Instrument: HP ICP/MS

Sequence #: 017SMPL.D#
Method: 01-Ag.M
Acq Time: Oct 1 2012 04:47 pm
Sample Name: 54059.01 Dil
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 10.00

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-100112-2
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Ag	107	103	.0000067486	0.00004898	mg/L	70.50	3

Data Set: MT3-12-1001C
Run Date: 10/01/12

Metals Quantitation Summary Report

Analyst:
Instrument: HP ICP/MS

Sequence #: 018SMPL.D#
Method: 01-Ag.M
Acq Time: Oct 1 2012 04:48 pm
Sample Name: 54059.01s tot
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 2.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-100112-2
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Ag	107	103	.0000075030	0.00001746	mg/L	108.82	3

Data Set: MT3-12-1001C
Run Date: 10/01/12

Metals Quantitation Summary Report

Analyst:
Instrument: HP ICP/MS

Sequence #: 019SMPL.D#
Method: 01-Ag.M
Acq Time: Oct 1 2012 04:50 pm
Sample Name: 54059.01s dis
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 2.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-100112-2
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Ag	107	103	.0000049104	<0.000	mg/L	80.76	3

Data Set: MT3-12-1001C
Run Date: 10/01/12

Metals Quantitation Summary Report

Analyst:
Instrument: HP ICP/MS

Sequence #: 020SMPL.D#
Method: 01-Ag.M
Acq Time: Oct 1 2012 04:52 pm
Sample Name: 54059.02s tot
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 2.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-100112-2
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Ag	107	103	.0000053267	<0.000	mg/L	32.50	3

Data Set: MT3-12-1001C
Run Date: 10/01/12

Metals Quantitation Summary Report

Analyst:
Instrument: HP ICP/MS

Sequence #: 021SMPL.D#
Method: 01-Ag.M
Acq Time: Oct 1 2012 04:54 pm
Sample Name: 54059.02s dis
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 2.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-100112-2
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Ag	107	103	.0000047238	<0.000	mg/L	89.50	3

Data Set: MT3-12-1001C
Run Date: 10/01/12

Metals Quantitation Summary Report

Analyst:
Instrument: HP ICP/MS

Sequence #: 022SMPL.D#
Method: 01-Ag.M
Acq Time: Oct 1 2012 04:56 pm
Sample Name: 54059.03s tot
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 2.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-100112-2
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Ag	107	103	.0000035513	<0.000	mg/L	36.72	3

Data Set: MT3-12-1001C
Run Date: 10/01/12

Metals Quantitation Summary Report

Analyst:
Instrument: HP ICP/MS

Sequence #: 023SMPL.D#
Method: 01-Ag.M
Acq Time: Oct 1 2012 04:58 pm
Sample Name: 54059.03s dis
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 2.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-100112-2
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Ag	107	103	.0000038395	<0.000	mg/L	56.33	3

Data Set: MT3-12-1001C
Run Date: 10/01/12

Metals Quantitation Summary Report

Analyst:
Instrument: HP ICP/MS

Sequence #: 024SMPL.D#
Method: 01-Ag.M
Acq Time: Oct 1 2012 05:00 pm
Sample Name: 54059.07s tot
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 2.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-100112-2
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Ag	107	103	.0000049728	<0.000	mg/L	21.03	3

Data Set: MT3-12-1001C
Run Date: 10/01/12

Metals Quantitation Summary Report

Analyst:
Instrument: HP ICP/MS

Sequence #: 025SMPL.D#
Method: 01-Ag.M
Acq Time: Oct 1 2012 05:02 pm
Sample Name: 54059.07s dis
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 2.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-100112-2
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Ag	107	103	.0000044118	<0.000	mg/L	35.60	3

Data Set: MT3-12-1001C
Run Date: 10/01/12

Metals Quantitation Summary Report

Analyst:
Instrument: HP ICP/MS

Sequence #: 026SMPL.D#
Method: 01-Ag.M
Acq Time: Oct 1 2012 05:04 pm
Sample Name: 54059.04s tot
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 2.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-100112-2
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Ag	107	103	.0000059090	0.000001265	mg/L	154.70	3

