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October 4, 2013

Mr. Glenn May
New York State Department of Environmental Conservation
Division of Environmental Remediation
270 Michigan Avenue
Buffalo, New York 14203-2999

**Subject: Soil Vapor Intrusion Evaluation – Supplemental Soil and Groundwater Data Report
Former Scott Aviation Facility Area 1 BCP Site
NYSDEC Site Code No. C915233, Lancaster, New York**

Dear Mr. May:

On behalf of Tyco International (Tyco), AECOM Technical Services, Inc. (AECOM) is pleased to provide you with this letter-report summarizing the results of the groundwater and soil sampling program that was recently completed at the Brownfield Cleanup Program's (BCP) Former Scott Aviation Facility Area 1 Site (the Site). The Site is identified as New York State Department of Environmental Conservation (NYSDEC) Site Code No. C915233 and is located west of AVOX Systems Inc. (AVOX) Plant 1 in Lancaster, New York.

The groundwater and soil investigation was completed along the northwestern edge of the AVOX property, adjacent to the residence at 205 Erie Street, which is located hydraulically downgradient of the Site's presumed volatile organic compound (VOC) groundwater plume. This work was conducted in an effort to collect additional data to supplement the results of the July 2013 limited-scope evaluation of the potential for soil vapor intrusion (SVI).

This letter-report discusses the project intent, field methodology, field and analytical results, findings, and conclusions.

Background

The Site is characterized by a groundwater plume that is presumably impacted by chlorinated VOCs (CVOCs), which led to the July 2013 evaluation of the potential for SVI. The purpose of the SVI evaluation was to assess whether soil vapor in the vicinity of the residence at 205 Erie Street contained CVOCs at concentrations sufficiently elevated to represent a potential indoor air quality issue for the nearby buildings (house and garage/shop). Freon-12 (SVI-3R) and TCE (SVI-1) were the only chlorinated Constituents of Potential Concern (COPCs) reported in soil vapor during the July 2013 SVI investigation, and the TCE detection specifically resulted in NYSDEC's request that sub-slab vapor and indoor air sampling be conducted at the residence.

For the purposes of this letter report, AECOM will focus on the following eight site-related CVOCs that should be considered as part of an SVI analysis for the residence: 1,1,1-trichloroethane; 1,1,2-trichloroethane; 1,1-dichloroethane; 1,1-dichloroethene; chloroethane; cis-1,2-dichloroethane; trichloroethene; and vinyl chloride. These compounds, which have all been reported in Site groundwater, will be referred to as key CVOCs and will be reported as a total concentration.

The results of the July 2013 soil vapor sampling event identified TCE in SVI-1 at a fairly low concentration ($6.2 \mu\text{g}/\text{m}^3$) but it was absent in SVI-3(R), collected closest to the Site's groundwater plume. No other key CVOC was detected in either soil vapor sample. The soil at SVI-2 was so tight that no soil vapor sample could be obtained.

Based on these results, Tyco authorized collection of soil and groundwater samples in the vicinity of the SVI sample locations, to further assess the presence of TCE and the remaining key CVOCs in other nearby media. The purpose of the additional sampling was to determine whether soil and groundwater in the vicinity of the residence contained key CVOCs at concentrations sufficiently elevated to represent a potential indoor air quality issue when all available data was considered collectively.

Field Activities

On September 16, 2013, Matrix Environmental Technologies, Inc. (Matrix, Orchard Park, New York), under the direct supervision of an AECOM geologist, completed six soil borings and installed six temporary well points (a photograph log is provided as **Attachment 1**). Sampling locations are approximated on **Figure 1** and are briefly summarized in the following table:

Sample ID	Location
B-1	East of 205 Erie Street home; north of SVI-1
B-2	East of 205 Erie Street home/garage/shop; south of SVI-1
B-3	East of 205 Erie Street garage/shop; north of SVI-2
B-4	East of 205 Erie Street back yard; south of SVI-2
B-5	East of 205 Erie Street back yard; west of SVI-3
B-6	East of 205 Erie Street back yard; between SVI-3 and CB-1

Soil samples were collected during the completion of the six soil borings. Groundwater samples were collected on the next day (September 17, 2013) and on September 25, 2013, as further discussed below.

Soil Boring and Sampling Methodology

Soil borings were completed by Matrix on September 16, 2013, using direct-push techniques, to an approximate depth of 16 feet (ft) below ground surface (bgs) at location B-1 and 15 ft bgs at locations B-2 through B-6. Two-inch diameter, four-foot long Macro-Core® soil samples were continuously collected. Soil was characterized and screened both visually and with a MultiRae Model PGM-7240 photoionization detector (PID) for signs of impact (refer to **Attachment 2 – Soil Boring Logs**). No signs of impacted soil were observed; therefore, a soil sample was collected from the 10.5 to 11 ft bgs interval, immediately above the interpreted water table (~11 ft bgs).

Soil samples were collected using Terra Core soil sampling techniques (methanol preservation technique for low level VOC analysis). Samples were packaged and hand delivered to TestAmerica Laboratories, Inc. (Amherst, NY) under standard chain-of-custody procedures. All samples were analyzed for TCL VOCs using USEPA Method 8260B. A Category B deliverable package was requested for the data and included the following elements: analytical report; quality assurance/quality control summary; chain of custody; method blank; laboratory control samples – control limits; reporting limits; and, surrogate recoveries for gas chromatograph/mass spectrometer analysis with control limits.

Temporary Well Installation and Groundwater Sampling Methodology

Once the desired depth was reached and the drive rod was retracted, a temporary Schedule 40 one-inch diameter PVC well point was installed at each location. A 5-foot (0.010 inch slotted) screen was installed at location B-1 at 10 to 15 ft bgs and 10-foot screens were installed at locations B-2 through B-6 at 5 to 15 ft bgs. A sand pack was installed to approximately one foot above the screen and the remainder of the annulus was filled with bentonite chips. Refer to **Attachment 3** for well construction logs.

The temporary well points were allowed to sit overnight. On September 17, 2013, AECOM returned to the Site to attempt to collect a groundwater grab sample from each location. Due to insufficient recharge (very tight soils), a groundwater sample was only able to be collected from location B-1 on September 17, 2013. This sample was collected using a peristaltic pump and dedicated polyethylene/silicon tubing. The sample was submitted along with a trip blank to the laboratory with the soil samples, as described previously.

AECOM returned to the Site on September 25, 2013 to attempt to collect groundwater grab samples from locations B-2 through B-6. Samples were successfully collected from each location and submitted along with a trip blank to the laboratory as described above.

Field Observations

No petroleum or chemical odors were noted in soils recovered during the completion of the soil borings. In addition, all PID readings were at background during the screening of soils (i.e., 0.1 to 0.2 ppm). In general, shallow site soils consisted of approximately six inches of topsoil above reddish-brown silt with clay followed by pinkish gray to gray silty clay with trace fine to coarse sand. Shallow groundwater was observed at approximately 11 ft bgs.

Analytical Results

A more detailed summary of contaminants in site groundwater and stormwater is provided in the Draft Alternatives Analysis Report (AAR) dated April 30, 2013. As indicated previously, this report will focus on key CVOCs.

According to the analytical results, no key CVOCs were reported in any of the soil or groundwater samples. Acetone was the only VOC reported in soil (12 µg/kg in B-5). Acetone was also reported in five of the six groundwater samples and in the trip blank. The only other VOC reported was 2-butanone in B-6 at 4.1 µg/L. The laboratory summary sheets are included as **Attachment 4**. The full analytical reports (Category B deliverable package) with QA/QC data are available upon request.

Findings/Discussion

Figure 1 presents the total key CVOc concentrations in soil, groundwater, stormwater, soil vapor, and ambient air based on data collected between 2010 and 2013. With the exception of the recent data, all data has been previously provided to NYSDEC. Groundwater samples with the "TP" prefix were collected within the storm sewer bedding.

As is shown in the figure, no key CVOcs, including TCE, were reported in soil or groundwater between contaminated location A1-GP07 and the structures at 205 Erie Street (a distance of 200 to 250 feet). Furthermore, no key CVOcs were reported in soil or groundwater between the residence and the storm sewer that flows alongside AVOX Plant 1 (a distance of approximately 100 feet).

No key CVOcs were reported in soil vapor sample SVI-3(R), which is located approximately 75 feet from both the storm sewer and the nearest groundwater sample with elevated key CVOcs. SV-1 is

further from these site features and the only key CVOC in sample SV-1 was TCE at $6.2 \mu\text{g}/\text{m}^3$. It is also relevant to mention the June 2010 sub-slab vapor sampling performed at AVOX Plant 1, since contaminants can be expected to behave similarly with the same subsurface soil and soil vapor conditions. Sample SS-3 exhibited a similarly low concentration of TCE at $4.3 \mu\text{g}/\text{m}^3$, but was located even closer to the storm sewer and groundwater source, which suggests that significant attenuation occurs in soil vapor in Area 1 within a fairly short distance. SS-3 was situated approximately 60 feet from A1-GP13 ($5,270 \mu\text{g}/\text{L}$ key CVOCs) and 50 feet from CB-E ($1,735 \mu\text{g}/\text{L}$ key CVOCs).

AECOM is also aware that the garage at 205 Erie Street is used to perform limited auto repair activities, and does not discount the possibility that the low level VOCs detected in SV-1 are related to those maintenance operations rather than the Area 1 impacts.

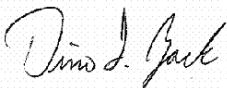
Conclusions

Based on the information collected, AECOM provides the following conclusions:

- In September 2013, six soil borings were advanced 15 to 16 ft bgs to assess soil and groundwater conditions along the property boundary between AVOX Area 1 and the residence at 205 Erie Street. Site soils are comprised of silt and clay; consistent with elsewhere in Area 1. One soil sample was collected from each boring. Groundwater was observed at approximately 11 feet below grade, and one grab groundwater sample was collected from each boring. No key CVOCs were reported in any of the samples.
- AECOM reviewed historical soil, groundwater, soil vapor, and stormwater data from the northern portion of the Area 1 Site to assess the potential relationship between the low level TCE concentration reported in SV-1 in July 2013 and the Area 1 contamination. The collective data does not identify a clear relationship between the two that would warrant further SVI sampling at the residential property. Multiple media have been evaluated. The property boundary between AVOX and 205 Erie Street appears to not be impacted by the BCP Site.

If you have any questions regarding this submission, please do not hesitate to contact me at (716) 836-4506 ext. 15 or via email.

Yours sincerely,

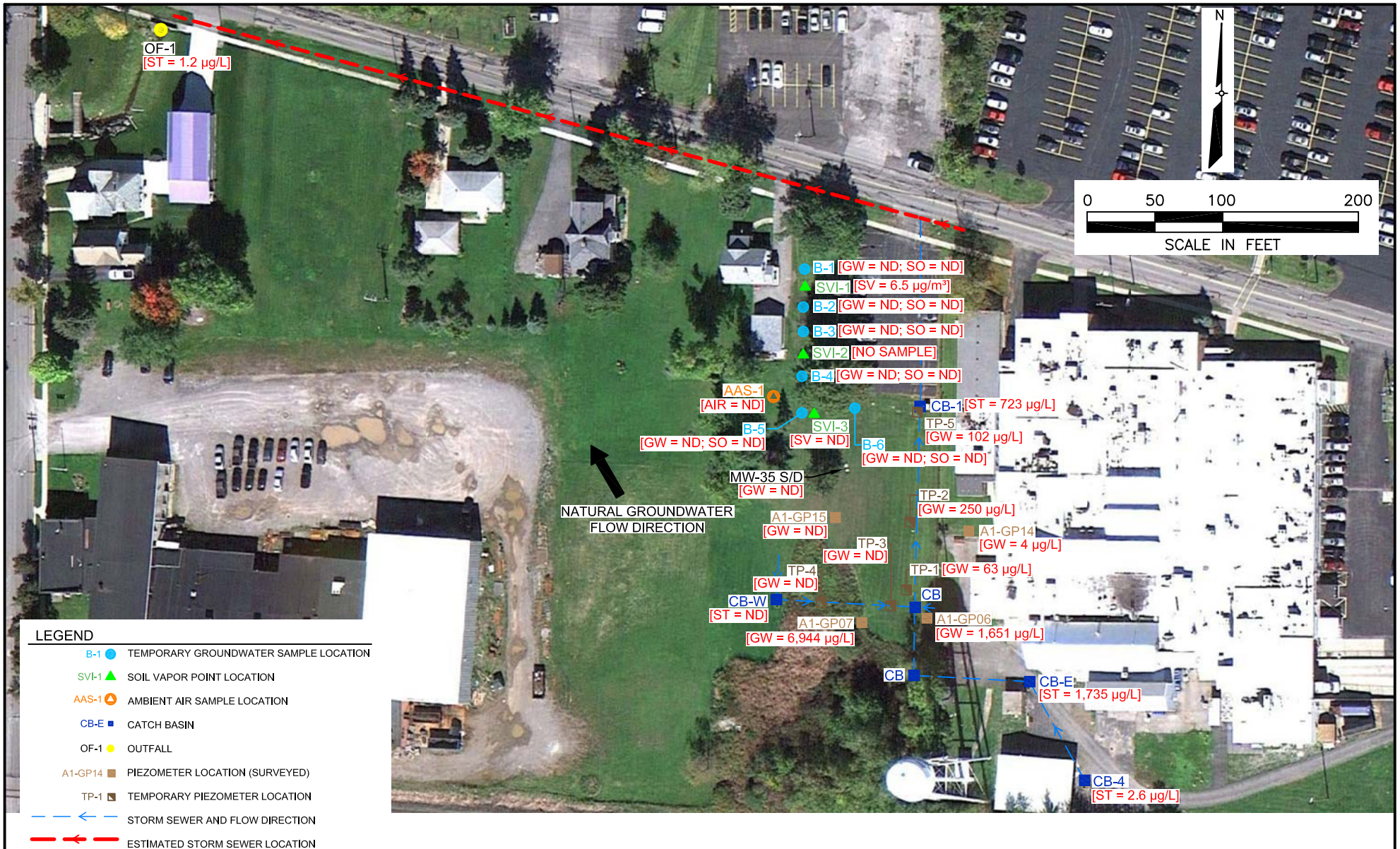


Dino L. Zack, P.G.
Project Manager
dino.zack@aecom.com

Enclosures

Cc: Gregory Sutton (NYSDEC) – electronic copy
Deanna Ripstein (NYSDOH) – electronic copy
Stuart Rixman (Tyco International) – electronic copy
Joseph Janeczek (Tyco International) – electronic copy
Jennifer Davide (AVOX Systems Inc.) – electronic copy
AECOM Project File – electronic copy

