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November 17, 2014

Mr. David Szymanski
Project Manager
New York State Department of Environmental Conservation
Division of Environmental Remediation
270 Michigan Avenue – 3rd Floor
Buffalo, New York 14203

Subject: Groundwater and Surface Water Monitoring Results
August 2014
Mineral Springs Road MGP Site

Dear Mr. Szymanski:

AECOM Technical Services, Inc. (AECOM) has prepared this report on behalf of National Fuel Gas Distribution Corporation (National Fuel) to provide the results of a groundwater and surface water sampling event completed on August 28, 2014 at the Mineral Springs Road Former Manufactured Gas Plant (MGP) Site.

The work at the Mineral Springs site is being conducted under a New York State Department of Environmental Conservation (NYSDEC) Voluntary Cleanup Agreement (number B9-0538-98-08) as described in the Remedial Design, dated February 10, 1999, and the Final Engineering Report, Volume II – Operations and Maintenance (O&M) Plan, dated May 2002.

Summary

A total of 13 groundwater samples and two surface water samples were collected and analyzed this period in accordance with the O&M Plan. Sampling locations are shown Figure 1. The collected samples were analyzed by TestAmerica Laboratories, Inc. (TestAmerica) of Amherst, New York (New York State Department of Health [NYSDOH] Environmental Laboratory Approval Program [ELAP] ID 10026), except for free cyanide analyses which were performed by TestAmerica of Edison, NJ (ELAP ID 11452). Table 1, which is taken from the O&M Plan, summarizes the sampling and analytical requirements for the site. Analytical results are summarized in Table 2.

One upgradient (MW-17), two onsite (MW-12 and MW-16), four downgradient onsite (MW-13, MW-14, MW-22, and MW-23), and two downgradient offsite (MW-20 and MW-21) monitoring wells were sampled for total and free cyanide analyses. Total cyanide concentrations exceeded the NYSDEC Groundwater Standard[1] of 200 micrograms per liter (µg/L) in seven of nine groundwater samples. Free cyanide was detected in three of the nine groundwater samples at concentrations ranging from 10.2 to 19.9 µg/L. There is no NYSDEC Groundwater Standard for free cyanide.

[1] Reference for NYSDEC groundwater and surface water standards: NYSDEC Technical Operational and Guidance Series (TOGS) 1.1.1, Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations, June 1998.

One upgradient (MW-17), two downgradient onsite (MW-13 and MW-23), and four onsite (MW-7, MW-10, MW-11A, and MW-19) monitoring wells were sampled for benzene, toluene, ethylbenzene, and xylene (BTEX) and polycyclic aromatic hydrocarbon (PAH) compounds during this event. Concentrations of BTEX and/or PAH compounds exceeded the NYSDEC standard or guidance values in four of the onsite groundwater samples (MW-7, MW-11A, MW-13, and MW-19).

Two surface water samples (SW-01 and SW-02) were collected for BTEX, PAH, and total and free cyanide analyses. Concentrations of PAH compounds exceeded the NYSDEC standard or guidance values in surface water sample SW-02 for benzo(a)anthracene at a concentration of 2.7 µg/L and benzo(a)pyrene at a concentration of 4.2 µg/L. Benzo(a)anthracene has a guidance value of 0.23 µg/L and benzo(a)pyrene has a guidance value of 0.0012 µg/L. Total cyanide was detected in both surface water samples at a concentration of 25 J- µg/L (because of possible low bias attributable to matrix effects the J- qualifier applies, see Quality Assurance/Quality Control (QA/QC) samples section for further details) in SW-01 and 15 J- µg/L in SW-02, which is less than the NYSDEC Class D Surface Water Standard of 200 µg/L. Free cyanide was detected in the sample collected from location SW-01 at a concentration of 6.0 J+ µg/L (because the concentration was greater than the reporting limit but less than five times the rinse blank level the J+ qualifier applies, see QA/QC samples section for further details), which is less than the NYSDEC Class D Surface Water Standard of 22 µg/L.

A total of 15 depth-to-water measurements were taken (including one surface water measurement and 14 groundwater measurements). Table 2 summarizes groundwater elevation data and Figure 1 shows groundwater elevation contours for this sampling event.

On August 28, 2014, AECOM also attempted to pump dense non-aqueous phase liquid (DNAPL) from the DNAPL recovery test well with minimal results.

Groundwater elevations

Depth-to-water measurements were collected at 14 monitoring wells and one surface water location. Measurements were converted to elevations using reference point elevation data. The data have been used to construct the groundwater elevation contours shown in Figure 1. A review of similar information from recent years shows that the groundwater flow direction during this event remained similar to previous sampling events. Groundwater flows onto the site from the south and east, and continues across the site in a generally west-northwesterly direction.

Sampling and analysis

Thirteen monitoring wells were purged and sampled by an AECOM sampling team during the August 2014 event; sampling locations are shown on Figure 1. The samples were analyzed using the following methods:

BTEX	Method SW846 8260B
PAHs	Method SW846 8270C
Cyanide (total)	Method SW846 9012A

Cyanide (free) Method SW846 9016[2]

Groundwater and surface water sampling and analyses were conducted in accordance with AECOM's Standard Operating Procedures as provided in the project Quality Assurance Plan (QAP) of June 11, 1999. Cyanide samples were protected from light during collection to prevent the dissociation of metal-cyanide compounds, which would artificially elevate free cyanide results. The cyanide samples were also treated with lead carbonate and field filtered using a disposable 1.5 micron filter to remove potential sulfide interferences.

Analytical results and conclusions

Laboratory results are summarized in Table 2. Laboratory reports and chain-of-custody forms are provided as an attachment. Sample locations, sampling objectives, and a discussion of the analytical results for each of the specific areas of interest at the site are provided in the following sections.

The following discussion of results and data summarized in Table 2 reflect AECOM's review of the associated quality assurance/quality control (QA/QC) data (blanks, duplicates, etc.) including any changes to the laboratory-reported data qualifiers, as noted in the QA/QC section of this report.

Upgradient site perimeter

Monitoring well MW-17 is located in the southeast corner of the site to monitor upgradient groundwater quality. The groundwater sample collected from MW-17 was analyzed for BTEX, PAH, and total and free cyanide. No BTEX or PAH compounds were detected. Total cyanide was detected at a concentration of 160 J- µg/L, which was less than the NYSDEC Groundwater Standard value of 200 µg/L. Free cyanide was not detected. These cyanide results are consistent with historic data from this well.

Downgradient site perimeter

Monitoring wells MW-20 and MW-21 are located downgradient of the western boundary of the site on Calais Street, and wells MW-13, MW-14, MW-22, and MW-23 are located just inside the northern property boundary near Mineral Springs Road. These six wells monitor groundwater quality downgradient of the site. Groundwater samples collected from these six wells were analyzed for total and free cyanide. Groundwater samples from wells MW-13 and MW-23 were also analyzed for BTEX and PAH compounds.

Five of the six wells had total cyanide concentrations above the NYSDEC Groundwater Standard of 200 µg/L. Detected concentrations ranged from 150 J- µg/L at MW-20 to 790 J- µg/L at MW-22. Free cyanide was detected in one well (MW-22) at a concentration of 11.6 µg/L. There is no NYSDEC Groundwater Standard for free cyanide. These analytical results are consistent with the range of concentrations measured in past years.

[2] The analytical method for free cyanide analysis for samples collected at the Mineral Springs Road MGP Site was changed from ASTM Method D4282 to USEPA Method SW846 Method 9016. NYSDEC was notified of this change in a letter from AECOM dated April 15, 2013.

Naphthalene was detected at a concentration of 1.5 J µg/L in well MW-23, below the groundwater standard of 10 µg/L. Benzene was detected at a concentration of 1.3 µg/L in well MW-13, above the groundwater standard of 1 µg/L.

On-site purifier residuals impacted areas

Monitoring wells MW-12 and MW-16 monitor groundwater quality at locations of known subsurface deposits of purifier box residuals. These deposits were remediated by capping. Groundwater samples from these two wells were analyzed for total and free cyanide.

Both wells had a total cyanide groundwater concentration above the NYSDEC Groundwater Standard of 200 µg/L. Total cyanide concentrations were reported as 580 J- µg/L at MW-12 and 1,300 J- µg/L at MW-16. Free cyanide was detected in MW-12 at 10.2 µg/L and in MW-16 at 19.9 µg/L. There is no NYSDEC Groundwater Standard for free cyanide.

These results were compared with historic data from these two wells. The comparison indicates that the most recent analytical results for MW-12 are consistent with past results. The analytical results for MW-16 are greater than past results and will be monitored for observable trends in cyanide concentrations.

On-site hydrocarbon NAPL impacted areas

Monitoring wells MW-7, MW-10, MW-11A, and MW-19 monitor on-site groundwater quality downgradient of subsurface soils impacted with hydrocarbon NAPL. Samples from these wells were analyzed for BTEX and PAH compounds.

BTEX compounds were not detected at MW-10. BTEX compounds were detected above the NYSDEC Groundwater Standards in MW-7, MW-11A, and MW-19. Concentrations of BTEX compounds were consistent with historical analytical data.

PAH compound naphthalene was detected in MW-7 and MW-19 at concentrations above the NYSDEC Groundwater Standard of 10 µg/L. Additionally, acenaphthene was detected above the NYSDEC Groundwater Standard of 20 µg/L in MW-7. Concentrations measured were generally consistent with analytical results obtained in past years.

Surface water

Two surface water samples, SW-01 and SW-02, were collected from the NYSDEC Class D Stream running along the south side of the site. These surface water sampling locations monitor the effectiveness of the Eastern Drainage Ditch Cap and also monitor the concentrations of constituents of concern in surface water downstream of the Mineral Springs site. The collected samples were analyzed for BTEX, PAH compounds, and total and free cyanide.

BTEX compounds were not detected in either surface water sample. Several PAH compounds were detected in SW-02 at concentrations that were less than the NYSDEC standard or guidance values. Benzo(a)anthracene was detected at a concentration of 2.7 µg/L, which was greater than the NYSDEC guidance value of 0.23 µg/L. Benzo(a)pyrene was detected at a concentration of 4.2 µg/L, which was greater than the NYSDEC guidance value of 0.0012 µg/L. The PAH analytical results for SW-02 are greater than past results and will be monitored for observable trends in PAH concentrations. No PAH compounds were detected in the downstream SW-01 surface water sample.

Total cyanide was detected in SW-01 and SW-02 at a concentration of 25 and 15 J- µg/L, respectively, which was less than the NYSDEC Class D Stream Standard of 9,000 µg/L.

Free cyanide was not detected in SW-02. Free cyanide was detected in SW-01 at a concentration of 6.0 J+ µg/L, which was less than the NYSDEC Class D Stream Standard of 22 µg/L.

Quality Assurance / Quality Control (QA/QC) samples

QA/QC samples were collected during the sampling event to meet the requirements of the Final Engineering Report, Volume II – Operations and Maintenance Plan (May 2002).

Sample bottles were provided by TestAmerica Laboratories of Buffalo, New York. Some sample bottles contained chemical preservatives to stabilize the sample, depending on the analysis being performed. These chemical preservatives raise or lower the pH. All samples were received at the laboratory within the acceptable pH range and within the optimal temperature range of 4° C (degrees Celsius) ± 2° C.

An equipment (rinsate) blank was prepared using analyte free blank water supplied by the analytical laboratory. All downhole tubing used to collect groundwater samples is dedicated to, and stored within, each well. Therefore, the equipment blank was collected by running the blank water through the silicone and polyethylene pump tubing at the peristaltic pump head. No target compounds or analytes were detected in the equipment blank, except for free cyanide at an estimated concentration of 1.6 µg/L. All samples were affected. The positive free cyanide results for samples MW-13, MW-23 and Duplicate were estimated below the reporting limit and must be considered as undetected (i.e., qualified "U") at the reporting limit, because of ambient contamination. The free cyanide concentration for sample SW-01 was greater than the reporting limit but less than five times the blank level and was qualified "J+," as biased high because of ambient contamination. All other free cyanide results were greater than five times the blank level or non-detect and did not require qualification.

A trip blank sample was prepared by the laboratory and was stored in the sample cooler throughout the sampling event and during transportation back to the laboratory. The trip blank was analyzed for BTEX compounds. No BTEX compounds were detected in the trip blank.

No analytes or compounds were detected in the associated laboratory method blanks. All laboratory control sample (i.e., blank spike) recoveries were within the statistically calculated quality control limits.

A blind field duplicate sample was collected from MW-23. The duplicate sample from MW-23 was submitted for BTEX, PAHs, free cyanide and total cyanide analyses. All duplicate sample results were within the acceptance limits as defined by the QAP except for naphthalene. Naphthalene was detected in the parent sample MW-23 at 1.5 µg/L, and was undetected in the field duplicate sample. The naphthalene concentration in MW-23 was greater than two times the reporting limit. The naphthalene results for MW-23 and the field duplicate were qualified "J/UJ," as estimates, because of field sampling/laboratory imprecision and/or sample heterogeneity.

Samples MW-12 and MW-22 were processed as matrix spike samples for total cyanide to assess the effects of matrix on the analysis. The spike recoveries for both samples MW-12 and MW-22 were less than the lower acceptance limit of 90%, at 72% and 74%, respectively, indicating low bias due to matrix effects. All total cyanide results were positive and must be considered estimated concentrations (i.e., qualified "J-") because of possible low bias attributable to matrix effects.

The relative percent difference between the laboratory control standard (LCS) and LCS duplicate (LCSD) recoveries for benzo(k)fluoranthene was greater than the maximum quality control limit of 22%, at 29%, indicating method imprecision. All samples were affected. The LCS/LCSD recoveries for benzo(k)fluoranthene were within the statistically calculated quality control limits and benzo(k)fluoranthere was not detected in any of the field samples. No data qualifications were required.

The continuing calibration percent drift/differences for acenaphthylene, benzo(k)fluoranthene, benzo(a)pyrene, indeno(1,2,3-cd)pyrene and dibenz(a,h)anthracene were greater than the upper method specification limit of 20%, indicating high instrument bias. All samples except sample SW-02 were affected. The positive acenaphthylene result for sample MW-11A was qualified "J," as an estimated concentration, because of high instrument bias. All other associated results were non-detect and did not require qualification on this basis.

DNAPL recovery test well (RTW-1)

On August 28, 2014, the Recovery System at RTW-1 was operated to assess whether DNAPL had accumulated since the April 2014 sampling event. Approximately two liters of water were pumped out. The water contained only trace DNAPL in the form of "blebs", visually estimated to be less than 1% of total volume.

If you have any questions or comments, please do not hesitate to call me at (716) 836-4506 ext. 14.

Sincerely yours,

Tamara Raby
Geologist
Project Manager

Thomas P. Clark, P.E
Project Engineer

Encl: Groundwater Elevation Contours (Figure 1)
Water Sampling Summary (Table 1)
Laboratory Results Summary (Table 2)
Laboratory Reports

cc: B. Walker – National Fuel
T. Alexander – National Fuel
S. McLaughlin – NYSDOH
T. Clark – AECOM

TABLES

Table 1
Water Sampling Summary Table
Mineral Springs Road MGP Site, August 2014

Location	Cyanide, Total	Cyanide, Free	BTEX	PAHs	Water Elevation	Benchmark Elevation
	USEPA SW846 9012A	USEPA SW846 9016	USEPA SW846 8260B	USEPA SW846 8270C		(top of PVC casing)
Upgradient Site Perimeter						
MW-17	x	x	x	x	x	587.28
Downgradient Site Perimeter						
MW-13	x	x	annually	annually	x	591.85
MW-14	x	x			x	589.53
MW-15					x	590.93
MW-20	x	x			x	587.06
MW-21	x	x			x	587.84
MW-22	x	x			x	592.50
MW-23	x	x	annually	annually	x	589.28
Onsite Purifier Residuals Impacted Areas						
MW-12	x	x			x	591.40
MW-16	x	x			x	588.99
Onsite Hydrocarbon Impacted Areas						
MW-07			x	x	x	587.01
MW-10			x	x	x	587.61
MW-11A			x	x	x	589.78
MW-19			x	x	x	589.83
Onsite Surface Water						
SW-01	x	x	x	x	x	top of headwall = 587.0
SW-02	x	x	x	x		
QA/QC Samples (frequency)						
Trip Blank			x			(one per shipment)
Field Duplicate	x	x	x	x		(one per event)
Equipment Blank	x	x	x	x		(one per event)
DNAPL Recovery						
RTW-1						(purge well of accumulated DNAPL)
Total	13	13	10 or 12	9 or 11	15	
Container, Preservative	250 mL plastic, NaOH	250 mL plastic amber, NaOH	40 mL VOA vial, HCl (x3)	250 mL glass amber, NP (x2)		

Note: Sample methods and containers have been updated to the most current information. Benchmark elevations have been updated to reflect the 2007 survey, except for MW-20, which was resurveyed in August 2009 due to a repair.

