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DEPARTMENT OF THE ARMY
HEADQUARTERS, U.S. ARMY GARRISON FORT MONMOUTH
FORT MONMOUTH, NEW JERSEY 07703-5101



REPLY TO
ATTENTION OF

Directorate of Public Works

July 20, 2004

State of New Jersey
Department of Environmental Protection
Division of Responsible Party Site Remediation
Bureau of Case Management
401 East State Street, 5th Fl., West Wing
ATTN: Mr. Greg Zalaskus
PO Box 028
Trenton, New Jersey 08625-0028

RE: **SUMMARY REPORT AND UPDATE- MAIN POST**
Work performed throughout Main Post, Fort Monmouth, New Jersey

Dear Mr. Zalaskus:

This letter is to update you on the environmental progress in areas within Fort Monmouth's Main Post. The Directorate of Public Works (DPW) and TECOM-Vinnell Services (TVS) personnel have performed various assessment and remedial actions in areas throughout the Main Post. The following discusses this work:

800 Area – This was initially discussed with you on your visit in November 2003.

Objectives

- Investigate and characterize environmental conditions at the “800 Area” site, which has been designated for future residential housing construction (footprint approximately 13 acres).
- Provide data for Environmental Assessment and for Environmental Baseline Survey documentation for the Army's Residential Communities Initiative (RCI).

Underground Storage Tanks and Closures

- Geophysical study performed (total area approximately 32 acres)-Eight anomalies confirmed as USTs in Area of Concern.
- Tanks uncovered; product/water was removed.
- Tanks #1, #15, #16, #19, #20, #21, and #22 - 1,000-Gallon, Steel, Heating Oil USTs. Supplied fuel for barracks around 1940s-60s. Unregulated, residential. Tank #2 - 500-Gallon, Steel Heating Oil UST.
- Eight tanks removed. Three tank locations indicated releases and over-excavation performed as required. Soil closure samples collected. NJDEP contacted; reported three UST releases.
- All areas of petroleum impacted soils above NJDEP criteria removed.

800 Area Continued

Geoprobe Investigation

- Geoprobe survey at approximately 100' Intervals (75 borings) within RCI footprint area. Soil samples collected and logged from a 4' core.
- 0 to 6" analyzed for BNAs +15; Pesticides/PCBs; TAL Metals.
- 18-24" analyzed for VOAs +15.
- Below 24", PID reads 50ppm or below collected one sample at highest reading, analyzed for TPHC. Pushed additional 4' if PID reading was higher and repeated sampling protocol.

Geoprobe Follow-up

- Six boring locations (19, 32, 39, 44, 45, and 75) have soil above NJDEP Soil Cleanup Criteria (Residential) for semi-volatiles, pesticides/pcbs, and/or arsenic.
- The semi-volatiles may be present from the breakdown of petroleum-based products historically used as a delivery matrix to apply the pesticides to the ground. One boring had a PCB hit and one other boring had a hit of arsenic above criteria. No volatiles were reported above criteria in any soil sample.
- As follow-up, collected four soil samples 0-6" bgs on each side of a 10' x 10' square area around each of the 6 boring locations and one soil sample from directly adjacent to the original borehole at a depth of 12-18" for a vertical extent. Continued step outs until NJDEP criteria concentrations were met. Completed delineation of soil at all locations.
- Excavated delineated areas of concern. Work completed in November 2003.

Final Task

- Prepare and submit required reports to NJDEP.

800 Area – Outside of RCI footprint.

Objectives

- Investigate remaining geophysical anomalies identified in First Atlantic Federal Credit Union Parking lot and drive-thru area (Main Post).

Underground Storage Tanks and Closures

- Geophysical study performed-Four anomalies confirmed as USTs in Area of Concern.
- Tanks uncovered; product/water was removed.
- Tanks #9, #10, #12, and #14 - 1,000-Gallon, Steel, Heating Oil USTs. Supplied fuel for barracks around 1940s-60s. Unregulated, residential.
- Four tanks removed. Two tank locations indicate releases and over-excavation performed as required. Soil closure samples collected. NJDEP contacted; reported two UST releases.
- All areas of petroleum impacted soils above NJDEP criteria removed. Work completed in May 2004.

Final Task

- Prepare and submit required reports to NJDEP.

700 Area – Similar scope as the 800 Area.

Objectives

- Investigate and characterize environmental conditions at the “700 Area” site, which has been designated for future administrative building construction (footprint approximately 12 acres).
- Provide data for Environmental Assessment and for Environmental Baseline Survey documentation for the Army’s Enhanced Use Leasing (EUL).