FIGURE



LEGEND

- B-1 ● TEMPORARY GROUNDWATER SAMPLE LOCATION
- SVI-1 ▲ SOIL VAPOR POINT LOCATION
- AAS-1 ○ AMBIENT AIR SAMPLE LOCATION
- CB-E ■ CATCH BASIN
- OF-1 ● OUTFALL
- A1-GP14 ■ PIEZOMETER LOCATION (SURVEYED)
- TP-1 ■ TEMPORARY PIEZOMETER LOCATION
- ← — STORM SEWER AND FLOW DIRECTION
- ← — ESTIMATED STORM SEWER LOCATION

TOTAL VOC CONCENTRATION

- ND NON DETECT
- GW GROUNDWATER IN µg/L
- SO SOIL IN µg/kg
- ST STORMWATER IN µg/L
- SV SOIL VAPOR IN µg/m³



FIGURE 1
TOTAL KEY CHLORINATED VOCs IN ALL MEDIA
AREA 1 NORTH
 FORMER SCOTT AVIATION FACILITY BCP SITE
 LANCASTER, NEW YORK



ATTACHMENT 1

Photograph Log

Client Name: Tyco International

Site Location: Former Scott Aviation BCP Site, Lancaster, New York

AECOM Project #60155991

Photo No.
1

Date:
9/16/13

Direction Photo Taken:

Northwest

Description:

Matrix (AECOM subcontractor) completing boring at location B-2. Note SVI-1 and B-1 to the north (right in photo).



Photo No.
2

Date:
9/16/13

Direction Photo Taken:

North

Description:

Line of borings (white PVC stickups) between AVOX Systems Inc. property and residence to the west. Note SVI-3 in foreground.



Photo No. 3	Date: 9/16/13
Direction Photo Taken: West	
Description: Catch basin CB-1 in foreground and boring B-6 in the background (i.e., where Geoprobe is set-up). Note temporary well point installed in the pipe bedding at CB-1 during SRI.	



Photo No. 4	Date: 9/16/13
Direction Photo Taken: North	
Description: Typical 0-4' bgs soil profile (0-0.5' topsoil, 0.5-4' silt with trace clay, fine sand, and rootlets).	



Photo No. 5	Date: 9/16/13
Direction Photo Taken: North	
Description: Typical 8-12' bgs soil profile (clay with trace silt and fine sand)	



Photo No. 6	Date: 9/16/13
Direction Photo Taken: North	
Description: Typical color gradation from brown to gray with increasing moisture content (approximately at 9' bgs).	





ATTACHMENT 2

Soil Boring Logs



ATTACHMENT 3

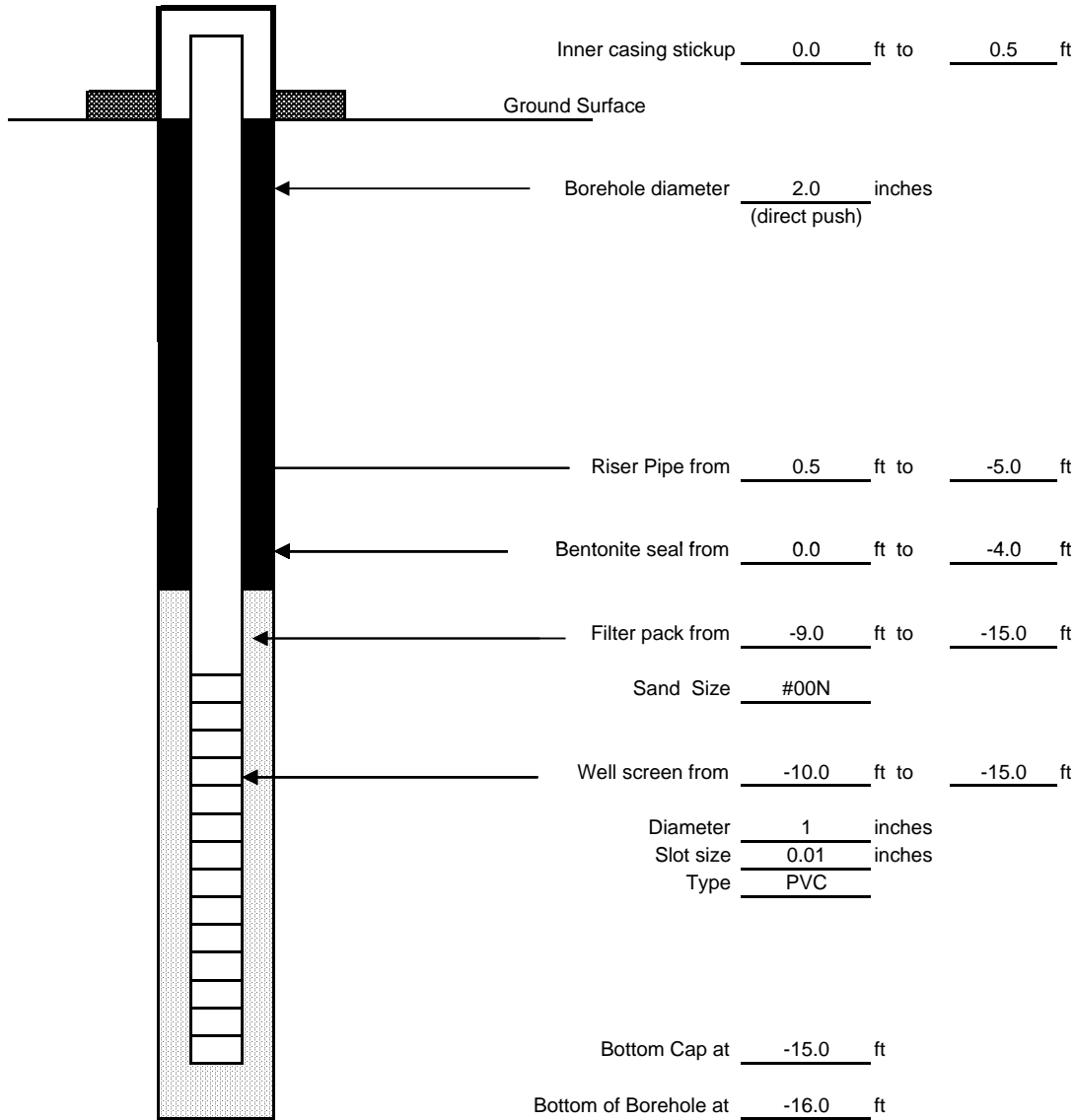
Well Construction Logs



Overburden Well Diagram

Well No. B-1

Project: Former Scott Aviation Facility BCP	Location: Lancaster, NY	Page 1 of 1		
AECOM Project No.: 60155991	Subcontractor: Matrix	Water Levels		
Surface Elevation: ~688 ft AMSL	Driller: Mark Janus	Date	Time	Depth
Top of PVC	Well Permit No.: NA	9/17/13		14.10
Casing Elevation: ~688.5 ft AMSL	AECOM Rep.: Tamara Raby	9/25/13		13.80
Datum: NGVD 1988	Date of Completion: 9/16/2013			



Note: All measurements based on ground surface at 0.0 feet. (+) above grade. (-) below grade.

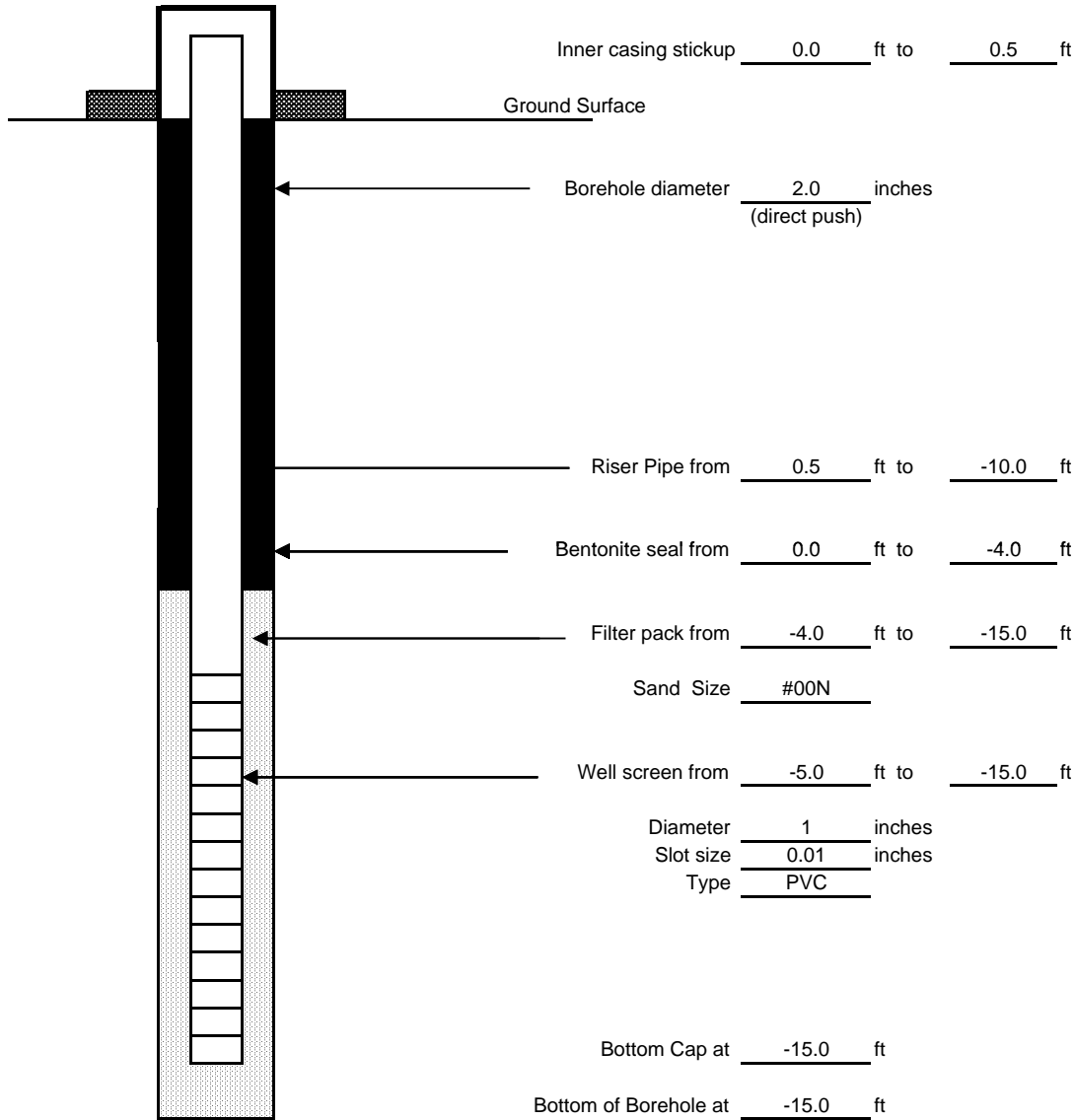
(NOT TO SCALE)



Overburden Well Diagram

Well No. B-2

Project: Former Scott Aviation Facility BCP	Location: Lancaster, NY	Page 1 of 1		
AECOM Project No.: 60155991	Subcontractor: Matrix	Water Levels		
Surface Elevation: ~688 ft AMSL	Driller: Mark Janus	Date	Time	Depth
Top of PVC	Well Permit No.: NA	9/17/13		14.50
Casing Elevation: ~688.5 ft AMSL	AECOM Rep.: Tamara Raby	9/25/13		13.80
Datum: NGVD 1988	Date of Completion: 9/16/2013			



Note: All measurements based on ground surface at 0.0 feet. (+) above grade. (-) below grade.