Table 2
Groundwater and Surface Water Monitoring Results
Mineral Springs Road MGP Site

August 2014

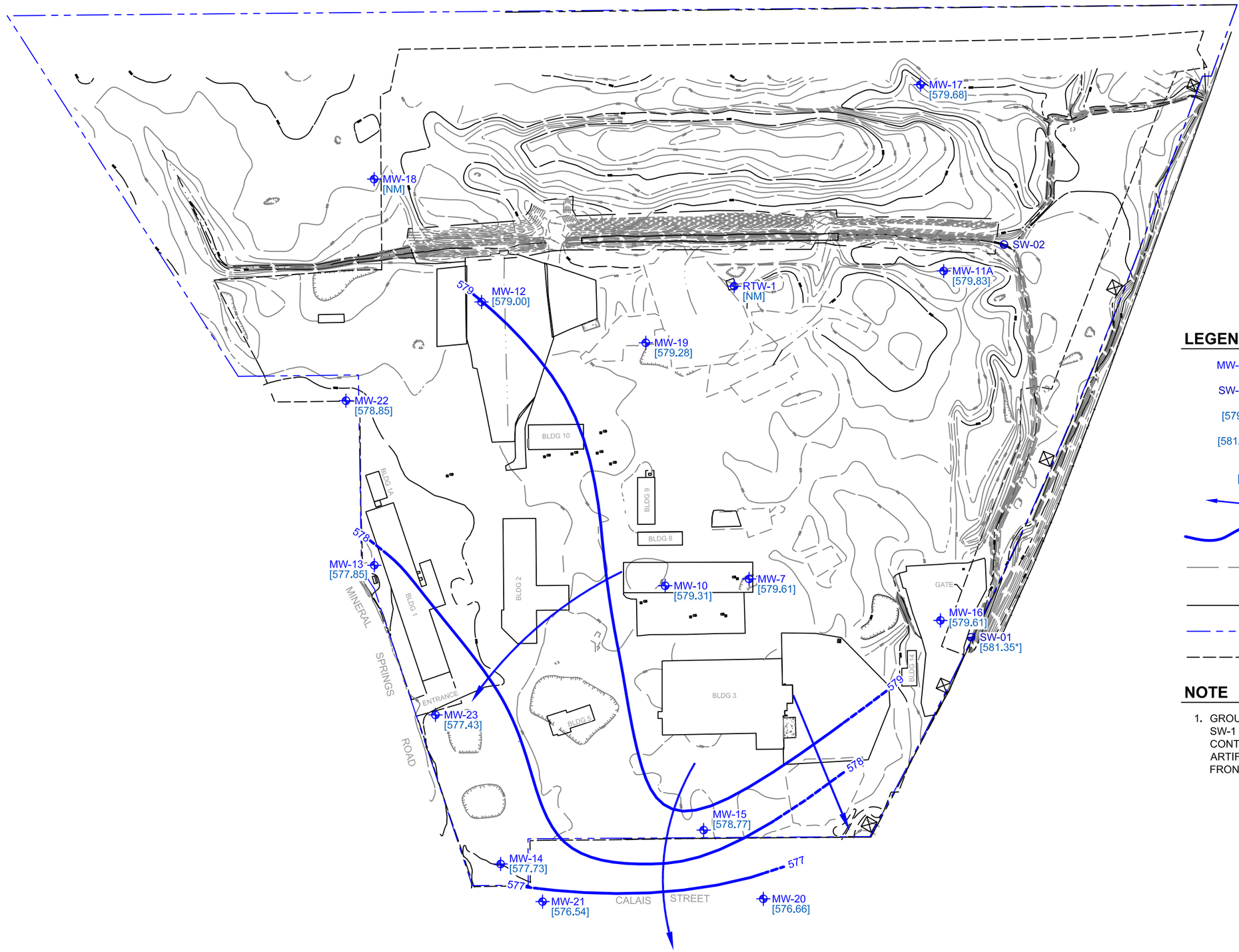
PARAMETER		GROUNDWATER														SURFACE WATER			Quality Assurance / Quality Control		
Sample ID :	*Groundwater*	MW-7	MW-10	MW-11A	MW-12	MW-13	MW-14	MW-15	MW-16	MW-17	MW-19	MW-20	MW-21	MW-22	MW-23	*Class D Stream*	SW-01	SW-02	TB	EB	MW-23 Dup
Sample Date :	*Standard* (1)	08/28/14	08/28/14	08/28/14	08/28/14	08/28/14	08/28/14	08/28/14	08/28/14	08/28/14	08/28/14	08/28/14	08/28/14	08/28/14	08/28/14	*Standard* (1)	08/28/14	08/28/14	08/28/14	08/28/14	08/28/14
BTEX (µg/L)																					
Benzene	**1**	570	1.0 U	7.3	---	1.3	---	---	---	1.0 U	5,800	---	---	---	1.0 U	**10**	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Toluene	**5**	14 J	1.0 U	1.0 U	---	1.0 U	---	---	---	1.0 U	100 U	---	---	---	1.0 U	**6000**	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Ethylbenzene	**5**	870	1.0 U	1.0 U	---	1.0 U	---	---	---	1.0 U	310	---	---	---	1.0 U	**150** *	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Xylene (sum of isomers)	**5 (each)**	590	2.0 U	2.0 U	---	2.0 U	---	---	---	2.0 U	200 U	---	---	---	2.0 U	**590** *	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
BTEX total	---	2044	1.0	7.3	---	1.3	---	---	---	nd	6,110	---	---	---	nd	---	nd	nd	nd	nd	nd
PAHs (µg/L)																					
Acenaphthene	**20** *	74	0.51 U	4.0	---	0.48 U	---	---	---	0.50 U	250 U	---	---	---	0.51 U	**48** *	0.49 U	0.48 U	---	0.50 U	0.51 U
Acenaphthylene	**NL** *	52 U	0.51 U	2.0 J	---	0.48 U	---	---	---	0.50 U	250 U	---	---	---	0.51 U	**NL**	0.49 U	0.48 U	---	0.50 U	0.51 U
Anthracene	**50** *	52 U	0.51 U	0.50 U	---	0.48 U	---	---	---	0.50 U	250 U	---	---	---	0.51 U	**35** *	0.49 U	0.48 U	---	0.50 U	0.51 U
Benzo(a)anthracene	**0.002** *	52 U	0.51 U	0.50 U	---	0.48 U	---	---	---	0.50 U	250 U	---	---	---	0.51 U	**0.23** *	0.49 U	2.7	---	0.50 U	0.51 U
Benzo(a)pyrene	**NL**	52 U	0.51 U	0.50 U	---	0.48 U	---	---	---	0.50 U	250 U	---	---	---	0.51 U	**0.0012** *	0.49 U	4.2	---	0.50 U	0.51 U
Benzo(b)fluoranthene	**0.002** *	52 U	0.51 U	0.50 U	---	0.48 U	---	---	---	0.50 U	250 U	---	---	---	0.51 U	**NL**	0.49 U	8.3	---	0.50 U	0.51 U
Benzo(g,h,i)perylene	**NL**	52 U	0.51 U	0.50 U	---	0.48 U	---	---	---	0.50 U	250 U	---	---	---	0.51 U	**NL**	0.49 U	2.2	---	0.50 U	0.51 U
Benzo(k)fluoranthene	**0.002** *	52 U	0.51 U	0.50 U	---	0.48 U	---	---	---	0.50 U	250 U	---	---	---	0.51 U	**NL**	0.49 U	0.48 U	---	0.50 U	0.51 U
Chrysene	**0.002** *	52 U	0.51 U	0.50 U	---	0.48 U	---	---	---	0.50 U	250 U	---	---	---	0.51 U	**NL**	0.49 U	4.7	---	0.50 U	0.51 U
Dibenz(a,h)anthracene	**NL**	52 U	0.51 U	0.50 U	---	0.48 U	---	---	---	0.50 U	250 U	---	---	---	0.51 U	**NL**	0.49 U	0.45 J	---	0.50 U	0.51 U
Fluoranthene	**50** *	52 U	0.51 U	0.50 U	---	0.48 U	---	---	---	0.50 U	250 U	---	---	---	0.51 U	**NL**	0.49 U	8.2	---	0.50 U	0.51 U
Fluorene	**50** *	52 U	0.51 U	0.73	---	0.48 U	---	---	---	0.50 U	250 U	---	---	---	0.51 U	**4.8** *	0.49 U	0.48 U	---	0.50 U	0.51 U
Indeno(1,2,3-cd)pyrene	**0.002** *	52 U	0.51 U	0.50 U	---	0.48 U	---	---	---	0.50 U	250 U	---	---	---	0.51 U	**NL**	0.49 U	1.9	---	0.50 U	0.51 U
Naphthalene	**10** *	1,600	0.51 U	0.50 U	---	0.48 U	---	---	---	0.50 U	5400	---	---	---	1.5 J	**110** *	0.49 U	2.2	---	0.50 U	0.51 UJ
Phenanthrene	**50** *	52 U	0.51 U	0.50 U	---	0.48 U	---	---	---	0.50 U	250 U	---	---	---	0.51 U	**45** *	0.49 U	2.4	---	0.50 U	0.51 U
Pyrene	**50** *	52 U	0.51 U	1.0 U	---	0.48 U	---	---	---	0.50 U	250 U	---	---	---	0.51 U	**42** *	0.49 U	6.5	---	0.50 U	0.51 U
2-Methylnaphthalene	**NL**	110	0.51 U	0.50 U	---	0.48 U	---	---	---	0.50 U	52.0 U	---	---	---	0.51 U	**NL**	0.49 U	0.48 U	---	0.50 U	0.51 U
PAHs total	---	1,784.0	nd	7.73	---	nd	---	---	---	nd	5,400	---	---	---	1.5	---	nd	nd	---	nd	nd
CYANIDE (µg/L)																					
Cyanide, total	**200**	---	---	---	580 J-	500 J-	720 J-	---	1300 J-	160 J-	---	150 J-	430 J-	790 J-	670 J-	**9,000**	25 J-	15 J-	---	10 U	750 J-
Cyanide, free	**NL**	---	---	---	10.2	5.0 U	5.0 U	---	19.9	5.0 U	---	5.0 U	5.0 U	11.6	5.0 U	**22**	6.0 J+	5.0 U	---	1.6 J	5.0 U
Water Elevation (feet)	**NL**	579.61	579.31	579.83	579.87	577.85	577.73	578.77	579.61	579.68	579.28	579.28	576.54	578.85	577.43	**NL**	581.35 (2)	---	---	---	---

Notes:

NL Not listed
nd Not detected above method detection limit
--- Not analyzed
BTEX benzene, toluene, ethylbenzene, and xylene
PAH polycyclic aromatic hydrocarbon
µg/L micrograms per liter
TB Trip Blank
EB Equipment Blank

(1) NYSDEC Division of Water Technical and Operational Guidance Series (1.1.1)
(2) Groundwater elevation for surface water location SW-1 was not used in the generation of groundwater contours. The water level at this location was artificially high due to the collection of debris in front of the culvert grate.
* Groundwater or Surface Water Guidance Value (no Standard value listed)
Concentrations exceeding NYSDEC regulatory standard or guidance value.
J Indicates laboratory estimated value
U Analyte was not detected above the reporting limit.
UJ Reporting limit may be inaccuate or imprecise
J- Indicates estimated value, possibly biased low
J+ Indicates estimated value, possibly biased high

FIGURE



N

LEGEND

MW-7	MONITORING WELL LOCATION
SW-1	SURFACE WATER SAMPLE LOCATION
[579.61]	GROUNDWATER ELEVATION (ft. MSL)
[581.35*]	GROUNDWATER ELEVATION (ft.MSL) NOT USED TO CONTOUR
[NM]	NOT MEASURED
	GENERALIZED GROUNDWATER FLOW DIRECTION
	GROUNDWATER ELEVATION CONTOUR (ft. MSL) (DASHED WHERE INFERRED)
	GROUND SURFACE ELEVATION CONTOUR INTERVAL: 1'
	CURRENT SITE FEATURE
	PROPERTY BOUNDARY
	FENCE LINE

NOTE

1. GROUNDWATER ELEVATION FOR SURFACE WATER LOCATION SW-1 WAS NOT USED IN THE GENERATION OF GROUNDWATER CONTOURS. THE WATER LEVEL AT THIS LOCATION WAS ARTIFICIALLY HIGH DUE TO THE COLLECTION OF DEBRIS IN FRONT OF THE CULVERT GRATE.

0 125 250 500

SCALE IN FEET

AECOM

NATIONAL FUEL GAS MINERAL SPRINGS ROAD MGP SITE 60250836-100			**GROUNDWATER ELEVATION CONTOURS AUGUST 2014**
DATE: 09/2014	DRWN: MLS		**FIGURE 1**

L:\Group\earth\Mineral Springs - Tami Raby\60250836_001 GW Contour Map_Aug2014.dwg, 10/30/2014 2:24:01 PM, splawnm

File: L:\Group\earth\Mineral Springs - Tami Raby\60250836_001 GW Contour Map_Aug2014.dwg Layout: 11x17 User: splawnm Plotted: Oct 30, 2014 - 2:24pm Xref's:

LABORATORY ANALYTICAL RESULTS

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Tel: (716)691-2600

TestAmerica Job ID: 480-66322-1
Client Project/Site: Semi Annual Sampling
Sampling Event: Semi Annual Sampling (August)

For:
AECOM, Inc.
100 Corporate Parkway
Suite 341
Amherst, New York 14226

Attn: Tami Raby

Authorized for release by:
9/22/2014 3:10:20 PM
Rebecca Jones, Project Management Assistant I
rebecca.jones@testamericainc.com

Designee for

John Schove, Project Manager II
(716)504-9838
john.schove@testamericainc.com

Table of Contents

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC/MS Semi VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
*	RPD of the LCS and LCSD exceeds the control limits
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

General Chemistry

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U	Indicates the analyte was analyzed for but not detected.
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Case Narrative

Client: AECOM, Inc.
Project/Site: Semi Annual Sampling

TestAmerica Job ID: 480-66322-1

Job ID: 480-66322-1

Laboratory: TestAmerica Buffalo

Narrative

Job Narrative
480-66322-1

Comments
No additional comments.

Receipt
The samples were received on 8/28/2014 5:15 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 3 coolers at receipt time were 3.1º C, 3.2º C and 3.8º C.

GC/MS VOA
Method(s) 8260C: The following samples were diluted to bring the concentration of target analytes within the calibration range: MW-07 (480-66322-3), MW-19 (480-66322-11). Elevated reporting limits (RLs) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC/MS Semi VOA
Method(s) 8270D_LL_PAH: The large number of analytes included in the continuing calibration verification (CCV) for analytical batch 200785 gives a high probability that one or more analytes will be outside acceptance criteria. As indicated in the reference method, analysis may proceed as long as no more than 20% of the analytes are outside the method-defined %D criteria. Analyte: Benzo(a) Pyrene. Duplicate (480-66322-1), EB (480-66322-2), MW-07 (480-66322-3), MW-10 (480-66322-4), MW-11A (480-66322-5), MW-13 (480-66322-7), MW-17 (480-66322-10), MW-19 (480-66322-11), MW-19 (CCVIS 480-200785/3), MW-23 (480-66322-15), SW-01 (480-66322-16)

Method(s) 8270D_LL_PAH: The %RPD of the laboratory control sample (LCS) and laboratory control standard duplicate (LCSD) for preparation batch 200345 recovered outside control limits for the following analyte: Benzo(k) Fluoranthene. The individual spike recoveries met quality control criteria. The data has been qualified and reported.

Method(s) 8270D_LL_PAH: The following sample(s) required a dilution due to the nature of the sample matrix: MW-07 (480-66322-3). Because of this dilution, the surrogate spike concentration in the sample was reduced to a level where the recovery calculation does not provide useful information.