Data Set: MT3-12-1001C
Run Date: 10/01/12

Metals Quantitation Summary Report

Analyst:
Instrument: HP ICP/MS

Sequence #: 027SMPL.D#
Method: 01-Ag.M
Acq Time: Oct 1 2012 05:06 pm
Sample Name: 54059.05s tot MS-0.05
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 2.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-100112-2
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Ag	107	103	0.008975793	0.09114	mg/L	1.04	3

Data Set: MT3-12-1001C
Run Date: 10/01/12

Metals Quantitation Summary Report

Analyst:
Instrument: HP ICP/MS

Sequence #: 028SMPL.D#
Method: 01-Ag.M
Acq Time: Oct 1 2012 05:09 pm
Sample Name: 54059.06s tot MSD
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 2.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-100112-2
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Ag	107	103	0.009216634	0.09359	mg/L	0.56	3

Data Set: MT3-12-1001C
Run Date: 10/01/12

Metals Quantitation Summary Report

Analyst:
Instrument: HP ICP/MS

Sequence #: 029SMPL.D#
Method: 01-Ag.M
Acq Time: Oct 1 2012 05:11 pm
Sample Name: CCV1-0.10
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-100112-2
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Ag	107	103	0.02024213	0.1028	mg/L	0.16	3

Data Set: MT3-12-1001C
Run Date: 10/01/12

Metals Quantitation Summary Report

Analyst:
Instrument: HP ICP/MS

Sequence #: 030SMPL.D#
Method: 01-Ag.M
Acq Time: Oct 1 2012 05:14 pm
Sample Name: CCB1
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-100112-2
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Ag	107	103	.0000180347	0.00006224	mg/L	16.55	3

Data Set: MT3-12-1001C
Run Date: 10/01/12

Metals Quantitation Summary Report

Analyst:
Instrument: HP ICP/MS

Sequence #: 031SMPL.D#
Method: 01-Ag.M
Acq Time: Oct 1 2012 05:16 pm
Sample Name: 54059.08s
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 2.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-100112-2
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Ag	107	103	.0000120184	0.00006334	mg/L	26.13	3

Data Set: MT3-12-1001C
Run Date: 10/01/12

Metals Quantitation Summary Report

Analyst:
Instrument: HP ICP/MS

Sequence #: 032SMPL.D#
Method: 01-Ag.M
Acq Time: Oct 1 2012 05:17 pm
Sample Name: 54059.09s tot
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 2.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-100112-2
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Ag	107	103	.0000220792	0.0001656	mg/L	23.81	3

Data Set: MT3-12-1001C
Run Date: 10/01/12

Metals Quantitation Summary Report

Analyst:
Instrument: HP ICP/MS

Sequence #: 033SMPL.D#
Method: 01-Ag.M
Acq Time: Oct 1 2012 05:19 pm
Sample Name: 54059.09s dis
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 2.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-100112-2
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Ag	107	103	.0000132861	0.00007622	mg/L	29.53	3

Data Set: MT3-12-1001C
Run Date: 10/01/12

Metals Quantitation Summary Report

Analyst:
Instrument: HP ICP/MS

Sequence #: 034SMPL.D#
Method: 01-Ag.M
Acq Time: Oct 1 2012 05:21 pm
Sample Name: 54059.10s tot
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 2.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-100112-2
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Ag	107	103	.0000132392	0.00007575	mg/L	21.16	3

Data Set: MT3-12-1001C
Run Date: 10/01/12

Metals Quantitation Summary Report

Analyst:
Instrument: HP ICP/MS

Sequence #: 035SMPL.D#
Method: 01-Ag.M
Acq Time: Oct 1 2012 05:23 pm
Sample Name: 54059.10s dis
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 2.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-100112-2
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Ag	107	103	.0000124834	0.00006807	mg/L	13.76	3

