



DEPARTMENT OF THE ARMY

OFFICE OF ASSISTANT CHIEF OF STAFF FOR INSTALLATION MANAGEMENT
U.S. ARMY FORT MONMOUTH
P.O. 148
OCEANPORT, NEW JERSEY 07757

10 January 2017

Ms. Linda Range
New Jersey Department of Environmental Protection
Case Manager
Bureau of Southern Field Operations
401 East State Street, 5th Floor
PO Box 407
Trenton, NJ 08625

**Re: Request for No Further Action at Parcel 76 USTs 538 and 543
Site Investigation Report Addendum
Fort Monmouth, New Jersey**

Attachments:

- A. Figure 1: 200 Area of Parcel 76 Location and Figure 2: Parcel 76 Layout and Sample Locations
- B. Tables: Validated Laboratory Data Results for Groundwater
- C. Field Notes
- D. Boring Logs
- E. Analytical Data for Parcel 76

Previous Correspondence (not attached):

- 1. Army letter to NJDEP dated 10 February 2015, re: *Underground Storage Tanks within ECP Parcel 76, Fort Monmouth, New Jersey*.
- 2. NJDEP letter to the Army dated 31 August 2015, re: *Underground Storage Tanks within ECP Parcel 76 dated February 2015, Fort Monmouth*.
- 3. Army letter to NJDEP dated 29 February 2016, re: *Parcel 76 Work Plan Addendum and Response to NJDEP's August 31, 2015 Comments on the February 2015 Underground Storage Tanks within ECP Parcel 76, Fort Monmouth, New Jersey*
- 4. NJDEP letter to Army dated 30 March 2016, re: *Response to NJDEP's August 31, 2015 Comments on the February 2015 USTs within ECP Parcel 76, Fort Monmouth, New Jersey and Parcel 76 Work Plan Addendum for Former UST Sites (February 2016)*

Dear Ms. Range:

The U.S. Army Fort Monmouth (FTMM) has prepared this report to present the results of additional groundwater sampling at two former unregulated heating oil tanks (UHOTs; specifically Underground Storage Tanks [USTs] 538 and 543) within Environmental Condition of Property (ECP) Parcel 76 that were identified as requiring additional groundwater sampling data, as

described in the work plan attached to Correspondence 3. The New Jersey Department of Environmental Protection (NJDEP) determined the work plan to be acceptable (Correspondence 4).

Post-remediation soil samples collected in January 2010 from the closure excavation at UST 538 and collected in June 2010 from the closure excavation at 543 were below the NJDEP soil clean-up standards for TPH and SVOCs. Two rounds of groundwater samples were collected in August 2010 from the 4 shallow monitoring wells at Parcel 76 prior to the UHOT excavations. In February 2015, NFA was requested for all USTs at Parcel 76 (Correspondence 1). However, NJDEP requested additional remedial efforts since the characterization of groundwater quality at USTs 538 and 543 was not completed in 2010 (Correspondence 2). No groundwater samples were previously collected within the footprints of the excavations or within 10 ft hydraulically downgradient of the UST excavations, as required (Correspondence 2).

Field sampling was completed on 19 April 2016 in accordance with the 29 February 2016 Work Plan (Correspondence 3). One temporary groundwater monitoring well was installed with a Geoprobe® rig immediately downgradient of the limits of excavation at UST locations 538 and 543. A groundwater sample was collected from each temporary well to determine if a fuel oil release had impacted groundwater. The groundwater samples were analyzed for volatile organic compounds (VOCs) and semivolatile organic compounds (SVOCs) plus tentatively identified compounds (TICs), in accordance with the requirements for No. 2 fuel oil in Table 2-1 of the New Jersey Administrative Code (NJAC) 7:26E Technical Requirements for Site Remediation.

The locations of the field samples are presented in **Attachment A**, and a summary of the analytical results and comparison to applicable NJDEP Ground Water Quality Criteria (GWQC) is provided in **Attachment B**. Field notes are provided in **Attachment C**, and boring logs are provided in **Attachment D**. The samples were analyzed by ALS Environmental; the analytical data report is provided in **Attachment E**.

The results of the sampling and analyses are provided below for each of the two UHOT sites.

UST 538

UST 538 was a residential fuel oil tank that was removed in 2010 as described in Attachment B of Correspondence 1. Groundwater sampling at UST 538 was specified by NJDEP in Correspondence 2 (additional soil sampling was not specified by NJDEP). A temporary well (PAR-76-TMW-02) was installed, sampled, and subsequently abandoned (**Attachment A**). Groundwater was encountered at approximately 8.5 feet bgs; please see **Attachment D**. As shown on Table 2 of **Attachment B**, there were no exceedances of the GWQC in this groundwater sample. The results of the investigation indicate there has not been a release of fuel oil to groundwater.

UST 543

UST 543 was a residential fuel oil tank that was removed in 2009 as described in Attachment B of Correspondence 1. Groundwater sampling at UST 543 was specified by NJDEP in Correspondence 2 (additional soil sampling was not specified by NJDEP). One temporary well (PAR-76-TMW-01) was installed, sampled, and subsequently abandoned (**Attachment A**). Groundwater was encountered at approximately 5.5 feet below ground surface (bgs); please see **Attachment D**. As shown on Table 2 of **Attachment B**, there were no exceedances of the GWQC in this groundwater sample. The results of the investigation indicate there has not been a release of fuel oil to groundwater.

No Further Action determinations are requested for UST 538 and UST 543. The technical Point of Contact (POC) for this matter is Kent Friesen at (732) 383-7201 or by email at kent.friesen@parsons.com. Should you have any questions or require additional information, please contact me by phone at (732) 380-7064 or by email at william.r.colvin18.civ@mail.mil.

Sincerely,



William R. Colvin, PMP, CHMM, PG
BRAC Environmental Coordinator

cc: Linda Range, NJDEP (3 hard copies)
Delight Balducci, HQDA ACSIM (CD)
Joseph Pearson, Calibre (CD)
James Moore, USACE (CD)
Jim Kelly, USACE (CD)
Cris Grill, Parsons (CD)



New Jersey Department of Environmental Protection
Site Remediation Program

Report Certifications for RCRA GPRA 2020, CERCLA, and Federal Facility Sites

These certifications are to be used for reports submitted for RCRA GPRA 2020, CERCLA, and Federal Facility Sites. The Department has developed guidance for report certifications for RCRA GPRA 2020, CERCLA, and Federal Facility Sites under traditional oversight. The "Person Responsible for Conducting the Remediation Information and Certification" is required to be submitted with each report. For those sites that are required or opt to use a Licensed Site Remediation Professional (LSRP) the report must also be certified by the LSRP using the "Licensed Site Remediation Professional Information and Statement". For additional guidance regarding the requirement for LSRPs at RCRA GPRA 2020, CERCLA and Federal Facility Sites see http://www.nj.gov/dep/srp/srra/training/matrix/quick_ref/rcra_cercla_fed_facility_sites.pdf.

Document: "Request for No Further Action at Parcel 76 USTs 538 and 543 Site Investigation Report Addendum"

PERSON RESPONSIBLE FOR CONDUCTING THE REMEDIATION INFORMATION AND CERTIFICATION

Full Legal Name of the Person Responsible for Conducting the Remediation: William R. Colvin

Representative First Name: William Representative Last Name: Colvin

Title: BRAC Environmental Coordinator

Phone Number: (732) 380-7064

Ext: _____

Fax: _____

Mailing Address: P.O. Box 148

City/Town: Oceanport

State: NJ

Zip Code: 07757

Email Address: william.r.colvin18.civ@mail.mil

This certification shall be signed by the person responsible for conducting the remediation who is submitting this notification in accordance with Administrative Requirements for the Remediation of Contaminated Sites rule at N.J.A.C. 7:26C-1.5(a).

I certify under penalty of law that I have personally examined and am familiar with the information submitted herein, including all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, to the best of my knowledge, I believe that the submitted information is true, accurate and complete. I am aware that there are significant civil penalties for knowingly submitting false, inaccurate or incomplete information and that I am committing a crime of the fourth degree if I make a written false statement which I do not believe to be true. I am also aware that if I knowingly direct or authorize the violation of any statute, I am personally liable for the penalties.

Signature: _____

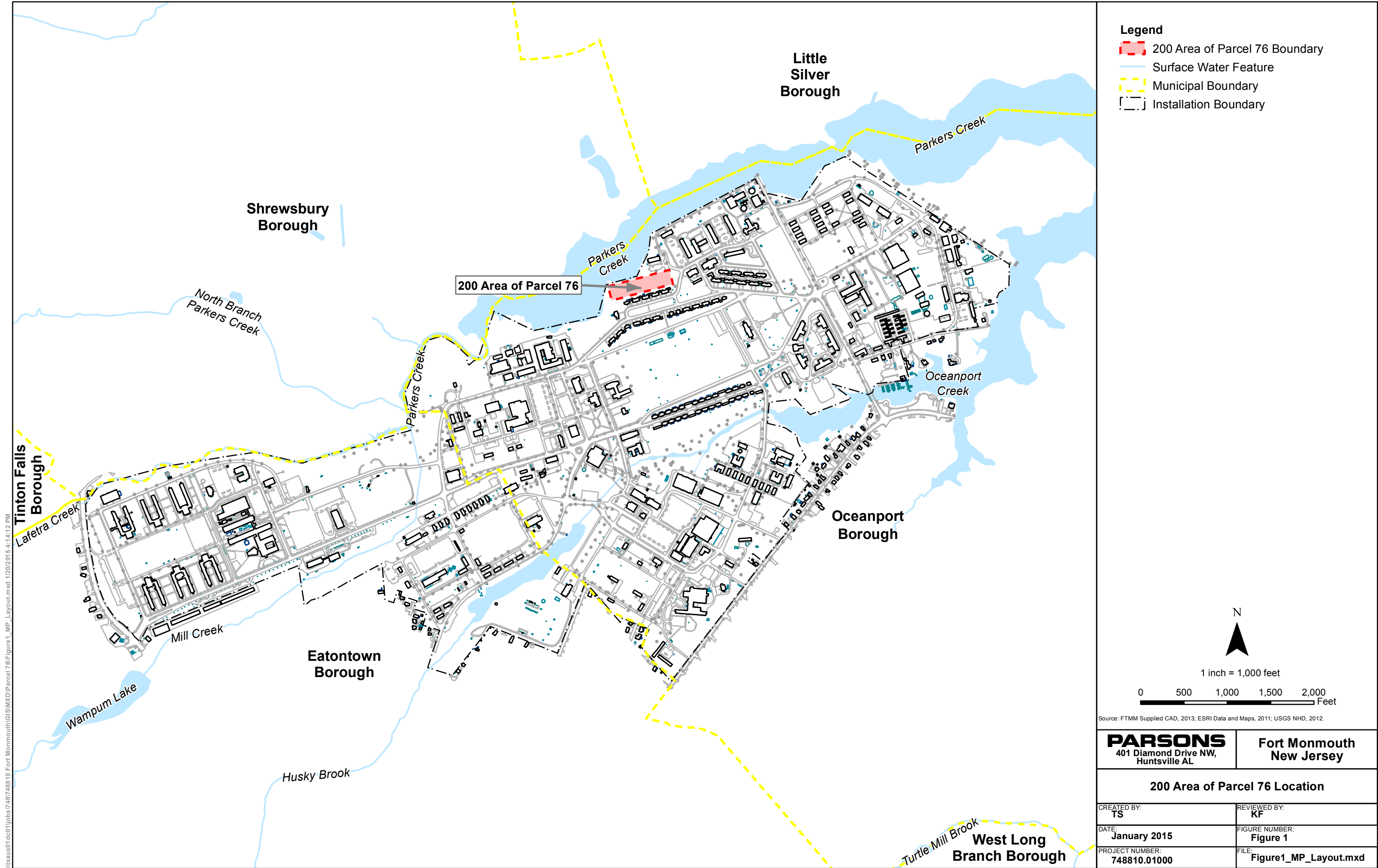
Date: 10 January 2017

Name/Title: William R. Colvin / BRAC Environmental Coordinator

ATTACHMENT A

Figure 1 – 200 Area of Parcel 76 Location

Figure 2 0 Parcel 76 Layout and Sample Locations



\\txaus01dc001\jobs\748810\Fort Monmouth\GIS\MXD\Parcel 76\Figure1_MP_Layout.mxd 1/20/2015 4:14:12 PM

P:\PJT\Projects\Huntsville Cont W912DY-09-D-0062\FTMMCAD Files\GIS\2016 RI\Figure2_200_Parcel_76_Samples.mxd 5/17/2016 3:01:36 PM



LEGEND:

- Temporary Groundwater Sample (2016)
- Known Removed UST associated with Parcel
- Shallow Monitoring Well
- 200 Area of Parcel 76 Boundary
- Approximate Limit of Excavation
- Installation Boundary
- Generalized Groundwater Flow

Source: FTMM Supplied CAD, 2013.