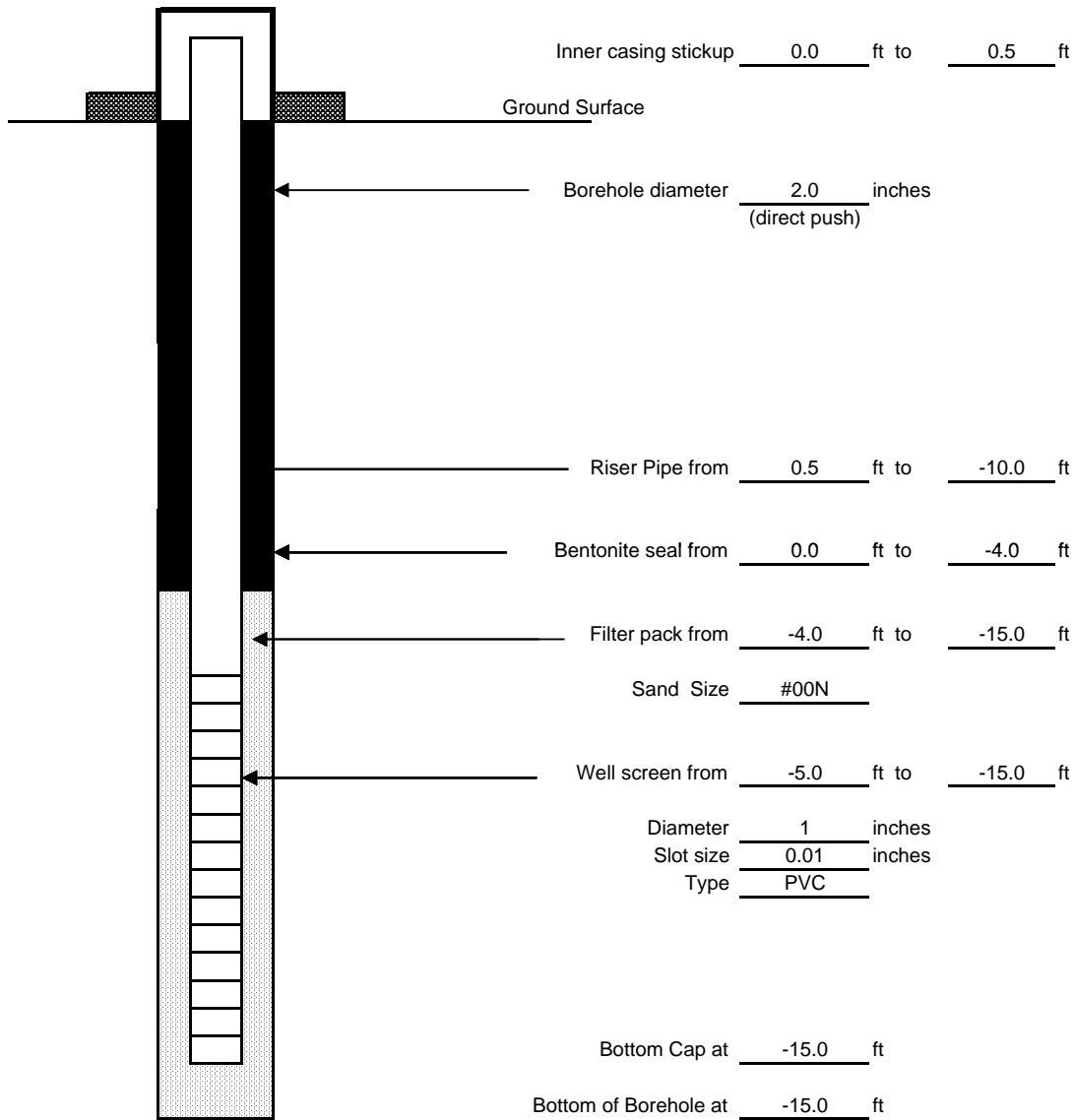
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Overburden Well Diagram

Well No. B-3

Project: Former Scott Aviation Facility BCP	Location: Lancaster, NY	Page 1 of 1		
AECOM Project No.: 60155991	Subcontractor: Matrix	Water Levels		
Surface Elevation: ~688 ft AMSL	Driller: Mark Janus	Date	Time	Depth
Top of PVC	Well Permit No.: NA	9/17/13		14.40
Casing Elevation: ~688.5 ft AMSL	AECOM Rep.: Tamara Raby	9/25/13		10.65
Datum: NGVD 1988	Date of Completion: 9/16/2013			



Note: All measurements based on ground surface at 0.0 feet. (+) above grade. (-) below grade.

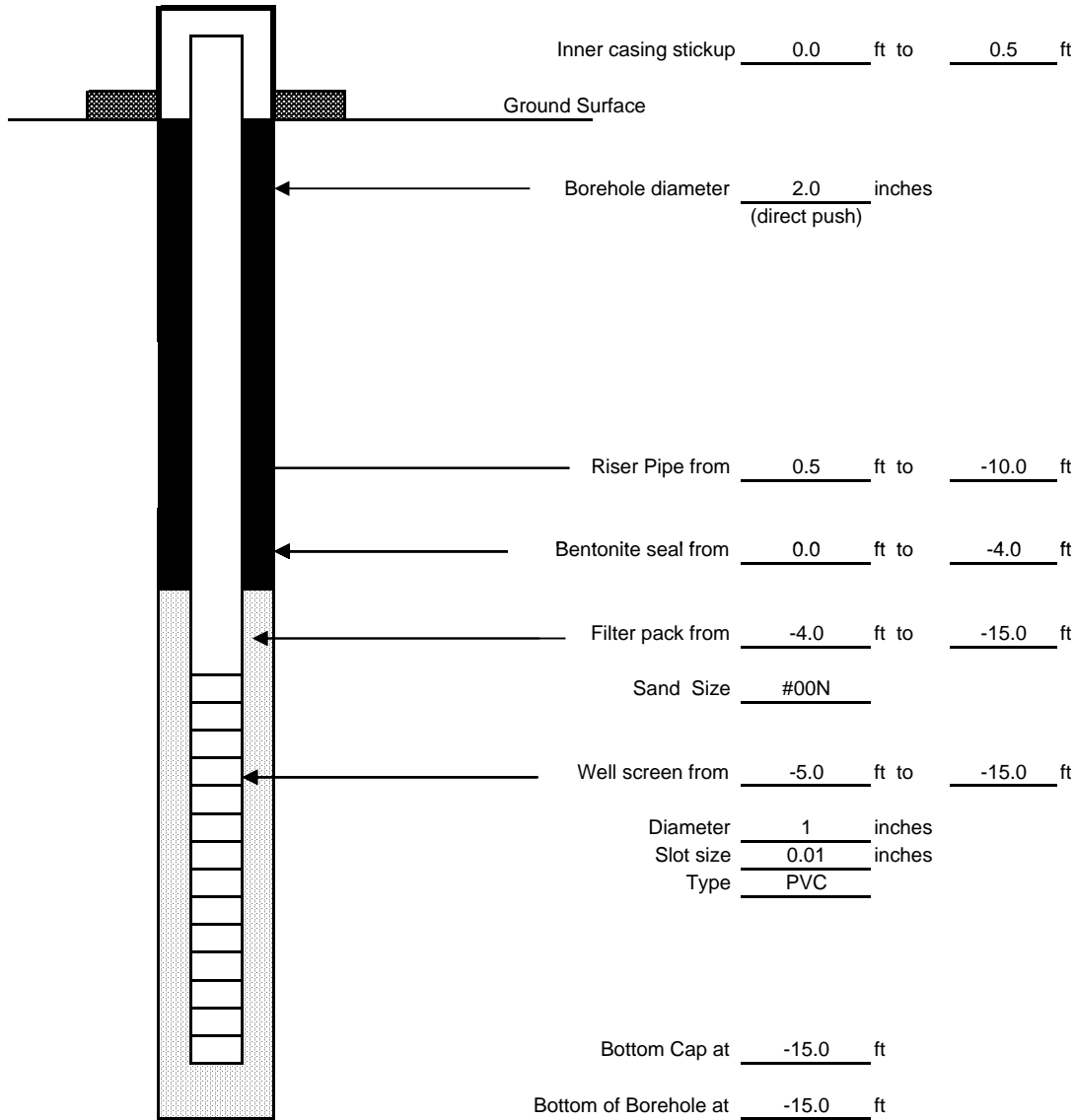
(NOT TO SCALE)



Overburden Well Diagram

Well No. B-4

Project: Former Scott Aviation Facility BCP	Location: Lancaster, NY	Page 1 of 1		
AECOM Project No.: 60155991	Subcontractor: Matrix	Water Levels		
Surface Elevation: ~688 ft AMSL	Driller: Mark Janus	Date	Time	Depth
Top of PVC	Well Permit No.: NA	9/17/13		14.30
Casing Elevation: ~688.5 ft AMSL	AECOM Rep.: Tamara Raby	9/25/13		13.15
Datum: NGVD 1988	Date of Completion: 9/16/2013			



Note: All measurements based on ground surface at 0.0 feet. (+) above grade. (-) below grade.

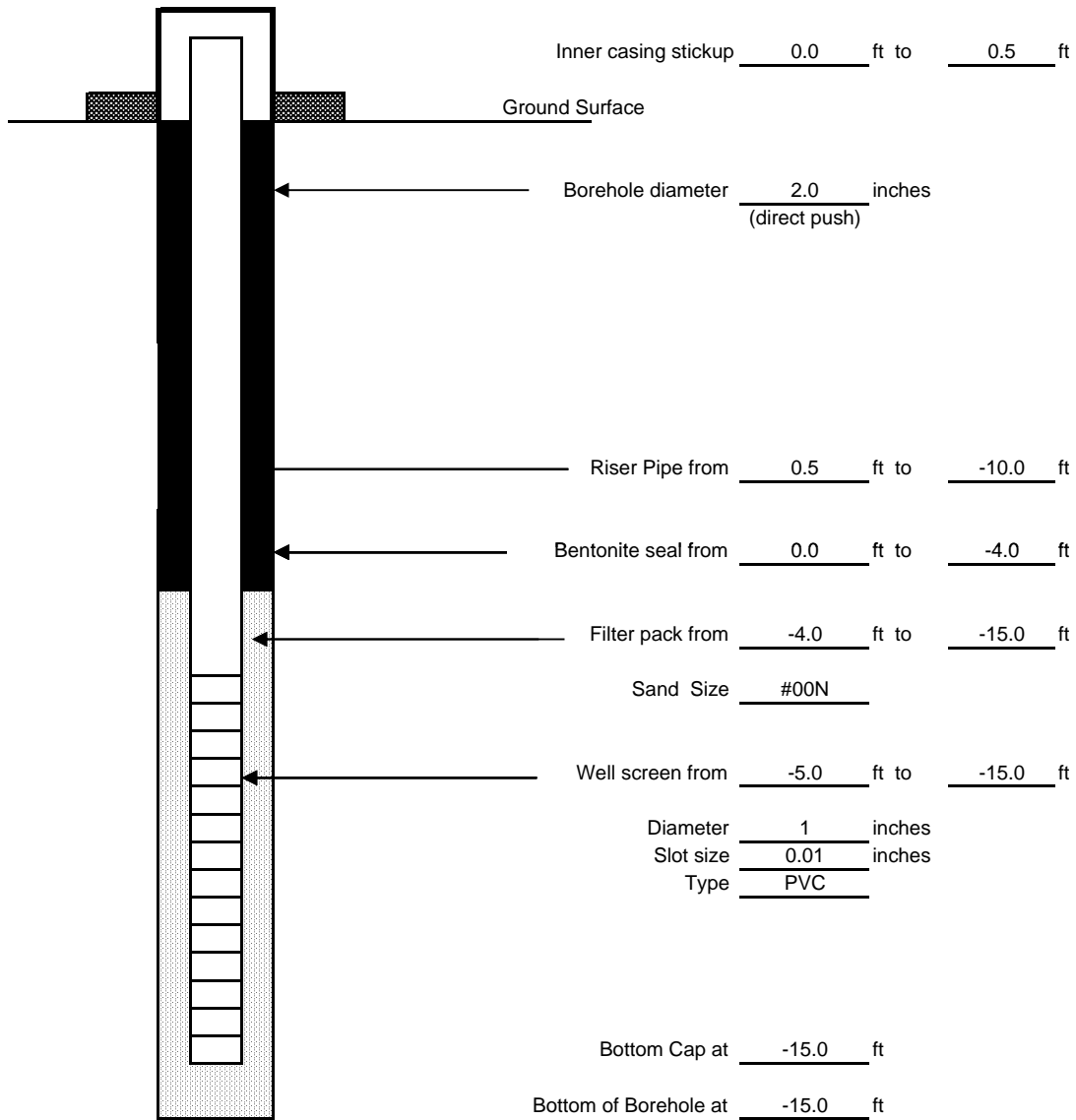
(NOT TO SCALE)



Overburden Well Diagram

Well No. B-5

Project: Former Scott Aviation Facility BCP	Location: Lancaster, NY	Page 1 of 1		
AECOM Project No.: 60155991	Subcontractor: Matrix	Water Levels		
Surface Elevation: ~688 ft AMSL	Driller: Mark Janus	Date	Time	Depth
Top of PVC	Well Permit No.: NA	9/17/13		14.50
Casing Elevation: ~688.5 ft AMSL	AECOM Rep.: Tamara Raby	9/25/13		14.10
Datum: NGVD 1988	Date of Completion: 9/16/2013			



Note: All measurements based on ground surface at 0.0 feet. (+) above grade. (-) below grade.