Data Set: MT3-12-1001C
Run Date: 10/01/12

Metals Quantitation Summary Report

Analyst:
Instrument: HP ICP/MS

Sequence #: 036SMPL.D#
Method: 01-Ag.M
Acq Time: Oct 1 2012 05:25 pm
Sample Name: 54059.11s
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 2.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-100112-2
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Ag	107	103	.0000078214	0.00002070	mg/L	48.94	3

Data Set: MT3-12-1001C
Run Date: 10/01/12

Metals Quantitation Summary Report

Analyst:
Instrument: HP ICP/MS

Sequence #: 037SMPL.D#
Method: 01-Ag.M
Acq Time: Oct 1 2012 05:27 pm
Sample Name: 54059.04s dis
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 2.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-100112-2
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Ag	107	103	.0000055351	<0.000	mg/L	590.14	3

Data Set: MT3-12-1001C
Run Date: 10/01/12

Metals Quantitation Summary Report

Analyst:
Instrument: HP ICP/MS

Sequence #: 038SMPL.D#
Method: 01-Ag.M
Acq Time: Oct 1 2012 05:29 pm
Sample Name: 54059.05s dis MS-0.05
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 2.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-100112-2
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Ag	107	103	0.008861594	0.08998	mg/L	0.62	3

Data Set: MT3-12-1001C
Run Date: 10/01/12

Metals Quantitation Summary Report

Analyst:
Instrument: HP ICP/MS

Sequence #: 039SMPL.D#
Method: 01-Ag.M
Acq Time: Oct 1 2012 05:32 pm
Sample Name: 54059.06s dis MSD
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 2.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-100112-2
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Ag	107	103	0.009113069	0.09254	mg/L	0.81	3

Data Set: MT3-12-1001C
Run Date: 10/01/12

Metals Quantitation Summary Report

Analyst:
Instrument: HP ICP/MS

Sequence #: 040SMPL.D#
Method: 01-Ag.M
Acq Time: Oct 1 2012 05:34 pm
Sample Name: CCV2-0.10
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-100112-2
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Ag	107	103	0.02037506	0.1035	mg/L	0.70	3

Data Set: MT3-12-1001C
Run Date: 10/01/12

Metals Quantitation Summary Report

Analyst:
Instrument: HP ICP/MS

Sequence #: 041SMPL.D#
Method: 01-Ag.M
Acq Time: Oct 1 2012 05:37 pm
Sample Name: CCB2
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-100112-2
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Ag	107	103	.0000256653	0.0001010	mg/L	4.50	3

Data Set: MT3-12-1001C
Run Date: 10/01/12

Metals Quantitation Summary Report

Analyst:
Instrument: HP ICP/MS

Sequence #: 042SMPL.D#
Method: 01-Ag.M
Acq Time: Oct 1 2012 05:39 pm
Sample Name: Soln-AA
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-100112-2
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Ag	107	103	.0000228353	0.00008663	mg/L	15.27	3

Data Set: MT3-12-1001C
Run Date: 10/01/12

Metals Quantitation Summary Report

Analyst:
Instrument: HP ICP/MS

Sequence #: 043SMPL.D#
Method: 01-Ag.M
Acq Time: Oct 1 2012 05:41 pm
Sample Name: Soln-AB
Sample Type: Sample
Matrix: Liquid
Comments:
Dilution: 1.000

Operator:
Acq Mode: Spectrum
Cal Title:
Cal Type: External Calibration Method
Last Calib: MTD-100112-2
Bkg File: --------
Int Correct: ON
Blank File: --------

Element	Mass			Concentration	Units	RSD %	Rep
Ag	107	103	0.003967010	0.02013	mg/L	0.51	3

Metals Digestion

3015A \ 3050B

DATE 10/01/12

TIME START 10:00

ANALYST SM

TIME FINISH 10:30

PREP BATCH MTD- 100112-2

SAMPLE#	BTL ID	SAMPLE AMOUNT GRAMS (g)	FINAL VOLUME (ml)	REMARKS	% TOTAL SOLIDS	DILUTION FACTOR
LCS - 2	----	50	50		—	1
LRB- 2	----	50	50		—	1
54059.01		25		Total 5/1 DL=10		2
01				dissolved		
02				T		
02				d		
03				T		
03				d		
04				T		
05MS				T		
06MSD				T		
04				d		
05MS				d		
06MSD				d		
07				T		
07				d		
08				T		
09				T		
09				d		
10				T		
10				d		
11				T		