Underground Storage Tanks and Closures

- Geophysical study performed-Four anomalies confirmed as USTs in Area of Concern.
- Tanks uncovered; product/water was removed.
- Tanks #2, #3, #19, and #22 - 1,000-Gallon, Steel, Heating Oil USTs. Supplied fuel for barracks around 1940s-60s. Unregulated, residential.
- Four tanks removed. Two tank locations indicate releases and over-excavation performed as required. Soil closure samples collected. NJDEP contacted; reported two UST releases.
- All areas of petroleum impacted soils above NJDEP criteria removed.

Geoprobe Investigation

- Geoprobe survey at approximately 100’ Intervals (49 borings). Soil samples collected and logged from an 8’ core.
- 0 to 6” analyzed for BNAs +15; Pesticides/PCBs; TAL Metals, TPHC.
- 18-24” analyzed for VOAs +15.
- Below 24”, collected one sample at highest reading, just above water table, or boring terminus, analyzed for TPHC.

Geoprobe Follow-up

- Two boring locations (30 and 49) have soil above NJDEP Soil Cleanup Criteria (Non-Residential) for semi-volatiles.
- The semi-volatiles may be present from the breakdown of petroleum-based products historically used as a delivery matrix to apply the pesticides to the ground. Two borings had pesticides above criteria, but it was determined this was associated with historical, normal application of pesticides, and was therefore left in-place. No other contaminants were reported above criteria in any soil sample.
- As follow-up, collected four soil samples 0-6" bgs on each side of a 10' x 10' square area around each of the 2 boring locations and one soil sample from directly adjacent to the original borehole at a depth of 12-18" for a vertical extent. Continued step outs until NJDEP criteria concentrations were met..Completed delineation of soil at all locations.
- Excavated delineated areas of concern. Work completed in May 2004.

Final Task

- Prepare and submit required reports to NJDEP.

Bldg. 287 - Closed heating oil UST

Objectives

- Investigate and characterize environmental conditions at the Bldg. 287 site, which had a UST removed in 1993. A closure report was never submitted.
- Confirm/update soil closure samples and ground water samples from monitoring well MW1 for preparation of UST Closure Report.

Underground Storage Tank Closure

- Tanks #1- 1,000-Gallon, Steel, Heating Oil UST. Supplied fuel for building until changeover to natural gas 1993. Unregulated, residential.
- Tank removed results indicated release and over-excavation performed as required. Soil closure samples collected. NJDEP contacted; reported UST release.
- All areas of petroleum impacted soils above NJDEP criteria thought to be removed.

Geoprobe Investigation

- Geoprobe survey around former UST area. Soil and ground water samples collected.
- Analyzed for TPHC; VOAs +15; and BNAs +15 as required.

Geoprobe Results

- A total of 19 borings were installed to assess soil and ground water conditions compared with NJDEP Soil Cleanup Criteria (Non-Residential) for TPHC, VOAs, and semi-volatiles.
- The semi-volatiles may be present from the breakdown of petroleum-based products historically used as a delivery matrix to apply the pesticides to the ground. Ground water has moderate concentrations. No VOAs were reported above criteria in any soil sample. One water sample (B8) contained benzene concentrations just over the criteria.
- Continued step outs until delineation of soil and ground water in each direction.

Final Task

- Excavate delineated areas of concern (approximately 10'X15'). Work expected to be completed in late July 2004.
- Prepare and submit required report to NJDEP.

Bldg. 1122 – DERP site, additional assessment

Objectives

- After discovery of petroleum product in temporary points installed by a down-gradient sewer main, investigate and characterize environmental conditions at the Bldg. 1122 site.

Underground Storage Tank Closure

- UST removed in 1993. A closure report was submitted and the case was closed. Tank #1- 1,500-Gallon, Steel, Heating Oil UST. Supplied fuel for building until changeover to natural gas 1993.
- Tank removed results indicated release and over-excavation performed as required. Soil closure samples collected. NJDEP contacted; reported UST release.
- All areas of petroleum impacted soils above NJDEP criteria removed. Case closed.

Bldg. 1122 Continued

Geoprobe Investigation

- Geoprobe survey around former UST area. Delineated area of soil contamination and product. Soil and ground water samples collected.
- Analyzed for TPHC; and VOAs +15 as required.
- Twenty four boring locations (GW1 through GW24) installed; no soil above NJDEP Soil Cleanup Criteria for TPHC or volatiles. Concentrations of TPHC and VOAs above NJDEP ground water criteria.

