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

7 September 2018

Mr. Ashish Joshi
New Jersey Department of Environmental Protection
Division of Remediation Management & Response
Bureau of Northern Field Operations
7 Ridgedale Avenue (2nd Floor)
Cedar Knolls, NJ 07927-1112

Subject: **Fort Monmouth, Monmouth County, New Jersey**
Site Investigation Report for Former Transformer Near Building 292
PI G000000032

Dear Mr. Joshi:

The Fort Monmouth (FTMM) Team has prepared this Site Investigation (SI) Report to summarize recent findings at the former transformer location near Building 292 in the Squier Hall Complex (Figure 1). Field notes and boring logs are presented in Attachments A and B.

Section 3.2.1.3 of Reference 1 (the ECP Work Plan) describes this site as former transformer MP-062 located northwest of the northwest corner of Building 292. Sampling for polychlorinated biphenyls (PCBs) at this location was proposed to address New Jersey Department of Environmental Protection (NJDEP) comments on the 1995 findings (Reference 2) of 0.68 ppm of PCBs in soil during sampling by a pole mounted transformer on the northwest side of Building 292.

Soil sampling was performed in March 2016 at sample location PAR-49-SS-SB-08 as described in the ECP Work Plan; results for this sample were previously reported in Reference 3. The analytical results of this sample are presented in Table 1; PCBs were not detected in excess of the NJDEP Residential Direct Contact Soil Remediation Standard (RDCSRS).

Additional soil sampling was performed in close proximity to the former transformer location in March 2018 as part of the evaluation of the FTMM-08 Boring 10 area, described in Reference 4 and further in the Army's emails to NJDEP (Reference 5). This field work was subsequently approved by NJDEP (Reference 6). Three samples were collected from soil boring FTMM-08-B10-SB-09 near the former transformer in May 2018. The results of these samples are also presented in Table 1; PCBs were not detected in excess of the NJDEP RDCSRS.

The results of the 2016 and 2018 soil sampling at the former transformer location near Building 292 in the Squier Hall complex indicate that no further action is warranted and that an unrestricted use determination is appropriate.

We look forward to the Department's concurrence and/or comments. Our technical Point of Contact is Kent Friesen at (732) 383-7201; kent.friesen@parsons.com. I can be reached at (732) 383-5104; william.r.colvin18.civ@mail.mil.

Sincerely,

William R. Colvin
Fort Monmouth BRAC Environmental Coordinator

cc: Ashish Joshi, NJDEP (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)
Cris Grill, Parsons (e-mail)

Figures:

Figure 1 FTMM-08 Boring 10 Area Sample Locations

Tables:

Table 1 –2016 and 2018 Soil Sampling Results – Comparison to NJDEP Soil Remediation Standards

Attachments:

A. Field Notes
B. Soil Boring Logs

REFERENCES CITED:

1. Department of the Army. 2015. *Environmental Condition of Property Supplemental Phase II Site Investigation Work Plan for Parcels 28, 38, 39, 49, 57, 61, and 69 got Remedial Investigation/Feasibility Study/Decision Documents, Fort Monmouth, Oceanport, Monmouth County, New Jersey* (the ECP Work Plan). Prepared for the U.S. Army Engineering and Support Center, Huntsville, Alabama. November.
2. Weston. 1995. *Final Site Investigation Report, Fort Monmouth, New Jersey, Main Post and Charles Wood Areas.* Prepared by the U.S. Army Corps of Engineers, Baltimore, MD. December.
3. Department of the Army. 2016. *December 2016 Letter Work Plan Addendum for Parcel 49, Former Squier Laboratory and other facilities, Fort Monmouth, New Jersey.* Prepared by the Office of Assistant Chief of Staff for Installation Management, U.S. Army Fort Monmouth. December 28.
4. Department of the Army. 2017. *Letter Work Plan for FTMM-08 Boring 10 Area, Fort Monmouth, New Jersey.* Prepared by the Office of Assistant Chief of Staff for Installation Management, U.S. Army Fort Monmouth. August 2.
5. Parsons. 2018. E-mails from Kent Friesen, re: *Additional proposed sampling at FTMM-08 Boring 10 area.* May 8 and 9.
6. NJDEP. 2018. E-mail from Ashish Joshi, re: *Additional proposed sampling at FTMM-08 Boring 10 area.* May 21.