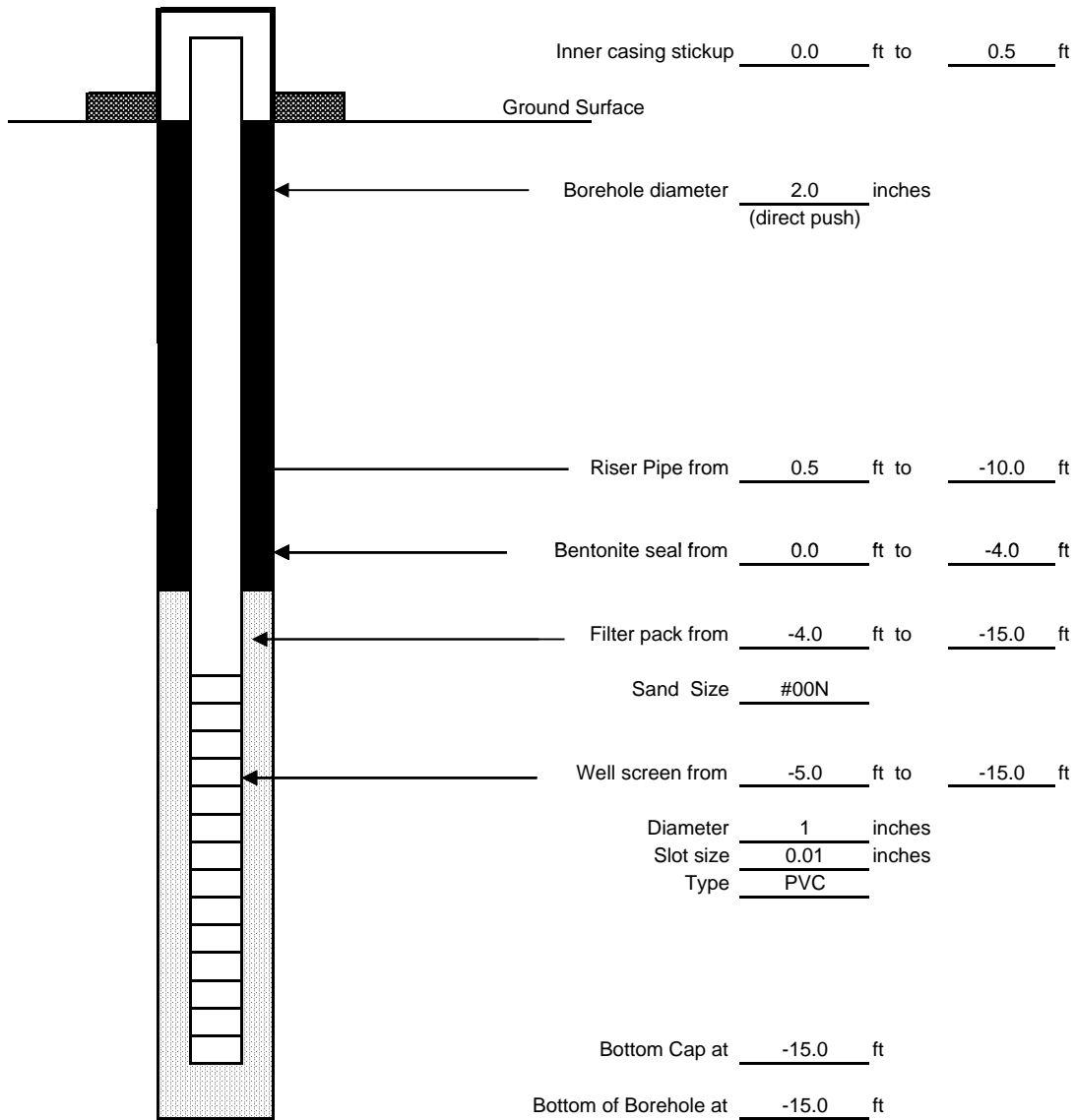
(NOT TO SCALE)



Overburden Well Diagram

Well No. B-6

Project: Former Scott Aviation Facility BCP	Location: Lancaster, NY	Page 1 of 1		
AECOM Project No.: 60155991	Subcontractor: Matrix	Water Levels		
Surface Elevation: ~688 ft AMSL	Driller: Mark Janus	Date	Time	Depth
Top of PVC	Well Permit No.: NA	9/17/13		14.30
Casing Elevation: ~688.5 ft AMSL	AECOM Rep.: Tamara Raby	9/25/13		13.95
Datum: NGVD 1988	Date of Completion: 9/16/2013			



Note: All measurements based on ground surface at 0.0 feet. (+) above grade. (-) below grade.

(NOT TO SCALE)



ATTACHMENT 4

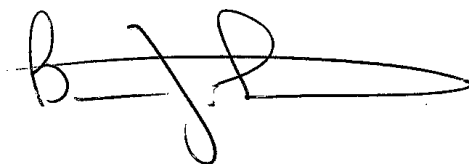
**Analytical Laboratory Summary Sheets
(Full data reports available upon request)**

ANALYTICAL REPORT

Job Number: 480-45961-1

Job Description: Tyco Int'l Facility-BCP(AECOM# 60155991)

For:
AECOM, Inc.
100 Corporate Parkway
Suite 341
Amherst, NY 14226
Attention: Mr. Dino Zack



Approved for release.
Brian J Fischer
Project Manager II
9/30/2013 6:00 PM

Brian J Fischer, Project Manager II
10 Hazelwood Drive, Amherst, NY, 14228-2298
(716)504-9835
brian.fischer@testamericainc.com
09/30/2013

cc: Ms. Helen Jones

The test results in this report meet all NELAP requirements for analytes for which accreditation is required or available. Any exceptions to the NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory. All questions regarding this test report should be directed to the TestAmerica Project Manager who has signed this report. TestAmerica Buffalo NELAC Certifications: CADPH 01169CA, FLDOH E87672, ILEPA 200003, KSDOH E-10187, LADEQ 30708, MDH 036-999-337, NHELAP 2973, NJDEP NY455, NHDOH 10026, ORELAP NY200003, PADEP 68-00281, TXCEQ T-104704412-10-1

TestAmerica Laboratories, Inc.

TestAmerica Buffalo 10 Hazelwood Drive, Amherst, NY 14228-2298
Tel (716) 691-2600 Fax (716) 691-7991 www.testamericainc.com



Job Narrative
480-45961-1

Comments

No additional comments.

Receipt

The samples were received on 9/17/2013 4:20 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 3.9° C and 4.3° C.

GC/MS VOA

Method(s) 8260B: The following volatiles sample(s) was diluted due to foaming at the time of purging during the original sample analysis: B-1 GW 09172013 (480-45961-8). Elevated reporting limits (RLs) are provided.

No other analytical or quality issues were noted.

SAMPLE SUMMARY

Client: AECOM, Inc.

Job Number: 480-45961-1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
480-45961-1	B-1 (10.5-11)	Solid	09/16/2013 0900	09/17/2013 1620
480-45961-2	B-2 (10.5-11)	Solid	09/16/2013 0930	09/17/2013 1620
480-45961-3	B-3 (10.5-11)	Solid	09/16/2013 1030	09/17/2013 1620
480-45961-4	B-4 (10.5-11)	Solid	09/16/2013 1140	09/17/2013 1620
480-45961-5	B-5 (10.5-11)	Solid	09/16/2013 1215	09/17/2013 1620
480-45961-6	B-6 (10.5-11)	Solid	09/16/2013 1300	09/17/2013 1620
480-45961-7	TRIP BLANK	Water	09/16/2013 0000	09/17/2013 1620
480-45961-8	B-1 GW 09172013	Water	09/17/2013 1315	09/17/2013 1620

EXECUTIVE SUMMARY - Detections

Client: AECOM, Inc.

Job Number: 480-45961-1

Lab Sample ID Analyte	Client Sample ID	Result	Qualifier	Reporting Limit	Units	Method
480-45961-1	B-1 (10.5-11)					
Percent Moisture		15		0.10	%	Moisture
Percent Solids		85		0.10	%	Moisture
480-45961-2	B-2 (10.5-11)					
Percent Moisture		17		0.10	%	Moisture
Percent Solids		83		0.10	%	Moisture
480-45961-3	B-3 (10.5-11)					
Percent Moisture		17		0.10	%	Moisture
Percent Solids		83		0.10	%	Moisture
480-45961-4	B-4 (10.5-11)					
Percent Moisture		17		0.10	%	Moisture
Percent Solids		83		0.10	%	Moisture
480-45961-5	B-5 (10.5-11)					
Acetone		12	J	22	ug/Kg	8260B
Percent Moisture		18		0.10	%	Moisture
Percent Solids		82		0.10	%	Moisture
480-45961-6	B-6 (10.5-11)					
Percent Moisture		18		0.10	%	Moisture
Percent Solids		82		0.10	%	Moisture

METHOD SUMMARY

Client: AECOM, Inc.

Job Number: 480-45961-1

Description	Lab Location	Method	Preparation Method
Matrix: Solid			
Volatile Organic Compounds (GC/MS)	TAL BUF	SW846 8260B	
Closed System Purge and Trap	TAL BUF		SW846 5035
Percent Moisture	TAL BUF	EPA Moisture	
Matrix: Water			
Volatile Organic Compounds (GC/MS)	TAL BUF	SW846 8260B	
Purge and Trap	TAL BUF		SW846 5030B

Lab References:

TAL BUF = TestAmerica Buffalo

Method References:

EPA = US Environmental Protection Agency

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

METHOD / ANALYST SUMMARY

Client: AECOM, Inc.

Job Number: 480-45961-1

Method	Analyst	Analyst ID
SW846 8260B	Brandt, Todd R	TRB
SW846 8260B	Quirk, Patrick J	PJQ
EPA Moisture	Cwiklinski, Charles D	CDC

Analytical Data

Client: AECOM, Inc.

Job Number: 480-45961-1

Client Sample ID: B-1 (10.5-11)

Lab Sample ID: 480-45961-1

Date Sampled: 09/16/2013 0900

Client Matrix: Solid

% Moisture: 15.0

Date Received: 09/17/2013 1620

8260B Volatile Organic Compounds (GC/MS)

Analysis Method: 8260B	Analysis Batch: 480-139832	Instrument ID: HP5973F
Prep Method: 5035	Prep Batch: 480-139845	Lab File ID: F1426.D
Dilution: 1.0		Initial Weight/Volume: 7.2 g
Analysis Date: 09/19/2013 0154		Final Weight/Volume: 5 g
Prep Date: 09/18/2013 2252		

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
1,1,1-Trichloroethane		ND		0.30	4.1
1,1,2,2-Tetrachloroethane		ND		0.66	4.1
1,1,2-Trichloro-1,2,2-trifluoroethane		ND		0.93	4.1
1,1,2-Trichloroethane		ND		0.53	4.1
1,1-Dichloroethane		ND		0.50	4.1
1,1-Dichloroethene		ND		0.50	4.1
1,2,4-Trichlorobenzene		ND		0.25	4.1
1,2-Dibromo-3-Chloropropane		ND		2.0	4.1
1,2-Dibromoethane		ND		0.52	4.1
1,2-Dichlorobenzene		ND		0.32	4.1
1,2-Dichloroethane		ND		0.21	4.1
1,2-Dichloropropane		ND		2.0	4.1
1,3-Dichlorobenzene		ND		0.21	4.1
1,4-Dichlorobenzene		ND		0.57	4.1
2-Butanone (MEK)		ND		1.5	20
2-Hexanone		ND		2.0	20
4-Methyl-2-pentanone (MIBK)		ND		1.3	20
Acetone		ND		3.4	20
Benzene		ND		0.20	4.1
Bromodichloromethane		ND		0.55	4.1
Bromoform		ND		2.0	4.1
Bromomethane		ND		0.37	4.1
Carbon disulfide		ND		2.0	4.1
Carbon tetrachloride		ND		0.40	4.1
Chlorobenzene		ND		0.54	4.1
Chloroethane		ND		0.92	4.1
Chloroform		ND		0.25	4.1
Chloromethane		ND		0.25	4.1
cis-1,2-Dichloroethene		ND		0.52	4.1
cis-1,3-Dichloropropene		ND		0.59	4.1
Cyclohexane		ND		0.57	4.1
Dibromochloromethane		ND		0.52	4.1
Dichlorodifluoromethane		ND		0.34	4.1
Ethylbenzene		ND		0.28	4.1
Isopropylbenzene		ND		0.62	4.1
Methyl acetate		ND		0.76	4.1
Methyl tert-butyl ether		ND		0.40	4.1
Methylcyclohexane		ND		0.62	4.1
Methylene Chloride		ND		1.9	4.1
Styrene		ND		0.20	4.1
Tetrachloroethene		ND		0.55	4.1
Toluene		ND		0.31	4.1
trans-1,2-Dichloroethene		ND		0.42	4.1
trans-1,3-Dichloropropene		ND		1.8	4.1
Trichloroethene		ND		0.90	4.1
Trichlorofluoromethane		ND		0.39	4.1

Analytical Data

Client: AECOM, Inc.

Job Number: 480-45961-1

Client Sample ID: B-1 (10.5-11)

Lab Sample ID: 480-45961-1

Date Sampled: 09/16/2013 0900

Client Matrix: Solid

% Moisture: 15.0

Date Received: 09/17/2013 1620

8260B Volatile Organic Compounds (GC/MS)

Analysis Method: 8260B Analysis Batch: 480-139832 Instrument ID: HP5973F
Prep Method: 5035 Prep Batch: 480-139845 Lab File ID: F1426.D
Dilution: 1.0 Initial Weight/Volume: 7.2 g
Analysis Date: 09/19/2013 0154 Final Weight/Volume: 5 g
Prep Date: 09/18/2013 2252

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Vinyl chloride		ND		0.50	4.1
Xylenes, Total		ND		0.69	8.2

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	104		64 - 126
4-Bromofluorobenzene (Surr)	104		72 - 126
Toluene-d8 (Surr)	103		71 - 125

Analytical Data

Client: AECOM, Inc.

Job Number: 480-45961-1

Client Sample ID: B-2 (10.5-11)

Lab Sample ID: 480-45961-2

Date Sampled: 09/16/2013 0930

Client Matrix: Solid

% Moisture: 16.6

Date Received: 09/17/2013 1620

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	480-139832	Instrument ID:	HP5973F
Prep Method:	5035	Prep Batch:	480-139845	Lab File ID:	F1427.D
Dilution:	1.0			Initial Weight/Volume:	6.54 g
Analysis Date:	09/19/2013 0220			Final Weight/Volume:	5 g
Prep Date:	09/18/2013 2252				

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
1,1,1-Trichloroethane		ND		0.33	4.6
1,1,2,2-Tetrachloroethane		ND		0.74	4.6
1,1,2-Trichloro-1,2,2-trifluoroethane		ND		1.0	4.6
1,1,2-Trichloroethane		ND		0.60	4.6
1,1-Dichloroethane		ND		0.56	4.6
1,1-Dichloroethene		ND		0.56	4.6
1,2,4-Trichlorobenzene		ND		0.28	4.6
1,2-Dibromo-3-Chloropropane		ND		2.3	4.6
1,2-Dibromoethane		ND		0.59	4.6
1,2-Dichlorobenzene		ND		0.36	4.6
1,2-Dichloroethane		ND		0.23	4.6
1,2-Dichloropropane		ND		2.3	4.6
1,3-Dichlorobenzene		ND		0.24	4.6
1,4-Dichlorobenzene		ND		0.64	4.6
2-Butanone (MEK)		ND		1.7	23
2-Hexanone		ND		2.3	23
4-Methyl-2-pentanone (MIBK)		ND		1.5	23
Acetone		ND		3.9	23
Benzene		ND		0.22	4.6
Bromodichloromethane		ND		0.61	4.6
Bromoform		ND		2.3	4.6
Bromomethane		ND		0.41	4.6
Carbon disulfide		ND		2.3	4.6
Carbon tetrachloride		ND		0.44	4.6
Chlorobenzene		ND		0.61	4.6
Chloroethane		ND		1.0	4.6
Chloroform		ND		0.28	4.6
Chloromethane		ND		0.28	4.6
cis-1,2-Dichloroethene		ND		0.59	4.6
cis-1,3-Dichloropropene		ND		0.66	4.6
Cyclohexane		ND		0.64	4.6
Dibromochloromethane		ND		0.59	4.6
Dichlorodifluoromethane		ND		0.38	4.6
Ethylbenzene		ND		0.32	4.6
Isopropylbenzene		ND		0.69	4.6
Methyl acetate		ND		0.85	4.6
Methyl tert-butyl ether		ND		0.45	4.6
Methylcyclohexane		ND		0.70	4.6
Methylene Chloride		ND		2.1	4.6
Styrene		ND		0.23	4.6
Tetrachloroethene		ND		0.62	4.6
Toluene		ND		0.35	4.6
trans-1,2-Dichloroethene		ND		0.47	4.6
trans-1,3-Dichloropropene		ND		2.0	4.6
Trichloroethene		ND		1.0	4.6
Trichlorofluoromethane		ND		0.43	4.6

Analytical Data

Client: AECOM, Inc.