Free Product

- Installed three 2" diameter PVC sumps to periodically remove product along Eatontown Sewer main to provide initial abatement.

Final Task

- Excavate two interceptor trenches up-gradient and down-gradient of Eatontown sewer (approximately 5'X15'). Install rock and vertical 6" diameter sumps to collect any product. Work expected to be completed in August 2004.
- Prepare and submit Remedial Investigation Report to NJDEP.

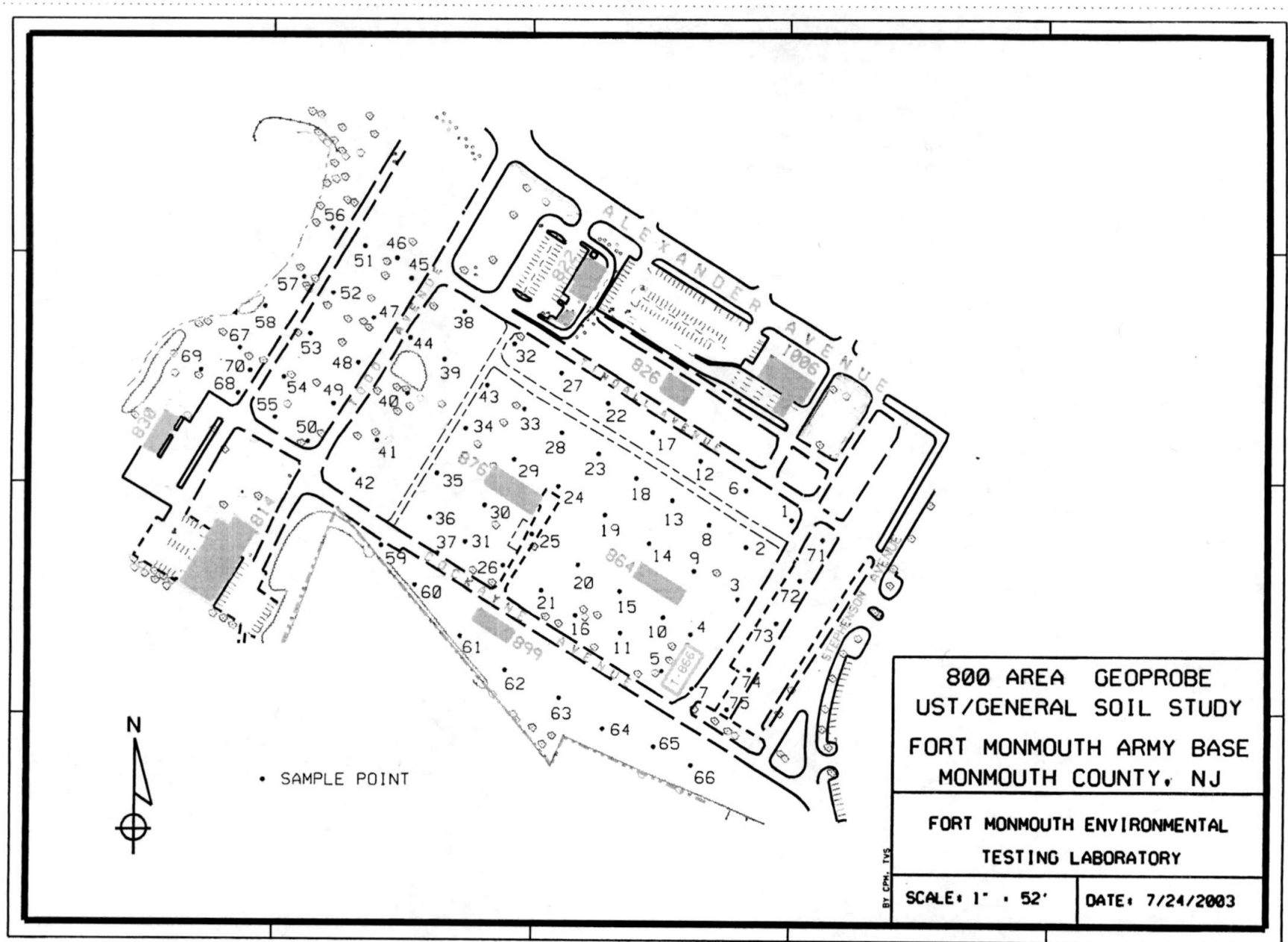
If you should have any questions or comments related to this summary report, please contact me at your convenience, (732) 532-0986.