Method(s) 8270D_LL_PAH: The following sample(s) required a dilution due to the nature of the sample matrix: MW-19 (480-66322-11). Because of this dilution, the surrogate spike concentration in the sample was reduced to a level where the recovery calculation does not provide useful information.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

General Chemistry
Method(s) 9012B: The results reported for the following sample(s) do not concur with results previously reported for this site: MW-20 (480-66322-12), SW-01 (480-66322-16), SW-02 (480-66322-17). Reanalysis was performed, and the result(s) confirmed.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Organic Prep
Method(s) 3510C: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate/sample duplicate (MS/MSD/DUP) associated with batch 200345.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Detection Summary

Client: AECOM, Inc.
Project/Site: Semi Annual Sampling

TestAmerica Job ID: 480-66322-1

Client Sample ID: Duplicate — Lab Sample ID: 480-66322-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cyanide, Total	0.75		0.020	0.010	mg/L	2		9012B	Total/NA
Cyanide, Free	0.93	J	5.0	0.72	ug/L	1		9016	Total/NA

Client Sample ID: EB — Lab Sample ID: 480-66322-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cyanide, Free	1.6	J	5.0	0.72	ug/L	1		9016	Total/NA

Client Sample ID: MW-07 — Lab Sample ID: 480-66322-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	570		20	8.2	ug/L	20		8260C	Total/NA
Ethylbenzene	870		20	15	ug/L	20		8260C	Total/NA
Toluene	14	J	20	10	ug/L	20		8260C	Total/NA
Xylenes, Total	590		40	13	ug/L	20		8260C	Total/NA
2-Methylnaphthalene	110		52	39	ug/L	100		8270D_LL_PAH	Total/NA
Acenaphthene	74		52	31	ug/L	100		8270D_LL_PAH	Total/NA
Naphthalene	1600		52	44	ug/L	100		8270D_LL_PAH	Total/NA

Client Sample ID: MW-10 — Lab Sample ID: 480-66322-4

No Detections.

Client Sample ID: MW-11A — Lab Sample ID: 480-66322-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	7.3		1.0	0.41	ug/L	1		8260C	Total/NA
Acenaphthene	4.0		0.50	0.30	ug/L	1		8270D_LL_PAH	Total/NA
Acenaphthylene	2.0		0.50	0.34	ug/L	1		8270D_LL_PAH	Total/NA
Fluorene	0.73		0.50	0.37	ug/L	1		8270D_LL_PAH	Total/NA
Pyrene	1.0		0.50	0.36	ug/L	1		8270D_LL_PAH	Total/NA

Client Sample ID: MW-12 — Lab Sample ID: 480-66322-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cyanide, Total	0.58		0.020	0.010	mg/L	2		9012B	Total/NA
Cyanide, Free	10.2		5.0	0.72	ug/L	1		9016	Total/NA

Client Sample ID: MW-13 — Lab Sample ID: 480-66322-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	1.3		1.0	0.41	ug/L	1		8260C	Total/NA
Cyanide, Total	0.50		0.010	0.0050	mg/L	1		9012B	Total/NA
Cyanide, Free	2.8	J	5.0	0.72	ug/L	1		9016	Total/NA

Client Sample ID: MW-14 — Lab Sample ID: 480-66322-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cyanide, Total	0.72		0.020	0.010	mg/L	2		9012B	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: AECOM, Inc.
Project/Site: Semi Annual Sampling

TestAmerica Job ID: 480-66322-1

Client Sample ID: MW-16 — Lab Sample ID: 480-66322-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cyanide, Total	1.3		0.050	0.025	mg/L	5		9012B	Total/NA
Cyanide, Free	19.9		5.0	0.72	ug/L	1		9016	Total/NA

Client Sample ID: MW-17 — Lab Sample ID: 480-66322-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cyanide, Total	0.16		0.010	0.0050	mg/L	1		9012B	Total/NA

Client Sample ID: MW-19 — Lab Sample ID: 480-66322-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	5800		100	41	ug/L	100		8260C	Total/NA
Ethylbenzene	310		100	74	ug/L	100		8260C	Total/NA
Naphthalene	5400		250	210	ug/L	500		8270D_LL_PAH	Total/NA

Client Sample ID: MW-20 — Lab Sample ID: 480-66322-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cyanide, Total	0.15		0.010	0.0050	mg/L	1		9012B	Total/NA

Client Sample ID: MW-21 — Lab Sample ID: 480-66322-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cyanide, Total	0.43		0.010	0.0050	mg/L	1		9012B	Total/NA

Client Sample ID: MW-22 — Lab Sample ID: 480-66322-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cyanide, Total	0.79		0.020	0.010	mg/L	2		9012B	Total/NA
Cyanide, Free	11.6		5.0	0.72	ug/L	1		9016	Total/NA

Client Sample ID: MW-23 — Lab Sample ID: 480-66322-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Naphthalene	1.5		0.51	0.43	ug/L	1		8270D_LL_PAH	Total/NA
Cyanide, Total	0.67		0.020	0.010	mg/L	2		9012B	Total/NA
Cyanide, Free	1.7	J	5.0	0.72	ug/L	1		9016	Total/NA

Client Sample ID: SW-01 — Lab Sample ID: 480-66322-16

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cyanide, Total	0.025		0.010	0.0050	mg/L	1		9012B	Total/NA
Cyanide, Free	6.0		5.0	0.72	ug/L	1		9016	Total/NA

Client Sample ID: SW-02 — Lab Sample ID: 480-66322-17

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo(a)anthracene	2.7		0.48	0.38	ug/L	1		8270D_LL_PAH	Total/NA
Benzo(a)pyrene	4.2		0.48	0.32	ug/L	1		8270D_LL_PAH	Total/NA
Benzo(b)fluoranthene	8.3		0.48	0.29	ug/L	1		8270D_LL_PAH	Total/NA

This Detection Summary does not include radiochemical test results.

Client: AECOM, Inc.
Project/Site: Semi Annual Sampling

TestAmerica Job ID: 480-66322-1

Client Sample ID: SW-02 (Continued)

Lab Sample ID: 480-66322-17

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo(g,h,i)perylene	2.2		0.48	0.36	ug/L	1		8270D_LL_PAH	Total/NA
Chrysene	4.7		0.48	0.31	ug/L	1		8270D_LL_PAH	Total/NA
Dibenz(a,h)anthracene	0.45	J	0.48	0.32	ug/L	1		8270D_LL_PAH	Total/NA
Fluoranthene	8.2		0.48	0.35	ug/L	1		8270D_LL_PAH	Total/NA
Indeno(1,2,3-cd)pyrene	1.9		0.48	0.42	ug/L	1		8270D_LL_PAH	Total/NA
Naphthalene	2.2		0.48	0.40	ug/L	1		8270D_LL_PAH	Total/NA
Phenanthrene	2.4		0.48	0.37	ug/L	1		8270D_LL_PAH	Total/NA
Pyrene	6.5		0.48	0.35	ug/L	1		8270D_LL_PAH	Total/NA
Cyanide, Total	0.015		0.010	0.0050	mg/L	1		9012B	Total/NA

Client Sample ID: TB

Lab Sample ID: 480-66322-18

No Detections.

This Detection Summary does not include radiochemical test results.

Client: AECOM, Inc.
Project/Site: Semi Annual Sampling

TestAmerica Job ID: 480-66322-1

Client Sample ID: Duplicate
Date Collected: 08/28/14 08:00
Date Received: 08/28/14 17:15

Lab Sample ID: 480-66322-1
Matrix: Ground Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	1.0	U	1.0	0.41	ug/L			09/10/14 15:40	1
Ethylbenzene	1.0	U	1.0	0.74	ug/L			09/10/14 15:40	1
Toluene	1.0	U	1.0	0.51	ug/L			09/10/14 15:40	1
Xylenes, Total	2.0	U	2.0	0.66	ug/L			09/10/14 15:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*111*		*66 - 137*		*09/10/14 15:40*	*1*
4-Bromofluorobenzene (Surr)	*91*		*73 - 120*		*09/10/14 15:40*	*1*
Toluene-d8 (Surr)	*95*		*71 - 126*		*09/10/14 15:40*	*1*

Method: 8270D_LL_PAH - Semivolatile Organic Compounds (GC/MS) Low level PAH

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylnaphthalene	0.51	U	0.51	0.39	ug/L		08/30/14 07:58	09/04/14 14:57	1
Acenaphthene	0.51	U	0.51	0.31	ug/L		08/30/14 07:58	09/04/14 14:57	1
Acenaphthylene	0.51	U	0.51	0.35	ug/L		08/30/14 07:58	09/04/14 14:57	1
Anthracene	0.51	U	0.51	0.40	ug/L		08/30/14 07:58	09/04/14 14:57	1
Benzo(a)anthracene	0.51	U	0.51	0.41	ug/L		08/30/14 07:58	09/04/14 14:57	1
Benzo(a)pyrene	0.51	U	0.51	0.34	ug/L		08/30/14 07:58	09/04/14 14:57	1
Benzo(b)fluoranthene	0.51	U	0.51	0.31	ug/L		08/30/14 07:58	09/04/14 14:57	1
Benzo(g,h,i)perylene	0.51	U	0.51	0.38	ug/L		08/30/14 07:58	09/04/14 14:57	1
Benzo(k)fluoranthene	0.51	U *	0.51	0.087	ug/L		08/30/14 07:58	09/04/14 14:57	1
Chrysene	0.51	U	0.51	0.33	ug/L		08/30/14 07:58	09/04/14 14:57	1
Dibenz(a,h)anthracene	0.51	U	0.51	0.34	ug/L		08/30/14 07:58	09/04/14 14:57	1
Fluoranthene	0.51	U	0.51	0.37	ug/L		08/30/14 07:58	09/04/14 14:57	1
Fluorene	0.51	U	0.51	0.38	ug/L		08/30/14 07:58	09/04/14 14:57	1
Indeno(1,2,3-cd)pyrene	0.51	U	0.51	0.45	ug/L		08/30/14 07:58	09/04/14 14:57	1
Naphthalene	0.51	U	0.51	0.43	ug/L		08/30/14 07:58	09/04/14 14:57	1
Phenanthrene	0.51	U	0.51	0.39	ug/L		08/30/14 07:58	09/04/14 14:57	1
Pyrene	0.51	U	0.51	0.37	ug/L		08/30/14 07:58	09/04/14 14:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*73*		*48 - 120*	*08/30/14 07:58*	*09/04/14 14:57*	*1*
Nitrobenzene-d5	*87*		*46 - 120*	*08/30/14 07:58*	*09/04/14 14:57*	*1*
p-Terphenyl-d14	*77*		*24 - 136*	*08/30/14 07:58*	*09/04/14 14:57*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	**0.75**		0.020	0.010	mg/L		09/02/14 15:45	09/03/14 19:54	2
Cyanide, Free	**0.93**	**J**	5.0	0.72	ug/L		09/04/14 06:00	09/04/14 12:00	1

Client: AECOM, Inc.
Project/Site: Semi Annual Sampling

TestAmerica Job ID: 480-66322-1

Client Sample ID: EB
Date Collected: 08/28/14 15:00
Date Received: 08/28/14 17:15

Lab Sample ID: 480-66322-2
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	1.0	U	1.0	0.41	ug/L			09/10/14 16:06	1
Ethylbenzene	1.0	U	1.0	0.74	ug/L			09/10/14 16:06	1
Toluene	1.0	U	1.0	0.51	ug/L			09/10/14 16:06	1
Xylenes, Total	2.0	U	2.0	0.66	ug/L			09/10/14 16:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*110*		*66 - 137*		*09/10/14 16:06*	*1*
4-Bromofluorobenzene (Surr)	*90*		*73 - 120*		*09/10/14 16:06*	*1*
Toluene-d8 (Surr)	*96*		*71 - 126*		*09/10/14 16:06*	*1*

Method: 8270D_LL_PAH - Semivolatile Organic Compounds (GC/MS) Low level PAH

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylnaphthalene	0.50	U	0.50	0.38	ug/L		08/30/14 07:58	09/04/14 15:22	1
Acenaphthene	0.50	U	0.50	0.30	ug/L		08/30/14 07:58	09/04/14 15:22	1
Acenaphthylene	0.50	U	0.50	0.34	ug/L		08/30/14 07:58	09/04/14 15:22	1
Anthracene	0.50	U	0.50	0.39	ug/L		08/30/14 07:58	09/04/14 15:22	1
Benzo(a)anthracene	0.50	U	0.50	0.40	ug/L		08/30/14 07:58	09/04/14 15:22	1
Benzo(a)pyrene	0.50	U	0.50	0.33	ug/L		08/30/14 07:58	09/04/14 15:22	1
Benzo(b)fluoranthene	0.50	U	0.50	0.30	ug/L		08/30/14 07:58	09/04/14 15:22	1
Benzo(g,h,i)perylene	0.50	U	0.50	0.37	ug/L		08/30/14 07:58	09/04/14 15:22	1
Benzo(k)fluoranthene	0.50	U *	0.50	0.085	ug/L		08/30/14 07:58	09/04/14 15:22	1
Chrysene	0.50	U	0.50	0.32	ug/L		08/30/14 07:58	09/04/14 15:22	1
Dibenz(a,h)anthracene	0.50	U	0.50	0.33	ug/L		08/30/14 07:58	09/04/14 15:22	1
Fluoranthene	0.50	U	0.50	0.36	ug/L		08/30/14 07:58	09/04/14 15:22	1
Fluorene	0.50	U	0.50	0.37	ug/L		08/30/14 07:58	09/04/14 15:22	1
Indeno(1,2,3-cd)pyrene	0.50	U	0.50	0.44	ug/L		08/30/14 07:58	09/04/14 15:22	1
Naphthalene	0.50	U	0.50	0.42	ug/L		08/30/14 07:58	09/04/14 15:22	1
Phenanthrene	0.50	U	0.50	0.38	ug/L		08/30/14 07:58	09/04/14 15:22	1
Pyrene	0.50	U	0.50	0.36	ug/L		08/30/14 07:58	09/04/14 15:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*69*		*48 - 120*	*08/30/14 07:58*	*09/04/14 15:22*	*1*
Nitrobenzene-d5	*79*		*46 - 120*	*08/30/14 07:58*	*09/04/14 15:22*	*1*
p-Terphenyl-d14	*96*		*24 - 136*	*08/30/14 07:58*	*09/04/14 15:22*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.010	U	0.010	0.0050	mg/L		09/02/14 15:45	09/03/14 19:04	1
Cyanide, Free	**1.6**	**J**	5.0	0.72	ug/L		09/04/14 06:00	09/04/14 12:00	1

Client: AECOM, Inc.
Project/Site: Semi Annual Sampling

TestAmerica Job ID: 480-66322-1

Client Sample ID: MW-07
Date Collected: 08/28/14 09:15
Date Received: 08/28/14 17:15

Lab Sample ID: 480-66322-3
Matrix: Ground Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**570**		20	8.2	ug/L			09/10/14 16:31	20
Ethylbenzene	**870**		20	15	ug/L			09/10/14 16:31	20
Toluene	**14**	**J**	20	10	ug/L			09/10/14 16:31	20
Xylenes, Total	**590**		40	13	ug/L			09/10/14 16:31	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*106*		*66 - 137*		*09/10/14 16:31*	*20*
4-Bromofluorobenzene (Surr)	*94*		*73 - 120*		*09/10/14 16:31*	*20*
Toluene-d8 (Surr)	*94*		*71 - 126*		*09/10/14 16:31*	*20*

Method: 8270D_LL_PAH - Semivolatile Organic Compounds (GC/MS) Low level PAH

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylnaphthalene	**110**		52	39	ug/L		08/30/14 07:58	09/04/14 15:47	100
Acenaphthene	**74**		52	31	ug/L		08/30/14 07:58	09/04/14 15:47	100
Acenaphthylene	52	U	52	35	ug/L		08/30/14 07:58	09/04/14 15:47	100
Anthracene	52	U	52	41	ug/L		08/30/14 07:58	09/04/14 15:47	100
Benzo(a)anthracene	52	U	52	42	ug/L		08/30/14 07:58	09/04/14 15:47	100
Benzo(a)pyrene	52	U	52	34	ug/L		08/30/14 07:58	09/04/14 15:47	100
Benzo(b)fluoranthene	52	U	52	31	ug/L		08/30/14 07:58	09/04/14 15:47	100
Benzo(g,h,i)perylene	52	U	52	38	ug/L		08/30/14 07:58	09/04/14 15:47	100
Benzo(k)fluoranthene	52	U *	52	8.8	ug/L		08/30/14 07:58	09/04/14 15:47	100
Chrysene	52	U	52	33	ug/L		08/30/14 07:58	09/04/14 15:47	100
Dibenz(a,h)anthracene	52	U	52	34	ug/L		08/30/14 07:58	09/04/14 15:47	100
Fluoranthene	52	U	52	37	ug/L		08/30/14 07:58	09/04/14 15:47	100
Fluorene	52	U	52	38	ug/L		08/30/14 07:58	09/04/14 15:47	100
Indeno(1,2,3-cd)pyrene	52	U	52	46	ug/L		08/30/14 07:58	09/04/14 15:47	100
Naphthalene	**1600**		52	44	ug/L		08/30/14 07:58	09/04/14 15:47	100
Phenanthrene	52	U	52	39	ug/L		08/30/14 07:58	09/04/14 15:47	100
Pyrene	52	U	52	37	ug/L		08/30/14 07:58	09/04/14 15:47	100