Job Number: 480-45961-1

Client Sample ID: B-2 (10.5-11)

Lab Sample ID: 480-45961-2

Date Sampled: 09/16/2013 0930

Client Matrix: Solid

% Moisture: 16.6

Date Received: 09/17/2013 1620

8260B Volatile Organic Compounds (GC/MS)

Analysis Method: 8260B Analysis Batch: 480-139832 Instrument ID: HP5973F
Prep Method: 5035 Prep Batch: 480-139845 Lab File ID: F1427.D
Dilution: 1.0 Initial Weight/Volume: 6.54 g
Analysis Date: 09/19/2013 0220 Final Weight/Volume: 5 g
Prep Date: 09/18/2013 2252

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Vinyl chloride		ND		0.56	4.6
Xylenes, Total		ND		0.77	9.2

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	100		64 - 126
4-Bromofluorobenzene (Surr)	100		72 - 126
Toluene-d8 (Surr)	99		71 - 125

Analytical Data

Client: AECOM, Inc.

Job Number: 480-45961-1

Client Sample ID: B-3 (10.5-11)

Lab Sample ID: 480-45961-3

Date Sampled: 09/16/2013 1030

Client Matrix: Solid

% Moisture: 17.0

Date Received: 09/17/2013 1620

8260B Volatile Organic Compounds (GC/MS)

Analysis Method: 8260B	Analysis Batch: 480-139832	Instrument ID: HP5973F	
Prep Method: 5035	Prep Batch: 480-139845	Lab File ID: F1428.D	
Dilution: 1.0		Initial Weight/Volume: 6.91 g	
Analysis Date: 09/19/2013 0245		Final Weight/Volume: 5 g	
Prep Date: 09/18/2013 2252			

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
1,1,1-Trichloroethane		ND		0.32	4.4
1,1,2,2-Tetrachloroethane		ND		0.71	4.4
1,1,2-Trichloro-1,2,2-trifluoroethane		ND		0.99	4.4
1,1,2-Trichloroethane		ND		0.57	4.4
1,1-Dichloroethane		ND		0.53	4.4
1,1-Dichloroethene		ND		0.53	4.4
1,2,4-Trichlorobenzene		ND		0.26	4.4
1,2-Dibromo-3-Chloropropane		ND		2.2	4.4
1,2-Dibromoethane		ND		0.56	4.4
1,2-Dichlorobenzene		ND		0.34	4.4
1,2-Dichloroethane		ND		0.22	4.4
1,2-Dichloropropane		ND		2.2	4.4
1,3-Dichlorobenzene		ND		0.22	4.4
1,4-Dichlorobenzene		ND		0.61	4.4
2-Butanone (MEK)		ND		1.6	22
2-Hexanone		ND		2.2	22
4-Methyl-2-pentanone (MIBK)		ND		1.4	22
Acetone		ND		3.7	22
Benzene		ND		0.21	4.4
Bromodichloromethane		ND		0.58	4.4
Bromoform		ND		2.2	4.4
Bromomethane		ND		0.39	4.4
Carbon disulfide		ND		2.2	4.4
Carbon tetrachloride		ND		0.42	4.4
Chlorobenzene		ND		0.58	4.4
Chloroethane		ND		0.98	4.4
Chloroform		ND		0.27	4.4
Chloromethane		ND		0.26	4.4
cis-1,2-Dichloroethene		ND		0.56	4.4
cis-1,3-Dichloropropene		ND		0.63	4.4
Cyclohexane		ND		0.61	4.4
Dibromochloromethane		ND		0.56	4.4
Dichlorodifluoromethane		ND		0.36	4.4
Ethylbenzene		ND		0.30	4.4
Isopropylbenzene		ND		0.66	4.4
Methyl acetate		ND		0.81	4.4
Methyl tert-butyl ether		ND		0.43	4.4
Methylcyclohexane		ND		0.66	4.4
Methylene Chloride		ND		2.0	4.4
Styrene		ND		0.22	4.4
Tetrachloroethene		ND		0.58	4.4
Toluene		ND		0.33	4.4
trans-1,2-Dichloroethene		ND		0.45	4.4
trans-1,3-Dichloropropene		ND		1.9	4.4
Trichloroethene		ND		0.96	4.4
Trichlorofluoromethane		ND		0.41	4.4

Analytical Data

Client: AECOM, Inc.

Job Number: 480-45961-1

Client Sample ID: B-3 (10.5-11)

Lab Sample ID: 480-45961-3

Date Sampled: 09/16/2013 1030

Client Matrix: Solid

% Moisture: 17.0

Date Received: 09/17/2013 1620

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	480-139832	Instrument ID:	HP5973F
Prep Method:	5035	Prep Batch:	480-139845	Lab File ID:	F1428.D
Dilution:	1.0			Initial Weight/Volume:	6.91 g
Analysis Date:	09/19/2013 0245			Final Weight/Volume:	5 g
Prep Date:	09/18/2013 2252				

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Vinyl chloride		ND		0.53	4.4
Xylenes, Total		ND		0.73	8.7

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	103		64 - 126
4-Bromofluorobenzene (Surr)	102		72 - 126
Toluene-d8 (Surr)	101		71 - 125

Analytical Data

Client: AECOM, Inc.

Job Number: 480-45961-1

Client Sample ID: B-4 (10.5-11)

Lab Sample ID: 480-45961-4

Date Sampled: 09/16/2013 1140

Client Matrix: Solid

% Moisture: 16.8

Date Received: 09/17/2013 1620

8260B Volatile Organic Compounds (GC/MS)

Analysis Method: 8260B	Analysis Batch: 480-139832	Instrument ID: HP5973F	
Prep Method: 5035	Prep Batch: 480-139845	Lab File ID: F1429.D	
Dilution: 1.0		Initial Weight/Volume: 7.81 g	
Analysis Date: 09/19/2013 0311		Final Weight/Volume: 5 g	
Prep Date: 09/18/2013 2252			

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
1,1,1-Trichloroethane		ND		0.28	3.8
1,1,2,2-Tetrachloroethane		ND		0.62	3.8
1,1,2-Trichloro-1,2,2-trifluoroethane		ND		0.88	3.8
1,1,2-Trichloroethane		ND		0.50	3.8
1,1-Dichloroethane		ND		0.47	3.8
1,1-Dichloroethene		ND		0.47	3.8
1,2,4-Trichlorobenzene		ND		0.23	3.8
1,2-Dibromo-3-Chloropropane		ND		1.9	3.8
1,2-Dibromoethane		ND		0.49	3.8
1,2-Dichlorobenzene		ND		0.30	3.8
1,2-Dichloroethane		ND		0.19	3.8
1,2-Dichloropropane		ND		1.9	3.8
1,3-Dichlorobenzene		ND		0.20	3.8
1,4-Dichlorobenzene		ND		0.54	3.8
2-Butanone (MEK)		ND		1.4	19
2-Hexanone		ND		1.9	19
4-Methyl-2-pentanone (MIBK)		ND		1.3	19
Acetone		ND		3.2	19
Benzene		ND		0.19	3.8
Bromodichloromethane		ND		0.52	3.8
Bromoform		ND		1.9	3.8
Bromomethane		ND		0.35	3.8
Carbon disulfide		ND		1.9	3.8
Carbon tetrachloride		ND		0.37	3.8
Chlorobenzene		ND		0.51	3.8
Chloroethane		ND		0.87	3.8
Chloroform		ND		0.24	3.8
Chloromethane		ND		0.23	3.8
cis-1,2-Dichloroethene		ND		0.49	3.8
cis-1,3-Dichloropropene		ND		0.55	3.8
Cyclohexane		ND		0.54	3.8
Dibromochloromethane		ND		0.49	3.8
Dichlorodifluoromethane		ND		0.32	3.8
Ethylbenzene		ND		0.27	3.8
Isopropylbenzene		ND		0.58	3.8
Methyl acetate		ND		0.72	3.8
Methyl tert-butyl ether		ND		0.38	3.8
Methylcyclohexane		ND		0.59	3.8
Methylene Chloride		ND		1.8	3.8
Styrene		ND		0.19	3.8
Tetrachloroethene		ND		0.52	3.8
Toluene		ND		0.29	3.8
trans-1,2-Dichloroethene		ND		0.40	3.8
trans-1,3-Dichloropropene		ND		1.7	3.8
Trichloroethene		ND		0.85	3.8
Trichlorofluoromethane		ND		0.36	3.8

Analytical Data

Client: AECOM, Inc.

Job Number: 480-45961-1

Client Sample ID: B-4 (10.5-11)

Lab Sample ID: 480-45961-4

Date Sampled: 09/16/2013 1140

Client Matrix: Solid

% Moisture: 16.8

Date Received: 09/17/2013 1620

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	480-139832	Instrument ID:	HP5973F
Prep Method:	5035	Prep Batch:	480-139845	Lab File ID:	F1429.D
Dilution:	1.0			Initial Weight/Volume:	7.81 g
Analysis Date:	09/19/2013 0311			Final Weight/Volume:	5 g
Prep Date:	09/18/2013 2252				

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Vinyl chloride		ND		0.47	3.8
Xylenes, Total		ND		0.65	7.7

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	101		64 - 126
4-Bromofluorobenzene (Surr)	99		72 - 126
Toluene-d8 (Surr)	101		71 - 125

Analytical Data

Client: AECOM, Inc.

Job Number: 480-45961-1

Client Sample ID: B-5 (10.5-11)

Lab Sample ID: 480-45961-5

Date Sampled: 09/16/2013 1215

Client Matrix: Solid

% Moisture: 18.4

Date Received: 09/17/2013 1620

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	480-139832	Instrument ID:	HP5973F
Prep Method:	5035	Prep Batch:	480-139845	Lab File ID:	F1430.D
Dilution:	1.0			Initial Weight/Volume:	6.9 g
Analysis Date:	09/19/2013 0337			Final Weight/Volume:	5 g
Prep Date:	09/18/2013 2252				

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
1,1,1-Trichloroethane		ND		0.32	4.4
1,1,2,2-Tetrachloroethane		ND		0.72	4.4
1,1,2-Trichloro-1,2,2-trifluoroethane		ND		1.0	4.4
1,1,2-Trichloroethane		ND		0.58	4.4
1,1-Dichloroethane		ND		0.54	4.4
1,1-Dichloroethene		ND		0.54	4.4
1,2,4-Trichlorobenzene		ND		0.27	4.4
1,2-Dibromo-3-Chloropropane		ND		2.2	4.4
1,2-Dibromoethane		ND		0.57	4.4
1,2-Dichlorobenzene		ND		0.35	4.4
1,2-Dichloroethane		ND		0.22	4.4
1,2-Dichloropropane		ND		2.2	4.4
1,3-Dichlorobenzene		ND		0.23	4.4
1,4-Dichlorobenzene		ND		0.62	4.4
2-Butanone (MEK)		ND		1.6	22
2-Hexanone		ND		2.2	22
4-Methyl-2-pentanone (MIBK)		ND		1.5	22
Acetone		12	J	3.7	22
Benzene		ND		0.22	4.4
Bromodichloromethane		ND		0.60	4.4
Bromoform		ND		2.2	4.4
Bromomethane		ND		0.40	4.4
Carbon disulfide		ND		2.2	4.4
Carbon tetrachloride		ND		0.43	4.4
Chlorobenzene		ND		0.59	4.4
Chloroethane		ND		1.0	4.4
Chloroform		ND		0.27	4.4
Chloromethane		ND		0.27	4.4
cis-1,2-Dichloroethene		ND		0.57	4.4
cis-1,3-Dichloropropene		ND		0.64	4.4
Cyclohexane		ND		0.62	4.4
Dibromochloromethane		ND		0.57	4.4
Dichlorodifluoromethane		ND		0.37	4.4
Ethylbenzene		ND		0.31	4.4
Isopropylbenzene		ND		0.67	4.4
Methyl acetate		ND		0.83	4.4
Methyl tert-butyl ether		ND		0.44	4.4
Methylcyclohexane		ND		0.68	4.4
Methylene Chloride		ND		2.0	4.4
Styrene		ND		0.22	4.4
Tetrachloroethene		ND		0.60	4.4
Toluene		ND		0.34	4.4
trans-1,2-Dichloroethene		ND		0.46	4.4
trans-1,3-Dichloropropene		ND		2.0	4.4
Trichloroethene		ND		0.98	4.4
Trichlorofluoromethane		ND		0.42	4.4

Analytical Data

Client: AECOM, Inc.