Sincerely,



Douglas C. Guenther
Environmental Protection Specialist
Directorate of Public Works

Attachments: Figures
cc: File





- SAMPLE POINT
- 1ST STEP OUT SAMPLE POINT
- UST TANK LOCATION

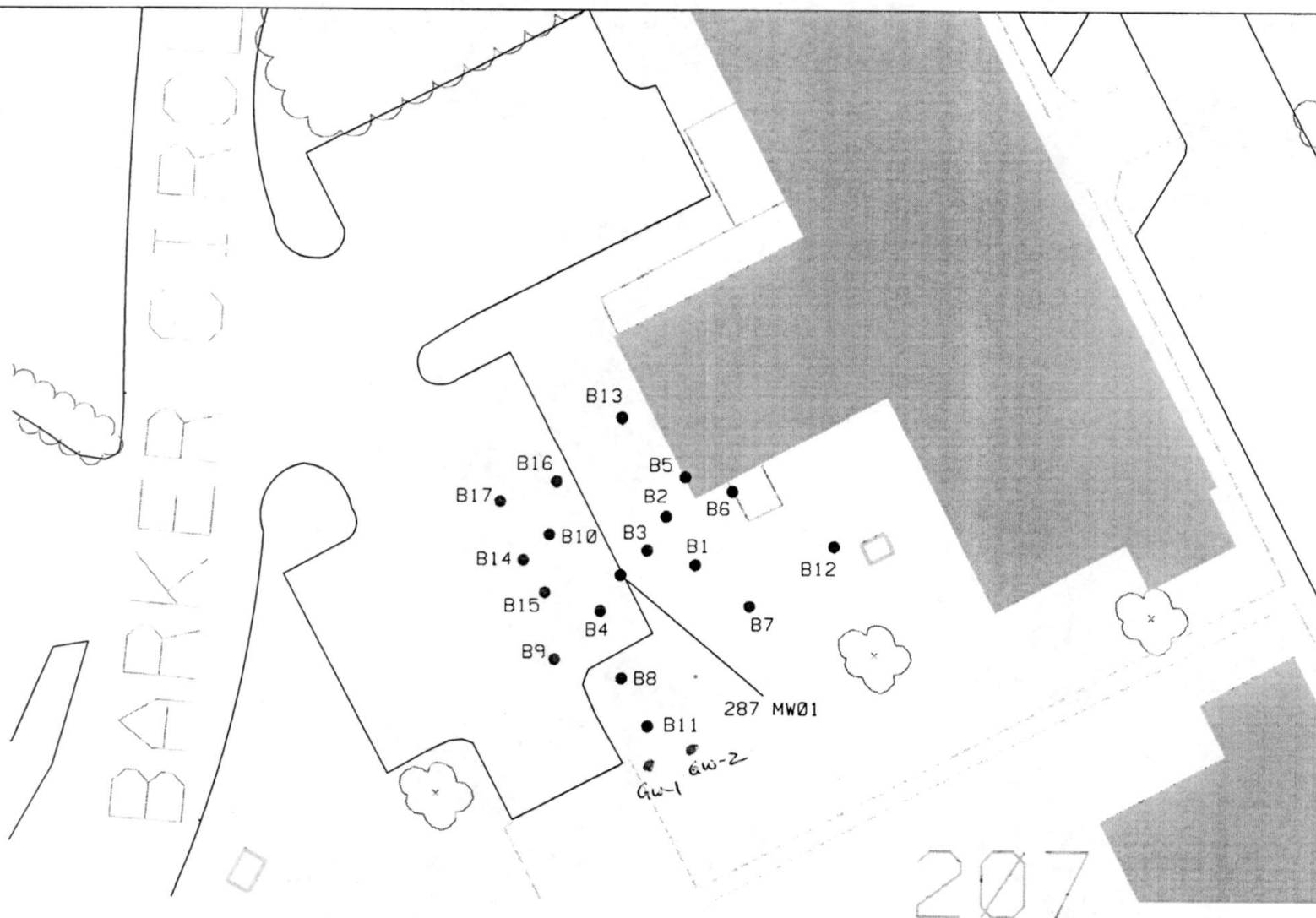
700 AREA SAMPLE LOCATION MAP
FORT MONMOUTH ARMY BASE
MONMOUTH COUNTY, NJ

FORT MONMOUTH ENVIRONMENTAL
TESTING LABORATORY

SCALE: 1" = 71'

DATE: 03/22/04

CPM, TVS



MILL CREEK

