Fort Monmouth
Oceanport, Monmouth County, New Jersey
800 Area Work Plan Addendum for Former UST Sites
Date: March 2016

1.0 PURPOSE

The purpose of this 800 Area Work Plan Addendum is to outline the site-specific Scope of Work (SOW) for the environmental investigation of former No. 2 fuel oil underground storage tank (UST) sites within the 800 Area (which includes Parcels 55 and 56) at Fort Monmouth. In general, the scope consists of groundwater sampling at nine UST sites to assess the potential for impacts to groundwater. The field activities will involve installation of temporary monitor wells within Geoprobe borings at 9 former UST sites, and collection of "grab" groundwater samples for chemical analysis for petroleum constituents.

2.0 REFERENCE DOCUMENTS

HEALTH AND SAFETY - All Site personnel are required to read, understand, and comply with the safety guidelines in the Accident Prevention Plan (APP) including the Site Health and Safety Plan (SHASP), which is included as Appendix A of the APP.

FIELD PROCEDURES – The detailed field procedures to be used for the activities described in this sampling plan are described in the March 2013 Final Sampling and Analysis Plan (SAP).

3.0 SITE BACKGROUND

The 800 Area is located within the south-central portion of the Main Post at Fort Monmouth (**Figure 1**). Available information for multiple USTs at the 800 Area was previously provided to NJDEP in the Army's submittal dated June 12, 2015 and entitled *No Further Action Request, Site Investigation Report Addendum for the 800 Area Including ECP Parcels 55 and 56, Fort Monmouth, New Jersey*. The NJDEP determined No Further Action (NFA) was required for 16 USTs in their letter dated November 10, 2015; however, they also required assessment of groundwater at an additional nine UST sites that are the subject of this work plan addendum. Groundwater flow directions are interpreted to be towards the north-northwest in this area (**Figure 2**).

4.0 SAMPLING LOCATIONS

Locations for sampling are shown on **Figure 2**. A summary of the field sampling and analytical activities is presented in **Table 1**. Sampling of groundwater is proposed from immediately downgradient of the limits of excavation at former tank locations UST 800-1, 800-9, 800-12, 800-20, 800-21, 813, 814, 884, and 888. A Geoprobe® boring will be completed to approximately 4 feet below the water table at each location shown on **Figure 2**. Groundwater from these locations will be sampled using temporary wells

within the Geoprobe borings, and then the borings will be abandoned. Eight groundwater samples will be analyzed for volatile organic compounds (VOCs) and semivolatile organic compounds (SVOCs) plus tentatively identified compounds (TICs), as specified in Table 2-1 of the NJAC 7:26E Technical Requirements for Site Remediation. The groundwater sample from UST 814 will only be analyzed for VOCs plus TICs.

TABLE 1
SAMPLING SUMMARY FOR 800 AREA WORK PLAN ADDENDUM
FORT MONMOUTH, NEW JERSEY

Parcel	Location	Field Meter Readings [a/]	VOCs + TICs by Method 8260C [b/]	SVOCs + TICs by Method 8270D [c/]	Non-Fractionated EPH [d/]
Groundwater					
54, 55, 56, 57	USTs 800-1, 800-9, 800-12, 800-20, 800-21, 813, 814, 884, and 888 (Figure 2) - 1 groundwater sample each; VOCs only for UST 814	9	9	8	0
QA/QC samples (see SAP for additional details) [e/]					
Field Duplicates (5% Sampling Frequency per media)		NA	1	1	0
Matrix Spike (5% Sampling Frequency per media)		NA	1	1	0
Matrix Spike Duplicate (5% Sampling Frequency per media)		NA	1	1	0
Trip Blank (1 per cooler of VOCs per media)		NA	1	0	0
QA Split (5% per media)		NA	1	1	0
Equipment Blank (5% Sampling Frequency per media)		NA	1	1	0
	TOTAL	**NA**	**15**	**13**	**0**

Notes:

NA = not applicable.

TBD = to be determined.

