DEPARTMENT OF THE ARMY
OFFICE OF THE DEPUTY CHIEF OF STAFF, G-9
600 ARMY PENTAGON
WASHINGTON, DC 20310-0600

25 June 2020

Mr. Ashish Joshi
New Jersey Department of Environmental Protection
Office of Brownfield & Community Revitalization
401 East State Street
Mail Code: 401-05K
P.O. Box 420
Trenton, NJ 08625

SUBJECT: Response to NJDEP Comments on Parcel 82 Site Investigation Report
Fort Monmouth, New Jersey
PI G000000032

Dear Mr. Joshi:

The U.S. Army Fort Monmouth (FTMM) Team has prepared this response to New Jersey Department of Environmental Protection (NJDEP) comments (08 July 2019 letter, **Attachment A**) on the Parcel 82 Site Investigation (SI) Report (U.S. Army, 2019). NJDEP required installation of one monitoring well in the area of the soil PCB exceedances at Parcel 82.

Permanent monitoring well PAR-82-MW-01 (**Figure 1**) was installed immediately downgradient of the soil PCB exceedances on 09 September 2019; documentation for this monitor well is presented in **Attachment B**. This well was sampled on 07 November 2019 and 13 March 2020 and analyzed for PCBs; no PCBs were detected (**Table 1** and **Attachment C**).

Depth to groundwater was encountered at 3.5 to 4.2 ft below ground surface during installation of well PAR-82-MW-01, which was below the maximum depth of historical soil exceedances (1.0 ft bgs) at Parcel 82. As demonstrated above, there were no detections of PCBs in groundwater during two rounds of sampling well PAR-82-MW-01. Therefore, no further action is warranted to address PCBs in groundwater at Parcel 82.

Thank you for reviewing this response to your comment; we look forward to your concurrence and/or additional comments. Our technical Point of Contact is Kent Friesen; kent.friesen@parsons.com. I can be reached at (732) 383-5104; william.r.colvin18.civ@mail.mil.

Sincerely,

William R Colvin

William R. Colvin
Fort Monmouth BRAC Environmental Coordinator

cc: Ashish Joshi (e-mail and 2 hard copies)
William Colvin, BEC (e-mail and 1 hard copy)
Joseph Pearson, Calibre (e-mail)
James Moore, USACE (e-mail)

Jim Kelly, USACE (e-mail)
Joseph Fallon, FMERA (e-mail)
Kent Friesen, Parsons (e-mail)

References:

U.S. Army. 2019. *Parcel 82 Site Investigation Report, Fort Monmouth, Monmouth County, Oceanport, New Jersey.* Prepared by the Office of the Assistant Chief of Staff for Installation Management, Fort Monmouth, New Jersey. April 29.

Attachments:

Figure 1 – Parcel 82 PCB Groundwater Sampling Location
Table 1 – Groundwater Sampling Results - Comparison to NJDEP GWQS

Attachment A – Correspondence
Attachment B – Monitoring Well Information
Attachment C – Analytical Data

FIGURES

Figure 1 – Parcel 82 PCB Groundwater Sampling Location

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HAZARDOUS WASTE
STORAGE PAD
(CONCRETE)

121

122

123

BUILDING
116

GRASS

PAVEMENT

Evans Ave

Ceser Ave

Tilly Ave

PAR-82-MW-01

PAR-82-SB-01
PAR-82-SB-02
PAR-82-SB-03
PAR-82-SB-04
PAR-82-SB-05
PAR-82-SB-06
PAR-82-SB-07
PAR-82-SB-08
PAR-82-SB-09
PAR-82-SB-10
PAR-82-SB-11
PAR-82-SB-12
PAR-82-SB-13
PAR-82-SB-14
PAR-82-SB-15
PAR-82-SB-16
PAR-82-SB-17
PAR-82-SB-18
PAR-82-SB-19
PAR-82-SB-20
PAR-82-SB-21
PAR-82-SB-22

400B7-PX1
400B7-PX2
400B7-PX3
400B7-PX4
400B7-PX5
400B7-PX6
400B7-PX7
400B7-PX8

BLDG121-B1
BLDG121-B2
BLDG121-B3
BLDG121-B4
BLDG121-B5
BLDG121-B6
BLDG121-B7
BLDG121-B8
BLDG121-B9

B1
B2
B3
B4
B4A
B4A1
B4B
B4B1
B4C
B4D
B4D1
B4D2
B4D3
B4D4
B4D5
B5
B5A
B5B
B5C
B6
B6A
B6B
B6C
B6D
B6 (1-1.5)
B7
B7 (1-1.5)
B7 (1-1.5)-2
B7A
B7A1
B7A2
B7A2B
B7A2D
B7A3A
B7A3B
B7A3C
B7A3D
B7B1
B7B1A
B7B1B
B7B1C
B7C
B7C (1-1.5)
B7C (1-1.5)-2
B7C1
B7C1A
B7C1D
B7D
B7D1
B7F1
B7F1A
B7F1B
B72D1
B8
B8A
B8B
B8B1
B8B2
B9
B10
B11
B12
B13
B14
B15

LEGEND:

- Shallow Monitoring Well
- PCB Sampling Location (2018)
- PCB Exceedance of RDCSRS In Soil Left in Place
- Historic PCB Soil Boring (2004 and 2005)
- Post Excavation Sample
- Estimated Extent of Contamination
- Estimated Groundwater Flow Direction

2004 Excavation Limits

- Excavation Boundary (0.5' Depth)
- Excavation Boundary (1' Depth)
- Excavation Boundary (1.5' Depth)
- Excavation Boundary (2.0' Depth)
- Excavation Boundary (2.5' Depth)

N

1 inch = 30 feet

0 15 30 60 Feet

Source: FTMM Supplied CAD; Shaw Environmental 2008.

PARSONS 401 Diamond Drive NW, Huntsville AL	Fort Monmouth New Jersey

PARCEL 82 PCB GROUNDWATER SAMPLING LOCATION

CREATED BY: RR	REVIEWED BY: AM
DATE: JUN, 2020	FIGURE NUMBER: FIGURE 1
PROJECT NUMBER: 748810-06012	FILE: FIGURE 4.mxd

P:\PIT\Projects\Huntsville Cont W912DY-09-D-0062\FTMM\CAD Files\GIS\Parcel 82\SI Report\FIGURE 4.mxd

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Tables

Table 1 – Ground Water Sampling Results - Comparison to NJDEP GWQS

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TABLE 1
GROUND WATER SAMPLING RESULTS - COMPARISON TO NJDEP GWQS
SITE PARCEL 82
FORT MONMOUTH, NEW JERSEY

Loc ID	NJ Ground Water Quality Criteria	P82-GW-MW-01		
Sample ID		PAR-82-GW-MW-01-7.8	PAR-82-GW-MW-01-12.8	PAR-82-GW-MW-01-9
Sample Date		11/7/2019	11/7/2019	3/13/2020
Filtered		Total	Total	Total
PCBs (µg/l)				
Aroclor-1016	0.5	< 0.19	< 0.19	< 0.19
Aroclor-1221	0.5	< 0.19	< 0.19	< 0.19
Aroclor-1232	0.5	< 0.19	< 0.19	< 0.19
Aroclor-1242	0.5	< 0.19	< 0.19	< 0.19
Aroclor-1248	0.5	< 0.19	< 0.19	< 0.19
Aroclor-1254	0.5	< 0.19	< 0.19	< 0.19
Aroclor-1260	0.5	< 0.19	< 0.19	< 0.19
Total PCBs	0.5	< 1.7	< 1.7	< 1.7

NJDEP Interim Specific GWQC values are presented for the NJ GWQS where there is not a Specific Ground Water Quality Criteria. A full list of compounds is available at (http://www.nj.gov/dep/wms/bwqsa/gwqs_interim_criteria_table.htm).

NJDEP Interim Generic GWQC values are presented for the NJ GWQS where there is not a XXXXX or a NJDEP Interim Specific GWQC. Available at (http://www.nj.gov/dep/wms/bwqsa/gwqs_interim_criteria_table.htm).