NOTES: 1) Spike values (unless otherwise stated):
LCS = 0.05 ppm = 50 mls / 0.50 mls of 5ppm Spiking Solution
Samples: Water = 0.05 ppm = 50 mls / 0.50 mls of 5ppm Spiking Solution
Soil = 0.10 ppm = 50 mls / 1.0 mls of 5ppm Spiking Solution
Spiking Solution - Lot # E2-MEB379078+ D2-SN02033

2) Spike values for minerals (Ca-Mg-K-Na)
LCS = 1.0 ppm = 50 mls / 0.50 mls HM Stock Solution
Samples (Water or Soil) = 2.0 ppm = 50 mls / 1.0 mls HM Stock Solution
High Purity Stock Solution (HM)- Lot # 1225823

3) HNO_3 Lot # 51332-OmniTrace

4) Centrifuge Tube Lot # 120201-060-1

5) Balance ID: M2

Reviewed by TR On 10/01/12

Merit Laboratories, Inc.

2680 East Lansing Dr., East Lansing, MI 48823
Phone (517) 332-0167 Fax (517) 332-4034
www.meritlabs.com

C.O.C. PAGE # 1 OF 1

71028

CHAIN OF CUSTODY RECORD

REPORT TO

CONTACT NAME: Clifford Yantz
COMPANY: O'Brien & Gere
ADDRESS: 37000 Grand River
CITY: Farmington Hills STATE: MI ZIP CODE: 48335
PHONE NO.: 248-477-5701 FAX NO.:
P.O. NO.: 125045.07.07
E-MAIL ADDRESS: Clifford.Yantz@OBG.com QUOTE NO.:

INVOICE TO

CONTACT NAME: David Favero ☐ SAME
COMPANY: RACER Trust
ADDRESS: 2930 Eclorse Rd
CITY: Ypsilanti STATE: MI ZIP CODE: 48197
PHONE NO.: 217-741-6235 E-MAIL ADDRESS:

PROJECT NO./NAME: RACER Dort Hwy Land
SAMPLER(S) - PLEASE PRINT/SIGN NAME: Kevin Schneider

TURNAROUND TIME REQUIRED ☐ 1 DAY ☐ 2 DAYS ☐ 3 DAYS ☒ STANDARD ☐ OTHER

DELIVERABLES REQUIRED ☐ LEVEL II ☒ LEVEL III ☐ LEVEL IV ☐ EDD ☐ OTHER

MATRIX CODE: GW=GROUNDWATER WW=WASTEWATER S=SOIL L=LIQUID SD=SOLID SL=SLUDGE DW=DRINKING WATER O=OIL WP=WIPE A=AIR W=WASTE

ANALYSIS (ATTACH LIST IF MORE SPACE IS REQUIRED)

Certifications: ☐ OHIO VAP ☐ Drinking Water ☐ DoD ☐ NPDES

Project Locations: ☐ Detroit ☐ New York ☒ Other Grand Blanc, MI

MERIT LAB NO. FOR LAB USE ONLY	YEAR DATE	TIME	SAMPLE TAG IDENTIFICATION-DESCRIPTION	MATRIX	# OF BOTTLES	# Containers & Preservatives: NONE	HCl	HNO3	H2SO4	NaOH	MeOH	OTHER	Arsenic, Lead, Selenium Silver (TOTAL)	Arsenic, Lead, Selenium Silver (Dissolved)	Special Instructions
54059.01	9/27/12	1130	MW-2	GW	2			2					X	X	
.02		1130	MW-2 CO-LOCATED	GW	2			2					X	X	
.03		1320	MW-4	GW	2			2					X	X	
.04		1425	MW2-1	GW	2			2					X	X	
.05/.06		1425	MW2-1 MS/MSD	GW	4			4					X	X	
.07		1630	MW-7	GW	2			2					X	X	
.08		1715	FB-1	QC	1			1					X		Field Blank
.09		1810	MW-9	GW	2			2					X	X	
.10		—	DUP-1	GW	2			2					X	X	
.11		1830	EB-1	QC	1			1					X		Equipment Blank