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*100*		*48 - 120*	*08/30/14 07:58*	*09/04/14 15:47*	*100*
Nitrobenzene-d5	*92*		*46 - 120*	*08/30/14 07:58*	*09/04/14 15:47*	*100*
p-Terphenyl-d14	*77*		*24 - 136*	*08/30/14 07:58*	*09/04/14 15:47*	*100*

Client: AECOM, Inc.
Project/Site: Semi Annual Sampling

TestAmerica Job ID: 480-66322-1

Client Sample ID: MW-10
Date Collected: 08/28/14 09:00
Date Received: 08/28/14 17:15

Lab Sample ID: 480-66322-4
Matrix: Ground Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	1.0	U	1.0	0.41	ug/L			09/10/14 16:57	1
Ethylbenzene	1.0	U	1.0	0.74	ug/L			09/10/14 16:57	1
Toluene	1.0	U	1.0	0.51	ug/L			09/10/14 16:57	1
Xylenes, Total	2.0	U	2.0	0.66	ug/L			09/10/14 16:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*108*		*66 - 137*		*09/10/14 16:57*	*1*
4-Bromofluorobenzene (Surr)	*91*		*73 - 120*		*09/10/14 16:57*	*1*
Toluene-d8 (Surr)	*95*		*71 - 126*		*09/10/14 16:57*	*1*

Method: 8270D_LL_PAH - Semivolatile Organic Compounds (GC/MS) Low level PAH

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylnaphthalene	0.51	U	0.51	0.39	ug/L		08/30/14 07:58	09/04/14 16:12	1
Acenaphthene	0.51	U	0.51	0.30	ug/L		08/30/14 07:58	09/04/14 16:12	1
Acenaphthylene	0.51	U	0.51	0.34	ug/L		08/30/14 07:58	09/04/14 16:12	1
Anthracene	0.51	U	0.51	0.40	ug/L		08/30/14 07:58	09/04/14 16:12	1
Benzo(a)anthracene	0.51	U	0.51	0.41	ug/L		08/30/14 07:58	09/04/14 16:12	1
Benzo(a)pyrene	0.51	U	0.51	0.33	ug/L		08/30/14 07:58	09/04/14 16:12	1
Benzo(b)fluoranthene	0.51	U	0.51	0.30	ug/L		08/30/14 07:58	09/04/14 16:12	1
Benzo(g,h,i)perylene	0.51	U	0.51	0.38	ug/L		08/30/14 07:58	09/04/14 16:12	1
Benzo(k)fluoranthene	0.51	U *	0.51	0.086	ug/L		08/30/14 07:58	09/04/14 16:12	1
Chrysene	0.51	U	0.51	0.32	ug/L		08/30/14 07:58	09/04/14 16:12	1
Dibenz(a,h)anthracene	0.51	U	0.51	0.33	ug/L		08/30/14 07:58	09/04/14 16:12	1
Fluoranthene	0.51	U	0.51	0.36	ug/L		08/30/14 07:58	09/04/14 16:12	1
Fluorene	0.51	U	0.51	0.38	ug/L		08/30/14 07:58	09/04/14 16:12	1
Indeno(1,2,3-cd)pyrene	0.51	U	0.51	0.45	ug/L		08/30/14 07:58	09/04/14 16:12	1
Naphthalene	0.51	U	0.51	0.43	ug/L		08/30/14 07:58	09/04/14 16:12	1
Phenanthrene	0.51	U	0.51	0.39	ug/L		08/30/14 07:58	09/04/14 16:12	1
Pyrene	0.51	U	0.51	0.36	ug/L		08/30/14 07:58	09/04/14 16:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*84*		*48 - 120*	*08/30/14 07:58*	*09/04/14 16:12*	*1*
Nitrobenzene-d5	*104*		*46 - 120*	*08/30/14 07:58*	*09/04/14 16:12*	*1*
p-Terphenyl-d14	*83*		*24 - 136*	*08/30/14 07:58*	*09/04/14 16:12*	*1*

Client: AECOM, Inc.
Project/Site: Semi Annual Sampling

TestAmerica Job ID: 480-66322-1

Client Sample ID: MW-11A
Date Collected: 08/28/14 09:50
Date Received: 08/28/14 17:15

Lab Sample ID: 480-66322-5
Matrix: Ground Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**7.3**		1.0	0.41	ug/L			09/10/14 17:23	1
Ethylbenzene	1.0	U	1.0	0.74	ug/L			09/10/14 17:23	1
Toluene	1.0	U	1.0	0.51	ug/L			09/10/14 17:23	1
Xylenes, Total	2.0	U	2.0	0.66	ug/L			09/10/14 17:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*109*		*66 - 137*		*09/10/14 17:23*	*1*
4-Bromofluorobenzene (Surr)	*92*		*73 - 120*		*09/10/14 17:23*	*1*
Toluene-d8 (Surr)	*96*		*71 - 126*		*09/10/14 17:23*	*1*

Method: 8270D_LL_PAH - Semivolatile Organic Compounds (GC/MS) Low level PAH

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylnaphthalene	0.50	U	0.50	0.38	ug/L		08/30/14 07:58	09/04/14 16:37	1
Acenaphthene	**4.0**		0.50	0.30	ug/L		08/30/14 07:58	09/04/14 16:37	1
Acenaphthylene	**2.0**		0.50	0.34	ug/L		08/30/14 07:58	09/04/14 16:37	1
Anthracene	0.50	U	0.50	0.39	ug/L		08/30/14 07:58	09/04/14 16:37	1
Benzo(a)anthracene	0.50	U	0.50	0.40	ug/L		08/30/14 07:58	09/04/14 16:37	1
Benzo(a)pyrene	0.50	U	0.50	0.33	ug/L		08/30/14 07:58	09/04/14 16:37	1
Benzo(b)fluoranthene	0.50	U	0.50	0.30	ug/L		08/30/14 07:58	09/04/14 16:37	1
Benzo(g,h,i)perylene	0.50	U	0.50	0.37	ug/L		08/30/14 07:58	09/04/14 16:37	1
Benzo(k)fluoranthene	0.50	U *	0.50	0.086	ug/L		08/30/14 07:58	09/04/14 16:37	1
Chrysene	0.50	U	0.50	0.32	ug/L		08/30/14 07:58	09/04/14 16:37	1
Dibenz(a,h)anthracene	0.50	U	0.50	0.33	ug/L		08/30/14 07:58	09/04/14 16:37	1
Fluoranthene	0.50	U	0.50	0.36	ug/L		08/30/14 07:58	09/04/14 16:37	1
Fluorene	**0.73**		0.50	0.37	ug/L		08/30/14 07:58	09/04/14 16:37	1
Indeno(1,2,3-cd)pyrene	0.50	U	0.50	0.44	ug/L		08/30/14 07:58	09/04/14 16:37	1
Naphthalene	0.50	U	0.50	0.42	ug/L		08/30/14 07:58	09/04/14 16:37	1
Phenanthrene	0.50	U	0.50	0.38	ug/L		08/30/14 07:58	09/04/14 16:37	1
Pyrene	**1.0**		0.50	0.36	ug/L		08/30/14 07:58	09/04/14 16:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*77*		*48 - 120*	*08/30/14 07:58*	*09/04/14 16:37*	*1*
Nitrobenzene-d5	*91*		*46 - 120*	*08/30/14 07:58*	*09/04/14 16:37*	*1*
p-Terphenyl-d14	*70*		*24 - 136*	*08/30/14 07:58*	*09/04/14 16:37*	*1*

Client: AECOM, Inc.
Project/Site: Semi Annual Sampling

TestAmerica Job ID: 480-66322-1

Client Sample ID: MW-12
Date Collected: 08/28/14 12:30
Date Received: 08/28/14 17:15

Lab Sample ID: 480-66322-6
Matrix: Ground Water

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.58		0.020	0.010	mg/L		08/29/14 12:23	09/03/14 19:23	2
Cyanide, Free	10.2		5.0	0.72	ug/L		09/04/14 06:00	09/04/14 12:00	1

Client: AECOM, Inc.
Project/Site: Semi Annual Sampling

TestAmerica Job ID: 480-66322-1

Client Sample ID: MW-13
Date Collected: 08/28/14 14:15
Date Received: 08/28/14 17:15

Lab Sample ID: 480-66322-7
Matrix: Ground Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**1.3**		1.0	0.41	ug/L			09/10/14 17:48	1
Ethylbenzene	1.0	U	1.0	0.74	ug/L			09/10/14 17:48	1
Toluene	1.0	U	1.0	0.51	ug/L			09/10/14 17:48	1
Xylenes, Total	2.0	U	2.0	0.66	ug/L			09/10/14 17:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*106*		*66 - 137*		*09/10/14 17:48*	*1*
4-Bromofluorobenzene (Surr)	*91*		*73 - 120*		*09/10/14 17:48*	*1*
Toluene-d8 (Surr)	*95*		*71 - 126*		*09/10/14 17:48*	*1*

Method: 8270D_LL_PAH - Semivolatile Organic Compounds (GC/MS) Low level PAH

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylnaphthalene	0.48	U	0.48	0.37	ug/L		08/30/14 07:58	09/04/14 17:02	1
Acenaphthene	0.48	U	0.48	0.29	ug/L		08/30/14 07:58	09/04/14 17:02	1
Acenaphthylene	0.48	U	0.48	0.33	ug/L		08/30/14 07:58	09/04/14 17:02	1
Anthracene	0.48	U	0.48	0.37	ug/L		08/30/14 07:58	09/04/14 17:02	1
Benzo(a)anthracene	0.48	U	0.48	0.38	ug/L		08/30/14 07:58	09/04/14 17:02	1
Benzo(a)pyrene	0.48	U	0.48	0.32	ug/L		08/30/14 07:58	09/04/14 17:02	1
Benzo(b)fluoranthene	0.48	U	0.48	0.29	ug/L		08/30/14 07:58	09/04/14 17:02	1
Benzo(g,h,i)perylene	0.48	U	0.48	0.36	ug/L		08/30/14 07:58	09/04/14 17:02	1
Benzo(k)fluoranthene	0.48	U *	0.48	0.082	ug/L		08/30/14 07:58	09/04/14 17:02	1
Chrysene	0.48	U	0.48	0.31	ug/L		08/30/14 07:58	09/04/14 17:02	1
Dibenz(a,h)anthracene	0.48	U	0.48	0.32	ug/L		08/30/14 07:58	09/04/14 17:02	1
Fluoranthene	0.48	U	0.48	0.35	ug/L		08/30/14 07:58	09/04/14 17:02	1
Fluorene	0.48	U	0.48	0.36	ug/L		08/30/14 07:58	09/04/14 17:02	1
Indeno(1,2,3-cd)pyrene	0.48	U	0.48	0.42	ug/L		08/30/14 07:58	09/04/14 17:02	1
Naphthalene	0.48	U	0.48	0.40	ug/L		08/30/14 07:58	09/04/14 17:02	1
Phenanthrene	0.48	U	0.48	0.37	ug/L		08/30/14 07:58	09/04/14 17:02	1
Pyrene	0.48	U	0.48	0.35	ug/L		08/30/14 07:58	09/04/14 17:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*87*		*48 - 120*	*08/30/14 07:58*	*09/04/14 17:02*	*1*
Nitrobenzene-d5	*110*		*46 - 120*	*08/30/14 07:58*	*09/04/14 17:02*	*1*
p-Terphenyl-d14	*82*		*24 - 136*	*08/30/14 07:58*	*09/04/14 17:02*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	**0.50**		0.010	0.0050	mg/L		08/29/14 12:32	09/03/14 18:14	1
Cyanide, Free	**2.8**	**J**	5.0	0.72	ug/L		09/04/14 06:00	09/04/14 12:00	1

Client: AECOM, Inc.
Project/Site: Semi Annual Sampling

TestAmerica Job ID: 480-66322-1

Client Sample ID: MW-14
Date Collected: 08/28/14 15:05
Date Received: 08/28/14 17:15

Lab Sample ID: 480-66322-8
Matrix: Ground Water

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	**0.72**		0.020	0.010	mg/L		08/29/14 12:32	09/03/14 19:26	2
Cyanide, Free	5.0	U	5.0	0.72	ug/L		09/04/14 06:00	09/04/14 12:00	1

Client: AECOM, Inc.
Project/Site: Semi Annual Sampling

TestAmerica Job ID: 480-66322-1

Client Sample ID: MW-16
Date Collected: 08/28/14 14:20
Date Received: 08/28/14 17:15

Lab Sample ID: 480-66322-9
Matrix: Ground Water

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	1.3		0.050	0.025	mg/L		08/29/14 12:23	09/03/14 19:17	5
Cyanide, Free	19.9		5.0	0.72	ug/L		09/04/14 06:00	09/04/14 12:00	1

Client: AECOM, Inc.
Project/Site: Semi Annual Sampling

TestAmerica Job ID: 480-66322-1

Client Sample ID: MW-17
Date Collected: 08/28/14 11:10
Date Received: 08/28/14 17:15

Lab Sample ID: 480-66322-10
Matrix: Ground Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	1.0	U	1.0	0.41	ug/L			09/10/14 18:14	1
Ethylbenzene	1.0	U	1.0	0.74	ug/L			09/10/14 18:14	1
Toluene	1.0	U	1.0	0.51	ug/L			09/10/14 18:14	1
Xylenes, Total	2.0	U	2.0	0.66	ug/L			09/10/14 18:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*107*		*66 - 137*		*09/10/14 18:14*	*1*
4-Bromofluorobenzene (Surr)	*90*		*73 - 120*		*09/10/14 18:14*	*1*
Toluene-d8 (Surr)	*94*		*71 - 126*		*09/10/14 18:14*	*1*

Method: 8270D_LL_PAH - Semivolatile Organic Compounds (GC/MS) Low level PAH

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylnaphthalene	0.50	U	0.50	0.38	ug/L		08/30/14 07:58	09/04/14 17:27	1
Acenaphthene	0.50	U	0.50	0.30	ug/L		08/30/14 07:58	09/04/14 17:27	1
Acenaphthylene	0.50	U	0.50	0.34	ug/L		08/30/14 07:58	09/04/14 17:27	1
Anthracene	0.50	U	0.50	0.39	ug/L		08/30/14 07:58	09/04/14 17:27	1
Benzo(a)anthracene	0.50	U	0.50	0.40	ug/L		08/30/14 07:58	09/04/14 17:27	1
Benzo(a)pyrene	0.50	U	0.50	0.33	ug/L		08/30/14 07:58	09/04/14 17:27	1
Benzo(b)fluoranthene	0.50	U	0.50	0.30	ug/L		08/30/14 07:58	09/04/14 17:27	1
Benzo(g,h,i)perylene	0.50	U	0.50	0.37	ug/L		08/30/14 07:58	09/04/14 17:27	1
Benzo(k)fluoranthene	0.50	U *	0.50	0.086	ug/L		08/30/14 07:58	09/04/14 17:27	1
Chrysene	0.50	U	0.50	0.32	ug/L		08/30/14 07:58	09/04/14 17:27	1
Dibenz(a,h)anthracene	0.50	U	0.50	0.33	ug/L		08/30/14 07:58	09/04/14 17:27	1
Fluoranthene	0.50	U	0.50	0.36	ug/L		08/30/14 07:58	09/04/14 17:27	1
Fluorene	0.50	U	0.50	0.37	ug/L		08/30/14 07:58	09/04/14 17:27	1
Indeno(1,2,3-cd)pyrene	0.50	U	0.50	0.44	ug/L		08/30/14 07:58	09/04/14 17:27	1
Naphthalene	0.50	U	0.50	0.42	ug/L		08/30/14 07:58	09/04/14 17:27	1
Phenanthrene	0.50	U	0.50	0.38	ug/L		08/30/14 07:58	09/04/14 17:27	1
Pyrene	0.50	U	0.50	0.36	ug/L		08/30/14 07:58	09/04/14 17:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*82*		*48 - 120*	*08/30/14 07:58*	*09/04/14 17:27*	*1*
Nitrobenzene-d5	*96*		*46 - 120*	*08/30/14 07:58*	*09/04/14 17:27*	*1*
p-Terphenyl-d14	*79*		*24 - 136*	*08/30/14 07:58*	*09/04/14 17:27*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	**0.16**		0.010	0.0050	mg/L		08/29/14 12:32	09/03/14 18:18	1
Cyanide, Free	5.0	U	5.0	0.72	ug/L		09/04/14 06:00	09/04/14 12:00	1

Client Sample ID: MW-19
Date Collected: 08/28/14 11:50
Date Received: 08/28/14 17:15

Lab Sample ID: 480-66322-11
Matrix: Ground Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**5800**		100	41	ug/L			09/10/14 18:39	100
Ethylbenzene	**310**		100	74	ug/L			09/10/14 18:39	100
Toluene	100	U	100	51	ug/L			09/10/14 18:39	100
Xylenes, Total	200	U	200	66	ug/L			09/10/14 18:39	100