The NJ Ground Water Quality Criteria refers to the NJDEP Groundwater Quality Standards - Adopted July 22, 2010

http://www.state.nj.us/dep/wms/bwqsa/docs/njac79C.pdf

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Attachment A
Correspondence

1. New Jersey Department of Environmental Protection (NJDEP). 2019. Site Investigation Report (SIR) Parcel 82. July 8.

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State of New Jersey
DEPARTMENT OF ENVIRONMENTAL PROTECTION
Site Remediation and Waste Management Program
BUREAU OF FIELD OPERATIONS
7 RIDGEDALE AVENUE
Cedar Knolls, New Jersey 07927

PHIL MURPHY
Governor

SHEILA OLIVER
Lt. Governor

CATHERINE R. McCABE
Commissioner

July 8, 2019

Mr. William R. Colvin
OACSIM – US Army Fort Monmouth
PO Box 148
Oceanport, NJ 07757

Re: Site Investigation Report (SIR) Parcel 82
Fort Monmouth, Oceanport, Monmouth County
Preferred ID: G000000032

Dear Mr. Colvin:

The New Jersey Department of Environmental Protection (Department) has completed its review of the SIR for Parcel 82. Based on the review, the Department offers the following comments.

Based upon the review of the submitted data, the Department approves compliance averaging for PAH found at Parcel 82. The SIR indicated that action is planned for the PCB exceedances found at various locations at Parcel 82. Please indicate what actions will be taken. Furthermore, the SIR has indicated that a ground water sample was collected approximately 130 feet south of Parcel 82 in January 2018 (former UST 490 location). This sample location is too far away and does not represent the ground water conditions at Parcel 82. Therefore, the Department will require installation of one monitor well in the area of the exceedances found at Parcel 82.

Thank you and please feel free to contact me if you have any questions.

Sincerely,

A.J. Joshi

C: Jim Moore, BRAC Project Manager
Cristina Grill, Parsons
Joe Fallon, FMERA
File

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Attachment B
Monitoring Well Information

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New Jersey State Department of Environmental Protection
Bureau of Water Allocation and Well Permitting
Mail Code 401-04Q PO BOX 420 Trenton, NJ 08625-0420 Tel: 609-984-6831

Well Permit Number
E201909450

WELL PERMIT

New Well

The New Jersey Department of Environmental Protection grants this permit in accordance with your application, attachments accompanying same application, and applicable laws and regulations. This permit is also subject to further conditions and stipulations enumerated in the supporting documents which are agreed to by the permittee upon acceptance of the permit

Certifying Driller: JAMES W DUFFY, MASTER LICENSE # 0001581

Permit Issued to: EAST COAST DRILLING, INC.

Company Address: 200 CENTURY PKWY STE B MOUNT LAUREL, NJ 08054

PROPERTY OWNER

Name: US GOV

Organization: US Gov

Address: US Army Seli EH-E

City: Fort Monmouth State: New Jersey Zip Code: 07703

PROPOSED WELL LOCATION

Facility Name: Parcel 82 - Fort Monmouth

Address: Leonard Ave

County: Monmouth Municipality: Oceanport Boro Lot: 1 Block: 105

Easting (X): 623033 Northing (Y): 541127
Coordinate System: NJ State Plane (NAD83) - USFEET

Local ID: PAR82-MW01

SITE CHARACTERISTICS

PROPOSED CONSTRUCTION

WELL USE: MONITORING

Other Use(s):

Diameter (in.): 2

Regulatory Program Requiring Wells/Borings:

Depth (ft.): 20

Case ID Number:

Pump Capacity (gpm): 0

Deviation Requested: N

Drilling Method: Hollow Stem Augers

Attachments:

SPECIFIC CONDITIONS/REQUIREMENTS

Approval Date: September 9, 2019
Expiration Date: September 8, 2020

Approved by the authority of:
Catherine R. McCabe
Commissioner

Terry D. Pilawski

Terry Pilawski, Chief
Bureau of Water Allocation and Well Permitting

New Jersey State Department of Environmental Protection
Bureau of Water Allocation and Well Permitting
Mail Code 401-04Q PO BOX 420 Trenton, NJ 08625-0420 Tel: 609-984-6831

Well Permit Number
E201909450

MONITORING WELL RECORD

PROPERTY OWNER: US GOV

Company/Organization: US Gov

Address: US Army Seli EH-E Fort Monmouth, New Jersey 07703

WELL LOCATION: Parcel 82 - Fort Monmouth

Address: Leonard Ave

County: Monmouth Municipality: Oceanport Boro Lot: 1 Block: 105

Easting (X): 623012 Northing (Y): 541133
Coordinate System: NJ State Plane (NAD83) - USFEET

DATE WELL STARTED: September 9, 2019

DATE WELL COMPLETED: September 9, 2019

WELL USE: MONITORING

Other Use(s):

Local ID: PAR82-MW01

WELL CONSTRUCTION

Total Depth Drilled (ft.): 13 Finished Well Depth (ft.): 13 Well Surface: Above Grade

	Depth to Top (ft.)	Depth to Bottom (ft.)	Diameter (inches)	Material	Wgt/Rating/Screen # Used (lbs/ch no.)
Borehole	0	13	8		
Casing	0	3	2	PVC	Sch. 40
Screen	3	13	2	PVC	.010

	Depth to Top (ft.)	Depth to Bottom (ft.)	Outer Diameter (in.)	Inner Diameter (in)	Material		
					Bentonite (lbs.)	Neat Cement (lbs.)	Water (gal.)
Grout	0	2	8	2	2.50	47	4
Gravel Pack	2	13	8	2	#0		

Grouting Method: Pressure method (Tremie Pipe) Drilling Method: Hollow Stem Augers

ADDITIONAL INFORMATION

Protective Casing: Yes
Static Water Level: 4.2 ft. below land surface
Water Level Measure Tool: M-Scope
Well Development Period: 1 hrs.
Method of Development: N/A
Pump Type:

Pump Capacity: _ gpm
Total Design Head: _ ft.
Drilling Fluid:
Drill Rig: 7822DT
Health and Safety Plan Submitted? Yes

ATTACHMENTS:

GEOLOGIC LOG
0 - 5: Brown GC - Clayey gravels, gravel-sand-clay mixtures
5 - 13: Brown GP - Poorly graded gravels and gravel-sand mixtures, little or no fines

ADDITIONAL INFORMATION:

Driller of Record: Ken Atwood, MONITORING LICENSE # 449044 Company: EAST COAST DRILLING, INC.

New Jersey Department of Environmental Protection
Site Remediation Program

MONITORING WELL CERTIFICATION FORM A - AS-BUILT CERTIFICATION

Date Stamp
(For Department use only)

SECTION A. SITE NAME AND LOCATION

Site Name: Parcel 82 - Fort Monmouth

List all AKAs:

Street Address: Leonard Ave

Municipality: Oceanport Boro (Township, Borough or City)

County: Monmouth Zip Code: 07703

Program Interest (PI) Number(s): Case Tracking Number(s):

SECTION B. WELL OWNER AND LOCATION

1. Name of Well Owner: US Gov
2. Well Location (Street Address): Leonard Ave
3. Well Location (Municipal Block and Lot) Block# 105 Lot # 1

SECTION C. WELL LOCATION SPECIFICS

1. Well Permit Number (This number must be permanently affixed to the well casing):	E201909450
2. Site Well Number as shown on application or plans):	PAR82-MW01
3. Well Completion Date:	9/9/2019
4. Distance from Top of Casing (cap off) to ground surface (nearest 0.01'):	+3.00
5. Total Depth of Well to the nearest ½ foot:	13
6. Depth to Top of Screen (or top of open hole) from top of casing (nearest 0.01'):	3.00
7. Screen Length (or length of open hole) in feet:	10
8. Screen or Slot Size:	.010
9. Screen or Slot Material:	Sch. 40 PVC
10. Casing Material (PVC, steel, or other – specify):	Sch. 40 PVC
11. Casing Diameter (inches):	2
12. Static Water Level from top of casing at the time of installation (nearest 0.01'):	4.20
13. Yield (gallons per minute):	1
14. Development Techinque (specify):	Pump
15. Length of Time well is developed/pumped or bailed (hours and minutes):	1 Hour 00 Minutes

KSS #2698

New Jersey Department of Environmental Protection
Site Remediation Program

Monitoring Well Certification Form B - Location Certification

Date Stamp
(For Department use only)

SECTION A. SITE NAME AND LOCATION

Site Name: Fort Monmouth

List all AKAs: FTMM Parcel 82

Street Address: Leonard Avenue

Municipality: Oceanport Borough (Township, Borough or City)

County: Monmouth Zip Code: 07703

Program Interest (PI) Number(s): Case Tracking Number(s):

SECTION B. WELL OWNER AND LOCATION

1. Name of Well Owner US Goverment
2. Well Location (Street Address) Leonard Avenue
3. Well Location (Municipal Block and Lot) Block# 105 Lot # 1

SECTION C. WELL LOCATION SPECIFICS

1. Well Permit Number (This number must be permanently affixed to the well casing): E201909450
2. Site Well Number (As shown on application or plans): PAR82-MW01
3. Geographic Coordinate NAD 83 to nearest 1/100 of a second:
   Latitude: North 40 19 05.1 Longitude: West 74 01 50.1
4. New Jersey State Plane Coordinates NAD 83 datum, US survey feet units, to nearest foot:
   North 541133 East 623012
5. Elevation of Top of Inner Casing (cap off) at reference mark (nearest 0.01'): 9.45
   Elevation Top of Outer casing: 9.76 Elevation of ground: 7.65
   Check one: ☒ NAVD 88 ☐ NVGD29 ☐ On Site Datum ☐ Other
6. Source of elevation datum (benchmark, number/description and elevation/datum). If an on-site datum is used, identify here, assume datum of 100', and give approximated actual elevation (referencing NAVD 88).
   GPS
7. Significant observations and notes:

SECTION D. LAND SURVEYOR'S CERTIFICATION

SEAL

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe the submitted information is true, accurate and complete. I am aware that there are significant penalties for submitting false information including the possibility of fine and imprisonment.