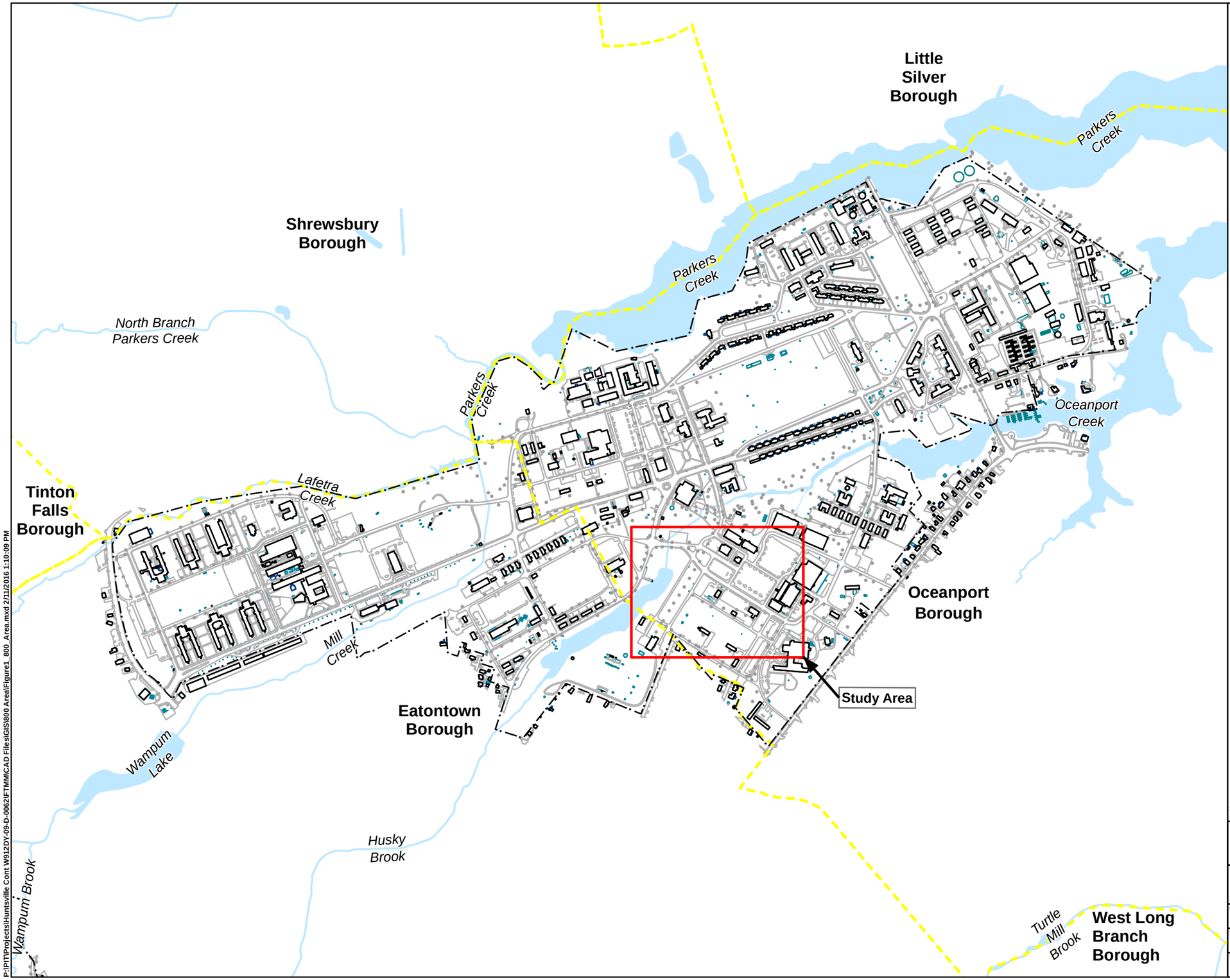
[a/] Field meter readings include, in soil samples: photoionization detector (PID) readings along entire soil column; and in groundwater: PID headspace, pH, temperature, electrical conductivity, dissolved oxygen (DO), oxidation-reduction potential (ORP), and turbidity.

[b/] VOCs = volatile organic compounds; TICs = tentatively identified compounds.

[c/] SVOCs = semivolatile organic compounds; TICs = tentatively identified compounds.

[d/] EPH = extractable petroleum hydrocarbons.

[e/] QA/QC = quality assurance/quality control; SAP = Sampling and Analysis Plan. The requirement for QA/QC samples may be fulfilled with samples from other parcels.



LEGEND:

- Parcel Boundary
- Installation Boundary
- Municipal Boundary
- Surface Water Feature

N

1 inch = 1,000 feet

0 500 1,000 2,000 Feet

Source: FTMM Supplied CAD, 2013; ESRI Data and Maps, 2011; USGS NHD, 2012.

