

US EPA ARCHIVE DOCUMENT



Impact Area Groundwater Study Program

Final

BA-4 Disposal Area Rapid Response Action Completion of Work Report

**Camp Edwards
Massachusetts Military Reservation
Cape Cod, Massachusetts**

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Prepared for:

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For

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Impact Area Groundwater Study Program
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ABBREVIATIONS AND ACRONYMS

ASP	Ammunition Supply Point
bgs	below ground surface
CRREL	Cold Regions Research and Engineering Lab
GPS	Global Positioning System
MassDEP	Massachusetts Department of Environmental Protection
MCP	Massachusetts Contingency Plan
mg/Kg	milligrams per kilogram
MMR	Massachusetts Military Reservation
MSP	Munitions Survey Project
PRG	Preliminary Remediation Goal
RRA	Rapid Response Action
SSL	Soil Screening Level
SVOCs	semi-volatile organic compounds
USEPA	U.S. Environmental Protection Agency
UXO	Unexploded Ordnance
VOCs	volatile organic compounds

1.0 INTRODUCTION

The BA-4 Disposal Area is located in the western central portion of Camp Edwards Massachusetts Military Reservation (MMR), near the intersection of Pew Road and Pocassett-Forestdale Road (Figure 1). The investigation of the BA-4 Disposal Area was initiated under Phase 2 of the Munitions Survey Project (MSP) to investigate areas that were historically used for training or were potentially used as disposal areas. To date, the MSP consists of three phases. During Phase I, the sites initially selected by the U.S. Environmental Protection Agency (USEPA) and the Massachusetts Department of Environmental Protection (MassDEP) based on historical records were investigated. Sites subsequently selected for investigation by the USEPA and MassDEP, such as the BA-4 Disposal Area, were identified as Phase 2 sites. The BA-4 Disposal Area was selected because of anecdotal evidence that excess rounds may have been buried in this area so the quantity of rounds on hand would match the inventory (USACE, 1998). During Phase 2, ground-based geophysical investigations were conducted using a cart-mounted Geonics EM61 Mk2 electromagnetic induction sensor (EM61). Between August and October 2001, five areas (Areas A through E) in the BA-4 Disposal Area were investigated. Based on the MSP Phase 2 results, additional investigation was recommended at Areas A and E (Tetra Tech EM, Inc., 2003). Area A is approximately 2,000 square meters and Area E is approximately 760 square meters. An approximate 180 square meters is shared by Areas A and E. During Phase 2, 46 anomalies were intrusively investigated in these two areas. Two disposal sites were found: one in Area A where 312 expended jet starter cartridges and igniter tubes were found; and a second in Area E where a 55-gallon drum, which contained ash, burnt small arms and pyrotechnics, was found.

In September 2001, the cartridges and igniter tubes in Area A were removed with surrounding soil. Two soil grab samples were collected from the excavation and analyzed for explosives, semivolatile organic compounds (SVOCs), nitrogen compounds and metals (Tetra Tech EM, Inc., 2003). Immediately following sampling, the bottom and sides of the excavation were lined with orange plastic snow fencing, Global Positioning System (GPS) coordinates of the excavation boundary were recorded, and the excavation was backfilled with the excavated material. Results later revealed that the concentration of lead in the backfill material exceeded the MassDEP's Method 1 S-1/GW-1 cleanup standard of 300 milligrams per kilogram (mg/Kg) for residential soil.

The drum in Area E was recovered and transported to the staging area at Chadwick Road in September 2001. Three soil grab samples were collected: one sample was collected from the soil surrounding the recovered items, one sample was collected from the ash material inside the drum, and one sample was collected from the base of excavation (Tetra Tech EM, Inc., 2003). The samples were analyzed for explosives, volatile organic compounds (VOCs), SVOCs, dioxins and furans, and metals. After sampling, the coordinates of the excavation boundaries were recorded using GPS. Analytical results indicated that dioxin exceeded the Method 1 S-1/GW-1 cleanup standard in the ash sample and the soil sample collected from the base of excavation. Various metals also exceeded the Method 1 S-1/GW-1 cleanup standards in the ash sample. The ash containing drum was transported off-site under RCRA waste code MA01 on manifest number MA F 061116.

Based on the Phase 2 findings, additional work was recommended at the BA-4 Disposal Area. This additional work was designated MSP Phase 3. The work included geophysical surveys in three areas: (1) approximately 30 meters to the north of Area E; (2) east of Area A; and (3) west of Area B and south of Area C. Anomalies identified during the initial Phase 3 work (Tetra Tech, 2003) were selected for intrusive investigation. This intrusive investigation, which is described below in Section 2.1, completes MSP Phase 3. In conjunction with the work to complete this phase, a Rapid Response Action (RRA) was conducted to remove the remaining lead impacted soil from the Area A (refer to Section 2.2.1.1) and the dioxin-impacted soil from Area E (refer to Section 2.2.1.2).

This Completion of Work Report describes the work performed to complete both the MSP Phase 3 and the RRA.

2.0 FIELD ACTIVITIES

Work was performed per the Site-Specific Work Plan (TtEC, 2006a) and the Supplement (TtEC, 2007). The BA-4 Disposal Area work described in the Site-Specific Work Plan was scoped using the Draft ASP Rapid Response Action Work Plan (USACE, 2006a) and the Response to Comments Letter (USACE, 2006b). The Supplement was scoped using the Project Note (IAGWSP, 2007). Any deviations from the final work plan (TtEC, 2006a) and supplement (TtEC, 2007) are described in Section 4.0.

2.1 Anomaly Investigation

2.1.1 Intrusive Operations at BA-4 Disposal Area

Thirty-eight (38) anomalies, which were identified during the MSP Phase 3 geophysical surveys (Tetra Tech, 2003), were selected for intrusive investigation (Table 1). Intrusive investigation operations in the BA-4 Disposal Area were performed in accordance with the work plan and Standard Operating Procedures. No UXO were encountered during the intrusive operations. The majority of the items were identified as range-related debris, transferred to the staging area, and drummed for inspection and disposal. Two items (E025 and E032) were identified as empty cartridges and classified as munitions debris. One item (E075) was a small arms cartridge and also classified as debris. These three items were also transferred to the staging area and drummed for inspection and disposal. Two items (S013 and S014) were determined to be construction debris which is not subject to management under the Military Munitions Management Plan (MMMP) (USACE, 2004a) and were left in place.

2.1.1.1 Planning

Prior to initiating intrusive operations, TtEC reviewed, revised, and developed appropriate internal work plans for implementing field activities. These plans were approved and accepted by the USACE prior to the initiation of fieldwork.