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:

- "Fort Monmouth, Monmouth County, New Jersey, Site Investigation Report for Former Transformer Near Building 292" (07 September 2018)

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) 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: William R Colvin Date: 07 September 2018

Name/Title: William R. Colvin, PMP, CHMM, PG
BRAC Environmental Coordinator

Completed form should be sent to:

Mr. Ashish Joshi
New Jersey Department of Environmental Protection
Division of Remediation Management & Response
Bureau of Northern Field Operations
7 Ridgedale Avenue (2nd Floor)
Cedar Knolls, New Jersey 07927-1112

Figures 1

FTMM-08 Boring 10 Area Sample Locations

GRASS

FTMM-18 - PARCEL 48

RIP-RAP

FTMM-08-B10-SB-10

FTMM-08-B10-SB-14

296MW07

(FORMER)
BUILDING
153

SWALE

EPH

Metals, SVOCs

M08B10-SB/GW-01

FTMM-08-B10-SB-08

CONCRETE
HEADWALL

CONCRETE
HEADWALL

Metals, SVOCs, VOC

M08B10-SB/GW-04

EPH, PCBs

Gate

FTMM-08-B10-SB-13

RIP-RAP

RIP-RAP

FTMM-08-B10-MW-01

FTMM-08-B10-SB-05

Metals, VOC

M08B10-SB/GW-02

PARCELS 48 AND 50
COMBINED

EPH

FTMM-08-B10-SB-06

PAR-49-SS-SB-08

FTMM-08-B10-SB-09

FTMM-08-B10-SB-07

FTMM-08 - PARCEL 44

Former
Transformer
Location

BUILDING
292

P:\PIT\Projects\Huntsville Cont W912DY-09-D-0062\FTMM\CAD Files\GIS\2018 Reports\FTMM-08\BORING AREA 10\FIGURE 1.mxd

LEGEND:

- Soil Sample Location
- Soil Exceedance
- Groundwater Exceedance
- Shallow Monitoring Well
- FTMM-08 Landfill Revised Boundary
- Municipal Boundary
- Installation Boundary
- Approximate Parcel Boundary
- Existing Fence
- Demolished Fence

NOTE:

Parcel Boundaries taken from Langan Map entitled "Fort Monmouth Phase Two Parcel Environmental Carve-Out Parcels", dated 01/22/2015.

N

1 inch = 20 feet

0 10 20 40 Feet

Source: FTMM Supplied CAD, 2013.

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

FTMM-08 BORING 10
AREA SAMPLING LOCATIONS

CREATED BY: RR	REVIEWED BY: KF
DATE: AUG. 2018	FIGURE NUMBER: FIGURE 1
PROJECT NUMBER: 748810-02050	FILE: FIGURE 1.mxd

Table 1

2016 and 2018 Soil Sampling Results – Comparison to NJDEP Soil Remediation Standards

TABLE 1
2016 and 2018 Soil sampling Results
Comparision to NJDEP Soil Remediation Standards