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*106*		*66 - 137*		*09/10/14 18:39*	*100*
4-Bromofluorobenzene (Surr)	*92*		*73 - 120*		*09/10/14 18:39*	*100*
Toluene-d8 (Surr)	*95*		*71 - 126*		*09/10/14 18:39*	*100*

Method: 8270D_LL_PAH - Semivolatile Organic Compounds (GC/MS) Low level PAH

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylnaphthalene	250	U	250	190	ug/L		08/30/14 07:58	09/04/14 17:52	500
Acenaphthene	250	U	250	150	ug/L		08/30/14 07:58	09/04/14 17:52	500
Acenaphthylene	250	U	250	170	ug/L		08/30/14 07:58	09/04/14 17:52	500
Anthracene	250	U	250	190	ug/L		08/30/14 07:58	09/04/14 17:52	500
Benzo(a)anthracene	250	U	250	200	ug/L		08/30/14 07:58	09/04/14 17:52	500
Benzo(a)pyrene	250	U	250	160	ug/L		08/30/14 07:58	09/04/14 17:52	500
Benzo(b)fluoranthene	250	U	250	150	ug/L		08/30/14 07:58	09/04/14 17:52	500
Benzo(g,h,i)perylene	250	U	250	180	ug/L		08/30/14 07:58	09/04/14 17:52	500
Benzo(k)fluoranthene	250	U *	250	42	ug/L		08/30/14 07:58	09/04/14 17:52	500
Chrysene	250	U	250	160	ug/L		08/30/14 07:58	09/04/14 17:52	500
Dibenz(a,h)anthracene	250	U	250	160	ug/L		08/30/14 07:58	09/04/14 17:52	500
Fluoranthene	250	U	250	180	ug/L		08/30/14 07:58	09/04/14 17:52	500
Fluorene	250	U	250	180	ug/L		08/30/14 07:58	09/04/14 17:52	500
Indeno(1,2,3-cd)pyrene	250	U	250	220	ug/L		08/30/14 07:58	09/04/14 17:52	500
Naphthalene	**5400**		250	210	ug/L		08/30/14 07:58	09/04/14 17:52	500
Phenanthrene	250	U	250	190	ug/L		08/30/14 07:58	09/04/14 17:52	500
Pyrene	250	U	250	180	ug/L		08/30/14 07:58	09/04/14 17:52	500

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*111*		*48 - 120*	*08/30/14 07:58*	*09/04/14 17:52*	*500*
Nitrobenzene-d5	*104*		*46 - 120*	*08/30/14 07:58*	*09/04/14 17:52*	*500*
p-Terphenyl-d14	*81*		*24 - 136*	*08/30/14 07:58*	*09/04/14 17:52*	*500*

Client: AECOM, Inc.
Project/Site: Semi Annual Sampling

TestAmerica Job ID: 480-66322-1

Client Sample ID: MW-20
Date Collected: 08/28/14 11:35
Date Received: 08/28/14 17:15

Lab Sample ID: 480-66322-12
Matrix: Ground Water

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	**0.15**		0.010	0.0050	mg/L		09/04/14 16:05	09/08/14 03:04	1
Cyanide, Free	5.0	U	5.0	0.72	ug/L		09/04/14 06:00	09/04/14 12:00	1

Client: AECOM, Inc.
Project/Site: Semi Annual Sampling

TestAmerica Job ID: 480-66322-1

Client Sample ID: MW-21
Date Collected: 08/28/14 12:20
Date Received: 08/28/14 17:15

Lab Sample ID: 480-66322-13
Matrix: Ground Water

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	**0.43**		0.010	0.0050	mg/L		08/29/14 12:32	09/03/14 18:30	1
Cyanide, Free	5.0	U	5.0	0.72	ug/L		09/04/14 06:00	09/04/14 12:00	1

Client: AECOM, Inc.
Project/Site: Semi Annual Sampling

TestAmerica Job ID: 480-66322-1

Client Sample ID: MW-22
Date Collected: 08/28/14 13:15
Date Received: 08/28/14 17:15

Lab Sample ID: 480-66322-14
Matrix: Ground Water

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.79		0.020	0.010	mg/L		08/29/14 12:32	09/03/14 19:29	2
Cyanide, Free	11.6		5.0	0.72	ug/L		09/04/14 06:00	09/04/14 12:00	1

Client: AECOM, Inc.
Project/Site: Semi Annual Sampling

TestAmerica Job ID: 480-66322-1

Client Sample ID: MW-23
Date Collected: 08/28/14 10:05
Date Received: 08/28/14 17:15

Lab Sample ID: 480-66322-15
Matrix: Ground Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	1.0	U	1.0	0.41	ug/L			09/10/14 19:04	1
Ethylbenzene	1.0	U	1.0	0.74	ug/L			09/10/14 19:04	1
Toluene	1.0	U	1.0	0.51	ug/L			09/10/14 19:04	1
Xylenes, Total	2.0	U	2.0	0.66	ug/L			09/10/14 19:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*114*		*66 - 137*		*09/10/14 19:04*	*1*
4-Bromofluorobenzene (Surr)	*90*		*73 - 120*		*09/10/14 19:04*	*1*
Toluene-d8 (Surr)	*95*		*71 - 126*		*09/10/14 19:04*	*1*

Method: 8270D_LL_PAH - Semivolatile Organic Compounds (GC/MS) Low level PAH

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylnaphthalene	0.51	U	0.51	0.39	ug/L		08/30/14 07:58	09/04/14 18:18	1
Acenaphthene	0.51	U	0.51	0.31	ug/L		08/30/14 07:58	09/04/14 18:18	1
Acenaphthylene	0.51	U	0.51	0.35	ug/L		08/30/14 07:58	09/04/14 18:18	1
Anthracene	0.51	U	0.51	0.40	ug/L		08/30/14 07:58	09/04/14 18:18	1
Benzo(a)anthracene	0.51	U	0.51	0.41	ug/L		08/30/14 07:58	09/04/14 18:18	1
Benzo(a)pyrene	0.51	U	0.51	0.34	ug/L		08/30/14 07:58	09/04/14 18:18	1
Benzo(b)fluoranthene	0.51	U	0.51	0.31	ug/L		08/30/14 07:58	09/04/14 18:18	1
Benzo(g,h,i)perylene	0.51	U	0.51	0.38	ug/L		08/30/14 07:58	09/04/14 18:18	1
Benzo(k)fluoranthene	0.51	U *	0.51	0.087	ug/L		08/30/14 07:58	09/04/14 18:18	1
Chrysene	0.51	U	0.51	0.33	ug/L		08/30/14 07:58	09/04/14 18:18	1
Dibenz(a,h)anthracene	0.51	U	0.51	0.34	ug/L		08/30/14 07:58	09/04/14 18:18	1
Fluoranthene	0.51	U	0.51	0.37	ug/L		08/30/14 07:58	09/04/14 18:18	1
Fluorene	0.51	U	0.51	0.38	ug/L		08/30/14 07:58	09/04/14 18:18	1
Indeno(1,2,3-cd)pyrene	0.51	U	0.51	0.45	ug/L		08/30/14 07:58	09/04/14 18:18	1
Naphthalene	**1.5**		0.51	0.43	ug/L		08/30/14 07:58	09/04/14 18:18	1
Phenanthrene	0.51	U	0.51	0.39	ug/L		08/30/14 07:58	09/04/14 18:18	1
Pyrene	0.51	U	0.51	0.37	ug/L		08/30/14 07:58	09/04/14 18:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*81*		*48 - 120*	*08/30/14 07:58*	*09/04/14 18:18*	*1*
Nitrobenzene-d5	*90*		*46 - 120*	*08/30/14 07:58*	*09/04/14 18:18*	*1*
p-Terphenyl-d14	*79*		*24 - 136*	*08/30/14 07:58*	*09/04/14 18:18*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	**0.67**		0.020	0.010	mg/L		08/29/14 12:32	09/03/14 19:31	2
Cyanide, Free	**1.7**	**J**	5.0	0.72	ug/L		09/04/14 06:00	09/04/14 12:00	1

Client: AECOM, Inc.
Project/Site: Semi Annual Sampling

TestAmerica Job ID: 480-66322-1

Client Sample ID: SW-01
Date Collected: 08/28/14 14:00
Date Received: 08/28/14 17:15

Lab Sample ID: 480-66322-16
Matrix: Surface Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	1.0	U	1.0	0.41	ug/L			09/10/14 19:29	1
Ethylbenzene	1.0	U	1.0	0.74	ug/L			09/10/14 19:29	1
Toluene	1.0	U	1.0	0.51	ug/L			09/10/14 19:29	1
Xylenes, Total	2.0	U	2.0	0.66	ug/L			09/10/14 19:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*110*		*66 - 137*		*09/10/14 19:29*	*1*
4-Bromofluorobenzene (Surr)	*88*		*73 - 120*		*09/10/14 19:29*	*1*
Toluene-d8 (Surr)	*94*		*71 - 126*		*09/10/14 19:29*	*1*

Method: 8270D_LL_PAH - Semivolatile Organic Compounds (GC/MS) Low level PAH

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylnaphthalene	0.49	U	0.49	0.37	ug/L		08/30/14 07:58	09/04/14 18:44	1
Acenaphthene	0.49	U	0.49	0.29	ug/L		08/30/14 07:58	09/04/14 18:44	1
Acenaphthylene	0.49	U	0.49	0.33	ug/L		08/30/14 07:58	09/04/14 18:44	1
Anthracene	0.49	U	0.49	0.38	ug/L		08/30/14 07:58	09/04/14 18:44	1
Benzo(a)anthracene	0.49	U	0.49	0.39	ug/L		08/30/14 07:58	09/04/14 18:44	1
Benzo(a)pyrene	0.49	U	0.49	0.32	ug/L		08/30/14 07:58	09/04/14 18:44	1
Benzo(b)fluoranthene	0.49	U	0.49	0.29	ug/L		08/30/14 07:58	09/04/14 18:44	1
Benzo(g,h,i)perylene	0.49	U	0.49	0.36	ug/L		08/30/14 07:58	09/04/14 18:44	1
Benzo(k)fluoranthene	0.49	U *	0.49	0.083	ug/L		08/30/14 07:58	09/04/14 18:44	1
Chrysene	0.49	U	0.49	0.31	ug/L		08/30/14 07:58	09/04/14 18:44	1
Dibenz(a,h)anthracene	0.49	U	0.49	0.32	ug/L		08/30/14 07:58	09/04/14 18:44	1
Fluoranthene	0.49	U	0.49	0.35	ug/L		08/30/14 07:58	09/04/14 18:44	1
Fluorene	0.49	U	0.49	0.36	ug/L		08/30/14 07:58	09/04/14 18:44	1
Indeno(1,2,3-cd)pyrene	0.49	U	0.49	0.43	ug/L		08/30/14 07:58	09/04/14 18:44	1
Naphthalene	0.49	U	0.49	0.41	ug/L		08/30/14 07:58	09/04/14 18:44	1
Phenanthrene	0.49	U	0.49	0.37	ug/L		08/30/14 07:58	09/04/14 18:44	1
Pyrene	0.49	U	0.49	0.35	ug/L		08/30/14 07:58	09/04/14 18:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*84*		*48 - 120*	*08/30/14 07:58*	*09/04/14 18:44*	*1*
Nitrobenzene-d5	*102*		*46 - 120*	*08/30/14 07:58*	*09/04/14 18:44*	*1*
p-Terphenyl-d14	*81*		*24 - 136*	*08/30/14 07:58*	*09/04/14 18:44*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	**0.025**		0.010	0.0050	mg/L		09/04/14 16:05	09/08/14 03:05	1
Cyanide, Free	**6.0**		5.0	0.72	ug/L		09/04/14 06:00	09/04/14 12:00	1

Client Sample ID: SW-02
Date Collected: 08/28/14 09:30
Date Received: 08/28/14 17:15

Lab Sample ID: 480-66322-17
Matrix: Surface Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	1.0	U	1.0	0.41	ug/L			09/10/14 19:55	1
Ethylbenzene	1.0	U	1.0	0.74	ug/L			09/10/14 19:55	1
Toluene	1.0	U	1.0	0.51	ug/L			09/10/14 19:55	1
Xylenes, Total	2.0	U	2.0	0.66	ug/L			09/10/14 19:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*108*		*66 - 137*		*09/10/14 19:55*	*1*
4-Bromofluorobenzene (Surr)	*89*		*73 - 120*		*09/10/14 19:55*	*1*
Toluene-d8 (Surr)	*94*		*71 - 126*		*09/10/14 19:55*	*1*

Method: 8270D_LL_PAH - Semivolatile Organic Compounds (GC/MS) Low level PAH

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylnaphthalene	0.48	U	0.48	0.37	ug/L		08/30/14 07:58	09/09/14 17:09	1
Acenaphthene	0.48	U	0.48	0.29	ug/L		08/30/14 07:58	09/09/14 17:09	1
Acenaphthylene	0.48	U	0.48	0.33	ug/L		08/30/14 07:58	09/09/14 17:09	1
Anthracene	0.48	U	0.48	0.38	ug/L		08/30/14 07:58	09/09/14 17:09	1
Benzo(a)anthracene	**2.7**		0.48	0.38	ug/L		08/30/14 07:58	09/09/14 17:09	1
Benzo(a)pyrene	**4.2**		0.48	0.32	ug/L		08/30/14 07:58	09/09/14 17:09	1
Benzo(b)fluoranthene	**8.3**		0.48	0.29	ug/L		08/30/14 07:58	09/09/14 17:09	1
Benzo(g,h,i)perylene	**2.2**		0.48	0.36	ug/L		08/30/14 07:58	09/09/14 17:09	1
Benzo(k)fluoranthene	0.48	U *	0.48	0.082	ug/L		08/30/14 07:58	09/09/14 17:09	1
Chrysene	**4.7**		0.48	0.31	ug/L		08/30/14 07:58	09/09/14 17:09	1
Dibenz(a,h)anthracene	**0.45**	**J**	0.48	0.32	ug/L		08/30/14 07:58	09/09/14 17:09	1
Fluoranthene	**8.2**		0.48	0.35	ug/L		08/30/14 07:58	09/09/14 17:09	1
Fluorene	0.48	U	0.48	0.36	ug/L		08/30/14 07:58	09/09/14 17:09	1
Indeno(1,2,3-cd)pyrene	**1.9**		0.48	0.42	ug/L		08/30/14 07:58	09/09/14 17:09	1
Naphthalene	**2.2**		0.48	0.40	ug/L		08/30/14 07:58	09/09/14 17:09	1
Phenanthrene	**2.4**		0.48	0.37	ug/L		08/30/14 07:58	09/09/14 17:09	1
Pyrene	**6.5**		0.48	0.35	ug/L		08/30/14 07:58	09/09/14 17:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*79*		*48 - 120*	*08/30/14 07:58*	*09/09/14 17:09*	*1*
Nitrobenzene-d5	*79*		*46 - 120*	*08/30/14 07:58*	*09/09/14 17:09*	*1*
p-Terphenyl-d14	*54*		*24 - 136*	*08/30/14 07:58*	*09/09/14 17:09*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	**0.015**		0.010	0.0050	mg/L		09/04/14 16:05	09/08/14 03:07	1
Cyanide, Free	5.0	U	5.0	0.72	ug/L		09/04/14 06:00	09/04/14 12:00	1

Client: AECOM, Inc.
Project/Site: Semi Annual Sampling

TestAmerica Job ID: 480-66322-1

Client Sample ID: TB
Date Collected: 08/28/14 00:00
Date Received: 08/28/14 17:15

Lab Sample ID: 480-66322-18
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	1.0	U	1.0	0.41	ug/L			09/10/14 20:20	1
Ethylbenzene	1.0	U	1.0	0.74	ug/L			09/10/14 20:20	1
Toluene	1.0	U	1.0	0.51	ug/L			09/10/14 20:20	1
Xylenes, Total	2.0	U	2.0	0.66	ug/L			09/10/14 20:20	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*114*		*66 - 137*		*09/10/14 20:20*	*1*
4-Bromofluorobenzene (Surr)	*90*		*73 - 120*		*09/10/14 20:20*	*1*
Toluene-d8 (Surr)	*95*		*71 - 126*		*09/10/14 20:20*	*1*

Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Ground Water — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		12DCE	BFB	TOL
Lab Sample ID	Client Sample ID	(66-137)	(73-120)	(71-126)
480-66322-1	Duplicate	111	91	95
480-66322-3	MW-07	106	94	94
480-66322-4	MW-10	108	91	95
480-66322-5	MW-11A	109	92	96
480-66322-7	MW-13	106	91	95
480-66322-10	MW-17	107	90	94
480-66322-11	MW-19	106	92	95
480-66322-15	MW-23	114	90	95