Job Number: 480-45961-1

Client Sample ID: B-5 (10.5-11)

Lab Sample ID: 480-45961-5

Date Sampled: 09/16/2013 1215

Client Matrix: Solid

% Moisture: 18.4

Date Received: 09/17/2013 1620

8260B Volatile Organic Compounds (GC/MS)

Analysis Method: 8260B Analysis Batch: 480-139832 Instrument ID: HP5973F
Prep Method: 5035 Prep Batch: 480-139845 Lab File ID: F1430.D
Dilution: 1.0 Initial Weight/Volume: 6.9 g
Analysis Date: 09/19/2013 0337 Final Weight/Volume: 5 g
Prep Date: 09/18/2013 2252

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Vinyl chloride		ND		0.54	4.4
Xylenes, Total		ND		0.75	8.9

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	97		64 - 126
4-Bromofluorobenzene (Surr)	98		72 - 126
Toluene-d8 (Surr)	101		71 - 125

Analytical Data

Client: AECOM, Inc.

Job Number: 480-45961-1

Client Sample ID: B-6 (10.5-11)

Lab Sample ID: 480-45961-6

Date Sampled: 09/16/2013 1300

Client Matrix: Solid

% Moisture: 17.6

Date Received: 09/17/2013 1620

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	480-139832	Instrument ID:	HP5973F
Prep Method:	5035	Prep Batch:	480-139845	Lab File ID:	F1431.D
Dilution:	1.0			Initial Weight/Volume:	6.99 g
Analysis Date:	09/19/2013 0402			Final Weight/Volume:	5 g
Prep Date:	09/18/2013 2252				

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
1,1,1-Trichloroethane		ND		0.32	4.3
1,1,2,2-Tetrachloroethane		ND		0.70	4.3
1,1,2-Trichloro-1,2,2-trifluoroethane		ND		0.99	4.3
1,1,2-Trichloroethane		ND		0.56	4.3
1,1-Dichloroethane		ND		0.53	4.3
1,1-Dichloroethene		ND		0.53	4.3
1,2,4-Trichlorobenzene		ND		0.26	4.3
1,2-Dibromo-3-Chloropropane		ND		2.2	4.3
1,2-Dibromoethane		ND		0.56	4.3
1,2-Dichlorobenzene		ND		0.34	4.3
1,2-Dichloroethane		ND		0.22	4.3
1,2-Dichloropropane		ND		2.2	4.3
1,3-Dichlorobenzene		ND		0.22	4.3
1,4-Dichlorobenzene		ND		0.61	4.3
2-Butanone (MEK)		ND		1.6	22
2-Hexanone		ND		2.2	22
4-Methyl-2-pentanone (MIBK)		ND		1.4	22
Acetone		ND		3.7	22
Benzene		ND		0.21	4.3
Bromodichloromethane		ND		0.58	4.3
Bromoform		ND		2.2	4.3
Bromomethane		ND		0.39	4.3
Carbon disulfide		ND		2.2	4.3
Carbon tetrachloride		ND		0.42	4.3
Chlorobenzene		ND		0.57	4.3
Chloroethane		ND		0.98	4.3
Chloroform		ND		0.27	4.3
Chloromethane		ND		0.26	4.3
cis-1,2-Dichloroethene		ND		0.56	4.3
cis-1,3-Dichloropropene		ND		0.63	4.3
Cyclohexane		ND		0.61	4.3
Dibromochloromethane		ND		0.56	4.3
Dichlorodifluoromethane		ND		0.36	4.3
Ethylbenzene		ND		0.30	4.3
Isopropylbenzene		ND		0.65	4.3
Methyl acetate		ND		0.81	4.3
Methyl tert-butyl ether		ND		0.43	4.3
Methylcyclohexane		ND		0.66	4.3
Methylene Chloride		ND		2.0	4.3
Styrene		ND		0.22	4.3
Tetrachloroethene		ND		0.58	4.3
Toluene		ND		0.33	4.3
trans-1,2-Dichloroethene		ND		0.45	4.3
trans-1,3-Dichloropropene		ND		1.9	4.3
Trichloroethene		ND		0.96	4.3
Trichlorofluoromethane		ND		0.41	4.3

Analytical Data

Client: AECOM, Inc.

Job Number: 480-45961-1

Client Sample ID: B-6 (10.5-11)

Lab Sample ID: 480-45961-6

Date Sampled: 09/16/2013 1300

Client Matrix: Solid

% Moisture: 17.6

Date Received: 09/17/2013 1620

8260B Volatile Organic Compounds (GC/MS)

Analysis Method: 8260B Analysis Batch: 480-139832 Instrument ID: HP5973F
Prep Method: 5035 Prep Batch: 480-139845 Lab File ID: F1431.D
Dilution: 1.0 Initial Weight/Volume: 6.99 g
Analysis Date: 09/19/2013 0402 Final Weight/Volume: 5 g
Prep Date: 09/18/2013 2252

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Vinyl chloride		ND		0.53	4.3
Xylenes, Total		ND		0.73	8.7

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	99		64 - 126
4-Bromofluorobenzene (Surr)	98		72 - 126
Toluene-d8 (Surr)	101		71 - 125

Analytical Data

Client: AECOM, Inc.

Job Number: 480-45961-1

Client Sample ID: TRIP BLANK

Lab Sample ID: 480-45961-7

Date Sampled: 09/16/2013 0000

Client Matrix: Water

Date Received: 09/17/2013 1620

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	480-139828	Instrument ID:	HP5975D
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	D5486.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	09/18/2013 2209			Final Weight/Volume:	5 mL
Prep Date:	09/18/2013 2209				

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1-Trichloroethane	ND		0.82	1.0
1,1,2,2-Tetrachloroethane	ND		0.21	1.0
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.31	1.0
1,1,2-Trichloroethane	ND		0.23	1.0
1,1-Dichloroethane	ND		0.38	1.0
1,1-Dichloroethene	ND		0.29	1.0
1,2,4-Trichlorobenzene	ND		0.41	1.0
1,2-Dibromo-3-Chloropropane	ND		0.39	1.0
1,2-Dibromoethane	ND		0.73	1.0
1,2-Dichlorobenzene	ND		0.79	1.0
1,2-Dichloroethane	ND		0.21	1.0
1,2-Dichloropropane	ND		0.72	1.0
1,3-Dichlorobenzene	ND		0.78	1.0
1,4-Dichlorobenzene	ND		0.84	1.0
2-Butanone (MEK)	ND		1.3	10
2-Hexanone	ND		1.2	5.0
4-Methyl-2-pentanone (MIBK)	ND		2.1	5.0
Acetone	ND		3.0	10
Benzene	ND		0.41	1.0
Bromodichloromethane	ND		0.39	1.0
Bromoform	ND		0.26	1.0
Bromomethane	ND		0.69	1.0
Carbon disulfide	ND		0.19	1.0
Carbon tetrachloride	ND		0.27	1.0
Chlorobenzene	ND		0.75	1.0
Chloroethane	ND		0.32	1.0
Chloroform	ND		0.34	1.0
Chloromethane	ND		0.35	1.0
cis-1,2-Dichloroethene	ND		0.81	1.0
cis-1,3-Dichloropropene	ND		0.36	1.0
Cyclohexane	ND		0.18	1.0
Dibromochloromethane	ND		0.32	1.0
Dichlorodifluoromethane	ND		0.68	1.0
Ethylbenzene	ND		0.74	1.0
Isopropylbenzene	ND		0.79	1.0
Methyl acetate	ND		0.50	1.0
Methyl tert-butyl ether	ND		0.16	1.0
Methylcyclohexane	ND		0.16	1.0
Methylene Chloride	ND		0.44	1.0
Styrene	ND		0.73	1.0
Tetrachloroethene	ND		0.36	1.0
Toluene	ND		0.51	1.0
trans-1,2-Dichloroethene	ND		0.90	1.0
trans-1,3-Dichloropropene	ND		0.37	1.0
Trichloroethene	ND		0.46	1.0
Trichlorofluoromethane	ND		0.88	1.0

Analytical Data

Client: AECOM, Inc.

Job Number: 480-45961-1

Client Sample ID: TRIP BLANK

Lab Sample ID: 480-45961-7

Date Sampled: 09/16/2013 0000

Client Matrix: Water

Date Received: 09/17/2013 1620

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	480-139828	Instrument ID:	HP5975D
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	D5486.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	09/18/2013 2209			Final Weight/Volume:	5 mL
Prep Date:	09/18/2013 2209				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Vinyl chloride	ND		0.90	1.0
Xylenes, Total	ND		0.66	2.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	83		66 - 137
4-Bromofluorobenzene (Surr)	87		73 - 120
Toluene-d8 (Surr)	87		71 - 126

Analytical Data

Client: AECOM, Inc.

Job Number: 480-45961-1

Client Sample ID: B-1 GW 09172013

Lab Sample ID: 480-45961-8

Date Sampled: 09/17/2013 1315

Client Matrix: Water

Date Received: 09/17/2013 1620

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	480-139828	Instrument ID:	HP5975D
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	D5487.D
Dilution:	5.0			Initial Weight/Volume:	5 mL
Analysis Date:	09/18/2013 2230			Final Weight/Volume:	5 mL
Prep Date:	09/18/2013 2230				

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1-Trichloroethane	ND		4.1	5.0
1,1,2,2-Tetrachloroethane	ND		1.1	5.0
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.6	5.0
1,1,2-Trichloroethane	ND		1.2	5.0
1,1-Dichloroethane	ND		1.9	5.0
1,1-Dichloroethene	ND		1.5	5.0
1,2,4-Trichlorobenzene	ND		2.1	5.0
1,2-Dibromo-3-Chloropropane	ND		2.0	5.0
1,2-Dibromoethane	ND		3.7	5.0
1,2-Dichlorobenzene	ND		4.0	5.0
1,2-Dichloroethane	ND		1.1	5.0
1,2-Dichloropropane	ND		3.6	5.0
1,3-Dichlorobenzene	ND		3.9	5.0
1,4-Dichlorobenzene	ND		4.2	5.0
2-Butanone (MEK)	ND		6.6	50
2-Hexanone	ND		6.2	25
4-Methyl-2-pentanone (MIBK)	ND		11	25
Acetone	ND		15	50
Benzene	ND		2.1	5.0
Bromodichloromethane	ND		2.0	5.0
Bromoform	ND		1.3	5.0
Bromomethane	ND		3.5	5.0
Carbon disulfide	ND		0.95	5.0
Carbon tetrachloride	ND		1.4	5.0
Chlorobenzene	ND		3.8	5.0
Chloroethane	ND		1.6	5.0
Chloroform	ND		1.7	5.0
Chloromethane	ND		1.8	5.0
cis-1,2-Dichloroethene	ND		4.1	5.0
cis-1,3-Dichloropropene	ND		1.8	5.0
Cyclohexane	ND		0.90	5.0
Dibromochloromethane	ND		1.6	5.0
Dichlorodifluoromethane	ND		3.4	5.0
Ethylbenzene	ND		3.7	5.0
Isopropylbenzene	ND		4.0	5.0
Methyl acetate	ND		2.5	5.0
Methyl tert-butyl ether	ND		0.80	5.0
Methylcyclohexane	ND		0.80	5.0
Methylene Chloride	ND		2.2	5.0
Styrene	ND		3.7	5.0
Tetrachloroethene	ND		1.8	5.0
Toluene	ND		2.6	5.0
trans-1,2-Dichloroethene	ND		4.5	5.0
trans-1,3-Dichloropropene	ND		1.9	5.0
Trichloroethene	ND		2.3	5.0
Trichlorofluoromethane	ND		4.4	5.0

Analytical Data

Client: AECOM, Inc.

Job Number: 480-45961-1

Client Sample ID: B-1 GW 09172013

Lab Sample ID: 480-45961-8

Date Sampled: 09/17/2013 1315

Client Matrix: Water

Date Received: 09/17/2013 1620

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	480-139828	Instrument ID:	HP5975D
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	D5487.D
Dilution:	5.0			Initial Weight/Volume:	5 mL
Analysis Date:	09/18/2013 2230			Final Weight/Volume:	5 mL
Prep Date:	09/18/2013 2230				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Vinyl chloride	ND		4.5	5.0
Xylenes, Total	ND		3.3	10

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	81		66 - 137
4-Bromofluorobenzene (Surr)	86		73 - 120
Toluene-d8 (Surr)	89		71 - 126

Client Information Company: AECOM, Inc. Address: 100 Corporate Parkway Suite 341 City: Amherst State/Zip: NY, 14226 Phone: _____ Email: dino.zack@aecom.com Project Name: Tyco Int'l Facility - BCP (AECOM# 601559) Site: _____		Lab PM: Fischer, Brian J E-Mail: brian.fischer@testamericainc.com Phone: 716 8364500 Project #: 48008494 SSO#: _____		Camer Tracking No(s): _____ COC No: 480-39334-10380.2 Page: 2 of 1 Job #: _____	
Due Date Requested: 9/20/13 TAT Requested (days): 3 day PO #: _____ Purchase Order not required WO #: _____		Analysis Requested Field Filtered Sample (Yes or No) _____ Perform MS/MSD (Yes or No) _____ 826B - TCL list OLM4.2 _____ 826B - TCL list OLM4.2 _____			
Sample Identification B-1 (10.5-11) B-2 (10.5-11) B-3 (10.5-11) B-4 (10.5-11) B-5 (10.5-11) B-6 (10.5-11) TRIP BLANK B-1 GW 09172013		Sample Date 9/16/13 ↓ ↓ ↓ ↓ ↓ ↓ ↓	Sample Time 900 930 1030 1140 1215 1300 - -	Sample Type (C=Comp, G=grab) G S S S S W W	Matrix (W=water, S=solid, O=soil, BT=Tissue, A=Air) W S S S S W W
Possible Hazard Identification <input checked="" type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological		Deliverable Requested: I, II, III, IV, Other (specify) _____			
Empty Kit Relinquished by: _____ Date: _____		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months Special Instructions/QC Requirements: 3 DAY TAT Method of Shipment: _____			
Relinquished by: <i>Dwayne Raboy</i> Date/Time: 9/17/13 1620 Relinquished by: _____ Date/Time: _____ Relinquished by: _____ Date/Time: _____		Received by: _____ Date/Time: 9/17/13 1620 Received by: _____ Date/Time: _____ Received by: _____ Date/Time: _____ Cooler Temperature(s) °C and Other Remarks: #2 3.9, 4.3			



Login Sample Receipt Checklist

Client: AECOM, Inc.