2.1.1.2 Anomaly Reacquisition

Thirty-eight anomalies were investigated by TtEC UXO teams in accordance with the work plans. The reported anomaly positions were reacquired using a survey-grade GPS system (Leica 1200) utilizing the base station locations that were used in the original geophysical survey (Tetra Tech, 2003). Thirty-two anomalies were reacquired on August 30, 2006. The remaining six were reacquired on September 6, 2006 (Table 1).

2.1.1.3 Summary of Findings

During the intrusive operations at the BA-4 Disposal Area, 38 anomalies were investigated (Table 1). No UXO were encountered during intrusive operations. Approximately 100 pounds of metallic debris were transferred to the staging area. Only three items (E025, E032 and E075) were identified as munitions debris. These were also transferred to the staging area.

With the exception of S013, S014 and E075, intrusive operations were completed the day of reacquisition (i.e., either August 30 or September 6, 2006). The anomaly at E075 was identified as small arms cartridges. Intrusive operations were completed on September 5, 2006. Items S013 and S014 were beyond hand excavation depth and intrusive investigation was

discontinued pending direction from the USACE. TtEC was instructed to clear a path to these anomalies, which would allow heavy equipment to access the area to complete intrusive operations. In September 2006, a path was cut through the vegetation, and anomalies S013 and S014 were mechanically excavated using a backhoe on October 19, 2006. These items were identified as construction debris and were left in place as construction debris is not subject to management under the Military Munitions Management Plan (USACE, 2004a).

2.2 Rapid Response Action

2.2.1 Excavation

Areas A and E had been previously excavated; therefore, UXO clearance prior to excavation was deemed to be unnecessary.

2.2.1.1 Area A

On August 29, 2006, lead-impacted soil in Area A of the BA-4 Disposal Area was excavated. Several photographs of the excavation work are included in Attachment A. A silt fence was placed around the area prior to initiating excavation activities for erosion control purposes.

The initial excavation consisted of removing soil from an approximate 16- by 18-foot area. During the initial excavation, expended jet engine starter cartridges and igniter tubes were observed in the eastern sidewall outside of the proposed excavation boundary. TtEC received direction from USACE to continue the excavation and recover these cartridges. This additional excavation area was approximately 8 by 8 feet. The final extent of excavation is shown in Figure 2. The excavation depth was approximately 10 feet. A physical barrier (i.e., construction fence) was placed around the excavation area until it was backfilled.

Approximately 85 tons of excavated soil were removed and temporarily stockpiled near the excavation (Figure 2). The stockpile, recovered expended cartridges and igniter tubes, and the open excavation were covered in polyethylene sheeting. The cartridges and igniter tubes were assigned Incident Number TT082906-01, secured in a drum, and transported to the staging area. The incident report is included in Attachment B.

On August 30, 2006, five confirmatory samples and one duplicate sample were collected. These samples and the results are discussed in detail in Section 2.2.2.1. The excavation was left open and secured pending receipt and review of confirmatory sampling results.

Confirmatory sampling results indicated that the impacted soil had successfully been removed. The USACE directed TtEC to backfill the excavation. This work was conducted on October 19, 2006. The construction fence was removed, and the excavation was lined with polyethylene sheeting. Approximately 67 tons of 3-inch-minus gravel material was used as backfill material. This gravel was obtained from the P.A. Landers Coleman Pit Site which is located in Sandwich, Massachusetts. The clean fill certification is included in Attachment B. The silt fence was left in place and will remain until the disturbed area is revegetated.

2.2.1.2 Area E

On May 3, 2007, dioxin-impacted soil in Area E of the BA-4 Disposal Area was excavated. Photographs of the excavation work are included in Attachment A. The Area E excavation was located using GPS coordinates collected during the MSP Phase 2 work. Once recovered, the boundary was confirmed with the USACE prior to conducting the excavation.

A drive point installed during a previous investigation was located in the center of the excavation area providing a benchmark for the excavation. The initial excavation was towards the east, and consisted of removing soil from an approximately 6- by 3-foot area. This soil was immediately placed into a roll-off container. At approximately 4 feet below ground surface (bgs), two expended jet engine starter cartridges and nine rubber boots were observed on the east wall of the excavation. These items were recovered and drummed at the work site. Excavation continued to a depth of 5 feet in accordance with the supplemental work plan (TtEC, 2007). Excavation was then continued on the western side of the drive point. Similarly to the eastern side, soil was excavated from an approximate 6- by 3-foot area and immediately placed into a roll-off container. Excavation continued to a depth of 5 feet in accordance with the supplemental work plan (TtEC, 2007). The final Area E excavation dimensions were approximately 6- by 6-feet and 5-feet deep. A physical barrier (i.e., construction fence) was placed around the excavation area until it was backfilled. A total of approximately seven cubic yards of soil was excavated and temporarily stored onsite in a roll-off container. The soil was characterized and managed in accordance with applicable regulations and best management practices until appropriate disposal.

On July 13, 2007, the excavation was backfilled with 3-inch minus gravel from PA Landers. This gravel was obtained from the P.A. Landers Coleman Pit Site which is located in Sandwich, Massachusetts. The clean fill certification is included in Attachment B. The same day, the soil stored in the roll-off container was transported off-site for disposal.

2.2.2 Post-Excavation Confirmatory Soil Sampling and Analysis

2.2.2.1 Area A Confirmatory Soil Sampling and Analysis

A total of six 30-point multi-increment composite samples were collected in Area A of the BA-4 Disposal Area excavation prior to backfilling the excavation. These samples included four sidewall samples (north, south, east and west sidewalls), one bottom sample, and a bottom sample duplicate. In addition to the soil samples from the excavation, two blank samples (Ottawa sand and Play sand) were also analyzed. The 30-point multi-increment composite samples were ground in a puck mill grinder following the Cold Regions Research and Engineering Lab (CRREL) method. Samples were then analyzed for perchlorate and metals, including mercury (Table 2).

Perchlorate and mercury were not detected at concentrations exceeding the laboratory Reporting Limits. Chromium results are not included in Table 2 as the results were qualified with an "R" as rejected during data validation due to high levels of chromium contamination introduced from the grinder. The new unpromulgated CRREL grinding method used for metals preparation has been shown to introduce significantly high levels of chromium and iron from the grinding equipment. Therefore, chromium concentrations are not representative of actual site

conditions, but rather were introduced during the sample grinding process. Concentrations of all other detected analytes including lead, which had concentrations ranging from 1.2 to 11 mg/Kg, were below the USEPA Region 9 Preliminary Remediation Goals (PRGs), MMR Soil Screening Levels (SSL), and Method 1 S-1/GW-1 cleanup standards. Soil sampling results confirmed no further soil removal was necessary and the excavation was backfilled.

The analytical suite for Phase I and Phase IIb collected from the BA-4 site included explosives. No explosives were detected in any of the samples so explosives were not considered a compound of potential concern. Thus, the post-excavation confirmatory samples were not analyzed for explosives.