Surrogate Legend

12DCE = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
TOL = Toluene-d8 (Surr)

Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Surface Water — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		12DCE	BFB	TOL
Lab Sample ID	Client Sample ID	(66-137)	(73-120)	(71-126)
480-66322-16	SW-01	110	88	94
480-66322-17	SW-02	108	89	94

Surrogate Legend

12DCE = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
TOL = Toluene-d8 (Surr)

Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Water — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		12DCE	BFB	TOL
Lab Sample ID	Client Sample ID	(66-137)	(73-120)	(71-126)
480-66322-2	EB	110	90	96
480-66322-18	TB	114	90	95
LCS 480-201624/9	Lab Control Sample	102	96	101
MB 480-201624/11	Method Blank	107	89	94

Surrogate Legend

12DCE = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
TOL = Toluene-d8 (Surr)

Surrogate Summary

Client: AECOM, Inc.
Project/Site: Semi Annual Sampling

TestAmerica Job ID: 480-66322-1

Method: 8270D_LL_PAH - Semivolatile Organic Compounds (GC/MS) Low level PAH

Matrix: Ground Water — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		FBP	NBZ	TPH
Lab Sample ID	Client Sample ID	(48-120)	(46-120)	(24-136)
480-66322-1	Duplicate	73	87	77
480-66322-3	MW-07	100	92	77
480-66322-4	MW-10	84	104	83
480-66322-5	MW-11A	77	91	70
480-66322-7	MW-13	87	110	82
480-66322-10	MW-17	82	96	79
480-66322-11	MW-19	111	104	81
480-66322-15	MW-23	81	90	79

Surrogate Legend

FBP = 2-Fluorobiphenyl
NBZ = Nitrobenzene-d5
TPH = p-Terphenyl-d14

Method: 8270D_LL_PAH - Semivolatile Organic Compounds (GC/MS) Low level PAH

Matrix: Surface Water — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		FBP	NBZ	TPH
Lab Sample ID	Client Sample ID	(48-120)	(46-120)	(24-136)
480-66322-16	SW-01	84	102	81
480-66322-17	SW-02	79	79	54

Surrogate Legend

FBP = 2-Fluorobiphenyl
NBZ = Nitrobenzene-d5
TPH = p-Terphenyl-d14

Method: 8270D_LL_PAH - Semivolatile Organic Compounds (GC/MS) Low level PAH

Matrix: Water — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		FBP	NBZ	TPH
Lab Sample ID	Client Sample ID	(48-120)	(46-120)	(24-136)
480-66322-2	EB	69	79	96
LCS 480-200345/2-A	Lab Control Sample	86	111	112
LCSD 480-200345/3-A	Lab Control Sample Dup	86	109	111
MB 480-200345/1-A	Method Blank	70	85	93

Surrogate Legend

FBP = 2-Fluorobiphenyl
NBZ = Nitrobenzene-d5
TPH = p-Terphenyl-d14

Method: 8260C - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 480-201624/11
Matrix: Water
Analysis Batch: 201624

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	1.0	U	1.0	0.41	ug/L			09/10/14 13:19	1
Ethylbenzene	1.0	U	1.0	0.74	ug/L			09/10/14 13:19	1
Toluene	1.0	U	1.0	0.51	ug/L			09/10/14 13:19	1
Xylenes, Total	2.0	U	2.0	0.66	ug/L			09/10/14 13:19	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*107*		*66 - 137*		*09/10/14 13:19*	*1*
4-Bromofluorobenzene (Surr)	*89*		*73 - 120*		*09/10/14 13:19*	*1*
Toluene-d8 (Surr)	*94*		*71 - 126*		*09/10/14 13:19*	*1*

Lab Sample ID: LCS 480-201624/9
Matrix: Water
Analysis Batch: 201624

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	25.0	25.9		ug/L		104	71 - 124
Ethylbenzene	25.0	24.9		ug/L		100	77 - 123
Toluene	25.0	26.1		ug/L		104	80 - 122

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*102*		*66 - 137*
4-Bromofluorobenzene (Surr)	*96*		*73 - 120*
Toluene-d8 (Surr)	*101*		*71 - 126*

Method: 8270D_LL_PAH - Semivolatile Organic Compounds (GC/MS) Low level PAH

Lab Sample ID: MB 480-200345/1-A
Matrix: Water
Analysis Batch: 200785

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 200345

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylnaphthalene	0.50	U	0.50	0.38	ug/L		08/30/14 07:58	09/04/14 13:42	1
Acenaphthene	0.50	U	0.50	0.30	ug/L		08/30/14 07:58	09/04/14 13:42	1
Acenaphthylene	0.50	U	0.50	0.34	ug/L		08/30/14 07:58	09/04/14 13:42	1
Anthracene	0.50	U	0.50	0.39	ug/L		08/30/14 07:58	09/04/14 13:42	1
Benzo(a)anthracene	0.50	U	0.50	0.40	ug/L		08/30/14 07:58	09/04/14 13:42	1
Benzo(a)pyrene	0.50	U	0.50	0.33	ug/L		08/30/14 07:58	09/04/14 13:42	1
Benzo(b)fluoranthene	0.50	U	0.50	0.30	ug/L		08/30/14 07:58	09/04/14 13:42	1
Benzo(g,h,i)perylene	0.50	U	0.50	0.37	ug/L		08/30/14 07:58	09/04/14 13:42	1
Benzo(k)fluoranthene	0.50	U	0.50	0.085	ug/L		08/30/14 07:58	09/04/14 13:42	1
Chrysene	0.50	U	0.50	0.32	ug/L		08/30/14 07:58	09/04/14 13:42	1
Dibenz(a,h)anthracene	0.50	U	0.50	0.33	ug/L		08/30/14 07:58	09/04/14 13:42	1
Fluoranthene	0.50	U	0.50	0.36	ug/L		08/30/14 07:58	09/04/14 13:42	1
Fluorene	0.50	U	0.50	0.37	ug/L		08/30/14 07:58	09/04/14 13:42	1
Indeno(1,2,3-cd)pyrene	0.50	U	0.50	0.44	ug/L		08/30/14 07:58	09/04/14 13:42	1
Naphthalene	0.50	U	0.50	0.42	ug/L		08/30/14 07:58	09/04/14 13:42	1
Phenanthrene	0.50	U	0.50	0.38	ug/L		08/30/14 07:58	09/04/14 13:42	1

Method: 8270D_LL_PAH - Semivolatile Organic Compounds (GC/MS) Low level PAH (Continued)

Lab Sample ID: MB 480-200345/1-A
Matrix: Water
Analysis Batch: 200785

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 200345

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Pyrene	0.50	U	0.50	0.36	ug/L		08/30/14 07:58	09/04/14 13:42	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*70*		*48 - 120*	*08/30/14 07:58*	*09/04/14 13:42*	*1*
Nitrobenzene-d5	*85*		*46 - 120*	*08/30/14 07:58*	*09/04/14 13:42*	*1*
p-Terphenyl-d14	*93*		*24 - 120*	*08/30/14 07:58*	*09/04/14 13:42*	*1*

Lab Sample ID: LCS 480-200345/2-A
Matrix: Water
Analysis Batch: 200785

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 200345

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
2-Methylnaphthalene	32.0	31.0		ug/L		97	48 - 120
Acenaphthene	32.0	30.0		ug/L		94	60 - 120
Acenaphthylene	32.0	34.4		ug/L		107	63 - 120
Anthracene	32.0	34.1		ug/L		106	69 - 131
Benzo(a)anthracene	32.0	33.4		ug/L		104	62 - 142
Benzo(a)pyrene	32.0	36.6		ug/L		115	46 - 156
Benzo(b)fluoranthene	32.0	40.4		ug/L		126	50 - 149
Benzo(g,h,i)perylene	32.0	40.0		ug/L		125	34 - 189
Benzo(k)fluoranthene	32.0	41.7		ug/L		130	47 - 147
Chrysene	32.0	37.0		ug/L		116	69 - 140
Dibenz(a,h)anthracene	32.0	42.5		ug/L		133	35 - 176
Fluoranthene	32.0	40.0		ug/L		125	67 - 133
Fluorene	32.0	30.6		ug/L		96	66 - 129
Indeno(1,2,3-cd)pyrene	32.0	39.3		ug/L		123	57 - 161
Naphthalene	32.0	32.7		ug/L		102	48 - 120
Phenanthrene	32.0	36.8		ug/L		115	67 - 130
Pyrene	32.0	33.5		ug/L		105	58 - 136

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*86*		*48 - 120*
Nitrobenzene-d5	*111*		*46 - 120*
p-Terphenyl-d14	*112*		*24 - 136*

Lab Sample ID: LCSD 480-200345/3-A
Matrix: Water
Analysis Batch: 200785

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 200345

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
2-Methylnaphthalene	32.0	30.4		ug/L		95	48 - 120	2	21
Acenaphthene	32.0	29.7		ug/L		93	60 - 120	1	24
Acenaphthylene	32.0	33.0		ug/L		103	63 - 120	4	18
Anthracene	32.0	34.2		ug/L		107	69 - 131	0	15
Benzo(a)anthracene	32.0	32.9		ug/L		103	62 - 142	2	15
Benzo(a)pyrene	32.0	36.5		ug/L		114	46 - 156	0	15
Benzo(b)fluoranthene	32.0	46.2		ug/L		144	50 - 149	13	15
Benzo(g,h,i)perylene	32.0	39.3		ug/L		123	34 - 189	2	15

Method: 8270D_LL_PAH - Semivolatile Organic Compounds (GC/MS) Low level PAH (Continued)

Lab Sample ID: LCSD 480-200345/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 200785 — **Prep Batch: 200345**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzo(k)fluoranthene			32.0	31.3	*	ug/L		98	47 - 147	29	22
Chrysene			32.0	37.0		ug/L		116	69 - 140	0	15
Dibenz(a,h)anthracene			32.0	42.3		ug/L		132	35 - 176	0	15
Fluoranthene			32.0	38.4		ug/L		120	67 - 133	4	15
Fluorene			32.0	29.8		ug/L		93	66 - 129	3	15
Indeno(1,2,3-cd)pyrene			32.0	38.6		ug/L		121	57 - 161	2	15
Naphthalene			32.0	32.1		ug/L		100	48 - 120	2	29
Phenanthrene			32.0	36.0		ug/L		112	67 - 130	2	15
Pyrene			32.0	33.0		ug/L		103	58 - 136	2	25

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2-Fluorobiphenyl	*86*		*48 - 120*
Nitrobenzene-d5	*109*		*46 - 120*
p-Terphenyl-d14	*111*		*24 - 136*

Method: 9012B - Cyanide, Total andor Amenable

Lab Sample ID: MB 480-200272/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 200694 — **Prep Batch: 200272**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.010	U	0.010	0.0050	mg/L		08/29/14 12:23	09/03/14 17:38	1

Lab Sample ID: LCS 480-200272/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 200694 — **Prep Batch: 200272**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Cyanide, Total			0.400	0.396		mg/L		99	90 - 110		

Lab Sample ID: 480-66322-6 MS — **Client Sample ID: MW-12**
Matrix: Ground Water — **Prep Type: Total/NA**
Analysis Batch: 200694 — **Prep Batch: 200272**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Cyanide, Total	0.58		0.100	0.650	4	mg/L		72	90 - 110		

Lab Sample ID: 480-66322-9 DU — **Client Sample ID: MW-16**
Matrix: Ground Water — **Prep Type: Total/NA**
Analysis Batch: 200694 — **Prep Batch: 200272**

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Cyanide, Total	1.3		1.45		mg/L		14	15

Method: 9012B - Cyanide, Total andor Amenable (Continued)

Lab Sample ID: MB 480-200276/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 200694 — **Prep Batch: 200276**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.010	U	0.010	0.0050	mg/L		08/29/14 12:32	09/03/14 18:08	1

Lab Sample ID: LCS 480-200276/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 200694 — **Prep Batch: 200276**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	0.250	0.242		mg/L		97	90 - 110

Lab Sample ID: 480-66322-14 MS — **Client Sample ID: MW-22**
Matrix: Ground Water — **Prep Type: Total/NA**
Analysis Batch: 200694 — **Prep Batch: 200276**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	0.79		0.100	0.862	4	mg/L		74	90 - 110

Lab Sample ID: 480-66322-8 DU — **Client Sample ID: MW-14**
Matrix: Ground Water — **Prep Type: Total/NA**
Analysis Batch: 200694 — **Prep Batch: 200276**

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Cyanide, Total	0.72		0.720		mg/L		0.6	15

Lab Sample ID: 480-66322-13 DU — **Client Sample ID: MW-21**
Matrix: Ground Water — **Prep Type: Total/NA**
Analysis Batch: 200694 — **Prep Batch: 200276**

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Cyanide, Total	0.43		0.413		mg/L		5	15

Lab Sample ID: MB 480-200544/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 200694 — **Prep Batch: 200544**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.010	U	0.010	0.0050	mg/L		09/02/14 15:45	09/03/14 18:41	1

Lab Sample ID: LCS 480-200544/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 200694 — **Prep Batch: 200544**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	0.400	0.374		mg/L		94	90 - 110

Lab Sample ID: MB 480-200917/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 201204 — **Prep Batch: 200917**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.010	U	0.010	0.0050	mg/L		09/04/14 16:05	09/08/14 02:47	1

Lab Sample ID: LCS 480-200917/2-A
Matrix: Water
Analysis Batch: 201204

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 200917

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Cyanide, Total			0.400	0.367		mg/L		92	90 - 110		

Method: 9016 - Cyanide, Free

Lab Sample ID: MB 460-246711/1-A
Matrix: Water
Analysis Batch: 246840

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 246711

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Free	5.0	U	5.0	0.72	ug/L		09/04/14 06:00	09/04/14 12:00	1

Lab Sample ID: LCS 460-246711/2-A
Matrix: Water
Analysis Batch: 246840

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 246711

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Cyanide, Free			50.0	47.54		ug/L		95	80 - 115		

Lab Sample ID: 480-66322-1 MS
Matrix: Ground Water
Analysis Batch: 246840

Client Sample ID: Duplicate
Prep Type: Total/NA
Prep Batch: 246711

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Cyanide, Free	0.93	J	50.0	46.39		ug/L		91	74 - 115		

Lab Sample ID: 480-66322-1 MSD
Matrix: Ground Water
Analysis Batch: 246840

Client Sample ID: Duplicate
Prep Type: Total/NA
Prep Batch: 246711

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Cyanide, Free	0.93	J	50.0	46.58		ug/L		91	74 - 115	0	10

Lab Sample ID: DLCK 460-246840/10
Matrix: Water
Analysis Batch: 246840

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	DLCK Result	DLCK Qualifier	Unit	D	%Rec	%Rec. Limits		
Cyanide, Free			2.00	1.93	J	ug/L		96	50 - 150		

GC/MS VOA

Analysis Batch: 201624

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-66322-1	Duplicate	Total/NA	Ground Water	8260C	
480-66322-2	EB	Total/NA	Water	8260C	
480-66322-3	MW-07	Total/NA	Ground Water	8260C	
480-66322-4	MW-10	Total/NA	Ground Water	8260C	
480-66322-5	MW-11A	Total/NA	Ground Water	8260C	
480-66322-7	MW-13	Total/NA	Ground Water	8260C	
480-66322-10	MW-17	Total/NA	Ground Water	8260C	
480-66322-11	MW-19	Total/NA	Ground Water	8260C	
480-66322-15	MW-23	Total/NA	Ground Water	8260C	
480-66322-16	SW-01	Total/NA	Surface Water	8260C	
480-66322-17	SW-02	Total/NA	Surface Water	8260C	
480-66322-18	TB	Total/NA	Water	8260C	
LCS 480-201624/9	Lab Control Sample	Total/NA	Water	8260C	
MB 480-201624/11	Method Blank	Total/NA	Water	8260C	

GC/MS Semi VOA

Prep Batch: 200345

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-66322-1	Duplicate	Total/NA	Ground Water	3510C	
480-66322-2	EB	Total/NA	Water	3510C	
480-66322-3	MW-07	Total/NA	Ground Water	3510C	
480-66322-4	MW-10	Total/NA	Ground Water	3510C	
480-66322-5	MW-11A	Total/NA	Ground Water	3510C	
480-66322-7	MW-13	Total/NA	Ground Water	3510C	
480-66322-10	MW-17	Total/NA	Ground Water	3510C	
480-66322-11	MW-19	Total/NA	Ground Water	3510C	
480-66322-15	MW-23	Total/NA	Ground Water	3510C	
480-66322-16	SW-01	Total/NA	Surface Water	3510C	
480-66322-17	SW-02	Total/NA	Surface Water	3510C	
LCS 480-200345/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 480-200345/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	
MB 480-200345/1-A	Method Blank	Total/NA	Water	3510C	