PARSONS
401 Diamond Drive NW,
Huntsville AL

Fort Monmouth
New Jersey

**PARCEL 76 LAYOUT AND
SAMPLE LOCATIONS**

CREATED BY:
RR

REVIEWED BY:
KF

DATE:
MAY. 2016

FIGURE NUMBER:
FIGURE 2

PROJECT NUMBER:
748810-01000

FILE:
Figure2_200_Parcel_76_Samples.mxd

ATTACHMENT B
Validated Laboratory Data Results for Groundwater

Attachment B
Validated Laboratory Data Results for Groundwater
Parcel 76

Loc ID	NJ Ground Water Quality Criteria	TMW01	TMW02
Sample ID		PAR-76-TMW01	PAR-76-TMW02
Sample Date		4/19/2016	4/19/2016
Sample Round			
Filtered		Total	Total
Volatile Organic Compounds (µg/l)			
1,1,1,2-Tetrachloroethane	1	< 1	< 1
1,1,1-Trichloroethane	30	< 1	< 1
1,1,2,2-Tetrachloroethane	1	< 1	< 1
1,1,2-Trichloroethane	3	< 1	< 1
1,1-Dichloroethane	50	< 1	< 1
1,1-Dichloroethene	1	< 1	< 1
1,1-Dichloropropene	100	< 1	< 1
1,2,3-Trichlorobenzene	100	< 1	< 1
1,2,3-Trichloropropane	0.03	< 1	< 1
1,2,4-Trichlorobenzene	9	< 1	< 1
1,2,4-Trimethylbenzene	100	< 1	< 1
1,2-Dibromo-3-chloropropane	0.02	< 1	< 1
1,2-Dibromoethane	0.03	< 1	< 1
1,2-Dichlorobenzene	600	< 1	< 1
1,2-Dichloroethane	2	< 1	< 1
1,2-Dichloropropane	1	< 1	< 1
1,3,5-Trimethylbenzene	100	< 1	< 1
1,3-Dichlorobenzene	600	< 1	< 1
1,3-Dichloropropane	100	< 1	< 1
1,4-Dichlorobenzene	75	< 1	< 1
2,2-Dichloropropane	100	< 1	< 1
2-Chlorotoluene	100	< 1	< 1
Acetone	6,000	2.1 J	1.9 J
Benzene	1	< 1	< 1
Bromobenzene	100	< 1	< 1
Bromochloromethane	100	< 1	< 1
Bromodichloromethane	1	< 1	< 1
Bromoform	4	< 1	< 1
Carbon tetrachloride	1	< 1	< 1
Chlorobenzene	50	< 1	< 1
Chlorodibromomethane	1	< 1	< 1
Chloroethane	5	< 1	< 1
Chloroform	70	< 1	< 1
Cis-1,2-Dichloroethene	70	< 1	< 1
Cis-1,3-Dichloropropene	1	< 1	< 1
Cymene	100	< 1	< 1
Dichlorodifluoromethane	1,000	< 1	< 1
Ethyl benzene	700	< 1	< 1
Hexachlorobutadiene	1	< 1	< 1
Isopropylbenzene	700	< 1	< 1
Meta/Para Xylene	1,000	< 2	< 2
Methyl bromide	10	< 1	< 1
Methyl butyl ketone	300	< 5	< 5
Methyl chloride	100	< 1	< 1
Methyl ethyl ketone	300	< 1	< 1
Methyl isobutyl ketone	100	< 1	< 1
Methyl Tertbutyl Ether	70	< 1	< 1
Methylene chloride	3	< 1	< 1
Naphthalene	300	< 1	0.32 J
n-Butylbenzene	100	< 1	< 1
Ortho Xylene	1,000	< 1	< 1
p-Chlorotoluene	100	< 1	< 1
Propylbenzene	100	< 1	< 1
sec-Butylbenzene	100	< 1	1.8 J
Styrene	100	< 1	< 1
Tert Butyl Alcohol	100	< 20	< 20
tert-Butylbenzene	100	< 1	0.61 J
Tetrachloroethene	1	< 1	< 1
Toluene	600	< 1	< 1
Trans-1,2-Dichloroethene	100	< 1	< 1
Trans-1,3-Dichloropropene	1	< 1	< 1
Trichloroethene	1	< 1	< 1
Trichlorofluoromethane	2,000	< 1	< 1
Vinyl chloride	1	< 1	< 1
TIC VOCs (µg/l)			
TIC Unknown	NLE	5.4 J	ND

Attachment B

Validated Laboratory Data Results for Groundwater

Parcel 76

Loc ID	NJ Ground Water Quality Criteria	TMW01	TMW02
Sample ID		PAR-76-TMW01	PAR-76-TMW02
Sample Date		4/19/2016	4/19/2016
Sample Round			
Filtered		Total	Total
Semivolatile Organic Compounds (µg/l)			
1,2,4-Trichlorobenzene	9	< 5	< 5
1,2-Dichlorobenzene	600	< 5	< 5
1,2-Diphenylhydrazine	20	< 5	< 5
1,3-Dichlorobenzene	600	< 5	< 5
1,4-Dichlorobenzene	75	< 5	< 5
2,4,5-Trichlorophenol	700	< 5	< 5
2,4,6-Trichlorophenol	20	< 5	< 5
2,4-Dichlorophenol	20	< 5	< 5
2,4-Dimethylphenol	100	< 5	< 5
2,4-Dinitrophenol	40	< 25	< 25
2,4-Dinitrotoluene	10	< 5	< 5
2,6-Dinitrotoluene	10	< 5	< 5
2-Chloronaphthalene	600	< 5	< 5
2-Chlorophenol	40	< 5	< 5
2-Methylnaphthalene	30	< 5	< 5
2-Methylphenol	100	< 5	< 5
2-Nitroaniline	100	< 25	< 25
2-Nitrophenol	100	< 5	< 5
3,3'-Dichlorobenzidine	30	< 5	< 5
3-Nitroaniline	100	< 25	< 25
4,6-Dinitro-2-methylphenol	1	< 25	< 25
4-Bromophenyl phenyl ether	100	< 5	< 5
4-Chloro-3-methylphenol	100	< 5	< 5
4-Chloroaniline	30	< 5	< 5
4-Chlorophenyl phenyl ether	100	< 5	< 5
4-Nitroaniline	5	< 25	< 25
4-Nitrophenol	100	< 25	< 25
Acenaphthene	400	< 5	< 5
Acenaphthylene	100	< 5	< 5
Anthracene	2,000	< 5	< 5
Benzidine	20	< 100	< 100
Benzo(a)anthracene	0.1	< 5	< 5
Benzo(a)pyrene	0.1	< 5	< 5
Benzo(b)fluoranthene	0.2	< 5	< 5
Benzo(ghi)perylene	100	< 5	< 5
Benzo(k)fluoranthene	0.5	< 5	< 5
Benzyl alcohol	2,000	< 5	< 5
Bis(2-Chloroethoxy)methane	100	< 5	< 5
Bis(2-Chloroethyl)ether	7	< 5	< 5
Bis(2-Chloroisopropyl)ether	300	< 5	< 5
Bis(2-Ethylhexyl)phthalate	3	< 5	< 5
Butyl benzyl phthalate	100	< 5	< 5
Carbazole	100	< 5	< 5
Chrysene	5	< 5	< 5
Cresol	NLE	< 10	< 10
Dibenz(a,h)anthracene	0.3	< 5	< 5
Dibenzofuran	100	< 5	1.2 J
Diethyl phthalate	6,000	< 5	< 5
Dimethyl phthalate	100	< 5	< 5
Di-n-butylphthalate	700	< 5	< 5
Di-n-octylphthalate	100	< 5	< 5
Fluoranthene	300	< 5	< 5
Fluorene	300	< 5	< 5
Hexachlorobenzene	0.02	< 5	< 5
Hexachlorobutadiene	1	< 5	< 5
Hexachlorocyclopentadiene	40	< 5	< 5
Hexachloroethane	7	< 5	< 5
Indeno(1,2,3-cd)pyrene	0.2	< 5	< 5
Isophorone	40	< 5	< 5
Naphthalene	300	< 5	< 5
Nitrobenzene	6	< 5	< 5
N-Nitrosodimethylamine	0.8	< 5	< 5
N-Nitroso-di-n-propylamine	10	< 5	< 5
N-Nitrosodiphenylamine	10	< 5	< 5
Pentachlorophenol	0.3	< 25	< 25
Phenanthrene	100	< 5	1.3 J
Phenol	2,000	< 5	< 5
Pyrene	200	< 5	1 J
TIC SVOCs (µg/l)			
TIC Unknown	NLE	ND	ND

ATTACHMENT C
Field Notes

Location Oceanport, NJ Date 4/19/16Project / Client Ftmm phase II / USACE

Tech: CW, JM, JB, CT, FA

TASK: Well Development / TMW Sample

Weather: 70°F clear

0730: arrive - H+S tailgate

0815: JM + ECDI to parcel 28 to develop.

0820: CW + FA to sample TMW's

0845: Sample 800-TMW-06 + ns/msd

0945: SAMPLE 800-TMW-05

1030: Sample 800 PAR-76-TMW01

1100: Sample PAR-76-TMW02

1150: Prep cocher / write up COR'S - Pine has not yet arrived.

1230: JM + ECDI Mob to develop 2 Ftmm-22

1400: CW to ship SAMPLES no 444 to Ftmm-22

1545: off-site

Location Oceanport, NJ Date 6/20/16Project / Client Ftmm phase II / USACE

Tech: CW, JM, JB, CT, FA

TASK: Well Development / PAR-49 SB

Weather: 55°F

0730: arrive + H+S tailgate

0815: Mob to Parcel 49

0850: Begin drilling

SAMPLE ID	Time	Analysis
PAR-49-SB-09R-3-3.5	1110	VOC's + TDS
PAR-49-SB-09R-8-8.5	1115	SVOC's + TDS
PAR-49-SB-09R-9.5-10	1120	

1120: ECDI / PAR-SMS Mob to probe from 49 to 57

1145: Mob to C. Wood

1200: Begin developing MW-35

1500: MW 35 Developed, Mob to office

1545: off-site

ATTACHMENT D
Boring Logs

Soil Boring Log

CLIENT: USACE					INSPECTOR: <u>CW</u>		BORING/WELL ID: <u>PAR-76-TM401</u>	
PROJECT NAME: FTMM - ECP					DRILLER: <u>JB</u>		LOCATION DESCRIPTION	
PROJECT LOCATION: FTMM Parcel					WEATHER: <u>70°F Clear</u>		<u>Parcel 76</u>	
PROJECT NUMBER: 748810-					CONTRACTOR: East Coast Drilling, Inc. (ECDI)			
GROUNDWATER OBSERVATIONS					RIG TYPE: Geoprobe(R) 7822DT		LOCATION PLAN	
WATER LEVEL: <u>u8.5</u>					DATE/TIME START: <u>4/18/16</u> <u>1300</u>		Oceanport, New Jersey	
DATE: <u>4/18/16</u>					DATE/TIME FINISH: <u>4/18/16</u> <u>1320</u>			
TIME:					WEIGHT OF HAMMER: <u>N/A</u>			
MEAS. FROM:					DROP OF HAMMER: <u>N/A</u>			
					TYPE OF HAMMER: <u>N/A</u>			
DEPTH (feet)	SAMPLE I.D.	BLOWS per 6"	ADV/ REC.	PID (ppm)	FIELD IDENTIFICATION OF MATERIAL	STRATA	COMMENTS	
0			<u>47/60</u>	<u>0</u>	0-5" grass/topsoil			
1					5-40" moist, brown, mf SAND, some silt	<u>I</u>	A low tide @ time of drilling	
2					40-47" moist, light brown/grey mf SAND, some silt			
3						<u>III</u>		
4								
5			<u>60/60</u>	<u>0</u>	0-16" SAA,			
6					16-60" moist, mf, light brown/ orange/grey mottled SAND, little silt, saturated @ 40"	<u>III</u>		
7								
8								
9								
10								
Remarks:								
Sample Types		Consistency vs. Blowcount / Foot						
S - Split-Spoon		Granular (Sand & Gravel)				Fine Grained (Silt & Clay)		
U - Undisturbed Tube		V. Loose: 0-4 Dense: 30-50				V. Soft: <2 Stiff: 8-15		
C - Rock Core		Loose: 4-10 V. Dense: >50				Soft: 2-4 V. Stiff: 15-30		
A - Auger Cuttings		M. Dense: 10-30				M. Stiff: 4-8 Hard: >30		
						and - 35-50% some - 20-35% little - 10-20% trace - <10% moisture, density, color, gradation		