Professional Land Surveyor's Signature: Kenny L Kennon Date 10/8/19

Surveyor's Name: Kenny L. Kennon License Number: 37195

Firm Name: Kennon Surveying Services, Inc. Certificate of Authorization #: 27944900

Mailing Address 5 Powder Horn Drive

City/Town: Warren State NJ Zip Code: 07059

Phone Number 732-564-1818 Ext.: Fax: 732-564-9999

PARCEL 82 9-9-19

WEATHER: 70's CLOUDY

ACTIVITY: MW INSTALLATION, MW ABANDONMENT

PERSONNEL: FA, KEN ATWOOD, NEAL ECKERT

EQUIP.: GEOPROBE 7822 DT

0700 ECDI ON SITE, HEALTH + SAFETY MEETING. TICKS, PINCH POINT, POISON IVY

0740 MOB TO PARCEL 82 - MW-01 SITE. SET UP RIG

0800 BEGAN DRILLING PAR-82-MW01

BREATHING ZONE PID: 0

0-4' ASPHALT

4"-24" Brn-yel brn silty Clay

24"-48" Brn-yel brn c-f SAND, Little f. Gravel / wet @ 42"

5'-9' Brn f SAND and silt wet

10'-13.5' Blk f SAND and silt wet organic

0910 SET WELL AT 13' BGS (10' SCREEN, 5' RISER, 2' STICK-UP). GROUT WELL, SET STEEL STICK-UP RISER 2.5' ABOVE GRADE

1000 MOB TO MW01B TO ABANDON; 14' DEEP. USED 2 BAGS BENTONITE HOLE PLUG, REMOVED STEEL STICK-UP RISER. BACKFILLED TO SURFACE GRADE W/ SURROUNDING SOILS.

1100 BEGIN DEVELOPMENT OF PAR-82-MW-01

1105 PURGE + SURGE; V. SILTY FIRST 15 GAL. CLEARED UP, PUMPED ~36 GAL. THROUGH GR. ACTIV. CARBON BUCKET. USED NEW TEFLON TUBING.

1200 ECDI OFF SITE

FA

Soil Boring Log

CLIENT: USACE
PROJECT NAME: FTMM ~~68 MW installation~~
PROJECT LOCATION: FTMM ~~68 MW installation~~ PARCEL 82
PROJECT NUMBER: 748810-02180

GROUNDWATER OBSERVATIONS
WATER LEVEL: ≈ 3.6 FT. BGS ≈ 3.6 FT
DATE: 9-9-19
TIME:
MEAS. FROM: TOC (+2 FT.)

INSPECTOR: FRANK ACCORSI
DRILLER: ECDI - KEN ATWOOD
WEATHER: 70's PT. CLDY
CONTRACTOR: ECDI
RIG TYPE: GEOPROBE 7822 DT
DATE/TIME START: 9-9-19 0810
DATE/TIME FINISH: 9-9-19 0930
WEIGHT OF HAMMER: N/A
DROP OF HAMMER: N/A
TYPE OF HAMMER: N/A

BORING/WELL ID: PAR-82-MW-01
LOCATION DESCRIPTION
LOCATION PLAN
Oceanport, New Jersey

DEPTH (feet)	SAMPLE I.D.	BLOWS per 6"	ADV/ REC.	PID (ppm)	FIELD IDENTIFICATION OF MATERIAL	STRATA	COMMENTS
0			60/48	0	ASPHALT 4 in.		
				0	Brown-yelbrown silty Clay moist		
1				0			
				0			
2				0			
				0	Brown-yelbrn cmt SAND, Little f Gravel		
3				0			
				0			wet @ 3.5'
4							
5			60/48	0	Brown f SAND and Silt wet		
				0			
6				0			
				0			
7				0			
				0			
8				0			
9							
10							

Remarks:

Sample Types
S -- Split-Spoon
U -- Undisturbed Tube
C -- Rock Core
A -- Auger Cuttings

Consistency vs. Blowcount / Foot

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

Soil Boring Log

CLIENT: USACE
PROJECT NAME: FTMM ~~MW installation~~
PROJECT LOCATION: FTMM-~~68~~ PARCEL 82
PROJECT NUMBER: 748810-02180

GROUNDWATER OBSERVATIONS
WATER LEVEL: ≈ 5.6 FT
DATE:
TIME:
MEAS. FROM: TOC

INSPECTOR: F. ACCORSI
DRILLER: K. ATWOOD
WEATHER: 70's PT. CLDY
CONTRACTOR: EDI
RIG TYPE: GEOPROBE
DATE/TIME START: 9-9-19 0810
DATE/TIME FINISH: 9-9-19 0930
WEIGHT OF HAMMER: N/A
DROP OF HAMMER: N/A
TYPE OF HAMMER: N/A

BORING/WELL ID: PAR-82-MW-01
LOCATION DESCRIPTION:
LOCATION PLAN: Oceanport, New Jersey

DEPTH (feet)	SAMPLE I.D.	BLOWS per 6"	ADV/ REC.	PID (ppm)	FIELD IDENTIFICATION OF MATERIAL	STRATA	COMMENTS
0			60/92	0	Brown f SAND and SILT		
				0			
1				0	BLACK f SAND + SILT,		
				0	ORGANIC - WET		
2				0			
				0			
3				0			
4							
5					END OF BORING @ 15 FT		
6							
7							
8							
9							
0							

Notes: SET MONITORING WELL AT 13' DEEP - 10' ~~RISER~~ SCREEN (3'-10'), 5' RISING (2' ABOVE GRADE - STICK UP)

Sample Types
S -- Split-Spoon
U -- Undisturbed Tube
C -- Rock Core
A -- Auger Cuttings