Analysis Batch: 200785

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-66322-1	Duplicate	Total/NA	Ground Water	8270D_LL_PAH	200345
480-66322-2	EB	Total/NA	Water	8270D_LL_PAH	200345
480-66322-3	MW-07	Total/NA	Ground Water	8270D_LL_PAH	200345
480-66322-4	MW-10	Total/NA	Ground Water	8270D_LL_PAH	200345
480-66322-5	MW-11A	Total/NA	Ground Water	8270D_LL_PAH	200345
480-66322-7	MW-13	Total/NA	Ground Water	8270D_LL_PAH	200345
480-66322-10	MW-17	Total/NA	Ground Water	8270D_LL_PAH	200345
480-66322-11	MW-19	Total/NA	Ground Water	8270D_LL_PAH	200345
480-66322-15	MW-23	Total/NA	Ground Water	8270D_LL_PAH	200345
480-66322-16	SW-01	Total/NA	Surface Water	8270D_LL_PAH	200345
LCS 480-200345/2-A	Lab Control Sample	Total/NA	Water	8270D_LL_PAH	200345
LCSD 480-200345/3-A	Lab Control Sample Dup	Total/NA	Water	8270D_LL_PAH	200345
MB 480-200345/1-A	Method Blank	Total/NA	Water	8270D_LL_PAH	200345

GC/MS Semi VOA (Continued)

Analysis Batch: 201476

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-66322-17	SW-02	Total/NA	Surface Water	8270D_LL_PAH	200345

General Chemistry

Prep Batch: 200272

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-66322-6	MW-12	Total/NA	Ground Water	9012B	
480-66322-6 MS	MW-12	Total/NA	Ground Water	9012B	
480-66322-9	MW-16	Total/NA	Ground Water	9012B	
480-66322-9 DU	MW-16	Total/NA	Ground Water	9012B	
LCS 480-200272/2-A	Lab Control Sample	Total/NA	Water	9012B	
MB 480-200272/1-A	Method Blank	Total/NA	Water	9012B	

Prep Batch: 200276

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-66322-7	MW-13	Total/NA	Ground Water	9012B	
480-66322-8	MW-14	Total/NA	Ground Water	9012B	
480-66322-8 DU	MW-14	Total/NA	Ground Water	9012B	
480-66322-10	MW-17	Total/NA	Ground Water	9012B	
480-66322-13	MW-21	Total/NA	Ground Water	9012B	
480-66322-13 DU	MW-21	Total/NA	Ground Water	9012B	
480-66322-14	MW-22	Total/NA	Ground Water	9012B	
480-66322-14 MS	MW-22	Total/NA	Ground Water	9012B	
480-66322-15	MW-23	Total/NA	Ground Water	9012B	
LCS 480-200276/2-A	Lab Control Sample	Total/NA	Water	9012B	
MB 480-200276/1-A	Method Blank	Total/NA	Water	9012B	

Prep Batch: 200544

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-66322-1	Duplicate	Total/NA	Ground Water	9012B	
480-66322-2	EB	Total/NA	Water	9012B	
LCS 480-200544/2-A	Lab Control Sample	Total/NA	Water	9012B	
MB 480-200544/1-A	Method Blank	Total/NA	Water	9012B	

Analysis Batch: 200694

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-66322-2	EB	Total/NA	Water	9012B	200544
480-66322-6	MW-12	Total/NA	Ground Water	9012B	200272
480-66322-6 MS	MW-12	Total/NA	Ground Water	9012B	200272
480-66322-7	MW-13	Total/NA	Ground Water	9012B	200276
480-66322-8	MW-14	Total/NA	Ground Water	9012B	200276
480-66322-8 DU	MW-14	Total/NA	Ground Water	9012B	200276
480-66322-9	MW-16	Total/NA	Ground Water	9012B	200272
480-66322-9 DU	MW-16	Total/NA	Ground Water	9012B	200272
480-66322-10	MW-17	Total/NA	Ground Water	9012B	200276
480-66322-13	MW-21	Total/NA	Ground Water	9012B	200276
480-66322-13 DU	MW-21	Total/NA	Ground Water	9012B	200276
480-66322-14	MW-22	Total/NA	Ground Water	9012B	200276
480-66322-14 MS	MW-22	Total/NA	Ground Water	9012B	200276
480-66322-15	MW-23	Total/NA	Ground Water	9012B	200276

General Chemistry (Continued)

Analysis Batch: 200694 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 480-200272/2-A	Lab Control Sample	Total/NA	Water	9012B	200272
LCS 480-200276/2-A	Lab Control Sample	Total/NA	Water	9012B	200276
LCS 480-200544/2-A	Lab Control Sample	Total/NA	Water	9012B	200544
MB 480-200272/1-A	Method Blank	Total/NA	Water	9012B	200272
MB 480-200276/1-A	Method Blank	Total/NA	Water	9012B	200276
MB 480-200544/1-A	Method Blank	Total/NA	Water	9012B	200544

Analysis Batch: 200695

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-66322-1	Duplicate	Total/NA	Ground Water	9012B	200544

Prep Batch: 200917

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-66322-12	MW-20	Total/NA	Ground Water	9012B	
480-66322-16	SW-01	Total/NA	Surface Water	9012B	
480-66322-17	SW-02	Total/NA	Surface Water	9012B	
LCS 480-200917/2-A	Lab Control Sample	Total/NA	Water	9012B	
MB 480-200917/1-A	Method Blank	Total/NA	Water	9012B	

Analysis Batch: 201204

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-66322-12	MW-20	Total/NA	Ground Water	9012B	200917
480-66322-16	SW-01	Total/NA	Surface Water	9012B	200917
480-66322-17	SW-02	Total/NA	Surface Water	9012B	200917
LCS 480-200917/2-A	Lab Control Sample	Total/NA	Water	9012B	200917
MB 480-200917/1-A	Method Blank	Total/NA	Water	9012B	200917

Prep Batch: 246711

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-66322-1	Duplicate	Total/NA	Ground Water	9016	
480-66322-1 MS	Duplicate	Total/NA	Ground Water	9016	
480-66322-1 MSD	Duplicate	Total/NA	Ground Water	9016	
480-66322-2	EB	Total/NA	Water	9016	
480-66322-6	MW-12	Total/NA	Ground Water	9016	
480-66322-7	MW-13	Total/NA	Ground Water	9016	
480-66322-8	MW-14	Total/NA	Ground Water	9016	
480-66322-9	MW-16	Total/NA	Ground Water	9016	
480-66322-10	MW-17	Total/NA	Ground Water	9016	
480-66322-12	MW-20	Total/NA	Ground Water	9016	
480-66322-13	MW-21	Total/NA	Ground Water	9016	
480-66322-14	MW-22	Total/NA	Ground Water	9016	
480-66322-15	MW-23	Total/NA	Ground Water	9016	
480-66322-16	SW-01	Total/NA	Surface Water	9016	
480-66322-17	SW-02	Total/NA	Surface Water	9016	
LCS 460-246711/2-A	Lab Control Sample	Total/NA	Water	9016	
MB 460-246711/1-A	Method Blank	Total/NA	Water	9016	

Analysis Batch: 246840

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-66322-1	Duplicate	Total/NA	Ground Water	9016	246711
480-66322-1 MS	Duplicate	Total/NA	Ground Water	9016	246711

General Chemistry (Continued)

Analysis Batch: 246840 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-66322-1 MSD	Duplicate	Total/NA	Ground Water	9016	246711
480-66322-2	EB	Total/NA	Water	9016	246711
480-66322-6	MW-12	Total/NA	Ground Water	9016	246711
480-66322-7	MW-13	Total/NA	Ground Water	9016	246711
480-66322-8	MW-14	Total/NA	Ground Water	9016	246711
480-66322-9	MW-16	Total/NA	Ground Water	9016	246711
480-66322-10	MW-17	Total/NA	Ground Water	9016	246711
480-66322-12	MW-20	Total/NA	Ground Water	9016	246711
480-66322-13	MW-21	Total/NA	Ground Water	9016	246711
480-66322-14	MW-22	Total/NA	Ground Water	9016	246711
480-66322-15	MW-23	Total/NA	Ground Water	9016	246711
480-66322-16	SW-01	Total/NA	Surface Water	9016	246711
480-66322-17	SW-02	Total/NA	Surface Water	9016	246711
DLCK 460-246840/10	Lab Control Sample	Total/NA	Water	9016	
LCS 460-246711/2-A	Lab Control Sample	Total/NA	Water	9016	246711
MB 460-246711/1-A	Method Blank	Total/NA	Water	9016	246711

Client Sample ID: Duplicate

Lab Sample ID: 480-66322-1

Date Collected: 08/28/14 08:00

Matrix: Ground Water

Date Received: 08/28/14 17:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	201624	09/10/14 15:40	NMD1	TAL BUF
Total/NA	Prep	3510C			200345	08/30/14 07:58	JLS	TAL BUF
Total/NA	Analysis	8270D_LL_PAH		1	200785	09/04/14 14:57	PJQ	TAL BUF
Total/NA	Prep	9012B			200544	09/02/14 15:45	CLT	TAL BUF
Total/NA	Analysis	9012B		2	200695	09/03/14 19:54	RS	TAL BUF
Total/NA	Prep	9016			246711	09/04/14 06:00	JAK	TAL EDI
Total/NA	Analysis	9016		1	246840	09/04/14 12:00	JAK	TAL EDI

Client Sample ID: EB

Lab Sample ID: 480-66322-2

Date Collected: 08/28/14 15:00

Matrix: Water

Date Received: 08/28/14 17:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	201624	09/10/14 16:06	NMD1	TAL BUF
Total/NA	Prep	3510C			200345	08/30/14 07:58	JLS	TAL BUF
Total/NA	Analysis	8270D_LL_PAH		1	200785	09/04/14 15:22	PJQ	TAL BUF
Total/NA	Prep	9012B			200544	09/02/14 15:45	CLT	TAL BUF
Total/NA	Analysis	9012B		1	200694	09/03/14 19:04	RS	TAL BUF
Total/NA	Prep	9016			246711	09/04/14 06:00	JAK	TAL EDI
Total/NA	Analysis	9016		1	246840	09/04/14 12:00	JAK	TAL EDI

Client Sample ID: MW-07

Lab Sample ID: 480-66322-3

Date Collected: 08/28/14 09:15

Matrix: Ground Water

Date Received: 08/28/14 17:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		20	201624	09/10/14 16:31	NMD1	TAL BUF
Total/NA	Prep	3510C			200345	08/30/14 07:58	JLS	TAL BUF
Total/NA	Analysis	8270D_LL_PAH		100	200785	09/04/14 15:47	PJQ	TAL BUF

Client Sample ID: MW-10

Lab Sample ID: 480-66322-4

Date Collected: 08/28/14 09:00

Matrix: Ground Water

Date Received: 08/28/14 17:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	201624	09/10/14 16:57	NMD1	TAL BUF
Total/NA	Prep	3510C			200345	08/30/14 07:58	JLS	TAL BUF
Total/NA	Analysis	8270D_LL_PAH		1	200785	09/04/14 16:12	PJQ	TAL BUF

Client Sample ID: MW-11A

Lab Sample ID: 480-66322-5

Date Collected: 08/28/14 09:50

Matrix: Ground Water

Date Received: 08/28/14 17:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	201624	09/10/14 17:23	NMD1	TAL BUF
Total/NA	Prep	3510C			200345	08/30/14 07:58	JLS	TAL BUF
Total/NA	Analysis	8270D_LL_PAH		1	200785	09/04/14 16:37	PJQ	TAL BUF

Client Sample ID: MW-12

Lab Sample ID: 480-66322-6

Date Collected: 08/28/14 12:30

Matrix: Ground Water

Date Received: 08/28/14 17:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	9012B			200272	08/29/14 12:23	MDL	TAL BUF
Total/NA	Analysis	9012B		2	200694	09/03/14 19:23	RS	TAL BUF
Total/NA	Prep	9016			246711	09/04/14 06:00	JAK	TAL EDI
Total/NA	Analysis	9016		1	246840	09/04/14 12:00	JAK	TAL EDI

Client Sample ID: MW-13

Lab Sample ID: 480-66322-7

Date Collected: 08/28/14 14:15

Matrix: Ground Water

Date Received: 08/28/14 17:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	201624	09/10/14 17:48	NMD1	TAL BUF
Total/NA	Prep	3510C			200345	08/30/14 07:58	JLS	TAL BUF
Total/NA	Analysis	8270D_LL_PAH		1	200785	09/04/14 17:02	PJQ	TAL BUF
Total/NA	Prep	9012B			200276	08/29/14 12:32	MDL	TAL BUF
Total/NA	Analysis	9012B		1	200694	09/03/14 18:14	RS	TAL BUF
Total/NA	Prep	9016			246711	09/04/14 06:00	JAK	TAL EDI
Total/NA	Analysis	9016		1	246840	09/04/14 12:00	JAK	TAL EDI

Client Sample ID: MW-14

Lab Sample ID: 480-66322-8

Date Collected: 08/28/14 15:05

Matrix: Ground Water

Date Received: 08/28/14 17:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	9012B			200276	08/29/14 12:32	MDL	TAL BUF
Total/NA	Analysis	9012B		2	200694	09/03/14 19:26	RS	TAL BUF
Total/NA	Prep	9016			246711	09/04/14 06:00	JAK	TAL EDI
Total/NA	Analysis	9016		1	246840	09/04/14 12:00	JAK	TAL EDI

Client Sample ID: MW-16

Lab Sample ID: 480-66322-9

Date Collected: 08/28/14 14:20

Matrix: Ground Water

Date Received: 08/28/14 17:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	9012B			200272	08/29/14 12:23	MDL	TAL BUF

Client Sample ID: MW-16

Lab Sample ID: 480-66322-9

Date Collected: 08/28/14 14:20

Matrix: Ground Water

Date Received: 08/28/14 17:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9012B		5	200694	09/03/14 19:17	RS	TAL BUF
Total/NA	Prep	9016			246711	09/04/14 06:00	JAK	TAL EDI
Total/NA	Analysis	9016		1	246840	09/04/14 12:00	JAK	TAL EDI

Client Sample ID: MW-17

Lab Sample ID: 480-66322-10

Date Collected: 08/28/14 11:10

Matrix: Ground Water

Date Received: 08/28/14 17:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	201624	09/10/14 18:14	NMD1	TAL BUF
Total/NA	Prep	3510C			200345	08/30/14 07:58	JLS	TAL BUF
Total/NA	Analysis	8270D_LL_PAH		1	200785	09/04/14 17:27	PJQ	TAL BUF
Total/NA	Prep	9012B			200276	08/29/14 12:32	MDL	TAL BUF
Total/NA	Analysis	9012B		1	200694	09/03/14 18:18	RS	TAL BUF
Total/NA	Prep	9016			246711	09/04/14 06:00	JAK	TAL EDI
Total/NA	Analysis	9016		1	246840	09/04/14 12:00	JAK	TAL EDI

Client Sample ID: MW-19

Lab Sample ID: 480-66322-11

Date Collected: 08/28/14 11:50

Matrix: Ground Water

Date Received: 08/28/14 17:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		100	201624	09/10/14 18:39	NMD1	TAL BUF
Total/NA	Prep	3510C			200345	08/30/14 07:58	JLS	TAL BUF
Total/NA	Analysis	8270D_LL_PAH		500	200785	09/04/14 17:52	PJQ	TAL BUF

Client Sample ID: MW-20

Lab Sample ID: 480-66322-12

Date Collected: 08/28/14 11:35

Matrix: Ground Water

Date Received: 08/28/14 17:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	9012B			200917	09/04/14 16:05	JMB	TAL BUF
Total/NA	Analysis	9012B		1	201204	09/08/14 03:04	JTS	TAL BUF
Total/NA	Prep	9016			246711	09/04/14 06:00	JAK	TAL EDI
Total/NA	Analysis	9016		1	246840	09/04/14 12:00	JAK	TAL EDI

Client Sample ID: MW-21

Lab Sample ID: 480-66322-13

Date Collected: 08/28/14 12:20

Matrix: Ground Water

Date Received: 08/28/14 17:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	9012B			200276	08/29/14 12:32	MDL	TAL BUF
Total/NA	Analysis	9012B		1	200694	09/03/14 18:30	RS	TAL BUF

Client Sample ID: MW-21

Lab Sample ID: 480-66322-13

Date Collected: 08/28/14 12:20

Matrix: Ground Water

Date Received: 08/28/14 17:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	9016			246711	09/04/14 06:00	JAK	TAL EDI
Total/NA	Analysis	9016		1	246840	09/04/14 12:00	JAK	TAL EDI