Soil Boring Log

CLIENT: USACE PROJECT NAME: FTMM - ECP PROJECT LOCATION: FTMM Parcel PROJECT NUMBER: 748810-					INSPECTOR: <u>CW</u> DRILLER: <u>JSS</u> WEATHER: <u>73°F clear</u> CONTRACTOR: East Coast Drilling, Inc. (ECDI)		BORING/WELL ID: <u>PAR-76-TA402</u> LOCATION DESCRIPTION: <u>Parcel 76</u>																		
GROUNDWATER OBSERVATIONS WATER LEVEL: <u>~5.5</u> DATE: <u>4/18/16</u> TIME: _____ MEAS. FROM: _____					RIG TYPE: Geoprobe(R) 7822DT DATE/TIME START: <u>4/18/16</u> DATE/TIME FINISH: <u>4/18/16</u> WEIGHT OF HAMMER: <u>N/A</u> DROP OF HAMMER: <u>N/A</u> TYPE OF HAMMER: <u>N/A</u>		LOCATION PLAN Oceanport, New Jersey																		
DEPTH (feet)	SAMPLE I.D.	BLOWS per 6"	ADV/ REC.	PID (ppm)	FIELD IDENTIFICATION OF MATERIAL	STRATA	COMMENTS																		
0			60/52	0	0-3" Topsoil/grass																				
1					3-14" Brown, mf, SAND, little silt	I																			
2					14-16" crushed rock																				
3					16-34" moist, Brown, mf SAND, little silt, little f gravel																				
4					34-52" moist, m. dense, gray-green, mf SAND, some silt, trace f gravel	VI																			
5			60/60	0	0-34" moist, SAA, submerged @ 7"																				
6					34-60" wet, m. dense, Brown/marshy/ gray mf mottled SAND, little silt, trace f gravel	II																			
7																									
8																									
9																									
10																									
Remarks:																									
Sample Types S - Split-Spoon U - Undisturbed Tube C - Rock Core A - Auger Cuttings					Consistency vs. Blowcount / Foot <table border="1" style="width:100%; border-collapse: collapse; font-size: small;"> <tr> <th colspan="2">Granular (Sand & Gravel)</th> <th colspan="2">Fine Grained (Silt & Clay)</th> </tr> <tr> <td>V. Loose: 0-4</td> <td>Dense: 30-50</td> <td>V. Soft: <2</td> <td>Stiff: 8-15</td> </tr> <tr> <td>Loose: 4-10</td> <td>V. Dense: >50</td> <td>Soft: 2-4</td> <td>V. Stiff: 15-30</td> </tr> <tr> <td>M. Dense: 10-30</td> <td></td> <td>M. Stiff: 4-8</td> <td>Hard: >30</td> </tr> </table>			Granular (Sand & Gravel)		Fine Grained (Silt & Clay)		V. Loose: 0-4	Dense: 30-50	V. Soft: <2	Stiff: 8-15	Loose: 4-10	V. Dense: >50	Soft: 2-4	V. Stiff: 15-30	M. Dense: 10-30		M. Stiff: 4-8	Hard: >30	and - 35-50% some - 20-35% little - 10-20% trace - <10% moisture, density, color, gradation	
Granular (Sand & Gravel)		Fine Grained (Silt & Clay)																							
V. Loose: 0-4	Dense: 30-50	V. Soft: <2	Stiff: 8-15																						
Loose: 4-10	V. Dense: >50	Soft: 2-4	V. Stiff: 15-30																						
M. Dense: 10-30		M. Stiff: 4-8	Hard: >30																						

ATTACHMENT E
Analytical Data for Parcel 76



May 05, 2016

Service Request No:R1603836

Mr. Cory Mahony
Parsons Engineering Science
100 High St. 4th Floor
Boston, MA 02110

Laboratory Results for: FTMM Baseline

Dear Mr.Mahony,

Enclosed are the results of the sample(s) submitted to our laboratory April 20, 2016
For your reference, these analyses have been assigned our service request number **R1603836**.

All analyses were performed according to our laboratory's quality assurance program. The test results meet requirements of the NELAP standards except as noted in the case narrative report. All results are intended to be considered in their entirety, and ALS Environmental is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report. The measurement uncertainty of the results included in this report is within that expected when using the prescribed method(s) for analysis of these samples, and represented by Laboratory Control Sample control limits. Any events, such as QC failures, which may add to the uncertainty are explained in the report narrative.

Please contact me if you have any questions. My extension is 7478. You may also contact me via email at Vanessa.Badman@alsglobal.com.

Respectfully submitted,

ALS Group USA, Corp. dba ALS Environmental

Vanessa Badman
Customer Service
Manager

ADDRESS 1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623

PHONE +1 585 288 5380 | FAX +1 585 288 8475

ALS Group USA, Corp.
dba ALS Environmental

CASE NARRATIVE

This report contains analytical results for the following samples:

Service Request Number: R1603836

<u>SAMPLE #</u>	<u>CLIENT SAMPLE ID</u>	<u>DATE</u>	<u>TIME</u>
R1603836-001	PAR-76-TMW01	4/19/2016	1030
R1603836-002	PAR-76-TMW02	4/19/2016	1100

All samples were received in good condition unless otherwise noted on the cooler receipt and preservation check form located at the end of this report.

All samples were preserved in accordance with approved analytical methods.

All samples have been analyzed by the approved methods cited on the analytical results pages.

All holding times and associated QC were within limits.

No analytical or QC problems were encountered.

All sampling activities performed by ALS personnel have been in accordance with "ALS Field Procedures and Measurements Manual" or by client specifications.

Client: Parsons Engineering Science
Project: FTMM Baseline/748810-03000

Service Request:R1603836

SAMPLE CROSS-REFERENCE

<u>SAMPLE #</u>	<u>CLIENT SAMPLE ID</u>	<u>DATE</u>	<u>TIME</u>
R1603836-001	PAR-76-TMW01	4/19/2016	1030
R1603836-002	PAR-76-TMW02	4/19/2016	1100

REPORT QUALIFIERS AND DEFINITIONS

U	Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.	+	Correlation coefficient for MSA is <0.995.
J	Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration >40% difference between two GC columns (pesticides/Aroclors).	N	Inorganics- Matrix spike recovery was outside laboratory limits.
B	Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.	N	Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.
E	Inorganics- Concentration is estimated due to the serial dilution was outside control limits.	S	Concentration has been determined using Method of Standard Additions (MSA).
E	Organics- Concentration has exceeded the calibration range for that specific analysis.	W	Post-Digestion Spike recovery is outside control limits and the sample absorbance is <50% of the spike absorbance.
D	Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.	P	Concentration >40% (25% for CLP) difference between the two GC columns.
*	Indicates that a quality control parameter has exceeded laboratory limits. Under the "Notes" column of the Form I, this qualifier denotes analysis was performed out of Holding Time.	C	Confirmed by GC/MS
H	Analysis was performed out of hold time for tests that have an "immediate" hold time criteria.	Q	DoD reports: indicates a pesticide/Aroclor is not confirmed (100% Difference between two GC columns).
#	Spike was diluted out.	X	See Case Narrative for discussion.
		MRL	Method Reporting Limit. Also known as:
		LOQ	Limit of Quantitation (LOQ) The lowest concentration at which the method analyte may be reliably quantified under the method conditions.
		MDL	Method Detection Limit. A statistical value derived from a study designed to provide the lowest concentration that will be detected 99% of the time. Values between the MDL and MRL are estimated (see J qualifier).
		LOD	Limit of Detection. A value at or above the MDL which has been verified to be detectable.
		ND	Non-Detect. Analyte was not detected at the concentration listed. Same as U qualifier.



Rochester Lab ID # for State Certifications¹

Connecticut ID # PH0556	Maine ID #NY0032	New Hampshire ID #
Delaware Accredited	Nebraska Accredited	294100 A/B
DoD ELAP #65817	New Jersey ID # NY004	Pennsylvania ID# 68-786
Florida ID # E87674	New York ID # 10145	Rhode Island ID # 158
Illinois ID #200047	North Carolina #676	Virginia #460167

¹ Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state or agency requirements. The test results meet requirements of the current NELAP/TNI standards or state or agency requirements, where applicable, except as noted in the case narrative. Since not all analyte/method/matrix combinations are offered for state/NELAC accreditation, this report may contain results which are not accredited. For a specific list of accredited analytes, contact the laboratory or go to <http://www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads/North-America-Downloads>

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Parsons Engineering Science
Project: FTMM Baseline/748810-03000
Sample Matrix: Water

Service Request: R1603836
Date Collected: 04/19/16 10:30
Date Received: 04/20/16 09:25

Sample Name: PAR-76-TMW01
Lab Code: R1603836-001

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	LOQ	LOD	MDL	Dil.	Date Analyzed	Q
1,1,1,2-Tetrachloroethane	ND U	5.0	1.0	0.22	1	04/25/16 14:42	
1,1,1-Trichloroethane (TCA)	ND U	5.0	1.0	0.36	1	04/25/16 14:42	
1,1,2,2-Tetrachloroethane	ND U	5.0	1.0	0.25	1	04/25/16 14:42	
1,1,2-Trichloroethane	ND U	5.0	1.0	0.34	1	04/25/16 14:42	
1,1-Dichloroethane (1,1-DCA)	ND U	5.0	1.0	0.20	1	04/25/16 14:42	
1,1-Dichloroethene (1,1-DCE)	ND U	5.0	1.0	0.57	1	04/25/16 14:42	
1,1-Dichloropropene	ND U	5.0	1.0	0.29	1	04/25/16 14:42	
1,2,3-Trichlorobenzene	ND U	5.0	1.0	0.82	1	04/25/16 14:42	
1,2,3-Trichloropropane	ND U	5.0	1.0	0.70	1	04/25/16 14:42	
1,2,4-Trichlorobenzene	ND U	5.0	1.0	0.23	1	04/25/16 14:42	
1,2,4-Trimethylbenzene	ND U	5.0	1.0	0.20	1	04/25/16 14:42	
1,2-Dibromo-3-chloropropane (DBCP)	ND U	5.0	1.0	0.74	1	04/25/16 14:42	
1,2-Dibromoethane	ND U	5.0	1.0	0.24	1	04/25/16 14:42	
1,2-Dichlorobenzene	ND U	5.0	1.0	0.21	1	04/25/16 14:42	
1,2-Dichloroethane	ND U	5.0	1.0	0.36	1	04/25/16 14:42	
1,2-Dichloropropane	ND U	5.0	1.0	0.20	1	04/25/16 14:42	
1,3,5-Trimethylbenzene	ND U	5.0	1.0	0.20	1	04/25/16 14:42	
1,3-Dichlorobenzene	ND U	5.0	1.0	0.20	1	04/25/16 14:42	
1,3-Dichloropropane	ND U	5.0	1.0	0.27	1	04/25/16 14:42	
1,4-Dichlorobenzene	ND U	5.0	1.0	0.20	1	04/25/16 14:42	
2,2-Dichloropropane	ND U	5.0	1.0	0.27	1	04/25/16 14:42	
2-Butanone (MEK)	ND U	10	1.0	0.81	1	04/25/16 14:42	
2-Chlorotoluene	ND U	5.0	1.0	0.20	1	04/25/16 14:42	
2-Hexanone	ND U	10	5.0	1.7	1	04/25/16 14:42	
tert-Butyl Alcohol	ND U	100	20	11	1	04/25/16 14:42	
4-Chlorotoluene	ND U	5.0	1.0	0.24	1	04/25/16 14:42	
p-Isopropyltoluene	ND U	5.0	1.0	0.20	1	04/25/16 14:42	
4-Methyl-2-pentanone	ND U	10	1.0	0.67	1	04/25/16 14:42	
Acetone	2.1 J	10	5.0	1.3	1	04/25/16 14:42	
Benzene	ND U	5.0	1.0	0.20	1	04/25/16 14:42	
Bromobenzene	ND U	5.0	1.0	0.28	1	04/25/16 14:42	
Bromochloromethane	ND U	5.0	1.0	0.32	1	04/25/16 14:42	
Bromodichloromethane	ND U	5.0	1.0	0.32	1	04/25/16 14:42	
Bromoform	ND U	5.0	1.0	0.42	1	04/25/16 14:42	
Bromomethane	ND U	5.0	1.0	0.29	1	04/25/16 14:42	
Carbon Tetrachloride	ND U	5.0	1.0	0.45	1	04/25/16 14:42	
Chlorobenzene	ND U	5.0	1.0	0.29	1	04/25/16 14:42	
Chloroethane	ND U	5.0	1.0	0.24	1	04/25/16 14:42	
Chloroform	ND U	5.0	1.0	0.25	1	04/25/16 14:42	
Chloromethane	ND U	5.0	1.0	0.21	1	04/25/16 14:42	
Dibromochloromethane	ND U	5.0	1.0	0.31	1	04/25/16 14:42	
Dichlorodifluoromethane (CFC 12)	ND U	5.0	1.0	0.46	1	04/25/16 14:42	
Methylene Chloride	ND U	5.0	1.0	0.60	1	04/25/16 14:42	