RELINQUISHED BY: SIGNATURE/ORGANIZATION		DATE	TIME
	OBG ☒ Sampler	9/28/12	900
RELINQUISHED BY: SIGNATURE/ORGANIZATION		DATE	TIME
RELINQUISHED BY: SIGNATURE/ORGANIZATION		DATE	TIME
RELINQUISHED BY: SIGNATURE/ORGANIZATION		DATE	TIME

RELINQUISHED BY: SIGNATURE/ORGANIZATION	DATE	TIME
RELINQUISHED BY: SIGNATURE/ORGANIZATION Tabitha Fant	DATE 9-28-12	TIME 900

SEAL NO. SEAL INTACT YES ☐ NO ☐ INITIALS

SEAL NO. SEAL INTACT YES ☐ NO ☐ INITIALS

NOTES: TEMP. ON ARRIVAL 5.3

PLEASE NOTE: SIGNING ACKNOWLEDGES ADHERENCE TO MERIT'S SAMPLE ACCEPTANCE POLICY ON REVERSE SIDE

Rev. 1.15.12

Merit Laboratories Login Checklist

Lab Set ID: S54059
Client: OBG02 (O'Brien & Gere Engineers, Inc.)
Project: RACER Dort Hwy Land
Submitted: 09/28/2012 09:00 Login User: TSF

Attention: Clifford Yantz
Address: O'Brien & Gere Engineers, Inc.
37000 Grand River Ave.
Suite 260
Farmington, MI 48335

Phone: 248-477-5701 FAX:
Email: YantzCS@obg.com/

Selection				Description	Note
01.	☐ Yes	☒ No	☐ N/A	Samples shipped	
02.	☐ Yes	☒ No	☐ N/A	Samples left in 24 hr. drop box	
03.	☐ Yes	☐ No	☒ N/A	Are there custody seals/tape or is the drop box locked	
04.	☒ Yes	☐ No	☐ N/A	Samples are received at 4C +/- 2C Thermometer #	IR 5.3C
05.	☒ Yes	☐ No	☐ N/A	Received on ice/ cooling process begun	
06.	☒ Yes	☐ No	☐ N/A	All bottles intact	
07.	☒ Yes	☐ No	☐ N/A	Appropriate analytical bottles are used	
08.	☒ Yes	☐ No	☐ N/A	Do sample have correct chemical preservation	
09.	☒ Yes	☐ No	☐ N/A	Merit bottles used	
10.	☒ Yes	☐ No	☐ N/A	Sufficient sample volume received	
11.	☐ Yes	☒ No	☐ N/A	Samples require laboratory filtration	
12.	☒ Yes	☐ No	☐ N/A	Completed pH checks on preserved samples? (no VOAs)	
13.	☐ Yes	☒ No	☐ N/A	Did any samples need to be preserved in the lab?	
14.	☒ Yes	☐ No	☐ N/A	Samples submitted within holding time	
15.	☐ Yes	☐ No	☒ N/A	Do water VOC or TOX bottles contain headspace	
16.	☒ Yes	☐ No	☐ N/A	COC adequately filled out	
17.	☒ Yes	☐ No	☐ N/A	COC signed and relinquished to the lab	
18.	☒ Yes	☐ No	☐ N/A	Sample tag on bottles match COC	
19.	☐ Yes	☒ No	☐ N/A	Subcontracting needed? Subcontacted to:	

Corrective action for all exceptions is to call the client and to notify the project manager.

Client Review By: _____ Date: _____

Merit Laboratories Bottle Preservation Check

Lab Set ID: S54059 Initials: TF

Client: OBG02 (O'Brien & Gere Engineers, Inc.)