Consistency vs. Blowcount / Foot

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

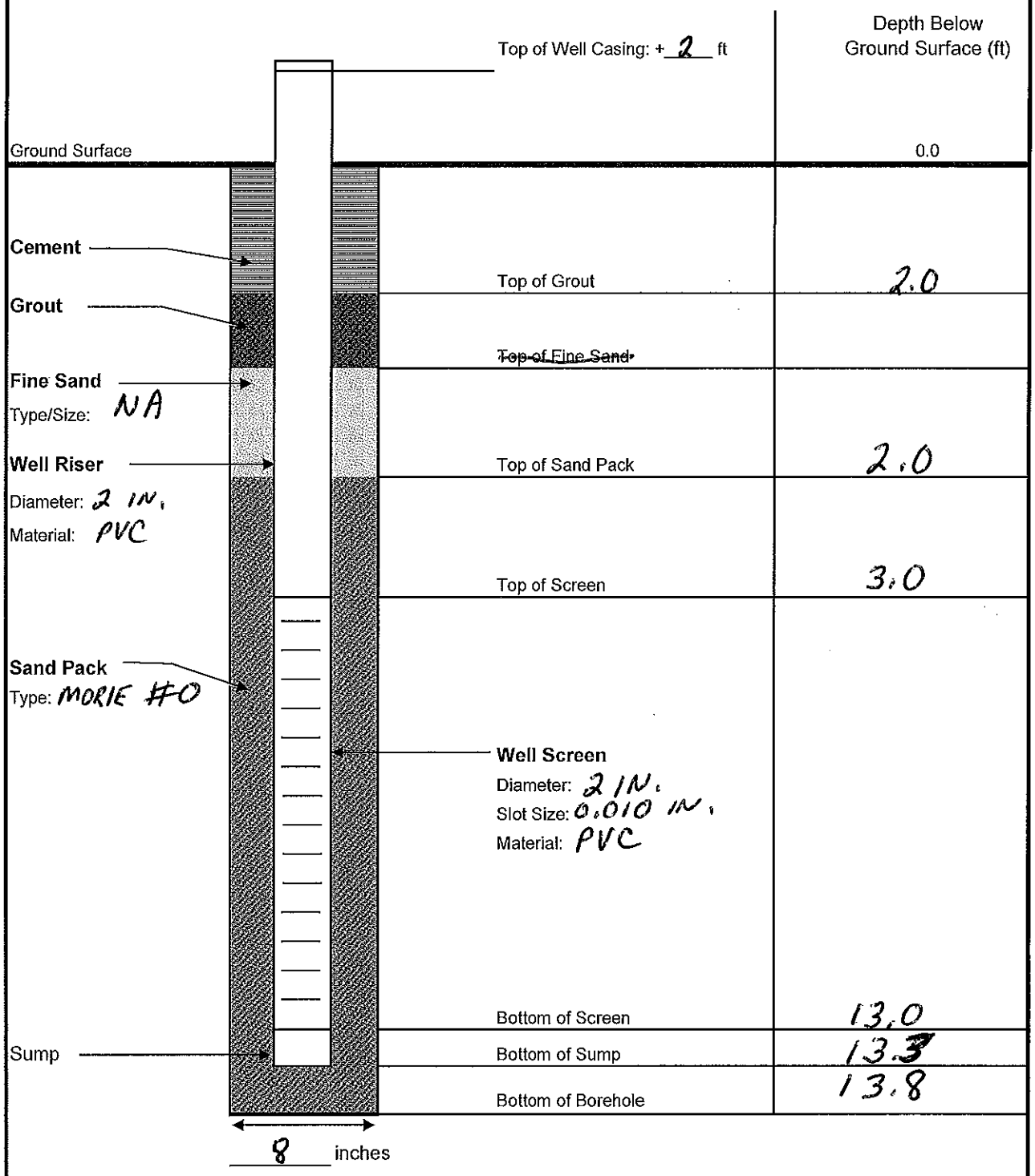
PARSONS

Well Construction Detail (Single Cased - Stickup)

Client: USACE

Well ID: PAR-82-MW-01 NJBWA Permit No. E20190945D

Date Well Installed: 9-9-19 Location: PARCEL 82 FT. MONMOUTH ~~FTMM-68~~



Top of Confining Unit (if present): _____

WELL DEVELOPMENT REPORT

CLIENT: USACE
WELL ID: PAR-82-MW-01
PROJECT NAME: FTMM
DATE: 9-9-19
LOCATION: ~~FTMM-68~~ PARCEL 82
PROJECT NO. : 748810-02180

DRILLING METHOD (s): HSA
PUMP METHOD (s): 12 V. SUBMERSIBLE
SURGE METHOD (s): PUMP
INSTALLATION DATE: 9-9-19
INSPECTOR: F. ACCORSI
CONTRACTOR: ~~Cascade~~ ECDI
CREW: K. ATWOOD
START DEVELOPMENT DATE: 9-9-19
END DEVELOPMENT DATE: 9-9-19

WATER DEPTH (~~TOC~~): BGS 3.6 ft
WELL DIA. (ID CASING): 2 IN ~~ft~~
BORING DIAMETER: 8 IN ~~ft~~
INSTALLED POW DEPTH(TOC): 13.3 ft
MEASURED POW DEPTH(TOC): 13.3 ft
SILT THICKNESS: ft
POW AFTER DEVELOPMENT: ft

DIAMETER FACTORS (GAL/FT):

DIAMETER (IN):	(2)	3	4	5	6	7	(8)	9	10	11	12
GALLONS/ FT:	0.163	0.367	0.654	1.02	1.47	2.00	2.61	3.30	4.08	4.93	5.87

STANDING VOLUME INSIDE WELL = WATER COLUMN (9.7) X WELL DIAMETER FACTOR (.163) = 1.6 GAL. = A

STANDING WATER IN ANNULAR SPACE =
WATER COL. BELOW SEAL(ft) X (BORING DIAM. FACTOR - WELL DIAM. FACTOR) X 0.3 = 7.1 GAL. = B
9.7 2.61-.163 = 2.45
SINGLE STANDING WATER VOLUME = A + B = 1.6+7.1=8.7 8.7 GAL. = C

MINIMUM VOLUME TO BE REMOVED = 5 X C 5*8.7 43 GALS.

ACTIVITY	START TIME	END TIME	ELAPSED TIME	GALLONS REMOVED	pH (std)	CONDUCTIVITY (MS/cm)	TEMP (°C)	COLOR	TURBIDITY (ntu)	OTHER
PUMP+SURGE	1105	1115		5	6.05	0.180	23.6	LT BRN	754	PUMPED DRY, V SILTY
PUMP+SURGE	1125	1135		5	5.43	0.139	23.2	"	485	SILTY
PUMP		1135		5	4.82	0.184	20.8	SLI. CLDY.	963	SILTY
PUMP		1145		3	4.79	0.167	20.8	CLEAR	28	
PUMP		1150		4	4.81	0.146	21.8	"	38	
PUMP		1155		3	4.80	0.152	21.9	"	15	
PUMP		1205		3	4.83	0.152	21.9	"	1.8	
PUMP		1215		4	4.90	0.153	22.1	"	0.7	
PUMP		1225		4	4.93	0.151	22.0	CLEAR	0.1	
TOTALS/FINAL				36						

COMMENTS: DISCHARGE DEVELOPMENT WATER THROUGH GRANULAR ACTIVATED CARBON. USED NEW DEDICATED TEFLON TUBING

FIELD CALIBRATION LOG SHEET

Site/Project/Location: FTMM- PARCEL 82		
Personnel: FRANK ACCORSI		
Date: 9-9-19	Usage Start Time: 0800	Usage End Time: 1030
		Usage = Time instrument used in field

INSTRUMENT ID NUMBERS	SENSOR ID NUMBERS	ORP Calibration
Make: YSI	D.O.:	Standard: 240 mV
Model: 6920	pH/ORP:	Temperature (°C): 24.97
Serial Number: 01B0202AC	Conductivity/Temp.:	Initial (mV): 241.4
ID Number: 1844	Turbidity:	Reset to (mV): 240
NJ Certification Number: —	*Temperature Correction (°C):* 0.07	Lot No./Exp. Date: 2062 10-31-22

Dissolved Oxygen Calibration	Turbidity Calibration	Specific Conductance Calibration
Water Temp (°C): 24.78	Standard: 0.0 NTU	Standard: 1.413 mS/cm[C]
Bar Pres (mmHg): 760	Initial (NTU): 0.8	Initial Reading (mS/cm[C]): 1.402
Initial O_2 Saturation (%): 103.3	Reset to (NTU): 0.0	Reset to (mS/cm[C]): 1.413
Initial Reading (mg/L): 8.39	Lot No. (0.0 NTU): 18397435	Temperature (°C): 24.95
Final O_2 Saturation (%): 100.1	Exp. Date: 11-7-19	Lot No: 86K310
Meter Reset to (mg/L): 8.12	Standard: 100 / (126) NTU (circle)	Exp. Date: 11-30-19
0.00 mg/L Check (<0.30): 0.28	Initial (NTU): 120	1.413 mS/cm[C] Check: 1.421
Lot No (0.0 mg/L) 2062	Reset to (NTU): 126	(Check Range: 1.399 – 1.427)
Exp. Date: 10-31-22	Lot No. (100/(126) NTU): 18397127	5 Point Calibration Check: (Yes) No
Winkler D.O. Verification (Yes) No	Exp. Date: 10-15-19	(Readings within +/- 10%)
(Out Val and Lft As between 0.3 mg/L)	100/(126) NTU Check (10%): 124	

Note: Winkler calibration must be repeated weekly. If sampling is > one week, obtain new calibrated YSI and document on new form

pH Calibration (* Record to two decimal places)

7.00 Buffer Check -- Immediately After Initial Calibration -- MUST BE within ± 0.1 units of 7.00

+ Input Reading based on temperature correction (Reset To must be within ± 0.05 units of Input Reading)

Buffer	Time	Temperature (°C)	Initial Reading *	Input Reading **	Reset To *	Lot No. and Exp. Date
4.00	0730	25.02	4.02	4.00	4.00	7G1837 9-30-19
10.00	0744	24.98	10.01	10.05	10.00	7GL670 12-31-19
7.00 Check	0747	24.95	7.02	7.02		86B386 2-29-20

7.00 Buffer Check -- Every 3 Hours After Initial Calibration -- MUST BE within ± 0.2 units of 7.00

Buffer	Time	Temperature (°C)	Initial Reading *	Input Reading **	Reset To *	Lot No. and Exp. Date
7.00 Check						
7.00 Check						
7.00 Check						