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Analytical Report

Client: Parsons Engineering Science
Project: FTMM Baseline/748810-03000
Sample Matrix: Water

Service Request: R1603836
Date Collected: 04/19/16 10:30
Date Received: 04/20/16 09:25

Sample Name: PAR-76-TMW01
Lab Code: R1603836-001

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	LOQ	LOD	MDL	Dil.	Date Analyzed	Q
Ethylbenzene	ND U	5.0	1.0	0.20	1	04/25/16 14:42	
Hexachlorobutadiene	ND U	5.0	1.0	0.62	1	04/25/16 14:42	
Isopropylbenzene (Cumene)	ND U	5.0	1.0	0.20	1	04/25/16 14:42	
Methyl tert-Butyl Ether	ND U	5.0	1.0	0.29	1	04/25/16 14:42	
Naphthalene	ND U	5.0	1.0	0.20	1	04/25/16 14:42	
Styrene	ND U	5.0	1.0	0.20	1	04/25/16 14:42	
Tetrachloroethene (PCE)	ND U	5.0	1.0	0.30	1	04/25/16 14:42	
Toluene	ND U	5.0	1.0	0.20	1	04/25/16 14:42	
Trichloroethene (TCE)	ND U	5.0	1.0	0.22	1	04/25/16 14:42	
Trichlorofluoromethane (CFC 11)	ND U	5.0	1.0	0.20	1	04/25/16 14:42	
Vinyl Chloride	ND U	5.0	1.0	0.32	1	04/25/16 14:42	
cis-1,2-Dichloroethene	ND U	5.0	1.0	0.30	1	04/25/16 14:42	
cis-1,3-Dichloropropene	ND U	5.0	1.0	0.24	1	04/25/16 14:42	
m,p-Xylenes	ND U	5.0	2.0	0.33	1	04/25/16 14:42	
n-Butylbenzene	ND U	5.0	1.0	0.21	1	04/25/16 14:42	
n-Propylbenzene	ND U	5.0	1.0	0.20	1	04/25/16 14:42	
o-Xylene	ND U	5.0	1.0	0.20	1	04/25/16 14:42	
sec-Butylbenzene	ND U	5.0	1.0	0.27	1	04/25/16 14:42	
tert-Butylbenzene	ND U	5.0	1.0	0.20	1	04/25/16 14:42	
trans-1,2-Dichloroethene	ND U	5.0	1.0	0.33	1	04/25/16 14:42	
trans-1,3-Dichloropropene	ND U	5.0	1.0	0.20	1	04/25/16 14:42	

Tentatively Identified Compounds

CAS#	Compound Identification	RT	Result ug/L	Q
	unknown	1.58	5.4	J

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	106	75 - 120	04/25/16 14:42	
Dibromofluoromethane	103	85 - 115	04/25/16 14:42	
Toluene-d8	105	85 - 120	04/25/16 14:42	

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Analytical Report

Client: Parsons Engineering Science
Project: FTMM Baseline/748810-03000
Sample Matrix: Water

Service Request: R1603836
Date Collected: 04/19/16 11:00
Date Received: 04/20/16 09:25

Sample Name: PAR-76-TMW02
Lab Code: R1603836-002

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	LOQ	LOD	MDL	Dil.	Date Analyzed	Q
1,1,1,2-Tetrachloroethane	ND U	5.0	1.0	0.22	1	04/25/16 15:06	
1,1,1-Trichloroethane (TCA)	ND U	5.0	1.0	0.36	1	04/25/16 15:06	
1,1,2,2-Tetrachloroethane	ND U	5.0	1.0	0.25	1	04/25/16 15:06	
1,1,2-Trichloroethane	ND U	5.0	1.0	0.34	1	04/25/16 15:06	
1,1-Dichloroethane (1,1-DCA)	ND U	5.0	1.0	0.20	1	04/25/16 15:06	
1,1-Dichloroethene (1,1-DCE)	ND U	5.0	1.0	0.57	1	04/25/16 15:06	
1,1-Dichloropropene	ND U	5.0	1.0	0.29	1	04/25/16 15:06	
1,2,3-Trichlorobenzene	ND U	5.0	1.0	0.82	1	04/25/16 15:06	
1,2,3-Trichloropropane	ND U	5.0	1.0	0.70	1	04/25/16 15:06	
1,2,4-Trichlorobenzene	ND U	5.0	1.0	0.23	1	04/25/16 15:06	
1,2,4-Trimethylbenzene	ND U	5.0	1.0	0.20	1	04/25/16 15:06	
1,2-Dibromo-3-chloropropane (DBCP)	ND U	5.0	1.0	0.74	1	04/25/16 15:06	
1,2-Dibromoethane	ND U	5.0	1.0	0.24	1	04/25/16 15:06	
1,2-Dichlorobenzene	ND U	5.0	1.0	0.21	1	04/25/16 15:06	
1,2-Dichloroethane	ND U	5.0	1.0	0.36	1	04/25/16 15:06	
1,2-Dichloropropane	ND U	5.0	1.0	0.20	1	04/25/16 15:06	
1,3,5-Trimethylbenzene	ND U	5.0	1.0	0.20	1	04/25/16 15:06	
1,3-Dichlorobenzene	ND U	5.0	1.0	0.20	1	04/25/16 15:06	
1,3-Dichloropropane	ND U	5.0	1.0	0.27	1	04/25/16 15:06	
1,4-Dichlorobenzene	ND U	5.0	1.0	0.20	1	04/25/16 15:06	
2,2-Dichloropropane	ND U	5.0	1.0	0.27	1	04/25/16 15:06	
2-Butanone (MEK)	ND U	10	1.0	0.81	1	04/25/16 15:06	
2-Chlorotoluene	ND U	5.0	1.0	0.20	1	04/25/16 15:06	
2-Hexanone	ND U	10	5.0	1.7	1	04/25/16 15:06	
tert-Butyl Alcohol	ND U	100	20	11	1	04/25/16 15:06	
4-Chlorotoluene	ND U	5.0	1.0	0.24	1	04/25/16 15:06	
p-Isopropyltoluene	ND U	5.0	1.0	0.20	1	04/25/16 15:06	
4-Methyl-2-pentanone	ND U	10	1.0	0.67	1	04/25/16 15:06	
Acetone	1.9 J	10	5.0	1.3	1	04/25/16 15:06	
Benzene	ND U	5.0	1.0	0.20	1	04/25/16 15:06	
Bromobenzene	ND U	5.0	1.0	0.28	1	04/25/16 15:06	
Bromochloromethane	ND U	5.0	1.0	0.32	1	04/25/16 15:06	
Bromodichloromethane	ND U	5.0	1.0	0.32	1	04/25/16 15:06	
Bromoform	ND U	5.0	1.0	0.42	1	04/25/16 15:06	
Bromomethane	ND U	5.0	1.0	0.29	1	04/25/16 15:06	
Carbon Tetrachloride	ND U	5.0	1.0	0.45	1	04/25/16 15:06	
Chlorobenzene	ND U	5.0	1.0	0.29	1	04/25/16 15:06	
Chloroethane	ND U	5.0	1.0	0.24	1	04/25/16 15:06	
Chloroform	ND U	5.0	1.0	0.25	1	04/25/16 15:06	
Chloromethane	ND U	5.0	1.0	0.21	1	04/25/16 15:06	
Dibromochloromethane	ND U	5.0	1.0	0.31	1	04/25/16 15:06	
Dichlorodifluoromethane (CFC 12)	ND U	5.0	1.0	0.46	1	04/25/16 15:06	
Methylene Chloride	ND U	5.0	1.0	0.60	1	04/25/16 15:06	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Parsons Engineering Science
Project: FTMM Baseline/748810-03000
Sample Matrix: Water

Service Request: R1603836
Date Collected: 04/19/16 11:00
Date Received: 04/20/16 09:25

Sample Name: PAR-76-TMW02
Lab Code: R1603836-002

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	LOQ	LOD	MDL	Dil.	Date Analyzed	Q
Ethylbenzene	ND U	5.0	1.0	0.20	1	04/25/16 15:06	
Hexachlorobutadiene	ND U	5.0	1.0	0.62	1	04/25/16 15:06	
Isopropylbenzene (Cumene)	ND U	5.0	1.0	0.20	1	04/25/16 15:06	
Methyl tert-Butyl Ether	ND U	5.0	1.0	0.29	1	04/25/16 15:06	
Naphthalene	0.32 J	5.0	1.0	0.20	1	04/25/16 15:06	
Styrene	ND U	5.0	1.0	0.20	1	04/25/16 15:06	
Tetrachloroethene (PCE)	ND U	5.0	1.0	0.30	1	04/25/16 15:06	
Toluene	ND U	5.0	1.0	0.20	1	04/25/16 15:06	
Trichloroethene (TCE)	ND U	5.0	1.0	0.22	1	04/25/16 15:06	
Trichlorofluoromethane (CFC 11)	ND U	5.0	1.0	0.20	1	04/25/16 15:06	
Vinyl Chloride	ND U	5.0	1.0	0.32	1	04/25/16 15:06	
cis-1,2-Dichloroethene	ND U	5.0	1.0	0.30	1	04/25/16 15:06	
cis-1,3-Dichloropropene	ND U	5.0	1.0	0.24	1	04/25/16 15:06	
m,p-Xylenes	ND U	5.0	2.0	0.33	1	04/25/16 15:06	
n-Butylbenzene	ND U	5.0	1.0	0.21	1	04/25/16 15:06	
n-Propylbenzene	ND U	5.0	1.0	0.20	1	04/25/16 15:06	
o-Xylene	ND U	5.0	1.0	0.20	1	04/25/16 15:06	
sec-Butylbenzene	1.8 J	5.0	1.0	0.27	1	04/25/16 15:06	
tert-Butylbenzene	0.61 J	5.0	1.0	0.20	1	04/25/16 15:06	
trans-1,2-Dichloroethene	ND U	5.0	1.0	0.33	1	04/25/16 15:06	
trans-1,3-Dichloropropene	ND U	5.0	1.0	0.20	1	04/25/16 15:06	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	103	75 - 120	04/25/16 15:06	
Dibromofluoromethane	103	85 - 115	04/25/16 15:06	
Toluene-d8	105	85 - 120	04/25/16 15:06	

Tentatively Identified Compounds

CAS#	Compound Identification	RT	Result ug/L	Q
	No Tentatively Identified Compounds Detected			

ALS Group USA, Corp.
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QA/QC Report

Client: Parsons Engineering Science
Project: FTMM Baseline/748810-03000
Sample Matrix: Water

Service Request: R1603836
Date Analyzed: 04/25/16

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Units:ug/L
Basis:NA

Lab Control Sample
RQ1604585-03

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
1,1,1,2-Tetrachloroethane	8260C	21.5	20.0	107	80-130
1,1,1-Trichloroethane (TCA)	8260C	21.1	20.0	106	65-130
1,1,2,2-Tetrachloroethane	8260C	23.4	20.0	117	65-130
1,1,2-Trichloroethane	8260C	24.1	20.0	120	75-125
1,1-Dichloroethane (1,1-DCA)	8260C	22.9	20.0	115	70-135
1,1-Dichloroethene (1,1-DCE)	8260C	20.9	20.0	105	70-130
1,1-Dichloropropene	8260C	21.5	20.0	108	75-130
1,2,3-Trichlorobenzene	8260C	23.0	20.0	115	55-140
1,2,3-Trichloropropane	8260C	21.8	20.0	109	75-125
1,2,4-Trichlorobenzene	8260C	22.1	20.0	111	65-135
1,2,4-Trimethylbenzene	8260C	22.4	20.0	112	75-130
1,2-Dibromo-3-chloropropane (DBCP)	8260C	22.7	20.0	114	50-130
1,2-Dibromoethane	8260C	22.8	20.0	114	80-120
1,2-Dichlorobenzene	8260C	22.4	20.0	112	70-120
1,2-Dichloroethane	8260C	23.1	20.0	116	70-130
1,2-Dichloropropane	8260C	22.9	20.0	114	75-125
1,3,5-Trimethylbenzene	8260C	22.8	20.0	114	75-130
1,3-Dichlorobenzene	8260C	22.0	20.0	110	75-125
1,3-Dichloropropane	8260C	23.2	20.0	116	75-125
1,4-Dichlorobenzene	8260C	21.4	20.0	107	75-125
2,2-Dichloropropane	8260C	20.8	20.0	104	70-135
2-Butanone (MEK)	8260C	19.3	20.0	97	30-150
2-Chlorotoluene	8260C	22.5	20.0	112	75-125
2-Hexanone	8260C	19.7	20.0	98	55-130
tert-Butyl Alcohol	8260C	407	400	102	50-150
4-Chlorotoluene	8260C	22.6	20.0	113	75-130
p-Isopropyltoluene	8260C	21.3	20.0	106	75-130
4-Methyl-2-pentanone	8260C	21.3	20.0	106	60-135
Acetone	8260C	20.5	20.0	102	40-140
Benzene	8260C	21.5	20.0	108	80-120
Bromobenzene	8260C	22.4	20.0	112	75-125
Bromochloromethane	8260C	21.6	20.0	108	65-130
Bromodichloromethane	8260C	22.6	20.0	113	75-120