PARSONS
401 Diamond Drive NW,
Huntsville AL

Fort Monmouth
New Jersey

STUDY AREA LOCATION (800 AREA)

CREATED BY:	REVIEWED BY:
RR	KF
DATE:	FIGURE NUMBER:
FEB. 2016	FIGURE 1
PROJECT NUMBER:	FILE:
748810-01000	Figure1_800_Area.mxd

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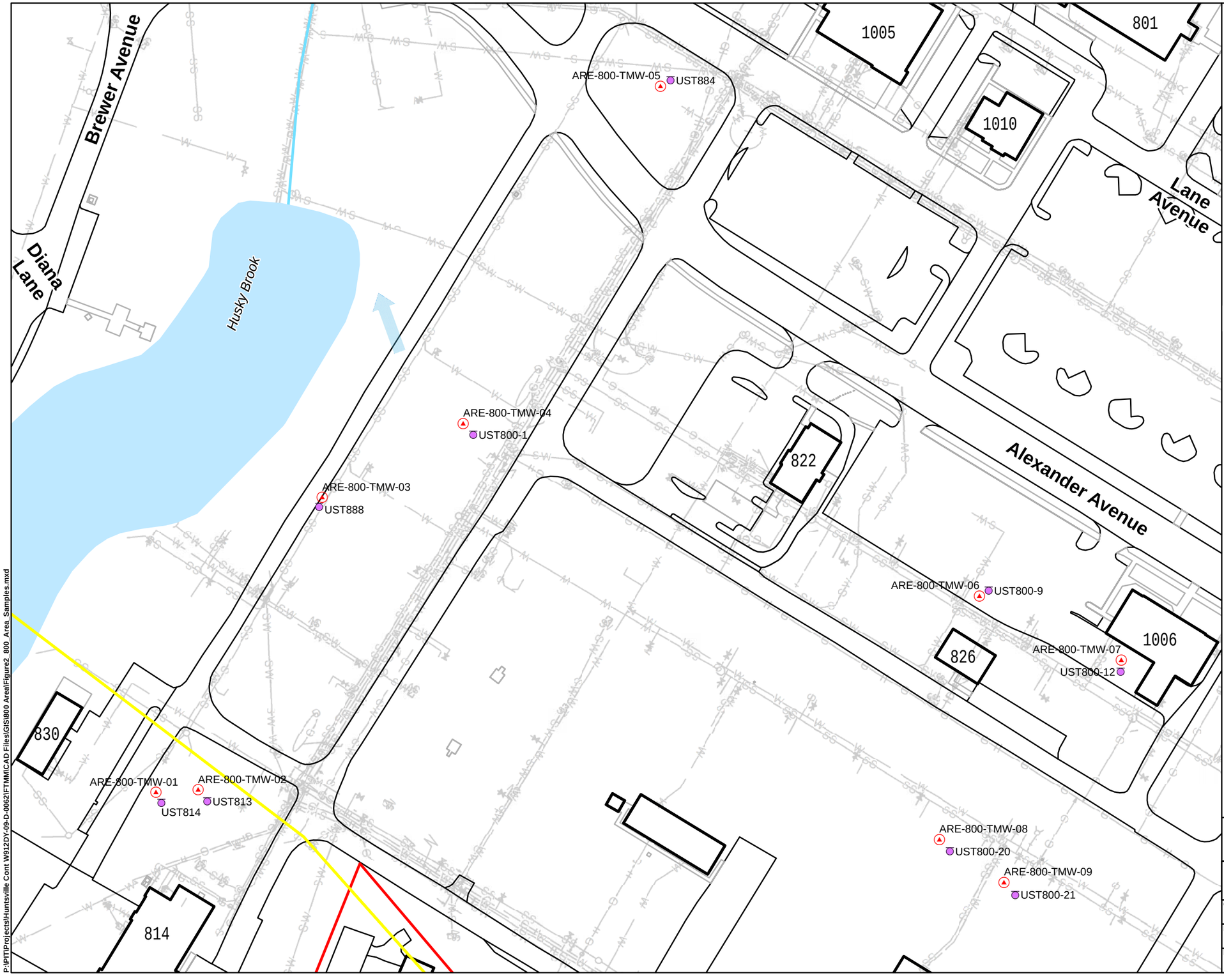

LEGEND:

- Proposed Groundwater Sample
- Former UST Location
- Shallow Monitoring Well
- Municipal Boundary
- Installation Boundary
- W Water Line
- S Sanitary Sewer Line
- SW Storm Sewer Line
- G Gas Line
- Estimated Groundwater Flow Direction

NOTE:

1. Groundwater samples will be collected from temporary wells.

N

1 inch = 100 feet

0 50 100 200 Feet

Source: FTMM Supplied CAD, 2013.

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

STUDY AREA 800 PROPOSED SAMPLE LOCATIONS

CREATED BY: TS	REVIEWED BY: KF
DATE: FEB. 2016	FIGURE NUMBER: FIGURE 2
PROJECT NUMBER: 748810-02060	FILE: Figure2_800_Area_Samples.mxd

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