2.2.2.2 Area E Confirmatory Soil Sampling and Analysis

On May 16, 2007, confirmatory soil sampling was conducted. One multi-point composite soil sample was collected from each sidewall and the base of excavation for a total of five samples. Each composite was comprised of 30 separate points collected from a depth of 0 to 3 inches. In addition, two replicate composite samples were collected. Samples were analyzed for polychlorinated dibenzo-dioxins /polychlorinated dibenzo-furans (i.e., dioxin) by SW-846 Method 8290. Dioxin is reported as a 2,3,7,8-tetrachlorodibenzo-p-dioxin equivalent. Results are summarized in Table 3, and the analytical reports and data validation report are included in Attachment C.

With the implementation of the Massachusetts Contingency Plan (MCP) Wave 2 Standards in April 2006, the Method 1 S-1/GW-1 cleanup standard for dioxin was increased from 4E-6 to 2E-5 mg/Kg (4 to 20 picograms per gram). Soil sampling results confirmed no further soil removal was necessary. The excavation was backfilled with clean material on July 13, 2007.

2.3 Processing and Disposal of Waste and Metallic Items

2.3.1 Metallic Items and Processing

As described in Section 2.1.1.3, no UXO were encountered during intrusive operations. Approximately 100 pounds of metallic debris were transferred to the staging area. Only three items (E025, E032 and E075) were identified as munitions debris. These items were also transferred to the staging area. Anomalies S013 and S014 were identified as construction debris and were left in place as construction debris is not subject to management under the Military Munitions Management Plan (USACE, 2004a).

2.3.2 RRA Soil Disposal

2.3.2.1 Area A RRA Soil Disposal

As described in Section 2.2.1.1, lead-impacted soil excavated during the RRA was temporarily stockpiled on and covered by polyethylene sheeting until the soil could be characterized for disposal. A waste characterization sample was collected on August 30, 2006.

Based on the waste characterization sampling results, stockpiled soil from the BA-4 Disposal Area satisfied the reuse level concentration requirements for the various analyses tested and met the MassDEP requirements for lined landfills (MassDEP, 1997). Waste characterization results are included in Attachment C.

On October 12, 2006, four loads totaling approximately 85 tons were transported by Ameritech and Global Remediation to the Waste Management Facility in Taunton. A completed MassDEP Material Shipping Record and Log is included in Attachment C.

Transporter	Registration	Tons
Global	76025 MA	23.18
Global	76025 MA	18.62
Ameritech	A654723	27.57
Ameritech	A654723	15.64
Total		85.01 tons

2.3.2.2 Area E RRA Soil Disposal

As described in Section 2.2.1.2, dioxin-impacted soil was excavated on May 3, 2007, and placed into a roll-off container for temporary storage. A waste-characterization sample was collected and analyzed (Attachment C). The so

il was classified as non-hazardous. On July 13, 2007, one load totaling approximately 10.5 tons (7 cubic yards) was transported by Global Remediation to Waste Management of New Hampshire – Turnkey Landfill. Transport and disposal documentation is included in Attachment C.

3.0 DEPARTURES FROM SCOPE OF WORK / WORK PLAN

The site-specific work plan (TtEC, 2006a) stated that up to 30 anomalies would be intrusively investigated. However, 38 anomalies were investigated.

Areas A and E have been investigated previously under the MSP. UXO clearance prior to excavation was deemed to be unnecessary.

There were no other deviations from the work plans.

4.0 CONCLUSIONS

During anomaly investigation, no UXO were encountered. The anomalies at E025, E032 and E075 were identified as debris and were transferred to the staging area. Approximately 100 pounds of material identified as range-related debris were also transferred to the staging area.

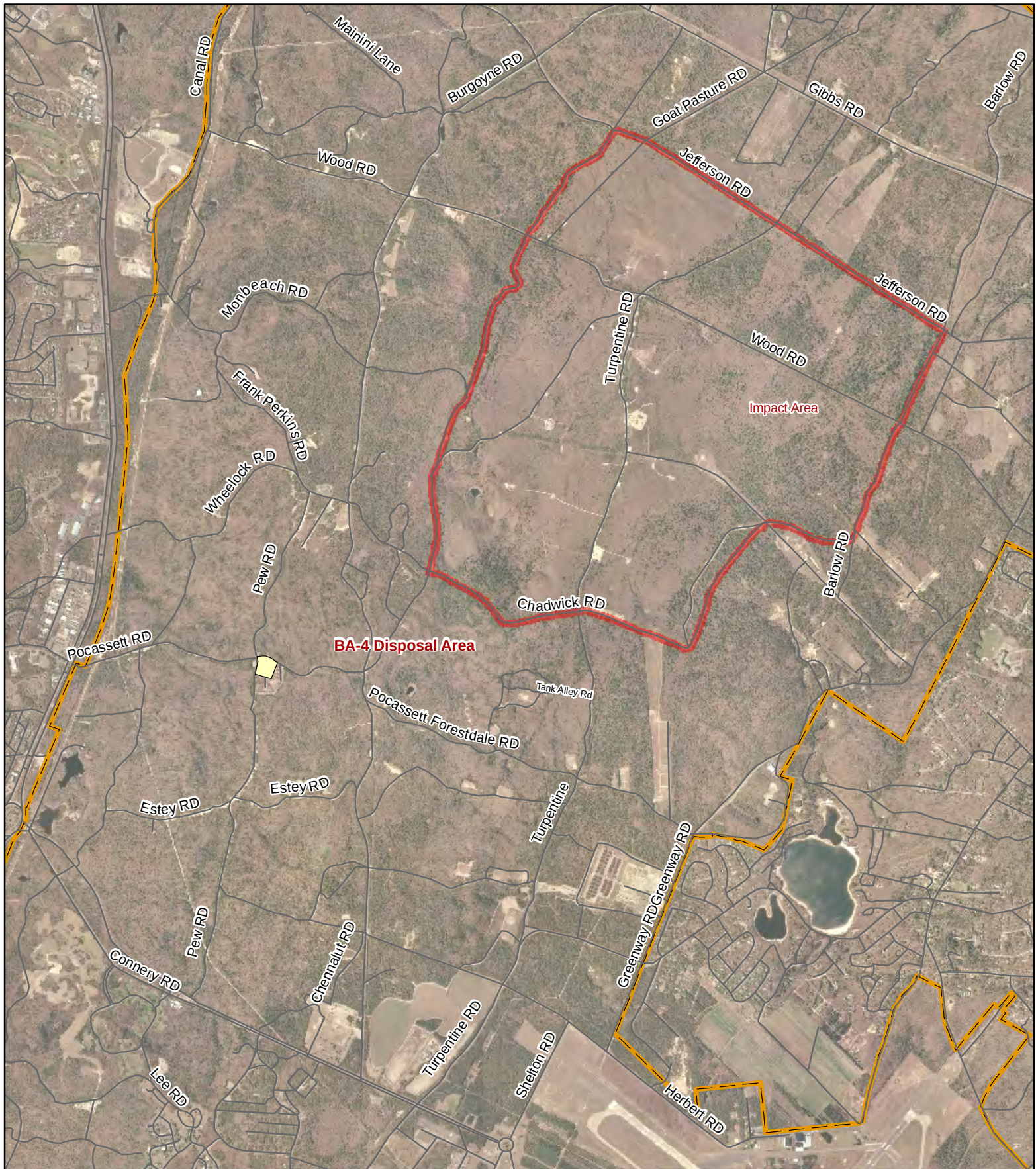
At Area A, an approximate 350 square foot area was excavated to a depth of 10 feet to remove lead-impacted soil. Six post-excavation samples confirmed impacted soil had been removed. Eighty-five (85) tons of excavated soil was temporarily staged until waste characterization was completed. The waste profile satisfied the reuse level concentration requirements; therefore, soil was transported off-site to Waste Management-Taunton for use in a lined landfill.