Job Number: 480-45961-1

Login Number: 45961
List Number: 1
Creator: Kolb, Chris M

List Source: TestAmerica Buffalo

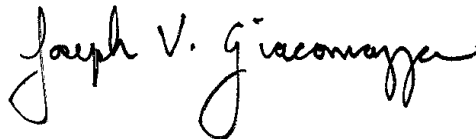
Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature 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.	N/A	
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	True	
Chlorine Residual checked.	N/A	

ANALYTICAL REPORT

Job Number: 480-46536-1

Job Description: Tyco Int'l Facility-BCP(AECOM# 60155991)

For:
AECOM, Inc.
100 Corporate Parkway
Suite 341
Amherst, NY 14226
Attention: Mr. Dino Zack



Approved for release.
Joe V Giacomazza
Project Administrator
9/30/2013 10:34 AM

Designee for
Brian J Fischer, Project Manager II
10 Hazelwood Drive, Amherst, NY, 14228-2298
(716)504-9835
brian.fischer@testamericainc.com
09/30/2013

cc: Ms. Helen Jones

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TestAmerica Laboratories, Inc.

TestAmerica Buffalo 10 Hazelwood Drive, Amherst, NY 14228-2298

Tel (716) 691-2600 Fax (716) 691-7991 www.testamericainc.com



Job Narrative
480-46536-1

Receipt

The samples were received on 9/25/2013 4:15 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 3.5° C.

GC/MS VOA

Method(s) 8260B: The following samples were composited by the laboratory on 09/26/2013 due to excessive sediment in the sample vials: B-3 GW 09252013 (480-46536-2).

Method(s) 8260B: The continuing calibration verification (CCV) for analytical batch 141221 recovered outside control limits for trans-1,4-Dichloro-2-butene. This was not a client requested analyte; therefore, the data have been reported.

No other analytical or quality issues were noted.

SAMPLE SUMMARY

Client: AECOM, Inc.

Job Number: 480-46536-1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
480-46536-1	B-2 GW 09252013	Water	09/25/2013 1410	09/25/2013 1615
480-46536-2	B-3 GW 09252013	Water	09/25/2013 1420	09/25/2013 1615
480-46536-3	B-4 GW 09252013	Water	09/25/2013 1435	09/25/2013 1615
480-46536-4	B-5 GW 09252013	Water	09/25/2013 1445	09/25/2013 1615
480-46536-5	B-6 GW 09252013	Water	09/25/2013 1500	09/25/2013 1615
480-46536-6	TRIP BLANK	Water	09/25/2013 0000	09/25/2013 1615

EXECUTIVE SUMMARY - Detections

Client: AECOM, Inc.

Job Number: 480-46536-1

Lab Sample ID Analyte	Client Sample ID	Result	Qualifier	Reporting Limit	Units	Method
480-46536-1 Acetone	B-2 GW 09252013	10		10	ug/L	8260B
480-46536-2 Acetone	B-3 GW 09252013	10		10	ug/L	8260B
480-46536-3 Acetone	B-4 GW 09252013	4.4	J	10	ug/L	8260B
480-46536-4 Acetone	B-5 GW 09252013	35		10	ug/L	8260B
480-46536-5 2-Butanone (MEK) Acetone	B-6 GW 09252013	4.1 37	J	10 10	ug/L ug/L	8260B 8260B
480-46536-6 Acetone	TRIP BLANK	5.6	J	10	ug/L	8260B

METHOD SUMMARY

Client: AECOM, Inc.

Job Number: 480-46536-1

Description	Lab Location	Method	Preparation Method
Matrix: Water			
Volatile Organic Compounds (GC/MS)	TAL BUF	SW846 8260B	
Purge and Trap	TAL BUF		SW846 5030B

Lab References:

TAL BUF = TestAmerica Buffalo

Method References:

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

METHOD / ANALYST SUMMARY

Client: AECOM, Inc.

Job Number: 480-46536-1

Method	Analyst	Analyst ID
SW846 8260B	Larson, Renee A	RAL

Analytical Data

Client: AECOM, Inc.

Job Number: 480-46536-1

Client Sample ID: B-2 GW 09252013

Lab Sample ID: 480-46536-1

Date Sampled: 09/25/2013 1410

Client Matrix: Water

Date Received: 09/25/2013 1615

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	480-141221	Instrument ID:	HP5973S
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	S30540.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	09/26/2013 1629			Final Weight/Volume:	5 mL
Prep Date:	09/26/2013 1629				

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1-Trichloroethane	ND		0.82	1.0
1,1,2,2-Tetrachloroethane	ND		0.21	1.0
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.31	1.0
1,1,2-Trichloroethane	ND		0.23	1.0
1,1-Dichloroethane	ND		0.38	1.0
1,1-Dichloroethene	ND		0.29	1.0
1,2,4-Trichlorobenzene	ND		0.41	1.0
1,2-Dibromo-3-Chloropropane	ND		0.39	1.0
1,2-Dibromoethane	ND		0.73	1.0
1,2-Dichlorobenzene	ND		0.79	1.0
1,2-Dichloroethane	ND		0.21	1.0
1,2-Dichloropropane	ND		0.72	1.0
1,3-Dichlorobenzene	ND		0.78	1.0
1,4-Dichlorobenzene	ND		0.84	1.0
2-Butanone (MEK)	ND		1.3	10
2-Hexanone	ND		1.2	5.0
4-Methyl-2-pentanone (MIBK)	ND		2.1	5.0
Acetone	10		3.0	10
Benzene	ND		0.41	1.0
Bromodichloromethane	ND		0.39	1.0
Bromoform	ND		0.26	1.0
Bromomethane	ND		0.69	1.0
Carbon disulfide	ND		0.19	1.0
Carbon tetrachloride	ND		0.27	1.0
Chlorobenzene	ND		0.75	1.0
Chloroethane	ND		0.32	1.0
Chloroform	ND		0.34	1.0
Chloromethane	ND		0.35	1.0
cis-1,2-Dichloroethene	ND		0.81	1.0
cis-1,3-Dichloropropene	ND		0.36	1.0
Cyclohexane	ND		0.18	1.0
Dibromochloromethane	ND		0.32	1.0
Dichlorodifluoromethane	ND		0.68	1.0
Ethylbenzene	ND		0.74	1.0
Isopropylbenzene	ND		0.79	1.0
Methyl acetate	ND		0.50	1.0
Methyl tert-butyl ether	ND		0.16	1.0
Methylcyclohexane	ND		0.16	1.0
Methylene Chloride	ND		0.44	1.0
Styrene	ND		0.73	1.0
Tetrachloroethene	ND		0.36	1.0
Toluene	ND		0.51	1.0
trans-1,2-Dichloroethene	ND		0.90	1.0
trans-1,3-Dichloropropene	ND		0.37	1.0
Trichloroethene	ND		0.46	1.0
Trichlorofluoromethane	ND		0.88	1.0

Analytical Data

Client: AECOM, Inc.

Job Number: 480-46536-1

Client Sample ID: B-2 GW 09252013

Lab Sample ID: 480-46536-1

Date Sampled: 09/25/2013 1410

Client Matrix: Water

Date Received: 09/25/2013 1615

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	480-141221	Instrument ID:	HP5973S
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	S30540.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	09/26/2013 1629			Final Weight/Volume:	5 mL
Prep Date:	09/26/2013 1629				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Vinyl chloride	ND		0.90	1.0
Xylenes, Total	ND		0.66	2.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	101		66 - 137
4-Bromofluorobenzene (Surr)	100		73 - 120
Toluene-d8 (Surr)	107		71 - 126

Analytical Data

Client: AECOM, Inc.

Job Number: 480-46536-1

Client Sample ID: B-3 GW 09252013

Lab Sample ID: 480-46536-2

Date Sampled: 09/25/2013 1420

Client Matrix: Water

Date Received: 09/25/2013 1615

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	480-141221	Instrument ID:	HP5973S
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	S30541.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	09/26/2013 1650			Final Weight/Volume:	5 mL
Prep Date:	09/26/2013 1650				

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1-Trichloroethane	ND		0.82	1.0
1,1,2,2-Tetrachloroethane	ND		0.21	1.0
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.31	1.0
1,1,2-Trichloroethane	ND		0.23	1.0
1,1-Dichloroethane	ND		0.38	1.0
1,1-Dichloroethene	ND		0.29	1.0
1,2,4-Trichlorobenzene	ND		0.41	1.0
1,2-Dibromo-3-Chloropropane	ND		0.39	1.0
1,2-Dibromoethane	ND		0.73	1.0
1,2-Dichlorobenzene	ND		0.79	1.0
1,2-Dichloroethane	ND		0.21	1.0
1,2-Dichloropropane	ND		0.72	1.0
1,3-Dichlorobenzene	ND		0.78	1.0
1,4-Dichlorobenzene	ND		0.84	1.0
2-Butanone (MEK)	ND		1.3	10
2-Hexanone	ND		1.2	5.0
4-Methyl-2-pentanone (MIBK)	ND		2.1	5.0
Acetone	10		3.0	10
Benzene	ND		0.41	1.0
Bromodichloromethane	ND		0.39	1.0
Bromoform	ND		0.26	1.0
Bromomethane	ND		0.69	1.0
Carbon disulfide	ND		0.19	1.0
Carbon tetrachloride	ND		0.27	1.0
Chlorobenzene	ND		0.75	1.0
Chloroethane	ND		0.32	1.0
Chloroform	ND		0.34	1.0
Chloromethane	ND		0.35	1.0
cis-1,2-Dichloroethene	ND		0.81	1.0
cis-1,3-Dichloropropene	ND		0.36	1.0
Cyclohexane	ND		0.18	1.0
Dibromochloromethane	ND		0.32	1.0
Dichlorodifluoromethane	ND		0.68	1.0
Ethylbenzene	ND		0.74	1.0
Isopropylbenzene	ND		0.79	1.0
Methyl acetate	ND		0.50	1.0
Methyl tert-butyl ether	ND		0.16	1.0
Methylcyclohexane	ND		0.16	1.0
Methylene Chloride	ND		0.44	1.0
Styrene	ND		0.73	1.0
Tetrachloroethene	ND		0.36	1.0
Toluene	ND		0.51	1.0
trans-1,2-Dichloroethene	ND		0.90	1.0
trans-1,3-Dichloropropene	ND		0.37	1.0
Trichloroethene	ND		0.46	1.0
Trichlorofluoromethane	ND		0.88	1.0

Analytical Data

Client: AECOM, Inc.

Job Number: 480-46536-1

Client Sample ID: B-3 GW 09252013

Lab Sample ID: 480-46536-2
Client Matrix: Water

Date Sampled: 09/25/2013 1420
Date Received: 09/25/2013 1615

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	480-141221	Instrument ID:	HP5973S
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	S30541.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	09/26/2013 1650			Final Weight/Volume:	5 mL
Prep Date:	09/26/2013 1650				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Vinyl chloride	ND		0.90	1.0
Xylenes, Total	ND		0.66	2.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	103		66 - 137
4-Bromofluorobenzene (Surr)	102		73 - 120
Toluene-d8 (Surr)	109		71 - 126

Analytical Data

Client: AECOM, Inc.

Job Number: 480-46536-1

Client Sample ID: B-4 GW 09252013

Lab Sample ID: 480-46536-3

Date Sampled: 09/25/2013 1435

Client Matrix: Water

Date Received: 09/25/2013 1615

8260B Volatile Organic Compounds (GC/MS)

Analysis Method: 8260B	Analysis Batch: 480-141221	Instrument ID: HP5973S	
Prep Method: 5030B	Prep Batch: N/A	Lab File ID: S30542.D	
Dilution: 1.0		Initial Weight/Volume: 5 mL	
Analysis Date: 09/26/2013 1712		Final Weight/Volume: 5 mL	
Prep Date: 09/26/2013 1712			

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1-Trichloroethane	ND		0.82	1.0
1,1,2,2-Tetrachloroethane	ND		0.21	1.0
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.31	1.0
1,1,2-Trichloroethane	ND		0.23	1.0
1,1-Dichloroethane	ND		0.38	1.0
1,1-Dichloroethene	ND		0.29	1.0
1,2,4-Trichlorobenzene	ND		0.41	1.0
1,2-Dibromo-3-Chloropropane	ND		0.39	1.0
1,2-Dibromoethane	ND		0.73	1.0
1,2-Dichlorobenzene	ND		0.79	1.0
1,2-Dichloroethane	ND		0.21	1.0
1,2-Dichloropropane	ND		0.72	1.0
1,3-Dichlorobenzene	ND		0.78	1.0
1,4-Dichlorobenzene	ND		0.84	1.0
2-Butanone (MEK)	ND		1.3	10
2-Hexanone	ND		1.2	5.0
4-Methyl-2-pentanone (MIBK)	ND		2.1	5.0
Acetone	4.4	J	3.0	10
Benzene	ND		0.41	1.0
Bromodichloromethane	ND		0.39	1.0
Bromoform	ND		0.26	1.0
Bromomethane	ND		0.69	1.0
Carbon disulfide	ND		0.19	1.0
Carbon tetrachloride	ND		0.27	1.0
Chlorobenzene	ND		0.75	1.0
Chloroethane	ND		0.32	1.0
Chloroform	ND		0.34	1.0
Chloromethane	ND		0.35	1.0
cis-1,2-Dichloroethene	ND		0.81	1.0
cis-1,3-Dichloropropene	ND		0.36	1.0
Cyclohexane	ND		0.18	1.0
Dibromochloromethane	ND		0.32	1.0
Dichlorodifluoromethane	ND		0.68	1.0
Ethylbenzene	ND		0.74	1.0
Isopropylbenzene	ND		0.79	1.0
Methyl acetate	ND		0.50	1.0
Methyl tert-butyl ether	ND		0.16	1.0
Methylcyclohexane	ND		0.16	1.0
Methylene Chloride	ND		0.44	1.0
Styrene	ND		0.73	1.0
Tetrachloroethene	ND		0.36	1.0
Toluene	ND		0.51	1.0
trans-1,2-Dichloroethene	ND		0.90	1.0
trans-1,3-Dichloropropene	ND		0.37	1.0
Trichloroethene	ND		0.46	1.0
Trichlorofluoromethane	ND		0.88	1.0

Analytical Data

Client: AECOM, Inc.