*+ Input reading based on pH of buffer at the temperature indicated - obtain from supplier literature and must be within +/- 0.1 pH units

ANALYST NAME/SIGNATURE & DATE COMPLETED: FRANK ACCORSI / F. Accorsi DATE: 9-9-19

REVIEWER NAME/SIGNATURE & DATE REVIEWED: _____ / _____ DATE: _____

PARSONS

New Jersey Department of Environmental Protection
Site Remediation Program

Monitoring Well Certification Form B - Location Certification

Date Stamp
(For Department use only)

SECTION A. SITE NAME AND LOCATION

Site Name: Fort Monmouth

List all AKAs: FTMM Parcel 82

Street Address: Leonard Avenue

Municipality: Oceanport Borough (Township, Borough or City)

County: Monmouth Zip Code: 07703

Program Interest (PI) Number(s): Case Tracking Number(s):

SECTION B. WELL OWNER AND LOCATION

1. Name of Well Owner: US Goverment
2. Well Location (Street Address): Leonard Avenue
3. Well Location (Municipal Block and Lot) Block# 105 Lot # 1

SECTION C. WELL LOCATION SPECIFICS

1. Well Permit Number (This number must be permanently affixed to the well casing): E201909450
2. Site Well Number (As shown on application or plans): PAR82-MW01
3. Geographic Coordinate NAD 83 to nearest 1/100 of a second:
   Latitude: North 40 19 05.1 Longitude: West 74 01 50.1
4. New Jersey State Plane Coordinates NAD 83 datum, US survey feet units, to nearest foot:
   North 541133 East 623012
5. Elevation of Top of Inner Casing (cap off) at reference mark (nearest 0.01'): 9.45
   Elevation Top of Outer casing: 9.76 Elevation of ground: 7.65
   Check one: ☒ NAVD 88 ☐ NVGD29 ☐ On Site Datum ☐ Other
6. Source of elevation datum (benchmark, number/description and elevation/datum). If an on-site datum is used, identify here, assume datum of 100', and give approximated actual elevation (referencing NAVD 88).
   GPS
7. Significant observations and notes:

SECTION D. LAND SURVEYOR'S CERTIFICATION

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe the submitted information is true, accurate and complete. I am aware that there are significant penalties for submitting false information including the possibility of fine and imprisonment.

SEAL

Professional Land Surveyor's Signature: Date

Surveyor's Name: Kenny L. Kennon License Number: 37195

Firm Name: Kennon Surveying Services, Inc. Certificate of Authorization #: 27944900

Mailing Address 5 Powder Horn Drive

City/Town: Warren State NJ Zip Code: 07059

Phone Number 732-564-1818 Ext.: Fax: 732-564-9999

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Attachment C
Analytical Data

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ALS Environmental

301 Fulling Mill Road - Middletown, PA 17057 - Phone: 717-944-5541 - Fax: 717-944-1430 - www.alsglobal.com

NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293 DoD ELAP: PJLA 74618
State Certifications: FL E871113 , WA C999 , MD 128 , VA 460157 , WV DW 9961-C , WV 343

November 14, 2019

Mr. Julien Chambert
Parsons - Federal Services

Certificate of Analysis

Project Name:	**Ft. Monmouth GW Sampling**	Workorder:	**3068937**
Purchase Order:	**PO-00065450**	Workorder ID:	**PQF226|Parcel 82**

Dear Mr. Chambert:

Enclosed are the analytical results for samples received by the laboratory on Friday, November 8, 2019.

The ALS Environmental laboratory in Middletown, Pennsylvania is a National Environmental Laboratory Accreditation Program (NELAP) accredited laboratory and as such, certifies that all applicable test results meet the requirements of NELAP.

If you have any questions regarding this certificate of analysis, please contact Mrs. Vanessa N Badman (Project Coordinator) at (717) 944-5541.

Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state requirements. The test results meet requirements of the current NELAP standards or state requirements, where applicable. For a specific list of accredited analytes, refer to the certifications section of the ALS website at www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads.

ALS Spring City: 10 Riverside Drive, Spring City, PA 19475 610-948-4903

CC: Mr. Kent Friesen , Ms. Cris Grill , Ms. Lorraine Weber

This page is included as part of the Analytical Report and must be retained as a permanent record thereof.

Vanessa N. Badman

Mrs. Vanessa N Badman
Project Coordinator

ALS Environmental

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State Certifications: FL E871113 , WA C999 , MD 128 , VA 460157 , WV DW 9961-C , WV 343

SAMPLE SUMMARY

Workorder: 3068937 PQF226|Parcel 82

Lab ID	Sample ID	Matrix	Date Collected	Date Received	Collected By
3068937001	PAR-82-GW-MW-01-7.8	Water	11/7/2019 09:50	11/8/2019 21:06	Collected by Client
3068937002	PAR-82-GW-MW-01-12.8	Water	11/7/2019 10:40	11/8/2019 21:06	Collected by Client

ALS Environmental

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SAMPLE SUMMARY

Workorder: 3068937 PQF226|Parcel 82

Notes

-- Samples collected by ALS personnel are done so in accordance with the procedures set forth in the ALS Field Sampling Plan (20 - Field Services Sampling Plan).
-- All Waste Water analyses comply with methodology requirements of 40 CFR Part 136.
-- All Drinking Water analyses comply with methodology requirements of 40 CFR Part 141.
-- Unless otherwise noted, all quantitative results for soils are reported on a dry weight basis.
-- The Chain of Custody document is included as part of this report.
-- All Library Search analytes should be regarded as tentative identifications based on the presumptive evidence of the mass spectra. Concentrations reported are estimated values.
-- Parameters identified as "analyze immediately" require analysis within 15 minutes of collection. Any "analyze immediately" parameters not listed under the header "Field Parameters" are preformed in the laboratory and are therefore analyzed out of hold time.
-- Method references listed on this report beginning with the prefix “S” followed by a method number (such as S2310B-97) refer to methods from “Standard Methods for the Examination of Water and Wastewater”.
-- For microbiological analyses, the "Prepared" value is the date/time into the incubator and the "Analyzed" value is the date/time out the incubator.
-- An Analysis-Prep Method Cross Reference Table is included after Analytical Results & Qualifiers section in this report.

Standard Acronyms/Flags

J	Indicates an estimated value between the Method Detection Limit (MDL) and the Practical Quantitation Limit (PQL) for the analyte
U	Indicates that the analyte was Not Detected (ND)
N	Indicates presumptive evidence of the presence of a compound
MDL	Method Detection Limit
PQL	Practical Quantitation Limit
RDL	Reporting Detection Limit
ND	Not Detected - indicates that the analyte was Not Detected at the RDL
Cntr	Analysis was performed using this container
RegLmt	Regulatory Limit
LCS	Laboratory Control Sample
MS	Matrix Spike
MSD	Matrix Spike Duplicate
DUP	Sample Duplicate
%Rec	Percent Recovery
RPD	Relative Percent Difference
LOD	DoD Limit of Detection
LOQ	DoD Limit of Quantitation
DL	DoD Detection Limit
I	Indicates reported value is greater than or equal to the Method Detection Limit (MDL) but less than the Report Detection Limit (RDL)
(S)	Surrogate Compound
NC	Not Calculated
*	Result outside of QC limits

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ANALYTICAL RESULTS

Workorder: 3068937 PQF226|Parcel 82

Lab ID: **3068937001** Date Collected: 11/7/2019 09:50 Matrix: Water

Sample ID: **PAR-82-GW-MW-01-7.8** Date Received: 11/8/2019 21:06

Parameters	Results	Flag	Units	LOQ	LOD	DL	Method	Prepared	By	Analyzed	By	Cntr
PCBs												
Total Polychlorinated Biphenyl	4.2U	U	ug/L	8.5	4.2	1.7	SW846 8082A	11/12/19	MXL	11/13/19 07:45	EGO	B
Aroclor-1016	0.47U	U	ug/L	0.94	0.47	0.19	SW846 8082A	11/12/19	MXL	11/13/19 07:45	EGO	B
Aroclor-1221	0.47U	U	ug/L	0.94	0.47	0.19	SW846 8082A	11/12/19	MXL	11/13/19 07:45	EGO	B
Aroclor-1232	0.47U	U	ug/L	0.94	0.47	0.19	SW846 8082A	11/12/19	MXL	11/13/19 07:45	EGO	B
Aroclor-1242	0.47U	U	ug/L	0.94	0.47	0.19	SW846 8082A	11/12/19	MXL	11/13/19 07:45	EGO	B
Aroclor-1248	0.47U	U	ug/L	0.94	0.47	0.19	SW846 8082A	11/12/19	MXL	11/13/19 07:45	EGO	B
Aroclor-1254	0.47U	U	ug/L	0.94	0.47	0.19	SW846 8082A	11/12/19	MXL	11/13/19 07:45	EGO	B
Aroclor-1260	0.47U	U	ug/L	0.94	0.47	0.19	SW846 8082A	11/12/19	MXL	11/13/19 07:45	EGO	B

Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*	*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
Decachlorobiphenyl (S)	68.9		%	30 - 140	SW846 8082A	11/12/19	MXL	11/13/19 07:45	EGO	B
Tetrachloro-m-xylene (S)	67		%	30 - 133	SW846 8082A	11/12/19	MXL	11/13/19 07:45	EGO	B

Vanessa N. Badman

Mrs. Vanessa N Badman
Project Coordinator

ALS Environmental

301 Fulling Mill Road - Middletown, PA 17057 - Phone: 717-944-5541 - Fax: 717-944-1430 - www.alsglobal.com

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ANALYTICAL RESULTS

Workorder: 3068937 PQF226|Parcel 82

Lab ID: **3068937002** Date Collected: 11/7/2019 10:40 Matrix: Water

Sample ID: **PAR-82-GW-MW-01-12.8** Date Received: 11/8/2019 21:06

Parameters	Results	Flag	Units	LOQ	LOD	DL	Method	Prepared	By	Analyzed	By	Cntr
PCBs												
Total Polychlorinated Biphenyl	4.4U	U	ug/L	8.7	4.4	1.7	SW846 8082A	11/12/19	MXL	11/13/19 07:57	EGO	B
Aroclor-1016	0.49U	U	ug/L	0.97	0.49	0.19	SW846 8082A	11/12/19	MXL	11/13/19 07:57	EGO	B
Aroclor-1221	0.49U	U	ug/L	0.97	0.49	0.19	SW846 8082A	11/12/19	MXL	11/13/19 07:57	EGO	B
Aroclor-1232	0.49U	U	ug/L	0.97	0.49	0.19	SW846 8082A	11/12/19	MXL	11/13/19 07:57	EGO	B
Aroclor-1242	0.49U	U	ug/L	0.97	0.49	0.19	SW846 8082A	11/12/19	MXL	11/13/19 07:57	EGO	B
Aroclor-1248	0.49U	U	ug/L	0.97	0.49	0.19	SW846 8082A	11/12/19	MXL	11/13/19 07:57	EGO	B
Aroclor-1254	0.49U	U	ug/L	0.97	0.49	0.19	SW846 8082A	11/12/19	MXL	11/13/19 07:57	EGO	B
Aroclor-1260	0.49U	U	ug/L	0.97	0.49	0.19	SW846 8082A	11/12/19	MXL	11/13/19 07:57	EGO	B

Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*	*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
Decachlorobiphenyl (S)	70.5		%	30 - 140	SW846 8082A	11/12/19	MXL	11/13/19 07:57	EGO	B
Tetrachloro-m-xylene (S)	65.4		%	30 - 133	SW846 8082A	11/12/19	MXL	11/13/19 07:57	EGO	B

Vanessa N. Badman

Mrs. Vanessa N Badman
Project Coordinator

ALS Environmental

301 Fulling Mill Road - Middletown, PA 17057 - Phone: 717-944-5541 - Fax: 717-944-1430 - www.alsglobal.com

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ANALYSIS - PREP METHOD CROSS REFERENCE TABLE

Workorder: 3068937 PQF226|Parcel 82

Lab ID	Sample ID	Analysis Method	Prep Method
3068937001	PAR-82-GW-MW-01-7.8	SW846 8082A	SW846 3510C
3068937002	PAR-82-GW-MW-01-12.8	SW846 8082A	SW846 3510C

ALS Environmental
34 Dogwood Lane
Middletown, PA 07057
(717) 944-5541

CHAIN OF CUSTODY/ REQUEST FOR ANALYSIS

ALL SHADED AREAS MUST BE COMPLETED BY THE CLIENT / SAMPLER. INSTRUCTIONS ON THE BACK.

3068937

1 of 1

Client Name:	Parsons Federal
Address:	100 High St. 4th Floor, Boston, MA 02110
Contact:	Lorraine Weber
Phone#:	315-552-9745
Project Name/#:	Parcel 82
Bill To:	Parsons Federal
TAT	[X] Normal-Standard TAT is 10-12 business days. [ ] Rush-Subject to ALS approval and surcharges.
Date Required:	Approved?
Email?	[X] -Y lorraine.weber@parsons.com
Fax?	[ ] -Y No.:

Container Type	AN
Container Size	1 L.
Preservative	none

ANALYSES/METHOD REQUESTED: PCBs (8082 method)

Enter Number of Containers Per Sample or Field Results Below.

	Sample Description/Location (as it will appear on the lab report)	Sample Date	Time	*G or C	**Matrix	PCBs (8082 method)									AUTHORIZED TO RUN	Sample/COC Comments
1	PAR-82-GW-MW-01-7.8	11-7-19	0950	G	GW	2									X	
2	PAR-82-GW-MW-01-12.8	11-7-19	1040	G	GW	2									X	
3																
4																
5																
6																
7																
8																
9																
10																

Receipt Information (Completed by Receiving Lab)

Cooler Temp: 2°C Therm ID: YOR

No. of Coolers: ____

	Y	N	Initial
Custody Seals Present?			
(if present) Seals Intact?			
Received on Ice?			
COC/Labels Complete/Accurate?			
Cont. in Good Cond.?			
Correct Containers?			
Correct Sample Volumes?			
Correct Preservation?			
Headspace/Volatiles?			

Courier/Tracking #:

ALS Field Services: __Pickup __Labor __Composite Sampling __Rental Equipment __Other:

Project Comments: 110016.03300
MDL Must Meet NJDEP Soil Cleanup Criteria and/or Groundwater Quality Standards

		Date	Time
LOGGED BY(signature):	F. [signature]	11-7-19	1450
REVIEWED BY(signature):	[signature]	11-7-19	1455

	Relinquished By / Company Name	Date	Time		Received By / Company Name	Date	Time
1	FRANK ACCORSI / PARSONS	11-8-19	0938	2	[signature]	11/8/19	940
3	[signature] COMMERCIAL CARRIER	11/8/19	1730	4	COMMON CARRIER		
5				6	[signature]	11/9/19	910
7				8			
9				10			

Data Deliverables: [ ] Standard [X] CLP-like [ ] USACE [ ]

Special Processing: USACE [ ] Navy [ ] [ ]

State Samples Collected In: [ ] NY [X] NJ [ ] PA [ ] NC [ ]

Reportable to PADEP? Yes [ ]

PWSID #

Sample Disposal: Lab [ ] Special [ ]

EDDS: Format Type- ERPIMS & HAZSITE

* G=Grab; C=Composite **Matrix - AI=Air; DW=Drinking Water; GW=Groundwater; OI=Oil; OL=Other Liquid; SL=Sludge; SO=Soil; WP=Wipe; WW=Wastewater

301 Fulling Mill Road
Middletown, PA 17057
P: (717) 944-5541
F: (717) 944-1430

Condition of Sample Receipt Form

Client: Parson Federal | Work Order #: 3668937 | Initials: DN | Date: 11/9

1. Were airbills / tracking numbers present and recorded?	(NONE)	YES	NO
Tracking number: _____			
2. Are Custody Seals on shipping containers intact?	NONE	(YES)	NO
3. Are Custody Seals on sample containers intact?	NONE	(YES)	NO
4. Is there a COC (Chain-of-Custody) present?		(YES)	NO
5. Are the COC and bottle labels complete, legible and in agreement?		(YES)	NO
5a. Does the COC contain sample locations?		(YES)	NO
5b. Does the COC contain date and time of sample collection for all samples?		(YES)	NO
5c. Does the COC contain sample collectors name?		(YES)	NO
5d. Does the COC note the type(s) of preservation for all bottles?		(YES)	NO
5e. Does the COC note the number of bottles submitted for each sample?		(YES)	NO
5f. Does the COC note the type of sample, composite or grab?		(YES)	NO
5g. Does the COC note the matrix of the sample(s)?		(YES)	NO
6. Are all aqueous samples requiring preservation preserved correctly?	(N/A)	YES	NO
7. Were all samples placed in the proper containers for the requested analyses, with sufficient volume?		(YES)	NO
8. Are all samples within holding times for the requested analyses?		(YES)	NO
9. Were all sample containers received intact and headspace free when required? (not broken, leaking, frozen, etc.)		(YES)	NO
10. Did we receive trip blanks (applies only for methods EPA 504, EPA 524.2 and 1631E (LL Hg)?	(N/A)	YES	NO
11. Were the samples received on ice?		(YES)	NO
12. Were sample temperatures measured at 0.0-6.0°C		(YES)	NO
13. Are the samples DW matrix ? If YES, fill out Reportable Drinking Water questions below		YES	(NO)
13a. Are the samples required for SDWA compliance reporting?	N/A	YES	NO
13b. Did the client provide a SDWA PWS ID#?	N/A	YES	NO
13c. Are all aqueous unpreserved SDWA samples pH 5-9?	N/A	YES	NO
13d. Did the client provide the SDWA sample location ID/Description?	N/A	YES	NO
13e. Did the client provide the SDWA sample type (D, E, R, C, P, S)?	N/A	YES	NO