At Area E, an approximate 36 square foot area was excavated to a depth of 5 feet to remove dioxin-impacted soil. Five post-excavation samples and two replicates confirmed impacted soil had been removed. Ten and a half (10.5) tons of excavated soil were temporarily stored in a roll-off container onsite until waste characterization was completed. The waste profile indicated the soil was non-hazardous; therefore, soil was transported off-site to Waste-Management of New Hampshire for use in the Turnkey Landfill.

5.0 REFERENCES

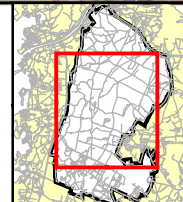
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FIGURES



LEGEND

- BA-4 Area
- Roads
- MMR Boundary
- Impact Area Boundary



0 1,900 3,800
Feet

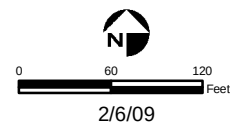
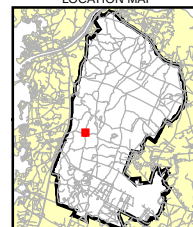
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LEGEND

- BA-4 Dig Location
- Soil Removal Area
- ▭ BA-4 Areas
- ▭ Roll-off Staging Area
- Soil Stockpile Area

LOCATION MAP



BA-4 Disposal Area
and Dig Locations

TABLES

Table 1
Anomaly Intrusive Operations at the
BA-4 Disposal Area

Anomaly ID	Northing	Easting	Reacquire Complete	Intrusive Complete	Description	Disposition
S003	4617153.83	369302.26	8/30/06	8/30/06	machine parts	MPPEH
S005	4617157.39	369307.26	8/30/06	8/30/06	machine parts	MPPEH
S007	4617176.85	369307.46	8/30/06	8/30/06	cans, wire, trash	MPPEH
S009	4617182.41	369257.47	8/30/06	8/30/06	stock steel bar	MPPEH
S010	4617183.74	369277.81	8/30/06	8/30/06	machine parts	MPPEH
S011	4617184.23	369328.97	8/30/06	8/30/06	sheet metal	MPPEH
S013	4617187.94	369298.60	8/30/06	10/19/06	construction debris	left in place
S014	4617189.17	369304.14	8/30/06	10/19/06	construction debris	left in place
S020	4617209.45	369280.45	8/30/06	8/30/06	wire	MPPEH
S023	4617213.08	369222.26	8/30/06	8/30/06	machine parts	MPPEH
S024	4617219.75	369295.71	8/30/06	8/30/06	steel cable	MPPEH
S030	4617222.89	369313.31	8/30/06	8/30/06	beer cans	MPPEH
S033	4617230.29	369343.89	8/30/06	8/30/06	machine parts	MPPEH
S036	4617236.50	369211.07	8/30/06	8/30/06	rebar	MPPEH
S039	4617247.83	369314.08	8/30/06	8/30/06	cans, wire, trash	MPPEH
S041	4617255.08	369335.09	8/30/06	8/30/06	Machine parts	MPPEH
S052	4617265.58	369325.57	8/30/06	8/30/06	rebar	MPPEH
S054	4617265.83	369375.28	8/30/06	8/30/06	machine parts	MPPEH
S061	4617289.60	369335.94	8/30/06	8/30/06	wire	MPPEH
E001	4617258.03	369436.98	8/30/06	8/30/06	machine parts	MPPEH
E007	4617263.31	369382.20	9/6/06	9/6/06	RR Spike	MPPEH
E011	4617263.64	369430.71	8/30/06	8/30/06	machine parts	MPPEH
E014	4617264.30	369414.54	8/30/06	8/30/06	cans, wire, trash	MPPEH
E015	4617264.30	369422.46	8/30/06	8/30/06	rebar	MPPEH
E019	4617265.29	369378.90	8/30/06	8/30/06	machine parts	MPPEH
E024	4617265.95	369410.91	9/6/06	9/6/06	RR Tie w/nails driven into it	MPPEH
E025	4617266.28	369390.78	8/30/06	8/30/06	MD 105mm cartridge (empty)	MPPEH
E032	4617267.93	369391.77	9/6/06	9/6/06	MD 40mm cartridge (empty)	MPPEH
E041	4617268.92	369409.26	9/6/06	9/6/06	nails	MPPEH
E051	4617270.90	369389.79	9/6/06	9/6/06	nails	MPPEH
E062	4617273.54	369416.85	8/30/06	8/30/06	cans, wire, trash	MPPEH
E067	4617274.53	369420.48	8/30/06	8/30/06	machine parts	MPPEH
E074	4617275.85	369415.86	8/30/06	8/30/06	steel cable	MPPEH
E075	4617276.51	369405.63	8/30/06	9/5/06	MD small arms cartridges	MPPEH
E092	4617282.78	369416.19	8/30/06	8/30/06	machine parts	MPPEH
E098	4617284.76	369427.08	9/6/06	9/6/06	hammer	MPPEH
E100	4617285.42	369416.19	8/30/06	8/30/06	cans, wire, trash	MPPEH
E104	4617287.40	369393.42	8/30/06	8/30/06	machine parts	MPPEH
TOTAL			38	38		

Notes:

MPPEH Material Potentially Presenting an Explosive Hazard
MD Munitions Debris

Table 2
Confirmatory Soil Sampling Results
Rapid Response Action Area A
BA-4 Disposal Area