Loc ID	NJ Residential Direct Contact SRS	NJ Non-Residential Direct Contact SRS	NJ Impact to GW Soil Screening Level	PAR-49-SB-08		FTMM08-B10-SB-09		
Sample ID				PAR-49-SS-SB-08-0.5-1		FTMM-08-B10-SB-09-3.0-3.5	FTMM-08-B10-SB-09-6.0-6.5	FTMM-08-B10-SB-09-9.0-9.5
Sample Date				3/30/2016		5/16/2018	5/16/2018	5/16/2018
Extractable/Volatile Petroleum Hydrocarbons (mg/kg)								
C10-C12 Aromatics	NLE	NLE	NLE	NA		< 1	< 1.1	< 1.2
C12-C16 Aliphatics	NLE	NLE	NLE	NA		< 1 UJ	< 1.1 UJ	< 1.2 UJ
C12-C16 Aromatics	NLE	NLE	NLE	NA		< 1	**0.2 J**	< 1.2
C16-C21 Aliphatics	NLE	NLE	NLE	NA		< 1 UJ	< 1.1 UJ	< 1.2 UJ
C16-C21 Aromatics	NLE	NLE	NLE	NA		< 1	**1.1 J**	< 1.2
C21-C36 Aromatics	NLE	NLE	NLE	NA		< 1	**2.6**	< 1.2
C21-C40 Aliphatics	NLE	NLE	NLE	NA		**0.55 J**	< 1.1 UJ	< 1.2 UJ
C9-C12 Aliphatics	NLE	NLE	NLE	NA		< 1 UJ	< 1.1 UJ	< 1.2 UJ
Total Aliphatics	NLE	NLE	NLE	NA		< 4.2 UJ	< 4.4 UJ	< 4.8 UJ
Total Aromatics	NLE	NLE	NLE	NA		< 4.2	**4.1 J**	< 4.8
Total EPH	5,100	NLE	NLE	NA		< 8.4	**4.3 J**	< 9.6
PCBs (mg/kg)								
Aroclor-1016	NLE	NLE	NLE	< 0.035		< 0.026	< 0.027	< 0.03
Aroclor-1221	NLE	NLE	NLE	< 0.072		< 0.026	< 0.027	< 0.03
Aroclor-1232	NLE	NLE	NLE	< 0.035		< 0.026	< 0.027	< 0.03
Aroclor-1242	NLE	NLE	NLE	< 0.035		< 0.026	< 0.027	< 0.03
Aroclor-1248	NLE	NLE	NLE	< 0.035		< 0.026	< 0.027	< 0.03
Aroclor-1254	NLE	NLE	NLE	< 0.035		< 0.026	< 0.027	< 0.03
Aroclor-1260	NLE	NLE	NLE	**0.03 J**		< 0.026	< 0.027	< 0.03
Aroclor-1268	NLE	NLE	NLE	< 0.035		< 0.026	< 0.027	< 0.03
Total PCBs	0.2	NLE	NLE	NA		< 0.24	< 0.25	< 0.27

Attachment A

Field Notes

Project / Client FTMM Phase II / USACE

Tech: CW/JM, ECOI (JOE BARNAK, C. Tighe)
TASK: PAR 49 soil Borings
Weather: 50-60°F clear
0730: on-site
0746: H+S tailgate
0800: Mob to 49
0900: Begin drilling @ 49

SAMPLE ID	TIME	ANALYSIS
PAR-49-SS-SB-09-0.5-1.0	0930	PAH (Extract + Hold -
PAR-49-SS-SB-09-3.0-3.5	0935	
PAR-49-SS-SB-09-8.0-8.5	0940	
PAR-49-SS-SB-06-0.5-1.0	1000	
PAR-49-SS-SB-06-3.3-3.8	1005	
PAR-49-SS-SB-06-9.5-10	1010	
PAR-49-SS-SB-08-0.5-1.0	1625	~~1st hold~~ PCBs + split
PAR-49-SS-SB-08-1.0-1.5	1030	Hold PCBs
PAR-49-SS-SB-08-2.0-2.5	1035	Hold PCBs
PAR-49-SS-SB-02-1.0-1.5	1100	PAH
PAR-49-SS-SB-02-3.3-3.8	1105	PAH + MS/MSD
PAR-49-SS-SB-02-16-16.5	1125	PAH
PAR-49-SS-SB-03-0.5-1.0	1210	PAH / PCB
PAR-49-SS-SB-03-1.5-2.0	1215	PCB Hold
PAR-49-SS-SB-03-2.5-3.0	1220	PAH + split / PCB Hold
PAR-49-SS-SB-03-12.5-13.0	1225	PAH

Location FTMM-08-BORING 10 AREA Date 5-16-18

Project / Client

CLOUDY, OCC. RAIN, 60's

SOIL BORINGS FOR MW INSTALLATION

ECDI (TOM BANAK, JOSH SCHILL) ON-SITE 0700

CONDUCT H&S MEETING, REVIEW WORK OBJECTIVES AND POTENTIAL SAFETY ISSUES.