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: Parsons Engineering Science
Project: FTMM Baseline/748810-03000
Sample Matrix: Water

Service Request: R1603836
Date Analyzed: 04/25/16

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Units:ug/L
Basis:NA

Lab Control Sample
RQ1604585-03

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
Bromoform	8260C	27.2	20.0	136 *	70-130
Bromomethane	8260C	19.6	20.0	98	30-145
Carbon Tetrachloride	8260C	23.3	20.0	116	65-140
Chlorobenzene	8260C	21.1	20.0	105	80-120
Chloroethane	8260C	21.7	20.0	108	60-135
Chloroform	8260C	21.5	20.0	107	65-135
Chloromethane	8260C	21.1	20.0	106	40-125
Dibromochloromethane	8260C	21.7	20.0	108	60-135
Dichlorodifluoromethane (CFC 12)	8260C	22.6	20.0	113	30-155
Methylene Chloride	8260C	21.6	20.0	108	55-140
Ethylbenzene	8260C	21.5	20.0	107	75-125
Hexachlorobutadiene	8260C	20.9	20.0	105	50-140
Isopropylbenzene (Cumene)	8260C	21.5	20.0	108	75-125
Methyl tert-Butyl Ether	8260C	23.0	20.0	115	65-125
Naphthalene	8260C	23.5	20.0	118	55-140
Styrene	8260C	21.8	20.0	109	65-135
Tetrachloroethene (PCE)	8260C	20.1	20.0	101	45-150
Toluene	8260C	21.1	20.0	106	75-120
Trichloroethene (TCE)	8260C	21.9	20.0	110	70-125
Trichlorofluoromethane (CFC 11)	8260C	20.6	20.0	103	60-145
Vinyl Chloride	8260C	20.4	20.0	102	50-145
cis-1,2-Dichloroethene	8260C	21.8	20.0	109	70-125
cis-1,3-Dichloropropene	8260C	22.8	20.0	114	70-130
m,p-Xylenes	8260C	42.3	40.0	106	75-130
n-Butylbenzene	8260C	22.8	20.0	114	70-135
n-Propylbenzene	8260C	22.4	20.0	112	70-130
o-Xylene	8260C	21.6	20.0	108	80-120
sec-Butylbenzene	8260C	22.2	20.0	111	70-125
tert-Butylbenzene	8260C	22.6	20.0	113	70-130
trans-1,2-Dichloroethene	8260C	21.5	20.0	108	60-140
trans-1,3-Dichloropropene	8260C	25.9	20.0	129	55-140

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Analytical Report

Client: Parsons Engineering Science
Project: FTMM Baseline/748810-03000
Sample Matrix: Water

Service Request: R1603836
Date Collected: NA
Date Received: NA

Sample Name: Method Blank
Lab Code: RQ1604585-04

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	LOQ	LOD	MDL	Dil.	Date Analyzed	Q
1,1,1,2-Tetrachloroethane	ND U	5.0	1.0	0.22	1	04/25/16 11:52	
1,1,1-Trichloroethane (TCA)	ND U	5.0	1.0	0.36	1	04/25/16 11:52	
1,1,2,2-Tetrachloroethane	ND U	5.0	1.0	0.25	1	04/25/16 11:52	
1,1,2-Trichloroethane	ND U	5.0	1.0	0.34	1	04/25/16 11:52	
1,1-Dichloroethane (1,1-DCA)	ND U	5.0	1.0	0.20	1	04/25/16 11:52	
1,1-Dichloroethene (1,1-DCE)	ND U	5.0	1.0	0.57	1	04/25/16 11:52	
1,1-Dichloropropene	ND U	5.0	1.0	0.29	1	04/25/16 11:52	
1,2,3-Trichlorobenzene	ND U	5.0	1.0	0.82	1	04/25/16 11:52	
1,2,3-Trichloropropane	ND U	5.0	1.0	0.70	1	04/25/16 11:52	
1,2,4-Trichlorobenzene	ND U	5.0	1.0	0.23	1	04/25/16 11:52	
1,2,4-Trimethylbenzene	ND U	5.0	1.0	0.20	1	04/25/16 11:52	
1,2-Dibromo-3-chloropropane (DBCP)	ND U	5.0	1.0	0.74	1	04/25/16 11:52	
1,2-Dibromoethane	ND U	5.0	1.0	0.24	1	04/25/16 11:52	
1,2-Dichlorobenzene	ND U	5.0	1.0	0.21	1	04/25/16 11:52	
1,2-Dichloroethane	ND U	5.0	1.0	0.36	1	04/25/16 11:52	
1,2-Dichloropropane	ND U	5.0	1.0	0.20	1	04/25/16 11:52	
1,3,5-Trimethylbenzene	ND U	5.0	1.0	0.20	1	04/25/16 11:52	
1,3-Dichlorobenzene	ND U	5.0	1.0	0.20	1	04/25/16 11:52	
1,3-Dichloropropane	ND U	5.0	1.0	0.27	1	04/25/16 11:52	
1,4-Dichlorobenzene	ND U	5.0	1.0	0.20	1	04/25/16 11:52	
2,2-Dichloropropane	ND U	5.0	1.0	0.27	1	04/25/16 11:52	
2-Butanone (MEK)	ND U	10	1.0	0.81	1	04/25/16 11:52	
2-Chlorotoluene	ND U	5.0	1.0	0.20	1	04/25/16 11:52	
2-Hexanone	ND U	10	5.0	1.7	1	04/25/16 11:52	
tert-Butyl Alcohol	ND U	100	20	11	1	04/25/16 11:52	
4-Chlorotoluene	ND U	5.0	1.0	0.24	1	04/25/16 11:52	
p-Isopropyltoluene	ND U	5.0	1.0	0.20	1	04/25/16 11:52	
4-Methyl-2-pentanone	ND U	10	1.0	0.67	1	04/25/16 11:52	
Acetone	ND U	10	5.0	1.3	1	04/25/16 11:52	
Benzene	ND U	5.0	1.0	0.20	1	04/25/16 11:52	
Bromobenzene	ND U	5.0	1.0	0.28	1	04/25/16 11:52	
Bromochloromethane	ND U	5.0	1.0	0.32	1	04/25/16 11:52	
Bromodichloromethane	ND U	5.0	1.0	0.32	1	04/25/16 11:52	
Bromoform	ND U	5.0	1.0	0.42	1	04/25/16 11:52	
Bromomethane	ND U	5.0	1.0	0.29	1	04/25/16 11:52	
Carbon Tetrachloride	ND U	5.0	1.0	0.45	1	04/25/16 11:52	
Chlorobenzene	ND U	5.0	1.0	0.29	1	04/25/16 11:52	
Chloroethane	ND U	5.0	1.0	0.24	1	04/25/16 11:52	
Chloroform	ND U	5.0	1.0	0.25	1	04/25/16 11:52	
Chloromethane	ND U	5.0	1.0	0.21	1	04/25/16 11:52	
Dibromochloromethane	ND U	5.0	1.0	0.31	1	04/25/16 11:52	
Dichlorodifluoromethane (CFC 12)	ND U	5.0	1.0	0.46	1	04/25/16 11:52	
Methylene Chloride	ND U	5.0	1.0	0.60	1	04/25/16 11:52	

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Analytical Report

Client: Parsons Engineering Science
Project: FTMM Baseline/748810-03000
Sample Matrix: Water

Service Request: R1603836
Date Collected: NA
Date Received: NA

Sample Name: Method Blank
Lab Code: RQ1604585-04

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	LOQ	LOD	MDL	Dil.	Date Analyzed	Q
Ethylbenzene	ND U	5.0	1.0	0.20	1	04/25/16 11:52	
Hexachlorobutadiene	ND U	5.0	1.0	0.62	1	04/25/16 11:52	
Isopropylbenzene (Cumene)	ND U	5.0	1.0	0.20	1	04/25/16 11:52	
Methyl tert-Butyl Ether	ND U	5.0	1.0	0.29	1	04/25/16 11:52	
Naphthalene	ND U	5.0	1.0	0.20	1	04/25/16 11:52	
Styrene	ND U	5.0	1.0	0.20	1	04/25/16 11:52	
Tetrachloroethene (PCE)	ND U	5.0	1.0	0.30	1	04/25/16 11:52	
Toluene	ND U	5.0	1.0	0.20	1	04/25/16 11:52	
Trichloroethene (TCE)	ND U	5.0	1.0	0.22	1	04/25/16 11:52	
Trichlorofluoromethane (CFC 11)	ND U	5.0	1.0	0.20	1	04/25/16 11:52	
Vinyl Chloride	ND U	5.0	1.0	0.32	1	04/25/16 11:52	
cis-1,2-Dichloroethene	ND U	5.0	1.0	0.30	1	04/25/16 11:52	
cis-1,3-Dichloropropene	ND U	5.0	1.0	0.24	1	04/25/16 11:52	
m,p-Xylenes	ND U	5.0	2.0	0.33	1	04/25/16 11:52	
n-Butylbenzene	ND U	5.0	1.0	0.21	1	04/25/16 11:52	
n-Propylbenzene	ND U	5.0	1.0	0.20	1	04/25/16 11:52	
o-Xylene	ND U	5.0	1.0	0.20	1	04/25/16 11:52	
sec-Butylbenzene	ND U	5.0	1.0	0.27	1	04/25/16 11:52	
tert-Butylbenzene	ND U	5.0	1.0	0.20	1	04/25/16 11:52	
trans-1,2-Dichloroethene	ND U	5.0	1.0	0.33	1	04/25/16 11:52	
trans-1,3-Dichloropropene	ND U	5.0	1.0	0.20	1	04/25/16 11:52	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	105	75 - 120	04/25/16 11:52	
Dibromofluoromethane	103	85 - 115	04/25/16 11:52	
Toluene-d8	104	85 - 120	04/25/16 11:52	

Tentatively Identified Compounds

CAS#	Compound Identification	RT	Result ug/L	Q
	No Tentatively Identified Compounds Detected			

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Analytical Report

Client: Parsons Engineering Science
Project: FTMM Baseline/748810-03000
Sample Matrix: Water

Service Request: R1603836
Date Collected: 04/19/16 10:30
Date Received: 04/20/16 09:25