Cooler #: _____

Temperature (°C): 2

Thermometer ID: 402

Radiological (µCi): _____

COMMENTS (Required for all NO responses above and any sample non-conformance):

Rev. 4/29/2019

ALS Environmental

301 Fulling Mill Road - Middletown, PA 17057 - Phone: 717-944-5541 - Fax: 717-944-1430 - www.alsglobal.com

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State Certifications: FL E871113 , WA C999 , MD 128 , VA 460157 , WV DW 9961-C , WV 343

March 24, 2020

Ms. Lorraine Weber
Parsons - Syracuse NY
301 Plainfield Road
Suite 350
Syracuse, NY 13212

Certificate of Analysis

Revised Report - 3/24/2020 7:05:32 PM - See workorder comment section for explanation

Project Name:	**Ft. Monmouth GW Sampling**	Workorder:	**3092100**
Purchase Order:	**PO-0006450**	Workorder ID:	**PQF239|Parcel 82**

Dear Ms. Weber:

Enclosed are the analytical results for samples received by the laboratory on Friday, March 13, 2020.

The ALS Environmental laboratory in Middletown, Pennsylvania is a National Environmental Laboratory Accreditation Program (NELAP) accredited laboratory and as such, certifies that all applicable test results meet the requirements of NELAP.

If you have any questions regarding this certificate of analysis, please contact Mrs. Vanessa N Badman (Project Coordinator) at (717) 944-5541.

Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state requirements. The test results meet requirements of the current NELAP standards or state requirements, where applicable. For a specific list of accredited analytes, refer to the certifications section of the ALS website at www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads.

ALS Spring City: 10 Riverside Drive, Spring City, PA 19475 610-948-4903

CC: Mr. Kent Friesen , Mr. Julien Chambert

This page is included as part of the Analytical Report and must be retained as a permanent record thereof.

Vanessa N. Badman

Mrs. Vanessa N Badman
Project Coordinator

ALS Environmental

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SAMPLE SUMMARY

Workorder: 3092100 PQF239|Parcel 82

Lab ID	Sample ID	Matrix	Date Collected	Date Received	Collected By
3092100001	PAR-82-GW-MW-01-9	Water	3/13/2020 09:45	3/13/2020 21:10	Collected by Client
3092100002	EB-20200313	Water	3/13/2020 08:10	3/13/2020 21:10	Collected by Client

ALS Environmental

301 Fulling Mill Road - Middletown, PA 17057 - Phone: 717-944-5541 - Fax: 717-944-1430 - www.alsglobal.com

NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293 DoD ELAP: PJLA 74618
State Certifications: FL E871113 , WA C999 , MD 128 , VA 460157 , WV DW 9961-C , WV 343

SAMPLE SUMMARY

Workorder: 3092100 PQF239|Parcel 82

Notes

-- Samples collected by ALS personnel are done so in accordance with the procedures set forth in the ALS Field Sampling Plan (20 - Field Services Sampling Plan).
-- All Waste Water analyses comply with methodology requirements of 40 CFR Part 136.
-- All Drinking Water analyses comply with methodology requirements of 40 CFR Part 141.
-- Unless otherwise noted, all quantitative results for soils are reported on a dry weight basis.
-- The Chain of Custody document is included as part of this report.
-- All Library Search analytes should be regarded as tentative identifications based on the presumptive evidence of the mass spectra. Concentrations reported are estimated values.
-- Parameters identified as "analyze immediately" require analysis within 15 minutes of collection. Any "analyze immediately" parameters not listed under the header "Field Parameters" are preformed in the laboratory and are therefore analyzed out of hold time.
-- Method references listed on this report beginning with the prefix “S” followed by a method number (such as S2310B-97) refer to methods from “Standard Methods for the Examination of Water and Wastewater”.
-- For microbiological analyses, the "Prepared" value is the date/time into the incubator and the "Analyzed" value is the date/time out the incubator.
-- An Analysis-Prep Method Cross Reference Table is included after Analytical Results & Qualifiers section in this report.

Standard Acronyms/Flags

J	Indicates an estimated value between the Method Detection Limit (MDL) and the Practical Quantitation Limit (PQL) for the analyte
U	Indicates that the analyte was Not Detected (ND)
N	Indicates presumptive evidence of the presence of a compound
MDL	Method Detection Limit
PQL	Practical Quantitation Limit
RDL	Reporting Detection Limit
ND	Not Detected - indicates that the analyte was Not Detected at the RDL
Cntr	Analysis was performed using this container
RegLmt	Regulatory Limit
LCS	Laboratory Control Sample
MS	Matrix Spike
MSD	Matrix Spike Duplicate
DUP	Sample Duplicate
%Rec	Percent Recovery
RPD	Relative Percent Difference
LOD	DoD Limit of Detection
LOQ	DoD Limit of Quantitation
DL	DoD Detection Limit
I	Indicates reported value is greater than or equal to the Method Detection Limit (MDL) but less than the Report Detection Limit (RDL)
(S)	Surrogate Compound
NC	Not Calculated
*	Result outside of QC limits

ALS Environmental

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PROJECT SUMMARY

Workorder: 3092100 PQF239|Parcel 82

Workorder Comments

This Certificate of Analysis has been modified in order to update the extraction date for method 8082. VNB 3/24/20

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ANALYTICAL RESULTS

Workorder: 3092100 PQF239|Parcel 82

Lab ID: **3092100001** Date Collected: 3/13/2020 09:45 Matrix: Water

Sample ID: **PAR-82-GW-MW-01-9** Date Received: 3/13/2020 21:10

Parameters	Results	Flag	Units	LOQ	LOD	DL	Method	Prepared	By	Analyzed	By	Cntr
PCBs												
Total Polychlorinated Biphenyl	4.2U	U	ug/L	8.3	4.2	1.7	SW846 8082A	3/18/20	J1H	3/22/20 22:54	EGO	A
Aroclor-1016	0.46U	U	ug/L	0.93	0.46	0.19	SW846 8082A	3/18/20	J1H	3/22/20 22:54	EGO	A
Aroclor-1221	0.46U	U	ug/L	0.93	0.46	0.19	SW846 8082A	3/18/20	J1H	3/22/20 22:54	EGO	A
Aroclor-1232	0.46U	U	ug/L	0.93	0.46	0.19	SW846 8082A	3/18/20	J1H	3/22/20 22:54	EGO	A
Aroclor-1242	0.46U	U	ug/L	0.93	0.46	0.19	SW846 8082A	3/18/20	J1H	3/22/20 22:54	EGO	A
Aroclor-1248	0.46U	U	ug/L	0.93	0.46	0.19	SW846 8082A	3/18/20	J1H	3/22/20 22:54	EGO	A
Aroclor-1254	0.46U	U	ug/L	0.93	0.46	0.19	SW846 8082A	3/18/20	J1H	3/22/20 22:54	EGO	A
Aroclor-1260	0.46U	U	ug/L	0.93	0.46	0.19	SW846 8082A	3/18/20	J1H	3/22/20 22:54	EGO	A

Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*	*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
Decachlorobiphenyl (S)	87.4		%	30 - 140	SW846 8082A	3/18/20	J1H	3/22/20 22:54	EGO	A
Tetrachloro-m-xylene (S)	88.5		%	30 - 133	SW846 8082A	3/18/20	J1H	3/22/20 22:54	EGO	A