Project: RACER Dort Hwy Land

Submitted: 09/28/2012 09:00 Login User: TSF

Attention: Clifford Yantz
Address: O'Brien & Gere Engineers, Inc.
37000 Grand River Ave.
Suite 260
Farmington, MI 48335

Phone: 248-477-5701 FAX:
Email: YantzCS@obg.com/

Lab ID	125 ml Plastic HNO_3	125 ml Amber H_2SO_4	250 ml Plastic H_2SO_4	32 oz Glass HCl	125 ml Plastic NaOH	125 ml Amber NaOH	125 ml Amber $PbCO_3$ NaOH	pH					Notes
								<2	>12	other	ml add	new pH	
S54059.01	X							✓					
S54059.01	X							✓					
S54059.02	X							✓					
S54059.02	X							✓					
S54059.03	X							✓					
S54059.03	X							✓					
S54059.04	X							✓					
S54059.04	X							✓					
S54059.05	X							✓					
S54059.05	X							✓					
S54059.06	X							✓					
S54059.06	X							✓					
S54059.07	X							✓					
S54059.07	X							✓					
S54059.08	X							✓					
S54059.09	X							✓					
S54059.09	X							✓					
S54059.10	X							✓					
S54059.10	X							✓					
S54059.11	X							✓					

Sample Set Receipt

Report to

Attention: Clifford Yantz

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Invoice to

Attention: Accounts Payable

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Set ID: S54059 Location: OBG02 (O'Brien & Gere Engineers, Inc.)

Project: RACER Dort Hwy Land PO #: 11210767 QC Level: 3

Submitted: 09/28/2012 Due Date: 10/12/2012 Collected by: Kevin Schneider Login by: TSF

Approved by: Site: Work Order#: Bill to Acct: Bill to Dept:

Sample ID	Sample Tag	Matrix	Date/Time Collected	COC Ref
S54059.01	MW-2	Groundwater	09/27/2012 11:30	71028
S54059.02	MW-2 Co-Located	Groundwater	09/27/2012 11:30	71028
S54059.03	MW-4	Groundwater	09/27/2012 13:20	71028
S54059.04	MW-2-1	Groundwater	09/27/2012 14:25	71028
S54059.05	MW-2-1 MS	Groundwater	09/27/2012 14:25	71028
S54059.06	MW-2-1 MSD	Groundwater	09/27/2012 14:25	71028
S54059.07	MW-7	Groundwater	09/27/2012 16:30	71028
S54059.08	FB-1	Groundwater	09/27/2012 17:15	71028
S54059.09	MW-9	Groundwater	09/27/2012 18:10	71028
S54059.10	DUP-1	Groundwater	09/27/2012 00:01	71028
S54059.11	EB-1	Groundwater	09/27/2012 18:30	71028

Samples: S54059.01-07, 09-10

Analysis Code	Analysis Title	Method	Units	Holding Date
2115WMS	Arsenic	E200.8	mg/L	03/26/2013
2165WMS	Lead	E200.8	mg/L	03/26/2013
2205WMS	Selenium	E200.8	mg/L	03/26/2013
2215WMS	Silver	E200.8	mg/L	03/26/2013
1605W	Metal Digestion	3015A		03/26/2013
2115DIS	Arsenic, Dissolved	E200.8	mg/L	03/26/2013
2165DIS	Lead, Dissolved	E200.8	mg/L	03/26/2013
2205DIS	Selenium, Dissolved	E200.8	mg/L	03/26/2013
2215DIS	Silver, Dissolved	E200.8	mg/L	03/26/2013
1605DIS	Metal Digestion, Dissolved Metals	3015A		03/26/2013

Samples: S54059.08, 11

Analysis Code	Analysis Title	Method	Units	Holding Date
2115WMS	Arsenic	E200.8	mg/L	03/26/2013
2165WMS	Lead	E200.8	mg/L	03/26/2013
2205WMS	Selenium	E200.8	mg/L	03/26/2013
2215WMS	Silver	E200.8	mg/L	03/26/2013
1605W	Metal Digestion	3015A		03/26/2013