SET UP ON SB-05 FTMM-08-B10- COLLECT SOIL SAMPLES

0915 SB-05-2.5-3.0

0900 SB-05-5.5-6

0930 SB-05-9-9.5

0950 INSTALL FTMM-08-B10-MW-01 TO 13 FT. SCREEN FROM 3' TO 13', .010 SLOT, MORIE GRAVEL TO 1' ABOVE SCREEN, 1' BENTONITE

1150 WELL FINISHED - SET CONCRETE PAD + BOX

1310 SB-09 TO 10 FT.

1313 BEGIN SB-10 TO 10 FT.

1420 BEGIN SB-07 TO 10 FT

1515 SB-07 COMPLETE, CLEAN UP SITE, BREAK DOWN EQUIP. TAKE SAMPLES TO OFFICE FOR CHECK AND PUT IN REFRIGERATOR, ECDI ~~OFFSITE~~ MOVED DRUM TO B.699, OFFSITE @ 1345

COMPLETE FIELD FORMS & PAPERWORK

FIA

Location Date

Project / Client

Location FTMM-08-BORING 10 AREA Date 5-16-18

Project / Client

CLOUDY, OCC. RAIN, 60's

SOIL BORINGS + MW INSTALLATION

ECDI (TOM GALNAK, JOSH SCHILLO) ON-SITE 0700

CONDUCT HASS MEETING, REVIEW WORK OBJECTIVES AND POTENTIAL SAFETY ISSUES.

SET UP ON FTMM-08-B10-SB-05 COLLECT SOIL SAMPLES

0915 SB-05-2.5-3.0

0900 SB-05-5.5-6

0930 SB-05-9-9.5

0950 INSTALL FTMM-08-B10-MW-01 TO 13 FT. SCREEN FROM 3' TO 13', .010 SLOT, MORIE GRAVEL TO 1' ABOVE SCREEN, 1' BENTONITE

1150 WELL FINISHED - SET CONCRETE PAD + BOX

1310 SB-09 TO 10 FT.

1313 BEGIN SB-10 TO 10 FT.

1420 BEGIN SB-07 TO 10 FT

1515 SB-07 COMPLETE, CLEAN UP SITE, BREAK DOWN EQUIP. TAKE SAMPLES TO OFFICE FOR CHECK AND PUT IN REFRIGERATOR, ECDI ~~OFFSITE~~ MOVED DRUM TO B.699, OFFSITE @ 1345

COMPLETE FIELD FORMS & PAPERWORK

FA

Location Oceanport, NJ Date 5-17-08

Project / Client FTMM / USACE

Weather - Low 60's, Heavy Rain

Activity - Drilling, Soil Sampling

Equipment - 1x IP, 1x PID, 1x Geoprobe, PPE, Hand tools

Personnel - KM - FA; Parsons

Josh - Jac: ECDI

Please Note: (P) = Primary, (C) = Contingency, (P)/(C) = Primary + Contingency

Activity

0700 - All onsite, HSE meeting.

Calibrate Equipment

0730 - MOB to FTMM-08-B10

0750 - Resume Drilling FTMM-08-B10

0812 - Collect FTMM-08-B10-SB-08-2.5-3.0 (MS/MSD) (P)

0814 - -08-6.0-6.5 (C)/(P)

0816 - -08-9.0-9.5 (P)

0908 - -06-2.5-3.0 (MS/MSD) (P)

0910 - -06-6.0-6.5 (P)/(C)

0912 - -06-9.0-9.5 (P)

0936 - -11-2.5-3.0 (C)

0938 - -11-6.0-6.5 (C)

0940 - -11-9.0-9.5 (C)

1026 - -14-2.5-3.0 (C)

1628 - -14-6.0-6.5 (C)

1030 - -14-9.0-9.5 (C)

1040 - -13-2.5-3.0 (C)

Location Oceanport, NJ Date 5-17-18

Project / Client FTMM / USACE

1048 (2) - Collect FTMM-08-BIO-SB-13-6.0-6.5 (C)

1044 - -13-9.0-9.5 (C)

1120 - -12-2.5-3.0 (C)

1122 - -12-6.0-6.5 (C)

1124 - -12-9.0-9.5 (C)

1200 - ECOI take lunch

0950 - Collected FTMM-08-BIO-EB-05172018

130c - Mob to PAR-72 ~~FTMM-22~~ to Install PAR-72-211-MW-05 (See Well Construction logs for details) (16)

1345 - Finished Drilling (H&A), Setup + Install 2"

1450 - Finished Installing PAR-72II-MW-05

1500 - Return to office to finalize paper work.