Job Number: 480-46536-1

Client Sample ID: B-4 GW 09252013

Lab Sample ID: 480-46536-3

Date Sampled: 09/25/2013 1435

Client Matrix: Water

Date Received: 09/25/2013 1615

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	480-141221	Instrument ID:	HP5973S
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	S30542.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	09/26/2013 1712			Final Weight/Volume:	5 mL
Prep Date:	09/26/2013 1712				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Vinyl chloride	ND		0.90	1.0
Xylenes, Total	ND		0.66	2.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	102		66 - 137
4-Bromofluorobenzene (Surr)	103		73 - 120
Toluene-d8 (Surr)	110		71 - 126

Analytical Data

Client: AECOM, Inc.

Job Number: 480-46536-1

Client Sample ID: B-5 GW 09252013

Lab Sample ID: 480-46536-4

Date Sampled: 09/25/2013 1445

Client Matrix: Water

Date Received: 09/25/2013 1615

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	480-141221	Instrument ID:	HP5973S
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	S30543.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	09/26/2013 1734			Final Weight/Volume:	5 mL
Prep Date:	09/26/2013 1734				

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1-Trichloroethane	ND		0.82	1.0
1,1,2,2-Tetrachloroethane	ND		0.21	1.0
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.31	1.0
1,1,2-Trichloroethane	ND		0.23	1.0
1,1-Dichloroethane	ND		0.38	1.0
1,1-Dichloroethene	ND		0.29	1.0
1,2,4-Trichlorobenzene	ND		0.41	1.0
1,2-Dibromo-3-Chloropropane	ND		0.39	1.0
1,2-Dibromoethane	ND		0.73	1.0
1,2-Dichlorobenzene	ND		0.79	1.0
1,2-Dichloroethane	ND		0.21	1.0
1,2-Dichloropropane	ND		0.72	1.0
1,3-Dichlorobenzene	ND		0.78	1.0
1,4-Dichlorobenzene	ND		0.84	1.0
2-Butanone (MEK)	ND		1.3	10
2-Hexanone	ND		1.2	5.0
4-Methyl-2-pentanone (MIBK)	ND		2.1	5.0
Acetone	35		3.0	10
Benzene	ND		0.41	1.0
Bromodichloromethane	ND		0.39	1.0
Bromoform	ND		0.26	1.0
Bromomethane	ND		0.69	1.0
Carbon disulfide	ND		0.19	1.0
Carbon tetrachloride	ND		0.27	1.0
Chlorobenzene	ND		0.75	1.0
Chloroethane	ND		0.32	1.0
Chloroform	ND		0.34	1.0
Chloromethane	ND		0.35	1.0
cis-1,2-Dichloroethene	ND		0.81	1.0
cis-1,3-Dichloropropene	ND		0.36	1.0
Cyclohexane	ND		0.18	1.0
Dibromochloromethane	ND		0.32	1.0
Dichlorodifluoromethane	ND		0.68	1.0
Ethylbenzene	ND		0.74	1.0
Isopropylbenzene	ND		0.79	1.0
Methyl acetate	ND		0.50	1.0
Methyl tert-butyl ether	ND		0.16	1.0
Methylcyclohexane	ND		0.16	1.0
Methylene Chloride	ND		0.44	1.0
Styrene	ND		0.73	1.0
Tetrachloroethene	ND		0.36	1.0
Toluene	ND		0.51	1.0
trans-1,2-Dichloroethene	ND		0.90	1.0
trans-1,3-Dichloropropene	ND		0.37	1.0
Trichloroethene	ND		0.46	1.0
Trichlorofluoromethane	ND		0.88	1.0

Analytical Data

Client: AECOM, Inc.

Job Number: 480-46536-1

Client Sample ID: B-5 GW 09252013

Lab Sample ID: 480-46536-4
Client Matrix: Water

Date Sampled: 09/25/2013 1445
Date Received: 09/25/2013 1615

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	480-141221	Instrument ID:	HP5973S
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	S30543.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	09/26/2013 1734			Final Weight/Volume:	5 mL
Prep Date:	09/26/2013 1734				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Vinyl chloride	ND		0.90	1.0
Xylenes, Total	ND		0.66	2.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	102		66 - 137
4-Bromofluorobenzene (Surr)	102		73 - 120
Toluene-d8 (Surr)	111		71 - 126

Analytical Data

Client: AECOM, Inc.

Job Number: 480-46536-1

Client Sample ID: B-6 GW 09252013

Lab Sample ID: 480-46536-5

Date Sampled: 09/25/2013 1500

Client Matrix: Water

Date Received: 09/25/2013 1615

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	480-141221	Instrument ID:	HP5973S
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	S30544.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	09/26/2013 1756			Final Weight/Volume:	5 mL
Prep Date:	09/26/2013 1756				

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1-Trichloroethane	ND		0.82	1.0
1,1,2,2-Tetrachloroethane	ND		0.21	1.0
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.31	1.0
1,1,2-Trichloroethane	ND		0.23	1.0
1,1-Dichloroethane	ND		0.38	1.0
1,1-Dichloroethene	ND		0.29	1.0
1,2,4-Trichlorobenzene	ND		0.41	1.0
1,2-Dibromo-3-Chloropropane	ND		0.39	1.0
1,2-Dibromoethane	ND		0.73	1.0
1,2-Dichlorobenzene	ND		0.79	1.0
1,2-Dichloroethane	ND		0.21	1.0
1,2-Dichloropropane	ND		0.72	1.0
1,3-Dichlorobenzene	ND		0.78	1.0
1,4-Dichlorobenzene	ND		0.84	1.0
2-Butanone (MEK)	4.1	J	1.3	10
2-Hexanone	ND		1.2	5.0
4-Methyl-2-pentanone (MIBK)	ND		2.1	5.0
Acetone	37		3.0	10
Benzene	ND		0.41	1.0
Bromodichloromethane	ND		0.39	1.0
Bromoform	ND		0.26	1.0
Bromomethane	ND		0.69	1.0
Carbon disulfide	ND		0.19	1.0
Carbon tetrachloride	ND		0.27	1.0
Chlorobenzene	ND		0.75	1.0
Chloroethane	ND		0.32	1.0
Chloroform	ND		0.34	1.0
Chloromethane	ND		0.35	1.0
cis-1,2-Dichloroethene	ND		0.81	1.0
cis-1,3-Dichloropropene	ND		0.36	1.0
Cyclohexane	ND		0.18	1.0
Dibromochloromethane	ND		0.32	1.0
Dichlorodifluoromethane	ND		0.68	1.0
Ethylbenzene	ND		0.74	1.0
Isopropylbenzene	ND		0.79	1.0
Methyl acetate	ND		0.50	1.0
Methyl tert-butyl ether	ND		0.16	1.0
Methylcyclohexane	ND		0.16	1.0
Methylene Chloride	ND		0.44	1.0
Styrene	ND		0.73	1.0
Tetrachloroethene	ND		0.36	1.0
Toluene	ND		0.51	1.0
trans-1,2-Dichloroethene	ND		0.90	1.0
trans-1,3-Dichloropropene	ND		0.37	1.0
Trichloroethene	ND		0.46	1.0
Trichlorofluoromethane	ND		0.88	1.0

Analytical Data

Client: AECOM, Inc.

Job Number: 480-46536-1

Client Sample ID: B-6 GW 09252013

Lab Sample ID: 480-46536-5

Date Sampled: 09/25/2013 1500

Client Matrix: Water

Date Received: 09/25/2013 1615

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	480-141221	Instrument ID:	HP5973S
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	S30544.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	09/26/2013 1756			Final Weight/Volume:	5 mL
Prep Date:	09/26/2013 1756				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Vinyl chloride	ND		0.90	1.0
Xylenes, Total	ND		0.66	2.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	102		66 - 137
4-Bromofluorobenzene (Surr)	101		73 - 120
Toluene-d8 (Surr)	110		71 - 126

Analytical Data

Client: AECOM, Inc.

Job Number: 480-46536-1

Client Sample ID: TRIP BLANK

Lab Sample ID: 480-46536-6

Date Sampled: 09/25/2013 0000

Client Matrix: Water

Date Received: 09/25/2013 1615

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	480-141221	Instrument ID:	HP5973S
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	S30545.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	09/26/2013 1818			Final Weight/Volume:	5 mL
Prep Date:	09/26/2013 1818				

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1-Trichloroethane	ND		0.82	1.0
1,1,2,2-Tetrachloroethane	ND		0.21	1.0
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.31	1.0
1,1,2-Trichloroethane	ND		0.23	1.0
1,1-Dichloroethane	ND		0.38	1.0
1,1-Dichloroethene	ND		0.29	1.0
1,2,4-Trichlorobenzene	ND		0.41	1.0
1,2-Dibromo-3-Chloropropane	ND		0.39	1.0
1,2-Dibromoethane	ND		0.73	1.0
1,2-Dichlorobenzene	ND		0.79	1.0
1,2-Dichloroethane	ND		0.21	1.0
1,2-Dichloropropane	ND		0.72	1.0
1,3-Dichlorobenzene	ND		0.78	1.0
1,4-Dichlorobenzene	ND		0.84	1.0
2-Butanone (MEK)	ND		1.3	10
2-Hexanone	ND		1.2	5.0
4-Methyl-2-pentanone (MIBK)	ND		2.1	5.0
Acetone	5.6	J	3.0	10
Benzene	ND		0.41	1.0
Bromodichloromethane	ND		0.39	1.0
Bromoform	ND		0.26	1.0
Bromomethane	ND		0.69	1.0
Carbon disulfide	ND		0.19	1.0
Carbon tetrachloride	ND		0.27	1.0
Chlorobenzene	ND		0.75	1.0
Chloroethane	ND		0.32	1.0
Chloroform	ND		0.34	1.0
Chloromethane	ND		0.35	1.0
cis-1,2-Dichloroethene	ND		0.81	1.0
cis-1,3-Dichloropropene	ND		0.36	1.0
Cyclohexane	ND		0.18	1.0
Dibromochloromethane	ND		0.32	1.0
Dichlorodifluoromethane	ND		0.68	1.0
Ethylbenzene	ND		0.74	1.0
Isopropylbenzene	ND		0.79	1.0
Methyl acetate	ND		0.50	1.0
Methyl tert-butyl ether	ND		0.16	1.0
Methylcyclohexane	ND		0.16	1.0
Methylene Chloride	ND		0.44	1.0
Styrene	ND		0.73	1.0
Tetrachloroethene	ND		0.36	1.0
Toluene	ND		0.51	1.0
trans-1,2-Dichloroethene	ND		0.90	1.0
trans-1,3-Dichloropropene	ND		0.37	1.0
Trichloroethene	ND		0.46	1.0
Trichlorofluoromethane	ND		0.88	1.0

Analytical Data

Client: AECOM, Inc.

Job Number: 480-46536-1

Client Sample ID: TRIP BLANK

Lab Sample ID: 480-46536-6

Date Sampled: 09/25/2013 0000

Client Matrix: Water

Date Received: 09/25/2013 1615

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	480-141221	Instrument ID:	HP5973S
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	S30545.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	09/26/2013 1818			Final Weight/Volume:	5 mL
Prep Date:	09/26/2013 1818				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Vinyl chloride	ND		0.90	1.0
Xylenes, Total	ND		0.66	2.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	104		66 - 137
4-Bromofluorobenzene (Surr)	102		73 - 120
Toluene-d8 (Surr)	110		71 - 126

Client Information Client Contact: TAMARA RABY Mr. Dino Zack Phone: 716 836 4506 Lab PM: Fischer, Brian J E-Mail: brian.fischer@testamericainc.com Company: AECOM, Inc. Address: 100 Corporate Parkway Suite 341 City: Amherst State, Zip: NY, 14226 PO #: Purchase Order not required Email: dino.zack@aecom.com Project Name: Tyco Int'l Facility - BCP (AECOM# 601559) Site: SCOTT AVIATION		Carrier Tracking No(s): COC No: 480-39863-10380.1 Page: Page 1 of 1 Job #:	
Due Date Requested: TAT Requested (days): PO #: Purchase Order not required WO #:		Analysis Requested	
Sample Identification B-2 GW 0925 2013 B-3 GW 0925 2013 B-4 GW 0925 2013 B-5 GW 0925 2013 B-6 GW 0925 2013 TRIP BLANK		Field Filtered Sample (Yes or No) <input checked="" type="checkbox"/> A Perform MS/MSD (Yes or No) <input checked="" type="checkbox"/> A 8260B - TCL list OLM04.2	
Sample Date 9/25/13 1420 1435 1445 1500 NA	Sample Time 1410 1420 1435 1445 1500 NA	Sample Type (C=comp, G=grab) G G G G G G	Matrix (W=water, S=solid, O=other) Water Water Water Water Water WATER
Possible Hazard Identification <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological Deliverable Requested: I, II, III, IV, Other (specify)		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months Special Instructions/QC Requirements: 3 DAY TAT	
Empty Kit Relinquished by:		Method of Shipment:	
Relinquished by: TAMARA RABY Date/Time: 9/25/13 1615		Relinquished by: [Signature] Date/Time: 9/25/13 1615	
Relinquished by:		Relinquished by:	
Relinquished by:		Relinquished by:	
Custody Seals Intact: Δ Yes Δ No		Cooler Temperature(s) °C and Other Remarks: H 2 3.5	

Login Sample Receipt Checklist

Client: AECOM, Inc.

Job Number: 480-46536-1

Login Number: 46536
List Number: 1
Creator: Kolb, Chris M

List Source: TestAmerica Buffalo

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.	N/A	
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	True	
Chlorine Residual checked.	N/A	