Sample Location	Sample ID	Analyte	RL	Lab Result	Units	METHOD 1 S-1/GW-1	EXCEED METHOD 1 S-1/GW-1	PRG	Exceed PRG?	SSL	Exceed SSL?
East Sidewall	TT083006ASP-C-01E	Aluminum	8.7	8620	MG/KG	N/A	N/A	7614.2	N	54006	N
East Sidewall	TT083006ASP-C-01E	Arsenic	0.35	3.4	MG/KG	20	N	0.39	N	0.009	N
East Sidewall	TT083006ASP-C-01E	Barium	0.40	17.0	MG/KG	1000	N	537.49	N	120.35	N
East Sidewall	TT083006ASP-C-01E	Beryllium	0.022	0.27	MG/KG	0.7	N	15.44	N	2.6	N
East Sidewall	TT083006ASP-C-01E	Boron	0.54	2.2	MG/KG	N/A	N/A	1600	N	9.52	N
East Sidewall	TT083006ASP-C-01E	Calcium	13.5	272	MG/KG	N/A	N/A	N/A	N/A	N/A	N/A
East Sidewall	TT083006ASP-C-01E	Cobalt	0.21	2.0	MG/KG	N/A	N/A	902.89	N	132.38	N
East Sidewall	TT083006ASP-C-01E	Copper	0.16	6.5	MG/KG	N/A	N/A	312.86	N	45.73	N
East Sidewall	TT083006ASP-C-01E	Iron	4.4	15200	MG/KG	N/A	N/A	2346.32	N	2421.92	N
East Sidewall	TT083006ASP-C-01E	Lead	0.15	4.1	MG/KG	300	N	40	N	4.05	N
East Sidewall	TT083006ASP-C-01E	Magnesium	13.1	634	MG/KG	N/A	N/A	N/A	N/A	N/A	N/A
East Sidewall	TT083006ASP-C-01E	Manganese	0.044	235	MG/KG	N/A	N/A	176.24	N	44.15	N
East Sidewall	TT083006ASP-C-01E	Mercury	0.014	0.019	MG/KG	20	N	2.35	N	0.02	N
East Sidewall	TT083006ASP-C-01E	Molybdenum	0.13	1.0	MG/KG	N/A	N/A	39.11	N	0.18	N
East Sidewall	TT083006ASP-C-01E	Nickel	0.18	7.6	MG/KG	20	N	156.43	N	292.13	N
East Sidewall	TT083006ASP-C-01E	Perchlorate	0.80	0.29	UG/KG	N/A	N/A	7821	N	3.14	N
East Sidewall	TT083006ASP-C-01E	Potassium	34.1	837	MG/KG	N/A	N/A	N/A	N/A	N/A	N/A
East Sidewall	TT083006ASP-C-01E	Silver	0.15	0.20	MG/KG	100	N	39.11	N	16.23	N
East Sidewall	TT083006ASP-C-01E	Sodium	40.9	180	MG/KG	N/A	N/A	N/A	N/A	N/A	N/A
East Sidewall	TT083006ASP-C-01E	Vanadium	0.20	16.5	MG/KG	600	N	7.82	N	260.05	N
East Sidewall	TT083006ASP-C-01E	Zinc	0.14	10.5	MG/KG	2500	N	2346.32	N	2201.92	N
North Sidewall	TT083006ASP-C-01N	Aluminum	9.0	9830	MG/KG	N/A	N/A	7614.2	N	54006	N
North Sidewall	TT083006ASP-C-01N	Arsenic	0.36	4.4	MG/KG	20	N	0.39	N	0.009	N
North Sidewall	TT083006ASP-C-01N	Barium	0.41	30.3	MG/KG	1000	N	537.49	N	120.35	N
North Sidewall	TT083006ASP-C-01N	Beryllium	0.023	0.40	MG/KG	0.7	N	15.44	N	2.6	N
North Sidewall	TT083006ASP-C-01N	Boron	0.56	3.9	MG/KG	N/A	N/A	1600	N	9.52	N
North Sidewall	TT083006ASP-C-01N	Calcium	14.0	439	MG/KG	N/A	N/A	N/A	N/A	N/A	N/A
North Sidewall	TT083006ASP-C-01N	Cobalt	0.21	3.7	MG/KG	N/A	N/A	902.89	N	132.38	N
North Sidewall	TT083006ASP-C-01N	Copper	0.17	9.9	MG/KG	N/A	N/A	312.86	N	45.73	N
North Sidewall	TT083006ASP-C-01N	Iron	4.6	14700	MG/KG	N/A	N/A	2346.32	N	2421.92	N
North Sidewall	TT083006ASP-C-01N	Lead	0.15	6.1	MG/KG	300	N	40	N	4.05	N
North Sidewall	TT083006ASP-C-01N	Magnesium	13.6	1860	MG/KG	N/A	N/A	N/A	N/A	N/A	N/A
North Sidewall	TT083006ASP-C-01N	Manganese	0.046	250	MG/KG	N/A	N/A	176.24	N	44.15	N
North Sidewall	TT083006ASP-C-01N	Mercury	0.016	0.019	MG/KG	20	N	2.35	N	0.02	N
North Sidewall	TT083006ASP-C-01N	Molybdenum	0.14	3.3	MG/KG	N/A	N/A	39.11	N	0.18	N
North Sidewall	TT083006ASP-C-01N	Nickel	0.18	12.0	MG/KG	20	N	156.43	N	292.13	N
North Sidewall	TT083006ASP-C-01N	Perchlorate	0.80	0.46	UG/KG	N/A	N/A	7821	N	3.14	N
North Sidewall	TT083006ASP-C-01N	Potassium	35.4	1580	MG/KG	N/A	N/A	N/A	N/A	N/A	N/A
North Sidewall	TT083006ASP-C-01N	Sodium	42.5	252	MG/KG	N/A	N/A	N/A	N/A	N/A	N/A
North Sidewall	TT083006ASP-C-01N	Vanadium	0.21	21.8	MG/KG	600	N	7.82	N	260.05	N
North Sidewall	TT083006ASP-C-01N	Zinc	0.14	20.6	MG/KG	2500	N	2346.32	N	2201.92	N
South Sidewall	TT083006ASP-C-01S	Aluminum	9.0	9760	MG/KG	N/A	N/A	7614.2	N	54006	N
South Sidewall	TT083006ASP-C-01S	Arsenic	0.36	3.2	MG/KG	20	N	0.39	N	0.009	N
South Sidewall	TT083006ASP-C-01S	Barium	0.41	23.0	MG/KG	1000	N	537.49	N	120.35	N
South Sidewall	TT083006ASP-C-01S	Beryllium	0.023	0.29	MG/KG	0.7	N	15.44	N	2.6	N

Table 2
Confirmatory Soil Sampling Results
Rapid Response Action Area A
BA-4 Disposal Area