Sample Name: PAR-76-TMW01
Lab Code: R1603836-001

Units: ug/L
Basis: NA

Semivolatile Organic Compounds by GC/MS

Analysis Method: 8270D
Prep Method: EPA 3510C

Analyte Name	Result	LOQ	LOD	MDL	Dil.	Date Analyzed	Date Extracted	Q
1,2,4-Trichlorobenzene	ND U	9.4	5.0	1.0	1	05/02/16 14:51	4/25/16	
1,2-Dichlorobenzene	ND U	9.4	5.0	1.0	1	05/02/16 14:51	4/25/16	
1,2-Diphenylhydrazine	ND U	9.4	5.0	1.0	1	05/02/16 14:51	4/25/16	
1,3-Dichlorobenzene	ND U	9.4	5.0	1.0	1	05/02/16 14:51	4/25/16	
1,4-Dichlorobenzene	ND U	9.4	5.0	1.0	1	05/02/16 14:51	4/25/16	
2,4,5-Trichlorophenol	ND U	9.4	5.0	1.8	1	05/02/16 14:51	4/25/16	
2,4,6-Trichlorophenol	ND U	9.4	5.0	1.4	1	05/02/16 14:51	4/25/16	
2,4-Dichlorophenol	ND U	9.4	5.0	1.3	1	05/02/16 14:51	4/25/16	
2,4-Dimethylphenol	ND U	9.4	5.0	1.5	1	05/02/16 14:51	4/25/16	
2,4-Dinitrophenol	ND U	47	25	20	1	05/02/16 14:51	4/25/16	
2,4-Dinitrotoluene	ND U	9.4	5.0	1.6	1	05/02/16 14:51	4/25/16	
2,6-Dinitrotoluene	ND U	9.4	5.0	1.8	1	05/02/16 14:51	4/25/16	
2-Chloronaphthalene	ND U	9.4	5.0	1.0	1	05/02/16 14:51	4/25/16	
2-Chlorophenol	ND U	9.4	5.0	1.0	1	05/02/16 14:51	4/25/16	
2-Methylnaphthalene	ND U	9.4	5.0	1.0	1	05/02/16 14:51	4/25/16	
2-Methylphenol	ND U	9.4	5.0	1.0	1	05/02/16 14:51	4/25/16	
2-Nitroaniline	ND U	47	25	9.1	1	05/02/16 14:51	4/25/16	
2-Nitrophenol	ND U	9.4	5.0	1.4	1	05/02/16 14:51	4/25/16	
3,3'-Dichlorobenzidine	ND U	9.4	5.0	4.5	1	05/02/16 14:51	4/25/16	
3- and 4-Methylphenol Coelution	ND U	10	10	2.0	1	05/02/16 14:51	4/25/16	
3-Nitroaniline	ND U	47	25	7.7	1	05/02/16 14:51	4/25/16	
4,6-Dinitro-2-methylphenol	ND U	47	25	11	1	05/02/16 14:51	4/25/16	
4-Bromophenyl Phenyl Ether	ND U	9.4	5.0	2.2	1	05/02/16 14:51	4/25/16	
4-Chloro-3-methylphenol	ND U	9.4	5.0	1.2	1	05/02/16 14:51	4/25/16	
4-Chloroaniline	ND U	9.4	5.0	1.5	1	05/02/16 14:51	4/25/16	
4-Chlorophenyl Phenyl Ether	ND U	9.4	5.0	1.2	1	05/02/16 14:51	4/25/16	
4-Nitroaniline	ND U	47	25	7.8	1	05/02/16 14:51	4/25/16	
4-Nitrophenol	ND U	47	25	5.9	1	05/02/16 14:51	4/25/16	
Acenaphthene	ND U	9.4	5.0	1.0	1	05/02/16 14:51	4/25/16	
Acenaphthylene	ND U	9.4	5.0	1.0	1	05/02/16 14:51	4/25/16	
Anthracene	ND U	9.4	5.0	1.0	1	05/02/16 14:51	4/25/16	
Benz(a)anthracene	ND U	9.4	5.0	1.0	1	05/02/16 14:51	4/25/16	
Benzidine	ND U	100	100	90	1	05/02/16 14:51	4/25/16	
Benzo(a)pyrene	ND U	9.4	5.0	1.0	1	05/02/16 14:51	4/25/16	
Benzo(b)fluoranthene	ND U	9.4	5.0	1.0	1	05/02/16 14:51	4/25/16	
Benzo(g,h,i)perylene	ND U	9.4	5.0	1.0	1	05/02/16 14:51	4/25/16	
Benzo(k)fluoranthene	ND U	9.4	5.0	1.0	1	05/02/16 14:51	4/25/16	
Benzyl Alcohol	ND U	9.4	5.0	1.3	1	05/02/16 14:51	4/25/16	
2,2'-Oxybis(1-chloropropane)	ND U	9.4	5.0	1.0	1	05/02/16 14:51	4/25/16	
Bis(2-chloroethoxy)methane	ND U	9.4	5.0	2.2	1	05/02/16 14:51	4/25/16	
Bis(2-chloroethyl) Ether	ND U	9.4	5.0	1.3	1	05/02/16 14:51	4/25/16	
Bis(2-ethylhexyl) Phthalate	ND U	9.4	5.0	1.2	1	05/02/16 14:51	4/25/16	
Butyl Benzyl Phthalate	ND U	9.4	5.0	2.4	1	05/02/16 14:51	4/25/16	

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Analytical Report

Client: Parsons Engineering Science
Project: FTMM Baseline/748810-03000
Sample Matrix: Water

Service Request: R1603836
Date Collected: 04/19/16 10:30
Date Received: 04/20/16 09:25

Sample Name: PAR-76-TMW01
Lab Code: R1603836-001

Units: ug/L
Basis: NA

Semivolatile Organic Compounds by GC/MS

Analysis Method: 8270D
Prep Method: EPA 3510C

Analyte Name	Result	LOQ	LOD	MDL	Dil.	Date Analyzed	Date Extracted	Q
Carbazole	ND U	9.4	5.0	1.1	1	05/02/16 14:51	4/25/16	
Chrysene	ND U	9.4	5.0	1.0	1	05/02/16 14:51	4/25/16	
Di-n-butyl Phthalate	ND U	9.4	5.0	1.0	1	05/02/16 14:51	4/25/16	
Di-n-octyl Phthalate	ND U	9.4	5.0	1.2	1	05/02/16 14:51	4/25/16	
Dibenz(a,h)anthracene	ND U	9.4	5.0	1.3	1	05/02/16 14:51	4/25/16	
Dibenzofuran	ND U	9.4	5.0	1.0	1	05/02/16 14:51	4/25/16	
Diethyl Phthalate	ND U	9.4	5.0	1.0	1	05/02/16 14:51	4/25/16	
Dimethyl Phthalate	ND U	9.4	5.0	1.0	1	05/02/16 14:51	4/25/16	
Fluoranthene	ND U	9.4	5.0	1.0	1	05/02/16 14:51	4/25/16	
Fluorene	ND U	9.4	5.0	1.0	1	05/02/16 14:51	4/25/16	
Hexachlorobenzene	ND U	9.4	5.0	1.0	1	05/02/16 14:51	4/25/16	
Hexachlorobutadiene	ND U	9.4	5.0	1.3	1	05/02/16 14:51	4/25/16	
Hexachlorocyclopentadiene	ND U	9.4	5.0	1.0	1	05/02/16 14:51	4/25/16	
Hexachloroethane	ND U	9.4	5.0	1.2	1	05/02/16 14:51	4/25/16	
Indeno(1,2,3-cd)pyrene	ND U	9.4	5.0	1.2	1	05/02/16 14:51	4/25/16	
Isophorone	ND U	9.4	5.0	1.0	1	05/02/16 14:51	4/25/16	
N-Nitrosodi-n-propylamine	ND U	9.4	5.0	1.3	1	05/02/16 14:51	4/25/16	
N-Nitrosodimethylamine	ND U	9.4	5.0	1.0	1	05/02/16 14:51	4/25/16	
N-Nitrosodiphenylamine	ND U	9.4	5.0	1.0	1	05/02/16 14:51	4/25/16	
Naphthalene	ND U	9.4	5.0	1.0	1	05/02/16 14:51	4/25/16	
Nitrobenzene	ND U	9.4	5.0	1.6	1	05/02/16 14:51	4/25/16	
Pentachlorophenol (PCP)	ND U	47	25	6.9	1	05/02/16 14:51	4/25/16	
Phenanthrene	ND U	9.4	5.0	1.0	1	05/02/16 14:51	4/25/16	
Phenol	ND U	9.4	5.0	1.0	1	05/02/16 14:51	4/25/16	
Pyrene	ND U	9.4	5.0	1.0	1	05/02/16 14:51	4/25/16	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
2,4,6-Tribromophenol	100	40 - 125	05/02/16 14:51	
2-Fluorobiphenyl	76	50 - 110	05/02/16 14:51	
2-Fluorophenol	40	20 - 110	05/02/16 14:51	
Nitrobenzene-d5	77	40 - 110	05/02/16 14:51	
Phenol-d6	32	10 - 115	05/02/16 14:51	
p-Terphenyl-d14	76	50 - 135	05/02/16 14:51	

Tentatively Identified Compounds

CAS#	Compound Identification	RT	Result ug/L	Q
	No Tentatively Identified Compounds Detected			

ALS Group USA, Corp.
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Analytical Report

Client: Parsons Engineering Science
Project: FTMM Baseline/748810-03000
Sample Matrix: Water

Service Request: R1603836
Date Collected: 04/19/16 11:00
Date Received: 04/20/16 09:25

Sample Name: PAR-76-TMW02
Lab Code: R1603836-002

Units: ug/L
Basis: NA

Semivolatile Organic Compounds by GC/MS

Analysis Method: 8270D
Prep Method: EPA 3510C

Analyte Name	Result	LOQ	LOD	MDL	Dil.	Date Analyzed	Date Extracted	Q
1,2,4-Trichlorobenzene	ND U	9.4	5.0	1.0	1	05/02/16 15:18	4/25/16	
1,2-Dichlorobenzene	ND U	9.4	5.0	1.0	1	05/02/16 15:18	4/25/16	
1,2-Diphenylhydrazine	ND U	9.4	5.0	1.0	1	05/02/16 15:18	4/25/16	
1,3-Dichlorobenzene	ND U	9.4	5.0	1.0	1	05/02/16 15:18	4/25/16	
1,4-Dichlorobenzene	ND U	9.4	5.0	1.0	1	05/02/16 15:18	4/25/16	
2,4,5-Trichlorophenol	ND U	9.4	5.0	1.8	1	05/02/16 15:18	4/25/16	
2,4,6-Trichlorophenol	ND U	9.4	5.0	1.4	1	05/02/16 15:18	4/25/16	
2,4-Dichlorophenol	ND U	9.4	5.0	1.3	1	05/02/16 15:18	4/25/16	
2,4-Dimethylphenol	ND U	9.4	5.0	1.5	1	05/02/16 15:18	4/25/16	
2,4-Dinitrophenol	ND U	47	25	20	1	05/02/16 15:18	4/25/16	
2,4-Dinitrotoluene	ND U	9.4	5.0	1.6	1	05/02/16 15:18	4/25/16	
2,6-Dinitrotoluene	ND U	9.4	5.0	1.8	1	05/02/16 15:18	4/25/16	
2-Chloronaphthalene	ND U	9.4	5.0	1.0	1	05/02/16 15:18	4/25/16	
2-Chlorophenol	ND U	9.4	5.0	1.0	1	05/02/16 15:18	4/25/16	
2-Methylnaphthalene	ND U	9.4	5.0	1.0	1	05/02/16 15:18	4/25/16	
2-Methylphenol	ND U	9.4	5.0	1.0	1	05/02/16 15:18	4/25/16	
2-Nitroaniline	ND U	47	25	9.1	1	05/02/16 15:18	4/25/16	
2-Nitrophenol	ND U	9.4	5.0	1.4	1	05/02/16 15:18	4/25/16	
3,3'-Dichlorobenzidine	ND U	9.4	5.0	4.5	1	05/02/16 15:18	4/25/16	
3- and 4-Methylphenol Coelution	ND U	10	10	2.0	1	05/02/16 15:18	4/25/16	
3-Nitroaniline	ND U	47	25	7.7	1	05/02/16 15:18	4/25/16	
4,6-Dinitro-2-methylphenol	ND U	47	25	11	1	05/02/16 15:18	4/25/16	
4-Bromophenyl Phenyl Ether	ND U	9.4	5.0	2.2	1	05/02/16 15:18	4/25/16	
4-Chloro-3-methylphenol	ND U	9.4	5.0	1.2	1	05/02/16 15:18	4/25/16	
4-Chloroaniline	ND U	9.4	5.0	1.5	1	05/02/16 15:18	4/25/16	
4-Chlorophenyl Phenyl Ether	ND U	9.4	5.0	1.2	1	05/02/16 15:18	4/25/16	
4-Nitroaniline	ND U	47	25	7.8	1	05/02/16 15:18	4/25/16	
4-Nitrophenol	ND U	47	25	5.9	1	05/02/16 15:18	4/25/16	
Acenaphthene	ND U	9.4	5.0	1.0	1	05/02/16 15:18	4/25/16	
Acenaphthylene	ND U	9.4	5.0	1.0	1	05/02/16 15:18	4/25/16	
Anthracene	ND U	9.4	5.0	1.0	1	05/02/16 15:18	4/25/16	
Benz(a)anthracene	ND U	9.4	5.0	1.0	1	05/02/16 15:18	4/25/16	
Benzidine	ND U	100	100	90	1	05/02/16 15:18	4/25/16	
Benzo(a)pyrene	ND U	9.4	5.0	1.0	1	05/02/16 15:18	4/25/16	
Benzo(b)fluoranthene	ND U	9.4	5.0	1.0	1	05/02/16 15:18	4/25/16	
Benzo(g,h,i)perylene	ND U	9.4	5.0	1.0	1	05/02/16 15:18	4/25/16	
Benzo(k)fluoranthene	ND U	9.4	5.0	1.0	1	05/02/16 15:18	4/25/16	
Benzyl Alcohol	ND U	9.4	5.0	1.3	1	05/02/16 15:18	4/25/16	
2,2'-Oxybis(1-chloropropane)	ND U	9.4	5.0	1.0	1	05/02/16 15:18	4/25/16	
Bis(2-chloroethoxy)methane	ND U	9.4	5.0	2.2	1	05/02/16 15:18	4/25/16	
Bis(2-chloroethyl) Ether	ND U	9.4	5.0	1.3	1	05/02/16 15:18	4/25/16	
Bis(2-ethylhexyl) Phthalate	ND U	9.4	5.0	1.2	1	05/02/16 15:18	4/25/16	
Butyl Benzyl Phthalate	ND U	9.4	5.0	2.4	1	05/02/16 15:18	4/25/16	