1530 - All off-site

Location Oceanport, NJ Date

Project / Client FTMM / USACE

Attachment B

Soil Boring Logs

PARSONS Page 1 of 1

Soil Boring Log

CLIENT: USACE
PROJECT NAME: FTMM - ECP
PROJECT LOCATION: FTMM Parcel
PROJECT NUMBER: 748810-

GROUNDWATER OBSERVATIONS
WATER LEVEL: N/A
DATE: /
TIME: /
MEAS. FROM:

INSPECTOR: CW/JM
DRILLER: JOE BARNAK
WEATHER: 60°F
CONTRACTOR: East Coast Drilling, Inc. (ECDI)
RIG TYPE: Geoprobe(R) 7822DT
DATE/TIME START: 3/30/16 10
DATE/TIME FINISH: 3/30/16
WEIGHT OF HAMMER: N/A
DROP OF HAMMER: N/A
TYPE OF HAMMER: N/A

BORING/WELL ID: PAR-49-SB-08
LOCATION DESCRIPTION: Parcel 49
LOCATION PLAN: Oceanport, New Jersey

DEPTH (feet)	SAMPLE I.D.	BLOWS per 6"	ADV/ REC.	PID (ppm)	FIELD IDENTIFICATION OF MATERIAL	STRATA	COMMENTS
0 0			60/33		0-4" Asphalt / Rock		
1025	0.5-1				4"-16" Moist, loose, Brown, mf SAND, trace silt, trace f gravel	II	
1030 0 1	1-1.5						
1035 0 2	2.0-2.5				16"-33" moist, Dense, gray/Brown, mf SAND, some silt		
0 3							
0 4							
0 5					end of boring @ 5'		
6							
7							
8							
9							
0							

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

PARSONS

Soil Boring Log

CLIENT: USACE
PROJECT NAME: FTMM ~~EDP~~ 08 BIO AREA
PROJECT LOCATION: FTMM ~~Parcel~~ 08
PROJECT NUMBER: 748810-

GROUNDWATER OBSERVATIONS
WATER LEVEL:
DATE:
TIME:
MEAS. FROM:

INSPECTOR: F. ACCORSI
DRILLER: J. BARNEK
WEATHER: 60's RAIN
CONTRACTOR: East Coast Drilling, Inc. (ECDI)
RIG TYPE: Geoprobe(R) 7822DT
DATE/TIME START: 5-16-18 1210
DATE/TIME FINISH: 5-16-18 1300
WEIGHT OF HAMMER: N/A
DROP OF HAMMER: N/A
TYPE OF HAMMER: N/A

BORING/WELL ID: FTMM-08-BIO-SB-09
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			60/42	0	TOPSOIL 4"		
				0	SAND + GRAVEL + DEBRIS (COAL + SLAG)		
1				0	moist, cmt SAND, some f. Gravel		
				0			
2				0	MOIST, brn, cmt SAND, tr. silt		
				0			
3	FTMM-08-BIO-SB-09-3-3.5			0			
4							
5			60/48	0	same		
				0			
6	FTMM-08-BIO-SB-09-6-6.5			0	WET, OR, brn, cmt SAND, tr. silt, L. f. Gravel		▼ WET @ 6.5'
				0			
7				0			
				0			
8				0			
				0			
9	FTMM-08-BIO-SB-09-9-9.5			0			
10					END OF BORING @ 10 FT.		

Remarks: BACKFILL BOREHOLE W/CUTTINGS.

Sample Types	Consistency vs. Blowcount / Foot				
S – Split-Spoon	Granular (Sand & Gravel)		Fine Grained (Silt & Clay)		and - 35-50%
U – Undisturbed Tube	V. Loose: 0-4	Dense: 30-50	V. Soft: <2	Stiff: 8-15	some - 20-35%
C – Rock Core	Loose: 4-10	V. Dense: >50	Soft: 2-4	V. Stiff: 15-30	little - 10-20%
A – Auger Cuttings	M. Dense: 10-30		M. Stiff: 4-8	Hard: > 30	trace - <10%
					moisture, density, color, gradation