Sample Location	Sample ID	Analyte	RL	Lab Result	Units	METHOD 1 S-1/GW-1	EXCEED METHOD 1 S-1/GW-1	PRG	Exceed PRG?	SSL	Exceed SSL?
South Sidewall	TT083006ASP-C-01S	Boron	0.56	2.7	MG/KG	N/A	N/A	1600	N	9.52	N
South Sidewall	TT083006ASP-C-01S	Calcium	14.0	291	MG/KG	N/A	N/A	N/A	N/A	N/A	N/A
South Sidewall	TT083006ASP-C-01S	Cobalt	0.21	2.9	MG/KG	N/A	N/A	902.89	N	132.38	N
South Sidewall	TT083006ASP-C-01S	Copper	0.17	7.7	MG/KG	N/A	N/A	312.86	N	45.73	N
South Sidewall	TT083006ASP-C-01S	Iron	4.6	14100	MG/KG	N/A	N/A	2346.32	N	2421.92	N
South Sidewall	TT083006ASP-C-01S	Lead	0.15	6.3	MG/KG	300	N	40	N	4.05	N
South Sidewall	TT083006ASP-C-01S	Magnesium	13.6	1070	MG/KG	N/A	N/A	N/A	N/A	N/A	N/A
South Sidewall	TT083006ASP-C-01S	Manganese	0.046	155	MG/KG	N/A	N/A	176.24	N	44.15	N
South Sidewall	TT083006ASP-C-01S	Mercury	0.015	0.015	MG/KG	20	N	2.35	N	0.02	N
South Sidewall	TT083006ASP-C-01S	Molybdenum	0.14	3.2	MG/KG	N/A	N/A	39.11	N	0.18	N
South Sidewall	TT083006ASP-C-01S	Nickel	0.18	9.8	MG/KG	20	N	156.43	N	292.13	N
South Sidewall	TT083006ASP-C-01S	Perchlorate	0.80	0.41	UG/KG	N/A	N/A	7821	N	3.14	N
South Sidewall	TT083006ASP-C-01S	Potassium	35.4	1000	MG/KG	N/A	N/A	N/A	N/A	N/A	N/A
South Sidewall	TT083006ASP-C-01S	Sodium	42.5	217	MG/KG	N/A	N/A	N/A	N/A	N/A	N/A
South Sidewall	TT083006ASP-C-01S	Vanadium	0.21	19.2	MG/KG	600	N	7.82	N	260.05	N
South Sidewall	TT083006ASP-C-01S	Zinc	0.14	20.8	MG/KG	2500	N	2346.32	N	2201.92	N
West Sidewall	TT083006ASP-C-01W	Aluminum	8.9	11000	MG/KG	N/A	N/A	7614.2	N	54006	N
West Sidewall	TT083006ASP-C-01W	Antimony	0.59	0.82	MG/KG	N/A	N/A	3.13	N	0.27	N
West Sidewall	TT083006ASP-C-01W	Arsenic	0.35	4.6	MG/KG	20	N	0.39	N	0.009	N
West Sidewall	TT083006ASP-C-01W	Barium	0.41	31.9	MG/KG	1000	N	537.49	N	120.35	N
West Sidewall	TT083006ASP-C-01W	Beryllium	0.023	0.45	MG/KG	0.7	N	15.44	N	2.6	N
West Sidewall	TT083006ASP-C-01W	Boron	0.55	3.8	MG/KG	N/A	N/A	1600	N	9.52	N
West Sidewall	TT083006ASP-C-01W	Calcium	13.8	484	MG/KG	N/A	N/A	N/A	N/A	N/A	N/A
West Sidewall	TT083006ASP-C-01W	Cobalt	0.21	3.8	MG/KG	N/A	N/A	902.89	N	132.38	N
West Sidewall	TT083006ASP-C-01W	Copper	0.17	9.4	MG/KG	N/A	N/A	312.86	N	45.73	N
West Sidewall	TT083006ASP-C-01W	Iron	4.5	15200	MG/KG	N/A	N/A	2346.32	N	2421.92	N
West Sidewall	TT083006ASP-C-01W	Lead	0.15	7.0	MG/KG	300	N	40	N	4.05	N
West Sidewall	TT083006ASP-C-01W	Magnesium	13.4	2190	MG/KG	N/A	N/A	N/A	N/A	N/A	N/A
West Sidewall	TT083006ASP-C-01W	Manganese	0.045	209	MG/KG	N/A	N/A	176.24	N	44.15	N
West Sidewall	TT083006ASP-C-01W	Mercury	0.013	0.015	MG/KG	20	N	2.35	N	0.02	N
West Sidewall	TT083006ASP-C-01W	Molybdenum	0.14	0.91	MG/KG	N/A	N/A	39.11	N	0.18	N
West Sidewall	TT083006ASP-C-01W	Nickel	0.18	12.4	MG/KG	20	N	156.43	N	292.13	N
West Sidewall	TT083006ASP-C-01W	Perchlorate	0.80	0.57	UG/KG	N/A	N/A	7821	N	3.14	N
West Sidewall	TT083006ASP-C-01W	Potassium	34.9	1690	MG/KG	N/A	N/A	N/A	N/A	N/A	N/A
West Sidewall	TT083006ASP-C-01W	Silver	0.15	0.22	MG/KG	100	N	39.11	N	16.23	N
West Sidewall	TT083006ASP-C-01W	Sodium	41.8	281	MG/KG	N/A	N/A	N/A	N/A	N/A	N/A
West Sidewall	TT083006ASP-C-01W	Vanadium	0.20	21.6	MG/KG	600	N	7.82	N	260.05	N
West Sidewall	TT083006ASP-C-01W	Zinc	0.14	24.5	MG/KG	2500	N	2346.32	N	2201.92	N
Bottom of Excavation	TT083006ASP-C-01B	Aluminum	8.8	11700	MG/KG	N/A	N/A	7614.2	N	54006	N
Bottom of Excavation (duplicate)	TT083006ASP-C-01B-FD	Aluminum	8.6	10900	MG/KG	N/A	N/A	7614.2	N	54006	N
Bottom of Excavation	TT083006ASP-C-01B	Antimony	0.58	0.89	MG/KG	N/A	N/A	3.13	N	0.27	N
Bottom of Excavation	TT083006ASP-C-01B	Arsenic	0.35	5.1	MG/KG	20	N	0.39	N	0.009	N
Bottom of Excavation (duplicate)	TT083006ASP-C-01B-FD	Arsenic	0.34	4.5	MG/KG	20	N	0.39	N	0.009	N
Bottom of Excavation	TT083006ASP-C-01B	Barium	0.40	32.6	MG/KG	1000	N	537.49	N	120.35	N
Bottom of Excavation (duplicate)	TT083006ASP-C-01B-FD	Barium	0.39	35.3	MG/KG	1000	N	537.49	N	120.35	N