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Analytical Report

Client: Parsons Engineering Science
Project: FTMM Baseline/748810-03000
Sample Matrix: Water

Service Request: R1603836
Date Collected: 04/19/16 11:00
Date Received: 04/20/16 09:25

Sample Name: PAR-76-TMW02
Lab Code: R1603836-002

Units: ug/L
Basis: NA

Semivolatile Organic Compounds by GC/MS

Analysis Method: 8270D
Prep Method: EPA 3510C

Analyte Name	Result	LOQ	LOD	MDL	Dil.	Date Analyzed	Date Extracted	Q
Carbazole	ND U	9.4	5.0	1.1	1	05/02/16 15:18	4/25/16	
Chrysene	ND U	9.4	5.0	1.0	1	05/02/16 15:18	4/25/16	
Di-n-butyl Phthalate	ND U	9.4	5.0	1.0	1	05/02/16 15:18	4/25/16	
Di-n-octyl Phthalate	ND U	9.4	5.0	1.2	1	05/02/16 15:18	4/25/16	
Dibenz(a,h)anthracene	ND U	9.4	5.0	1.3	1	05/02/16 15:18	4/25/16	
Dibenzofuran	1.2 J	9.4	5.0	1.0	1	05/02/16 15:18	4/25/16	
Diethyl Phthalate	ND U	9.4	5.0	1.0	1	05/02/16 15:18	4/25/16	
Dimethyl Phthalate	ND U	9.4	5.0	1.0	1	05/02/16 15:18	4/25/16	
Fluoranthene	ND U	9.4	5.0	1.0	1	05/02/16 15:18	4/25/16	
Fluorene	ND U	9.4	5.0	1.0	1	05/02/16 15:18	4/25/16	
Hexachlorobenzene	ND U	9.4	5.0	1.0	1	05/02/16 15:18	4/25/16	
Hexachlorobutadiene	ND U	9.4	5.0	1.3	1	05/02/16 15:18	4/25/16	
Hexachlorocyclopentadiene	ND U	9.4	5.0	1.0	1	05/02/16 15:18	4/25/16	
Hexachloroethane	ND U	9.4	5.0	1.2	1	05/02/16 15:18	4/25/16	
Indeno(1,2,3-cd)pyrene	ND U	9.4	5.0	1.2	1	05/02/16 15:18	4/25/16	
Isophorone	ND U	9.4	5.0	1.0	1	05/02/16 15:18	4/25/16	
N-Nitrosodi-n-propylamine	ND U	9.4	5.0	1.3	1	05/02/16 15:18	4/25/16	
N-Nitrosodimethylamine	ND U	9.4	5.0	1.0	1	05/02/16 15:18	4/25/16	
N-Nitrosodiphenylamine	ND U	9.4	5.0	1.0	1	05/02/16 15:18	4/25/16	
Naphthalene	ND U	9.4	5.0	1.0	1	05/02/16 15:18	4/25/16	
Nitrobenzene	ND U	9.4	5.0	1.6	1	05/02/16 15:18	4/25/16	
Pentachlorophenol (PCP)	ND U	47	25	6.9	1	05/02/16 15:18	4/25/16	
Phenanthrene	1.3 J	9.4	5.0	1.0	1	05/02/16 15:18	4/25/16	
Phenol	ND U	9.4	5.0	1.0	1	05/02/16 15:18	4/25/16	
Pyrene	1.0 J	9.4	5.0	1.0	1	05/02/16 15:18	4/25/16	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
2,4,6-Tribromophenol	89	40 - 125	05/02/16 15:18	
2-Fluorobiphenyl	69	50 - 110	05/02/16 15:18	
2-Fluorophenol	38	20 - 110	05/02/16 15:18	
Nitrobenzene-d5	79	40 - 110	05/02/16 15:18	
Phenol-d6	29	10 - 115	05/02/16 15:18	
p-Terphenyl-d14	50	50 - 135	05/02/16 15:18	

Tentatively Identified Compounds

CAS#	Compound Identification	RT	Result ug/L	Q
	No Tentatively Identified Compounds Detected			

ALS Group USA, Corp.
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Analytical Report

Client: Parsons Engineering Science
Project: FTMM Baseline/748810-03000
Sample Matrix: Water

Service Request: R1603836
Date Collected: NA
Date Received: NA

Sample Name: Method Blank
Lab Code: RQ1604387-01

Units: ug/L
Basis: NA

Semivolatile Organic Compounds by GC/MS

Analysis Method: 8270D
Prep Method: EPA 3510C

Analyte Name	Result	LOQ	LOD	MDL	Dil.	Date Analyzed	Date Extracted	Q
1,2,4-Trichlorobenzene	ND U	10	5.0	1.0	1	04/29/16 16:02	4/25/16	
1,2-Dichlorobenzene	ND U	10	5.0	1.0	1	04/29/16 16:02	4/25/16	
1,2-Diphenylhydrazine	ND U	10	5.0	1.0	1	04/29/16 16:02	4/25/16	
1,3-Dichlorobenzene	ND U	10	5.0	1.0	1	04/29/16 16:02	4/25/16	
1,4-Dichlorobenzene	ND U	10	5.0	1.0	1	04/29/16 16:02	4/25/16	
2,4,5-Trichlorophenol	ND U	10	5.0	1.8	1	04/29/16 16:02	4/25/16	
2,4,6-Trichlorophenol	ND U	10	5.0	1.4	1	04/29/16 16:02	4/25/16	
2,4-Dichlorophenol	ND U	10	5.0	1.3	1	04/29/16 16:02	4/25/16	
2,4-Dimethylphenol	ND U	10	5.0	1.5	1	04/29/16 16:02	4/25/16	
2,4-Dinitrophenol	ND U	50	25	20	1	04/29/16 16:02	4/25/16	
2,4-Dinitrotoluene	ND U	10	5.0	1.6	1	04/29/16 16:02	4/25/16	
2,6-Dinitrotoluene	ND U	10	5.0	1.8	1	04/29/16 16:02	4/25/16	
2-Chloronaphthalene	ND U	10	5.0	1.0	1	04/29/16 16:02	4/25/16	
2-Chlorophenol	ND U	10	5.0	1.0	1	04/29/16 16:02	4/25/16	
2-Methylnaphthalene	ND U	10	5.0	1.0	1	04/29/16 16:02	4/25/16	
2-Methylphenol	ND U	10	5.0	1.0	1	04/29/16 16:02	4/25/16	
2-Nitroaniline	ND U	50	25	9.1	1	04/29/16 16:02	4/25/16	
2-Nitrophenol	ND U	10	5.0	1.4	1	04/29/16 16:02	4/25/16	
3,3'-Dichlorobenzidine	ND U	10	5.0	4.5	1	04/29/16 16:02	4/25/16	
3- and 4-Methylphenol Coelution	ND U	10	10	2.0	1	04/29/16 16:02	4/25/16	
3-Nitroaniline	ND U	50	25	7.7	1	04/29/16 16:02	4/25/16	
4,6-Dinitro-2-methylphenol	ND U	50	25	11	1	04/29/16 16:02	4/25/16	
4-Bromophenyl Phenyl Ether	ND U	10	5.0	2.2	1	04/29/16 16:02	4/25/16	
4-Chloro-3-methylphenol	ND U	10	5.0	1.2	1	04/29/16 16:02	4/25/16	
4-Chloroaniline	ND U	10	5.0	1.5	1	04/29/16 16:02	4/25/16	
4-Chlorophenyl Phenyl Ether	ND U	10	5.0	1.2	1	04/29/16 16:02	4/25/16	
4-Nitroaniline	ND U	50	25	7.8	1	04/29/16 16:02	4/25/16	
4-Nitrophenol	ND U	50	25	5.9	1	04/29/16 16:02	4/25/16	
Acenaphthene	ND U	10	5.0	1.0	1	04/29/16 16:02	4/25/16	
Acenaphthylene	ND U	10	5.0	1.0	1	04/29/16 16:02	4/25/16	
Anthracene	ND U	10	5.0	1.0	1	04/29/16 16:02	4/25/16	
Benz(a)anthracene	ND U	10	5.0	1.0	1	04/29/16 16:02	4/25/16	
Benzidine	ND U	100	100	90	1	04/29/16 16:02	4/25/16	
Benzo(a)pyrene	ND U	10	5.0	1.0	1	04/29/16 16:02	4/25/16	
Benzo(b)fluoranthene	ND U	10	5.0	1.0	1	04/29/16 16:02	4/25/16	
Benzo(g,h,i)perylene	ND U	10	5.0	1.0	1	04/29/16 16:02	4/25/16	
Benzo(k)fluoranthene	ND U	10	5.0	1.0	1	04/29/16 16:02	4/25/16	
Benzyl Alcohol	ND U	10	5.0	1.3	1	04/29/16 16:02	4/25/16	
2,2'-Oxybis(1-chloropropane)	ND U	10	5.0	1.0	1	04/29/16 16:02	4/25/16	
Bis(2-chloroethoxy)methane	ND U	10	5.0	2.2	1	04/29/16 16:02	4/25/16	
Bis(2-chloroethyl) Ether	ND U	10	5.0	1.3	1	04/29/16 16:02	4/25/16	
Bis(2-ethylhexyl) Phthalate	ND U	10	5.0	1.2	1	04/29/16 16:02	4/25/16	
Butyl Benzyl Phthalate	ND U	10	5.0	2.4	1	04/29/16 16:02	4/25/16	

ALS Group USA, Corp.
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Analytical Report

Client: Parsons Engineering Science
Project: FTMM Baseline/748810-03000
Sample Matrix: Water

Service Request: R1603836
Date Collected: NA
Date Received: NA

Sample Name: Method Blank
Lab Code: RQ1604387-01

Units: ug/L
Basis: NA

Semivolatile Organic Compounds by GC/MS

Analysis Method: 8270D
Prep Method: EPA 3510C

Analyte Name	Result	LOQ	LOD	MDL	Dil.	Date Analyzed	Date Extracted	Q
Carbazole	ND U	10	5.0	1.1	1	04/29/16 16:02	4/25/16	
Chrysene	ND U	10	5.0	1.0	1	04/29/16 16:02	4/25/16	
Di-n-butyl Phthalate	ND U	10	5.0	1.0	1	04/29/16 16:02	4/25/16	
Di-n-octyl Phthalate	ND U	10	5.0	1.2	1	04/29/16 16:02	4/25/16	
Dibenz(a,h)anthracene	ND U	10	5.0	1.3	1	04/29/16 16:02	4/25/16	
Dibenzofuran	ND U	10	5.0	1.0	1	04/29/16 16:02	4/25/16	
Diethyl Phthalate	ND U	10	5.0	1.0	1	04/29/16 16:02	4/25/16	
Dimethyl Phthalate	ND U	10	5.0	1.0	1	04/29/16 16:02	4/25/16	
Fluoranthene	ND U	10	5.0	1.0	1	04/29/16 16:02	4/25/16	
Fluorene	ND U	10	5.0	1.0	1	04/29/16 16:02	4/25/16	
Hexachlorobenzene	ND U	10	5.0	1.0	1	04/29/16 16:02	4/25/16	
Hexachlorobutadiene	ND U	10	5.0	1.3	1	04/29/16 16:02	4/25/16	
Hexachlorocyclopentadiene	ND U	10	5.0	1.0	1	04/29/16 16:02	4/25/16	
Hexachloroethane	ND U	10	5.0	1.2	1	04/29/16 16:02	4/25/16	
Indeno(1,2,3-cd)pyrene	ND U	10	5.0	1.2	1	04/29/16 16:02	4/25/16	
Isophorone	ND U	10	5.0	1.0	1	04/29/16 16:02	4/25/16	
N-Nitrosodi-n-propylamine	ND U	10	5.0	1.3	1	04/29/16 16:02	4/25/16	
N-Nitrosodimethylamine	ND U	10	5.0	1.0	1	04/29/16 16:02	4/25/16	
N-Nitrosodiphenylamine	ND U	10	5.0	1.0	1	04/29/16 16:02	4/25/16	
Naphthalene	ND U	10	5.0	1.0	1	04/29/16 16:02	4/25/16	
Nitrobenzene	ND U	10	5.0	1.6	1	04/29/16 16:02	4/25/16	
Pentachlorophenol (PCP)	ND U	50	25	6.9	1	04/29/16 16:02	4/25/16	
Phenanthrene	ND U	10	5.0	1.0	1	04/29/16 16:02	4/25/16	
Phenol	ND U	10	5.0	1.0	1	04/29/16 16:02	4/25/16	
Pyrene	ND U	10	5.0	1.0	1	04/29/16 16:02	4/25/16	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
2,4,6-Tribromophenol	93	40 - 125	04/29/16 16:02	
2-Fluorobiphenyl	76	50 - 110	04/29/16 16:02	
2-Fluorophenol	42	20 - 110	04/29/16 16:02	
Nitrobenzene-d5	77	40 - 110	04/29/16 16:02	
Phenol-d6	33	10 - 115	04/29/16 16:02	
p-Terphenyl-d14	91	50 - 135	04/29/16 16:02	

