

## **FIELD REPORT, FORT TOTTEN REMEDIAL EXCAVATION ON 22 MARCH 2007**

### **Introduction**

A remedial excavation at Fort Totten, Bayside, Queens was completed on 22 March 2007. Present during the excavation were: James Gatherer (EA), Vernon Griffin (US ACE), and Sal Messina and Terry (Terry Contracting). The purpose of the remedial excavation was to excavate and remove impacted soils from a "hot spot" of mercury contamination identified from the results of soil samples collected during the 30-31 October 2006 investigation. The following activities were completed at the site:

- Excavation of Hot Spot
- Post-Excavation Confirmatory Sampling.

### **Field Activities**

#### Remedial Excavation

Previous investigations identified a hot spot of mercury contamination centered around soil sample locations SB-08 and SB-09. Based on the distribution of mercury concentrations and the current location of the drain-line, it is hypothesized that the drain-line extended out from the building footing and terminated at a point proximate to SB-09.

Approximately ten cubic yards of soil was excavated from the hot spot area. The excavation extended laterally west to the three dry wells, east to the buried power line, north to SB-07 and south to SB-02. The attached sketch provides the anticipated lateral limits of the proposed excavation. Vertically, the excavation extended down to approximately 7-ft bgs. The three cesspools and buried power line were not disturbed during the excavation. Excavated soils were stored on-site in a lined 20 yard roll-off container pending waste characterization and the determination of the soil disposal location.

#### Post-Excavation Confirmatory Sampling and Waste Characterization Sampling

Confirmatory soil samples were collected from the side walls and bottom of the excavation to assess the presence or absence of residual soil contamination in soils above the water table. One composite soil sample was collected from each sidewall of the excavation where soil is exposed. That is, samples were collected from the north, east and south walls of the excavation. No sample was collected from the west wall since this was the exposed surface of the three brick cesspools. Also, one composite soil sample was collected from the bottom of the excavation. Four grab samples were collected from each sidewall/bottom to form each composite sample. Confirmatory soil samples were analyzed for mercury by EPA Method 7471.

Excavated soils were sampled for waste characterization purposes. Soils were analyzed for mercury, Full TCLP plus RCRA characteristics. The soil disposal location will be determined based on the results of the waste characterization analysis.

Soil sampling procedures were completed in accordance with the Field Sampling Plan and Addendum.

### **Findings**

The table below provides preliminary results from post-excavation confirmatory soil sampling:

Preliminary Mercury Results from Post-Excavation Confirmatory Soil Sampling		
Sample ID	Sampling Location	Preliminary Result (mg/Kg)
SB07FUDS15	Bottom Excavation	9.8
SB07FUDS16	South Wall Excavation	6.6
SB07FUDS17	East Wall Excavation	12.2
SB07FUDS18	North Wall Excavation	2.0

As shown in the table above, elevated mercury concentrations in soil remain to the north, east, and south of the excavation in addition to the bottom of the excavation.

Waste characterization sampling results are pending.