Table 2
Confirmatory Soil Sampling Results
Rapid Response Action Area A
BA-4 Disposal Area

Sample Location	Sample ID	Analyte	RL	Lab Result	Units	METHOD 1 S-1/GW-1	EXCEED METHOD 1 S-1/GW-1	PRG	Exceed PRG?	SSL	Exceed SSL?
Bottom of Excavation	TT083006ASP-C-01B	Beryllium	0.022	0.43	MG/KG	0.7	N	15.44	N	2.6	N
Bottom of Excavation (duplicate)	TT083006ASP-C-01B-FD	Beryllium	0.022	0.46	MG/KG	0.7	N	15.44	N	2.6	N
Bottom of Excavation	TT083006ASP-C-01B	Boron	0.54	3.9	MG/KG	N/A	N/A	1600	N	9.52	N
Bottom of Excavation (duplicate)	TT083006ASP-C-01B-FD	Boron	0.53	4.2	MG/KG	N/A	N/A	1600	N	9.52	N
Bottom of Excavation	TT083006ASP-C-01B	Calcium	13.7	469	MG/KG	N/A	N/A	N/A	N/A	N/A	N/A
Bottom of Excavation (duplicate)	TT083006ASP-C-01B-FD	Calcium	13.3	476	MG/KG	N/A	N/A	N/A	N/A	N/A	N/A
Bottom of Excavation	TT083006ASP-C-01B	Cobalt	0.21	3.6	MG/KG	N/A	N/A	902.89	N	132.38	N
Bottom of Excavation (duplicate)	TT083006ASP-C-01B-FD	Cobalt	0.20	4.0	MG/KG	N/A	N/A	902.89	N	132.38	N
Bottom of Excavation	TT083006ASP-C-01B	Copper	0.16	10.7	MG/KG	N/A	N/A	312.86	N	45.73	N
Bottom of Excavation (duplicate)	TT083006ASP-C-01B-FD	Copper	0.16	11.6	MG/KG	N/A	N/A	312.86	N	45.73	N
Bottom of Excavation	TT083006ASP-C-01B	Iron	4.5	16600	MG/KG	N/A	N/A	2346.32	N	2421.92	N
Bottom of Excavation (duplicate)	TT083006ASP-C-01B-FD	Iron	4.4	15500	MG/KG	N/A	N/A	2346.32	N	2421.92	N
Bottom of Excavation	TT083006ASP-C-01B	Lead	0.15	10.3	MG/KG	300	N	40	N	4.05	N
Bottom of Excavation (duplicate)	TT083006ASP-C-01B-FD	Lead	0.14	11.0	MG/KG	300	N	40	N	4.05	N
Bottom of Excavation	TT083006ASP-C-01B	Magnesium	13.3	2170	MG/KG	N/A	N/A	N/A	N/A	N/A	N/A
Bottom of Excavation (duplicate)	TT083006ASP-C-01B-FD	Magnesium	12.9	2340	MG/KG	N/A	N/A	N/A	N/A	N/A	N/A
Bottom of Excavation	TT083006ASP-C-01B	Manganese	0.045	135	MG/KG	N/A	N/A	176.24	N	44.15	N
Bottom of Excavation (duplicate)	TT083006ASP-C-01B-FD	Manganese	0.043	145	MG/KG	N/A	N/A	176.24	N	44.15	N
Bottom of Excavation	TT083006ASP-C-01B	Mercury	0.014	0.014	MG/KG	20	N	2.35	N	0.02	N
Bottom of Excavation	TT083006ASP-C-01B	Molybdenum	0.13	2.3	MG/KG	N/A	N/A	39.11	N	0.18	N
Bottom of Excavation (duplicate)	TT083006ASP-C-01B-FD	Molybdenum	0.13	2.4	MG/KG	N/A	N/A	39.11	N	0.18	N
Bottom of Excavation	TT083006ASP-C-01B	Nickel	0.18	13.2	MG/KG	20	N	156.43	N	292.13	N
Bottom of Excavation (duplicate)	TT083006ASP-C-01B-FD	Nickel	0.17	14.3	MG/KG	20	N	156.43	N	292.13	N
Bottom of Excavation	TT083006ASP-C-01B	Perchlorate	0.80	0.57	UG/KG	N/A	N/A	7821	N	3.14	N
Bottom of Excavation (duplicate)	TT083006ASP-C-01B-FD	Perchlorate	0.80	0.55	UG/KG	N/A	N/A	7821	N	3.14	N
Bottom of Excavation	TT083006ASP-C-01B	Potassium	34.6	1630	MG/KG	N/A	N/A	N/A	N/A	N/A	N/A
Bottom of Excavation (duplicate)	TT083006ASP-C-01B-FD	Potassium	33.6	1740	MG/KG	N/A	N/A	N/A	N/A	N/A	N/A
Bottom of Excavation	TT083006ASP-C-01B	Silver	0.15	0.19	MG/KG	100	N	39.11	N	16.23	N
Bottom of Excavation (duplicate)	TT083006ASP-C-01B-FD	Silver	0.14	0.24	MG/KG	100	N	39.11	N	16.23	N
Bottom of Excavation	TT083006ASP-C-01B	Sodium	41.5	248	MG/KG	N/A	N/A	N/A	N/A	N/A	N/A
Bottom of Excavation (duplicate)	TT083006ASP-C-01B-FD	Sodium	40.3	283	MG/KG	N/A	N/A	N/A	N/A	N/A	N/A
Bottom of Excavation	TT083006ASP-C-01B	Vanadium	0.20	20.7	MG/KG	600	N	7.82	N	260.05	N
Bottom of Excavation (duplicate)	TT083006ASP-C-01B-FD	Vanadium	0.20	22.5	MG/KG	600	N	7.82	N	260.05	N
Bottom of Excavation	TT083006ASP-C-01B	Zinc	0.14	29.7	MG/KG	2500	N	2346.32	N	2201.92	N
Bottom of Excavation (duplicate)	TT083006ASP-C-01B-FD	Zinc	0.14	32.4	MG/KG	2500	N	2346.32	N	2201.92	N
Blank	OTTAWA SAND 08-31-06	Aluminum	8.7	78.4	MG/KG	N/A	N/A	7614.2	N	54006	N
Blank	OTTAWA SAND 08-31-06	Arsenic	0.35	0.49	MG/KG	20	N	3.13	N	0.27	N
Blank	OTTAWA SAND 08-31-06	Barium	0.40	1.1	MG/KG	1000	N	537.49	N	120.35	N
Blank	OTTAWA SAND 08-31-06	Calcium	13.6	122	MG/KG	N/A	N/A	N/A	N/A	N/A	N/A
Blank	OTTAWA SAND 08-31-06	Cobalt	0.21	0.83	MG/KG	N/A	N/A	902.89	N	132.38	N
Blank	OTTAWA SAND 08-31-06	Copper	0.16	5.0	MG/KG	N/A	N/A	312.86	N	45.73	N
Blank	OTTAWA SAND 08-31-06	Iron	4.5	3640	MG/KG	N/A	N/A	2346.32	N	2421.92	N
Blank	OTTAWA SAND 08-31-06	Lead	0.15	2.3	MG/KG	300	N	40	N	4.05	N
Blank	OTTAWA SAND 08-31-06	Magnesium	13.2	20.9	MG/KG	N/A	N/A	N/A	N/A	N/A	N/A
Blank	OTTAWA SAND 08-31-06	Manganese	0.044	13.7	MG/KG	N/A	N/A	176.24	N	44.15	N