Vanessa N. Badman

Mrs. Vanessa N Badman
Project Coordinator

ALS Environmental

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ANALYTICAL RESULTS

Workorder: 3092100 PQF239|Parcel 82

Lab ID: **3092100002** Date Collected: 3/13/2020 08:10 Matrix: Water

Sample ID: **EB-20200313** Date Received: 3/13/2020 21:10

Parameters	Results	Flag	Units	LOQ	LOD	DL	Method	Prepared	By	Analyzed	By	Cntr
PCBs												
Total Polychlorinated Biphenyl	4.2U	U	ug/L	8.4	4.2	1.7	SW846 8082A	3/18/20	J1H	3/22/20 23:17	EGO	A
Aroclor-1016	0.47U	U	ug/L	0.93	0.47	0.19	SW846 8082A	3/18/20	J1H	3/22/20 23:17	EGO	A
Aroclor-1221	0.47U	U	ug/L	0.93	0.47	0.19	SW846 8082A	3/18/20	J1H	3/22/20 23:17	EGO	A
Aroclor-1232	0.47U	U	ug/L	0.93	0.47	0.19	SW846 8082A	3/18/20	J1H	3/22/20 23:17	EGO	A
Aroclor-1242	0.47U	U	ug/L	0.93	0.47	0.19	SW846 8082A	3/18/20	J1H	3/22/20 23:17	EGO	A
Aroclor-1248	0.47U	U	ug/L	0.93	0.47	0.19	SW846 8082A	3/18/20	J1H	3/22/20 23:17	EGO	A
Aroclor-1254	0.47U	U	ug/L	0.93	0.47	0.19	SW846 8082A	3/18/20	J1H	3/22/20 23:17	EGO	A
Aroclor-1260	0.47U	U	ug/L	0.93	0.47	0.19	SW846 8082A	3/18/20	J1H	3/22/20 23:17	EGO	A
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*			*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
Decachlorobiphenyl (S)	96.7		%	30 - 140			SW846 8082A	3/18/20	J1H	3/22/20 23:17	EGO	A
Tetrachloro-m-xylene (S)	77.5		%	30 - 133			SW846 8082A	3/18/20	J1H	3/22/20 23:17	EGO	A

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ANALYSIS - PREP METHOD CROSS REFERENCE TABLE

Workorder: 3092100 PQF239|Parcel 82

Lab ID	Sample ID	Analysis Method	Prep Method
3092100001	PAR-82-GW-MW-01-9	SW846 8082A	SW846 3510C
3092100002	EB-20200313	SW846 8082A	SW846 3510C

ALS Environmental
34 Dogwood Lane
Middletown, PA 07057
(717) 944-5541

CHAIN OF CUSTODY/ REQUEST FOR ANALYSIS

ALL SHADED AREAS MUST BE COMPLETED BY THE CLIENT / SAMPLER. INSTRUCTIONS ON THE BACK.

* 3 0 9 2 1 0 0 *

1 of 1

Client Name: Parsons Federal
Address: 100 High St. 4th Floor
Boston, MA 02110
Contact: Lorraine Weber
Phone#: 315-552-9745
Project Name/#: Parcel 82
Bill To: Parsons Federal

TAT [X] Normal-Standard TAT is 10-12 business days.
[ ] Rush-Subject to ALS approval and surcharges.
Date Required: Approved?
Email? [X] -Y lorraine.weber@parsons.com
Fax? [ ] -Y No.:

Container Type	AN
Container Size	1 L.
Preservative	none

ANALYSES/METHOD REQUESTED: PCBs (8082 method)

Enter Number of Containers Per Sample or Field Results Below.

	Sample Description/Location (as it will appear on the lab report)	Sample Date	Time	*G or C	**Matrix	PCBs (8082 method)	AUTHORIZED TO RUN	Sample/COC Comments
1	PAR-82-GW-MW-01-9	3/13/20	0945	G	GW	2	X	
2	EB-20200313	3-13-20	0810	G	W	2	X	
3								
4								
5								
6								
7								
8								
9								
10								

Receipt Information (completed by Receiving Lab)
Cooler Temp: 2 Therm ID: 457
No. of Coolers: ______

	Y	N	Initial
Custody Seals Present?			
(If present) Seals Intact?			
Received on Ice?			
COC/Labels Complete/Accurate?			
Cont. In Good Cond.?			
Correct Containers?			
Correct Sample Volumes?			
Correct Preservation?			
Headspace/Volatiles?			

Courier/Tracking #:

ALS Field Services: __Pickup __Labor __Composite Sampling __Rental Equipment __Other:

Project Comments: 110016.03400
MDL Must Meet NJDEP Soil Cleanup Criteria and/or Groundwater Quality Standards

LOGGED BY(signature): [signature] DATE 3/13/20 TIME
REVIEWED BY(signature): T. Querri DATE 3-13-20 TIME 1025

	Relinquished By / Company Name	Date	Time		Received By / Company Name	Date	Time
1	F. Acosta / Parsons	3-13-20	1020	2	[signature] ALS COURIER	3-13-20	1020
3	[signature] ALS COURIER	3/13/20	1650	4			
5				6	[signature]	3/13/2020	2110
7				8			
9				10			

Data Deliverables: [ ] Standard [X] CLP-like [ ] USACE [ ]

Special Processing: USACE [ ] Navy [ ] [ ]

State Samples Collected In: [ ] NY [X] NJ [ ] PA [ ] NC [ ]

Reportable to PADEP? Yes [ ]
PWSID #

Sample Disposal: Lab [ ] Special [ ]

EDDS: Format Type- ERPIMS & HAZSITE

* G=Grab; C=Composite **Matrix - AI=Air; DW=Drinking Water; GW=Groundwater; OI=Oil; OL=Other Liquid; SL=Sludge; SO=Soil; WP=Wipe; WW=Wastewater

301 Fulling Mill Road
Middletown, PA 17057
P: (717) 944-5541
F: (717) 944-1430

Condition of Sample Receipt Form

Client:	Work Order #:	Initials:	Date:
Parsons Federal	3092100	90	3/14/2020

1. Were airbills / tracking numbers present and recorded?	(NONE)	YES	NO
Tracking number: _____			
2. Are Custody Seals on shipping containers intact?	NONE	(YES)	NO
3. Are Custody Seals on sample containers intact?	(NONE)	YES	NO
4. Is there a COC (Chain-of-Custody) present?		(YES)	NO
5. Are the COC and bottle labels complete, legible and in agreement?		(YES)	NO
5a. Does the COC contain sample locations?		(YES)	NO
5b. Does the COC contain date and time of sample collection for all samples?		(YES)	NO
5c. Does the COC contain sample collectors name?		(YES)	NO
5d. Does the COC note the type(s) of preservation for all bottles?		(YES)	NO
5e. Does the COC note the number of bottles submitted for each sample?		(YES)	NO
5f. Does the COC note the type of sample, composite or grab?		(YES)	NO
5g. Does the COC note the matrix of the sample(s)?		(YES)	NO
6. Are all aqueous samples requiring preservation preserved correctly?[1]	N/A	(YES)	NO
7. Were all samples placed in the proper containers for the requested analyses, with sufficient volume?		(YES)	NO
8. Are all samples within holding times for the requested analyses?		(YES)	NO
9. Were all sample containers received intact and headspace free when required? (not broken, leaking, frozen, etc.)		(YES)	NO
10. Did we receive trip blanks (applies only for methods EPA 504, EPA 524.2 and 1631E (LL Hg)?	(N/A)	YES	NO
11. Were the samples received on ice?		(YES)	NO
12. Were sample temperatures measured at 0.0-6.0°C		(YES)	NO
13. Are the samples DW matrix ? If YES, fill out Reportable Drinking Water questions below		YES	(NO)
13a. Are the samples required for SDWA compliance reporting?	(N/A)	YES	NO
13b. Did the client provide a SDWA PWS ID#?	(N/A)	YES	NO
13c. Are all aqueous unpreserved SDWA samples pH 5-9?	(N/A)	YES	NO
13d. Did the client provide the SDWA sample location ID/Description?	(N/A)	YES	NO
13e. Did the client provide the SDWA sample type (D, E, R, C, P, S)?	(N/A)	YES	NO

Cooler #:								
Temperature (°C):	2							
Thermometer ID:	407							
Radiological (µCi):								

COMMENTS (Required for all NO responses above and any sample non-conformance):

[1]Final determination of correct preservation for analysis such as volatiles, microbiology, and oil and grease is made in the analytical department at the time of or following the analysis

Rev 1/20/2020

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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:

- "Response to NJDEP Comments on Parcel 82 Site Investigation Report, Fort Monmouth, New Jersey" (25 June 2020)

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: Fort Monmouth BRAC Environmental Coordinator (BEC)
Phone Number: (732) 383-5104 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: William R Colvin Date: 25 June 2020

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

Completed form should be sent to:

Mr. Ashish Joshi
New Jersey Department of Environmental Protection
Office of Brownfield & Community Revitalization
401 East State St
Mail Code: 401-05K
P.O. Box 420
Trenton, NJ 08625

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