Client Sample ID: MW-22

Lab Sample ID: 480-66322-14

Date Collected: 08/28/14 13:15

Matrix: Ground Water

Date Received: 08/28/14 17:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	9012B			200276	08/29/14 12:32	MDL	TAL BUF
Total/NA	Analysis	9012B		2	200694	09/03/14 19:29	RS	TAL BUF
Total/NA	Prep	9016			246711	09/04/14 06:00	JAK	TAL EDI
Total/NA	Analysis	9016		1	246840	09/04/14 12:00	JAK	TAL EDI

Client Sample ID: MW-23

Lab Sample ID: 480-66322-15

Date Collected: 08/28/14 10:05

Matrix: Ground Water

Date Received: 08/28/14 17:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	201624	09/10/14 19:04	NMD1	TAL BUF
Total/NA	Prep	3510C			200345	08/30/14 07:58	JLS	TAL BUF
Total/NA	Analysis	8270D_LL_PAH		1	200785	09/04/14 18:18	PJQ	TAL BUF
Total/NA	Prep	9012B			200276	08/29/14 12:32	MDL	TAL BUF
Total/NA	Analysis	9012B		2	200694	09/03/14 19:31	RS	TAL BUF
Total/NA	Prep	9016			246711	09/04/14 06:00	JAK	TAL EDI
Total/NA	Analysis	9016		1	246840	09/04/14 12:00	JAK	TAL EDI

Client Sample ID: SW-01

Lab Sample ID: 480-66322-16

Date Collected: 08/28/14 14:00

Matrix: Surface Water

Date Received: 08/28/14 17:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	201624	09/10/14 19:29	NMD1	TAL BUF
Total/NA	Prep	3510C			200345	08/30/14 07:58	JLS	TAL BUF
Total/NA	Analysis	8270D_LL_PAH		1	200785	09/04/14 18:44	PJQ	TAL BUF
Total/NA	Prep	9012B			200917	09/04/14 16:05	JMB	TAL BUF
Total/NA	Analysis	9012B		1	201204	09/08/14 03:05	JTS	TAL BUF
Total/NA	Prep	9016			246711	09/04/14 06:00	JAK	TAL EDI
Total/NA	Analysis	9016		1	246840	09/04/14 12:00	JAK	TAL EDI

Lab Chronicle

Client: AECOM, Inc.
Project/Site: Semi Annual Sampling

TestAmerica Job ID: 480-66322-1

Client Sample ID: SW-02

Lab Sample ID: 480-66322-17

Date Collected: 08/28/14 09:30

Matrix: Surface Water

Date Received: 08/28/14 17:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	201624	09/10/14 19:55	NMD1	TAL BUF
Total/NA	Prep	3510C			200345	08/30/14 07:58	JLS	TAL BUF
Total/NA	Analysis	8270D_LL_PAH		1	201476	09/09/14 17:09	PJQ	TAL BUF
Total/NA	Prep	9012B			200917	09/04/14 16:05	JMB	TAL BUF
Total/NA	Analysis	9012B		1	201204	09/08/14 03:07	JTS	TAL BUF
Total/NA	Prep	9016			246711	09/04/14 06:00	JAK	TAL EDI
Total/NA	Analysis	9016		1	246840	09/04/14 12:00	JAK	TAL EDI

Client Sample ID: TB

Lab Sample ID: 480-66322-18

Date Collected: 08/28/14 00:00

Matrix: Water

Date Received: 08/28/14 17:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	201624	09/10/14 20:20	NMD1	TAL BUF

Laboratory References:

TAL BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

TAL EDI = TestAmerica Edison, 777 New Durham Road, Edison, NJ 08817, TEL (732)549-3900

Certification Summary

Client: AECOM, Inc.
Project/Site: Semi Annual Sampling

TestAmerica Job ID: 480-66322-1

Laboratory: TestAmerica Buffalo

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Arkansas DEQ	State Program	6	88-0686	07-06-15
California	State Program	9	1169CA	09-30-14 *
Connecticut	State Program	1	PH-0568	09-30-14 *
Florida	NELAP	4	E87672	06-30-15
Georgia	State Program	4	N/A	03-31-15
Georgia	State Program	4	956	03-31-15
Illinois	NELAP	5	200003	09-30-14 *
Iowa	State Program	7	374	03-01-15
Kansas	NELAP	7	E-10187	01-31-15
Kentucky (DW)	State Program	4	90029	12-31-14
Kentucky (UST)	State Program	4	30	03-31-15
Louisiana	NELAP	6	02031	06-30-14 *
Maine	State Program	1	NY00044	12-04-14
Maryland	State Program	3	294	03-31-15
Massachusetts	State Program	1	M-NY044	06-30-15
Michigan	State Program	5	9937	03-31-15
Minnesota	NELAP	5	036-999-337	12-31-14
New Hampshire	NELAP	1	2337	11-17-14
New Jersey	NELAP	2	NY455	06-30-15
New York	NELAP	2	10026	03-31-15
North Dakota	State Program	8	R-176	03-31-14 *
Oklahoma	State Program	6	9421	08-31-15
Oregon	NELAP	10	NY200003	06-09-15
Pennsylvania	NELAP	3	68-00281	07-31-15
Rhode Island	State Program	1	LAO00328	12-30-14
Tennessee	State Program	4	TN02970	03-31-15
Texas	NELAP	6	T104704412-11-2	07-31-15
USDA	Federal		P330-11-00386	11-22-14
Virginia	NELAP	3	460185	09-14-15
Washington	State Program	10	C784	02-10-15
West Virginia DEP	State Program	3	252	09-30-14 *
Wisconsin	State Program	5	998310390	08-31-15

Laboratory: TestAmerica Edison

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Connecticut	State Program	1	PH-0200	09-30-14 *
DE Haz. Subst. Cleanup Act (HSCA)	State Program	3	N/A	12-31-14
New Jersey	NELAP	2	12028	06-30-15
New York	NELAP	2	11452	03-31-15
Pennsylvania	NELAP	3	68-00522	02-28-15
Rhode Island	State Program	1	LAO00132	12-30-14
USDA	Federal		NJCA-003-08	04-04-17

* Certification renewal pending - certification considered valid.

Method Summary

Client: AECOM, Inc.
Project/Site: Semi Annual Sampling

TestAmerica Job ID: 480-66322-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL BUF
8270D_LL_PAH	Semivolatile Organic Compounds (GC/MS) Low level PAH	SW846	TAL BUF
9012B	Cyanide, Total andor Amenable	SW846	TAL BUF
9016	Cyanide, Free	SW846	TAL EDI

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

TAL EDI = TestAmerica Edison, 777 New Durham Road, Edison, NJ 08817, TEL (732)549-3900

Sample Summary

Client: AECOM, Inc.
Project/Site: Semi Annual Sampling

TestAmerica Job ID: 480-66322-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-66322-1	Duplicate	Ground Water	08/28/14 08:00	08/28/14 17:15
480-66322-2	EB	Water	08/28/14 15:00	08/28/14 17:15
480-66322-3	MW-07	Ground Water	08/28/14 09:15	08/28/14 17:15
480-66322-4	MW-10	Ground Water	08/28/14 09:00	08/28/14 17:15
480-66322-5	MW-11A	Ground Water	08/28/14 09:50	08/28/14 17:15
480-66322-6	MW-12	Ground Water	08/28/14 12:30	08/28/14 17:15
480-66322-7	MW-13	Ground Water	08/28/14 14:15	08/28/14 17:15
480-66322-8	MW-14	Ground Water	08/28/14 15:05	08/28/14 17:15
480-66322-9	MW-16	Ground Water	08/28/14 14:20	08/28/14 17:15
480-66322-10	MW-17	Ground Water	08/28/14 11:10	08/28/14 17:15
480-66322-11	MW-19	Ground Water	08/28/14 11:50	08/28/14 17:15
480-66322-12	MW-20	Ground Water	08/28/14 11:35	08/28/14 17:15
480-66322-13	MW-21	Ground Water	08/28/14 12:20	08/28/14 17:15
480-66322-14	MW-22	Ground Water	08/28/14 13:15	08/28/14 17:15
480-66322-15	MW-23	Ground Water	08/28/14 10:05	08/28/14 17:15
480-66322-16	SW-01	Surface Water	08/28/14 14:00	08/28/14 17:15
480-66322-17	SW-02	Surface Water	08/28/14 09:30	08/28/14 17:15
480-66322-18	TB	Water	08/28/14 00:00	08/28/14 17:15

TestAmerica Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone (716) 691-2600 Fax (716) 691-7991

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: Emily Laity	Lab PM: Schove, John R	Carrier Tracking No(s):	COC No: 480-53688-10188.1
Client Contact: Tamara Raby	Phone: 716 836-4506	E-Mail: john.schove@testamericainc.com		Page: Page 1 of 2
Company: AECOM, Inc.				Job #:

Analysis Requested

Address: 1001 West Seneca Street Suite 204	Due Date Requested:
City: Ithaca	TAT Requested (days):
State, Zip: NY, 14850	
Phone:	PO #: Purchase Order not required
Email: Tamara.Raby@aecom.com	WO #:
Project Name: AECOM, Mineral Springs/ Event Desc: Semi Annual Sampling (Au	Project #: 48008324
Site: New York	SSOW#:

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2SO3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - ph 4-5, Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9016 - Cyanide, Free	9012A - Cyanide, Total	8270C_LL_PAH - PAH - 8270	8260B - BTEX - 8260	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N	B	N	A		
MW-12	8/28/14	1230	G	Water			X	X				
MW-14	8/28/14	15:05	G	Water			X	X				
MW-16	8/28/14	1420	G	Water			X	X				
MW-20	8/28/14	11:35	G	Water			X	X				
MW-21	8/28/14	12:20	G	Water			X	X				
MW-22	8/28/14	1315	G	Water			X	X				
MW-13	8/28/14	14:15	G	Water			X	X	X	X		
MW-17	8/28/14	1110	G	Water			X	X	X	X		
MW-23	8/28/14	10:05	G	Water			X	X	X	X		
EB	8/28/14	1500	G	Water			X	X	X	X		
Duplicate	8/28/14	8:00	G	Water			X	X	X	X		

480-66322 Chain of Custody

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify) Per Contract

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:				
Relinquished by:	Date/Time: 8/28/14 17:15	Company AECOM	Received by:	Date/Time: 8/28/14 1715	Company TA Buff
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: ∆ Yes ∆ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: #1 3.1, 3.2, 3.8

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9/22/2014

TestAmerica Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone (716) 691-2600 Fax (716) 691-7991

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: Emily Leith	Lab PM: Schove, John R	Carrier Tracking No(s):	COC No: 480-53688-10188.2
Client Contact: Tamara Raby	Phone: 716-836-4506	E-Mail: john.schove@testamericainc.com		Page: Page 2 of 2
Company: AECOM, Inc.				Job #:
Address: 1001 West Seneca Street Suite 204	Due Date Requested:			
City: Ithaca	TAT Requested (days):			
State, Zip: NY, 14850				
Phone:	PO #: Purchase Order not required			
Email: Tamara.Raby@aecom.com	WO #:			
Project Name: AECOM, Mineral Springs/ Event Desc: Semi Annual Sampling (Au	Project #: 48008324			
Site: New York	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2SO3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - ph 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9016 - Cyanide, Free	9012A - Cyanide, Total	8270C_LL_PAH - PAH - 8270	8260B - BTEX - 8260	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N	B	N	A		
				Water								
SW-01	8/28/14	1400	G	Water			X	X	X	X		
SW-02	8/28/14	930	G	Water			X	X	X	X		
MW-07	8/28/14	915	G	Water					X	X		
MW-10	8/28/14	900	G	Water					X	X		
MW-11A	8/28/14	950	G	Water					X	X		
MW-19	8/28/14	1150	G	Water					X	X		
TB	8/28/14	—	G	Water						X		
				Water								
				Water								

Possible Hazard Identification
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify) per contract.

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1	Emily Leith	8/28/14 17:15				
2	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
3	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:
		#1 3.1, 3.2, 3.8

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9/22/2014

TestAmerica Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone (716) 691-2600 Fax (716) 691-7991

Chain of Custody Record

480-66322 Chain of Custody

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

9/22/2014

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Schove, John R	COC No: 480-19001.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: john.schove@testamericainc.com	Page: Page 1 of 2
Company: TestAmerica Laboratories, Inc.		**Analysis Requested**	Job #: 480-66322-1
Address: 777 New Durham Road,	Due Date Requested: 9/10/2014		**Preservation Codes:**
City: Edison	TAT Requested (days):		A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2SO3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - ph 4-5, Z - other (specify)
State, Zip: NJ, 08817			
Phone: 732-549-3900(Tel) 732-549-3679(Fax)	PO #:		Other:
Email	WO #:		
Project Name: AECOM, Mineral Springs	Project #: 48008324		
Site: AECOM, Mineral Springs	SSOW#:		

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9016/9016_Prep Cyanide, Free	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
Duplicate (480-66322-1)	8/28/14	08:00 Eastern		Water			X	1	
EB (480-66322-2)	8/28/14	15:00 Eastern		Water			X	1	
MW-12 (480-66322-6)	8/28/14	12:30 Eastern		Water			X	1	
MW-13 (480-66322-7)	8/28/14	14:15 Eastern		Water			X	1	
MW-14 (480-66322-8)	8/28/14	15:05 Eastern		Water			X	1	
MW-16 (480-66322-9)	8/28/14	14:20 Eastern		Water			X	1	
MW-17 (480-66322-10)	8/28/14	11:10 Eastern		Water			X	1	
MW-20 (480-66322-12)	8/28/14	11:35 Eastern		Water			X	1	
MW-21 (480-66322-13)	8/28/14	12:20 Eastern		Water			X	1	
MW-22 (480-66322-14)	8/28/14	13:15 Eastern		Water			X	1	
MW-23 (480-66322-15)	8/28/14	10:05 Eastern		Water			X	1	

Possible Hazard Identification *Unconfirmed*	***Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*** ☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested: I, II, III, IV, Other (specify)	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:		
Relinquished by:	Date/Time: 8-29-14 1700	Company: TAS	Received by: (Fedex)	Date/Time: 8/30/14 11:15	Company: TA Ed
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: ☐ Yes ☐ No	Custody Seal No.: 316775	Cooler Temperature(s) °C and Other Remarks: IR#5 -0.7/1.2°C

TestAmerica Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone (716) 691-2600 Fax (716) 691-7991

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

9/22/2014

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Schove, John R	Carrier Tracking No(s):	COC No: 480-19001.2
Client Contact: Shipping/Receiving	Phone:	E-Mail: john.schove@testamericainc.com		Page: Page 2 of 2
Company: TestAmerica Laboratories, Inc.		Analysis Requested		Job #: 480-66322-1
Address: 777 New Durham Road, ,	Due Date Requested: 9/10/2014			Preservation Codes:
City: Edison	TAT Requested (days):			A - HCL; B - NaOH; C - Zn Acetate; D - Nitric Acid; E - NaHSO4; F - MeOH; G - Amchlor; H - Ascorbic Acid; I - Ice; J - DI Water; K - EDTA; L - EDA; M - Hexane; N - None; O - AsNaO2; P - Na2O4S; Q - Na2SO3; R - Na2S2SO3; S - H2SO4; T - TSP Dodecahydrate; U - Acetone; V - MCAA; W - ph 4-5; Z - other (specify)
State, Zip: NJ, 08817				
Phone: 732-549-3900(Tel) 732-549-3679(Fax)	PO #:			Other:
Email:	WO #:			
Project Name: AECOM, Mineral Springs	Project #: 48008324			
Site: AECOM, Mineral Springs	SSOW#:			

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9016/9016_Prep Cyanide, Free	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
SW-01 (480-66322-16)	8/28/14	14:00 Eastern		Water			X	1	
SW-02 (480-66322-17)	8/28/14	09:30 Eastern		Water			X	1	

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify)	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
[signature]	8-29-14 1700	TAB	[signature] (FedEx)	8/30/14 11:15	TA Ed
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Login Sample Receipt Checklist

Client: AECOM, Inc.

Job Number: 480-66322-1

Login Number: 66322

List Source: TestAmerica Buffalo

List Number: 1

Creator: Kolb, Chris M

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	aecom
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	True	
Chlorine Residual checked.	True	Yes: Samples checked, no residual chlorine detected

Login Sample Receipt Checklist

Client: AECOM, Inc.

Job Number: 480-66322-1

Login Number: 66322
List Number: 2
Creator: Rivera, Kenneth

List Source: TestAmerica Edison
List Creation: 08/30/14 02:18 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	316775
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	1.2°C, IR #5
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	N/A	
Samples do not require splitting or compositing.	N/A	
Residual Chlorine Checked.	N/A	No analysis requiring residual chlorine check assigned.