Tentatively Identified Compounds

CAS#	Compound Identification	RT	Result ug/L	Q
	No Tentatively Identified Compounds Detected			

ALS Group USA, Corp.
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QA/QC Report

Client: Parsons Engineering Science
Project: FTMM Baseline/748810-03000
Sample Matrix: Water

Service Request: R1603836
Date Analyzed: 04/29/16

Duplicate Lab Control Sample Summary
Semivolatile Organic Compounds by GC/MS

Units:ug/L
Basis:NA

Analyte Name	Lab Control Sample RQ1604387-02				Duplicate Lab Control Sample RQ1604387-03					
	Analytical Method	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec	% Rec Limits	RPD	RPD Limit
1,2,4-Trichlorobenzene	8270D	58.3	100	58	41.6	100	42	35-105	33*	30
1,2-Dichlorobenzene	8270D	64.0	100	64	48.9	100	49	35-100	27	30
1,2-Diphenylhydrazine	8270D	88.4	100	88	88.1	100	88	55-115	<1	30
1,3-Dichlorobenzene	8270D	62.4	100	62	46.4	100	46	30-100	29	30
1,4-Dichlorobenzene	8270D	61.5	100	62	45.1	100	45	30-100	31*	30
2,4,5-Trichlorophenol	8270D	88.0	100	88	86.8	100	87	50-110	1	30
2,4,6-Trichlorophenol	8270D	91.0	100	91	87.9	100	88	50-115	3	30
2,4-Dichlorophenol	8270D	79.4	100	79	78.0	100	78	50-105	2	30
2,4-Dimethylphenol	8270D	78.9	100	79	77.5	100	77	30-110	2	30
2,4-Dinitrophenol	8270D	91.1	100	91	101	100	101	15-140	11	30
2,4-Dinitrotoluene	8270D	95.9	100	96	94.1	100	94	50-120	2	30
2,6-Dinitrotoluene	8270D	95.8	100	96	96.0	100	96	50-115	<1	30
2-Chloronaphthalene	8270D	74.7	100	75	72.0	100	72	50-105	4	30
2-Chlorophenol	8270D	79.5	100	79	79.3	100	79	35-105	<1	30
2-Methylnaphthalene	8270D	63.4	100	63	53.9	100	54	45-105	16	30
2-Methylphenol	8270D	78.4	100	78	76.9	100	77	40-110	2	30
2-Nitroaniline	8270D	93.5	100	93	95.7	100	96	50-115	2	30
2-Nitrophenol	8270D	78.4	100	78	76.3	100	76	40-115	3	30
3,3'-Dichlorobenzidine	8270D	76.1	100	76	79.6	100	80	20-110	4	30
3- and 4-Methylphenol Coelution	8270D	66.7	100	67	64.8	100	65	30-110	3	30
3-Nitroaniline	8270D	83.5	100	84	83.2	100	83	20-125	<1	30
4,6-Dinitro-2-methylphenol	8270D	97.9	100	98	95.6	100	96	40-130	2	30
4-Bromophenyl Phenyl Ether	8270D	85.6	100	86	88.5	100	89	50-115	3	30
4-Chloro-3-methylphenol	8270D	77.9	100	78	77.5	100	78	45-110	<1	30
4-Chloroaniline	8270D	74.5	100	74	74.4	100	74	15-110	<1	30
4-Chlorophenyl Phenyl Ether	8270D	80.2	100	80	83.9	100	84	50-110	5	30
4-Nitroaniline	8270D	93.7	100	94	89.8	100	90	35-120	4	30
4-Nitrophenol	8270D	51.4	100	51	53.8	100	54	0-125	5	30
Acenaphthene	8270D	81.1	100	81	80.3	100	80	45-110	<1	30
Acenaphthylene	8270D	81.5	100	82	81.0	100	81	50-105	<1	30
Anthracene	8270D	92.1	100	92	91.1	100	91	55-110	1	30
Benz(a)anthracene	8270D	93.6	100	94	94.3	100	94	55-110	<1	30
Benzidine	8270D	160	202	79	138	202	69	10-130	14	30

ALS Group USA, Corp.
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QA/QC Report

Client: Parsons Engineering Science
Project: FTMM Baseline/748810-03000
Sample Matrix: Water

Service Request: R1603836
Date Analyzed: 04/29/16

Duplicate Lab Control Sample Summary
Semivolatile Organic Compounds by GC/MS

Units:ug/L
Basis:NA

Lab Control Sample RQ1604387-02					Duplicate Lab Control Sample RQ1604387-03					
Analyte Name	Analytical Method	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec	% Rec Limits	RPD	RPD Limit
Benzo(a)pyrene	8270D	94.6	100	95	93.5	100	94	55-110	1	30
Benzo(b)fluoranthene	8270D	91.3	100	91	91.2	100	91	45-120	<1	30
Benzo(g,h,i)perylene	8270D	105	100	105	103	100	103	40-125	1	30
Benzo(k)fluoranthene	8270D	98.0	100	98	91.2	100	91	45-125	7	30
Benzyl Alcohol	8270D	85.6	100	86	85.4	100	85	30-110	<1	30
2,2'-Oxybis(1-chloropropane)	8270D	82.4	100	82	74.4	100	74	25-130	10	30
Bis(2-chloroethoxy)methane	8270D	80.3	100	80	79.1	100	79	45-105	2	30
Bis(2-chloroethyl) Ether	8270D	79.5	100	80	76.8	100	77	35-110	3	30
Bis(2-ethylhexyl) Phthalate	8270D	98.3	100	98	98.5	100	98	40-125	<1	30
Butyl Benzyl Phthalate	8270D	97.7	100	98	96.5	100	96	45-115	1	30
Carbazole	8270D	92.8	100	93	92.6	100	93	50-115	<1	30
Chrysene	8270D	92.0	100	92	91.4	100	91	55-110	<1	30
Di-n-butyl Phthalate	8270D	94.3	100	94	92.6	100	93	55-115	2	30
Di-n-octyl Phthalate	8270D	102	100	102	97.6	100	98	35-135	5	30
Dibenz(a,h)anthracene	8270D	96.4	100	96	93.2	100	93	40-125	3	30
Dibenzofuran	8270D	82.2	100	82	84.0	100	84	55-105	2	30
Diethyl Phthalate	8270D	87.9	100	88	87.2	100	87	40-120	<1	30
Dimethyl Phthalate	8270D	90.7	100	91	87.4	100	87	25-125	4	30
Fluoranthene	8270D	93.1	100	93	90.6	100	91	55-115	3	30
Fluorene	8270D	85.4	100	85	84.2	100	84	50-110	1	30
Hexachlorobenzene	8270D	92.2	100	92	90.1	100	90	50-110	2	30
Hexachlorobutadiene	8270D	63.4	100	63	42.2	100	42	25-105	40*	30
Hexachlorocyclopentadiene	8270D	63.8	100	64	54.7	100	55	10-130	15	30
Hexachloroethane	8270D	51.9	100	52	36.4	100	36	30-100	35*	30
Indeno(1,2,3-cd)pyrene	8270D	92.0	100	92	91.3	100	91	45-125	<1	30
Isophorone	8270D	75.3	100	75	75.8	100	76	50-110	<1	30
N-Nitrosodi-n-propylamine	8270D	79.3	100	79	77.0	100	77	35-130	3	30
N-Nitrosodimethylamine	8270D	55.7	100	56	58.2	100	58	25-110	4	30
N-Nitrosodiphenylamine	8270D	99.8	100	100	101	100	101	50-110	1	30
Naphthalene	8270D	64.3	100	64	48.8	100	49	40-110	28	30
Nitrobenzene	8270D	71.2	100	71	68.9	100	69	45-110	3	30
Pentachlorophenol (PCP)	8270D	128	100	128 *	127	100	127 *	40-115	<1	30
Phenanthrene	8270D	91.1	100	91	90.4	100	90	50-115	<1	30

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: Parsons Engineering Science
Project: FTMM Baseline/748810-03000
Sample Matrix: Water

Service Request: R1603836
Date Analyzed: 04/29/16

Duplicate Lab Control Sample Summary
Semivolatile Organic Compounds by GC/MS

Units:ug/L
Basis:NA

Analyte Name	Lab Control Sample				Duplicate Lab Control Sample					
	RQ1604387-02				RQ1604387-03					
	Analytical Method	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec	% Rec Limits	RPD	RPD Limit
Phenol	8270D	39.9	100	40	39.4	100	39	0-115	1	30
Pyrene	8270D	93.8	100	94	92.5	100	92	50-130	1	30



Cooler Receipt and Preservation Check Form

R1603836

5

Parsons Engineering Science
FTMM BaselineProject/Client Parsons Folder Number _____Cooler received on 4/20/16 by: QCOURIER: ALS UPS FEDEX VELOCITY CLIENT

1	Were Custody seals on outside of cooler?	<u>Y</u> N
2	Custody papers properly completed (ink, signed)?	<u>Y</u> N
3	Did all bottles arrive in good condition (unbroken)?	<u>Y</u> N
4	Circle: <u>Wet Ice</u> Dry Ice Gel packs present?	<u>Y</u> N

5a	Perchlorate samples have required headspace?	Y N <u>NA</u>
5b	Did VOA vials, Alk, or Sulfide have sig* bubbles?	<u>Y</u> N NA
6	Where did the bottles originate?	<u>ALS/ROC</u> CLIENT
7	Soil VOA received as: Bulk Encore 5035set	<u>NA</u>

8. Temperature Readings Date: 4/20/16 Time: 0758 ID: IR#3 IR#5 From: Temp Blank Sample Bottle

Observed Temp (°C)	<u>4.1</u>						
Correction Factor (°C)	<u>-0.7</u>						
Corrected Temp (°C)	<u>3.4</u>						
Within 0-6°C?	<u>Y</u> N	Y N	Y N	Y N	Y N	Y N	Y N
If <0°C, were samples frozen?	Y N	Y N	Y N	Y N	Y N	Y N	Y N

If out of Temperature, note packing/ice condition: _____ Ice melted _____ Poorly Packed _____ Same Day Rule _____

& Client Approval to Run Samples: _____ Standing Approval _____ Client aware at drop-off _____ Client notified by: _____

All samples held in storage location: R-002 by Q on 4/20/16 at 1003
5035 samples placed in storage location: _____ by _____ on _____ at _____

PC Secondary Review: _____

Cooler Breakdown: Date: 4/20/16 Time: 1332 by: Q

- Were all bottle labels complete (i.e. analysis, preservation, etc.)? YES NO
- Did all bottle labels and tags agree with custody papers? YES NO
- Were correct containers used for the tests indicated? YES NO
- Air Samples: Cassettes / Tubes Intact _____ Canisters Pressurized _____ Tedlar® Bags Inflated N/A

Explain any discrepancies: _____

pH	Reagent	Yes	No	Lot Received	Exp	Sample ID	Vol. Added	Lot Added	Final pH
≥12	NaOH								
≤2	HNO ₃								
≤2	H ₂ SO ₄								
<4	NaHSO ₄								
Residual Chlorine (-)	For CN Phenol and 522			If +, contact PM to add Na ₂ S ₂ O ₃ (CN), ascorbic (phenol).					
	Na ₂ S ₂ O ₃	-	-						
	ZnAcetate	-	-						
	HCl	**	**	<u>4114070</u>	<u>1/17</u>				

Yes=All samples OK

No=Samples were preserved at The lab as listed

PM OK to Adjust: _____

**Not to be tested before analysis – pH tested and recorded by VOAs on a separate worksheet

Bottle lot numbers: 021116-113-LT, 5-317-002

Other Comments: _____

Temp Blank (1 vial) - headspace

PC Secondary Review: _____

*significant air bubbles: VOA > 5-6 mm : WC > 1 in. diameter