Table 2
Confirmatory Soil Sampling Results
Rapid Response Action Area A
BA-4 Disposal Area

Sample Location	Sample ID	Analyte	RL	Lab Result	Units	METHOD 1 S-1/GW-1	EXCEED METHOD 1 S-1/GW-1	PRG	Exceed PRG?	SSL	Exceed SSL?
Blank	OTTAWA SAND 08-31-06	Molybdenum	0.13	1.6	MG/KG	N/A	N/A	39.11	N	0.18	N
Blank	OTTAWA SAND 08-31-06	Nickel	0.18	4.1	MG/KG	20	N	156.43	N	292.13	N
Blank	OTTAWA SAND 08-31-06	Perchlorate	0.80	0.38	UG/KG	N/A	N/A	7821	N	3.14	N
Blank	OTTAWA SAND 08-31-06	Vanadium	0.20	2.1	MG/KG	600	N	7.82	N	260.05	N
Blank	OTTAWA SAND 08-31-06	Zinc	0.14	7.7	MG/KG	2500	N	2346.32	N	2201.92	N
Blank	PLAY SAND 08-31-06	Aluminum	8.6	2070	MG/KG	N/A	N/A	7614.2	N	54006	N
Blank	PLAY SAND 08-31-06	Arsenic	0.34	1.2	MG/KG	20	N	3.13	N	0.27	N
Blank	PLAY SAND 08-31-06	Barium	0.39	12.9	MG/KG	1000	N	537.49	N	120.35	N
Blank	PLAY SAND 08-31-06	Beryllium	0.022	0.11	MG/KG	0.7	N	15.44	N	2.6	N
Blank	PLAY SAND 08-31-06	Calcium	13.3	673	MG/KG	N/A	N/A	N/A	N/A	N/A	N/A
Blank	PLAY SAND 08-31-06	Cobalt	0.20	1.3	MG/KG	N/A	N/A	902.89	N	132.38	N
Blank	PLAY SAND 08-31-06	Copper	0.16	2.9	MG/KG	N/A	N/A	312.86	N	45.73	N
Blank	PLAY SAND 08-31-06	Iron	4.4	5600	MG/KG	N/A	N/A	2346.32	N	2421.92	N
Blank	PLAY SAND 08-31-06	Lead	0.14	1.2	MG/KG	300	N	40	N	4.05	N
Blank	PLAY SAND 08-31-06	Magnesium	12.9	546	MG/KG	N/A	N/A	N/A	N/A	N/A	N/A
Blank	PLAY SAND 08-31-06	Manganese	0.043	69.2	MG/KG	N/A	N/A	176.24	N	44.15	N
Blank	PLAY SAND 08-31-06	Molybdenum	0.13	1.1	MG/KG	N/A	N/A	39.11	N	0.18	N
Blank	PLAY SAND 08-31-06	Nickel	0.17	3.3	MG/KG	20	N	156.43	N	292.13	N
Blank	PLAY SAND 08-31-06	Perchlorate	0.80	0.40	UG/KG	N/A	N/A	7821	N	3.14	N
Blank	PLAY SAND 08-31-06	Potassium	33.6	775	MG/KG	N/A	N/A	N/A	N/A	N/A	N/A
Blank	PLAY SAND 08-31-06	Sodium	40.3	230	MG/KG	N/A	N/A	N/A	N/A	N/A	N/A
Blank	PLAY SAND 08-31-06	Vanadium	0.20	5.8	MG/KG	600	N	7.82	N	260.05	N
Blank	PLAY SAND 08-31-06	Zinc	0.14	5.4	MG/KG	2500	N	2346.32	N	2201.92	N

Notes:

SSL = MMR Soil Screening Level

PRG = Preliminary Remediation Goal

RL = Laboratory Reporting Limit

Method 1 S-1/GW-1 = MCP Method 1 cleanup standard for Soil Category

S-1/GW-1

Table 3
Confirmatory Soil Sampling - Dioxin Results
Rapid Response Action - Area E
BA-4 Disposal Area

	Method 1	SS051607-C-01B		SS051607-C-01E		SS051607-C-01N		SS051607-C-01S	
S-1/GW-1		TEQ	Qualifier	TEQ	Qualifier	TEQ	Qualifier	TEQ	Qualifier
Constituent									
2,3,7,8-TCDD			ND		ND		ND		ND
Total TCDD			NA		NA		NA		NA
1,2,3,7,8-PeCDD		0.6	J	1.45	J	0.6	J	0.205	J
Total PeCDD			NA		NA		NA		NA
1,2,3,4,7,8-HxCDD		0.15	JQ	0.38	J	0.15	J	0.039	J
1,2,3,6,7,8-HxCDD		0.58	J	1.3		0.45	JQ	0.077	JQ
1,2,3,7,8,9-HxCDD		0.54	J	1.2		0.51	J	0.077	JQ
Total HxCDD			NA		NA		NA		NA
1,2,3,4,6,7,8-HpCDD		1.2		2.7		1.1		0.27	
Total HpCDD			NA		NA		NA		NA
OCDD		1.9	JB	4.2	JB	2.2	JB	0.89	JB
2,3,7,8-TCDF		0.043	JQ	0.05	JQ		ND	0.032	JQ
Total TCDF			NA		NA		NA		NA
1,2,3,7,8-PeCDF		0.014	JQ	0.028	J	0.008	JQ		ND
2,3,4,7,8-PeCDF		0.195	JQ	0.335	JQ	0.14	JQ	0.115	JQ
Total PeCDF			NA		NA		NA		NA
1,2,3,4,7,8-HxCDF		0.13	JQ	0.35	J	0.13	J	0.036	JQ
1,2,3,6,7,8-HxCDF		0.16	J	0.38	JQ	0.14	JQ	0.032	J
2,3,4,6,7,8-HxCDF		0.12	J	0.28	J	0.11	J	0.021	JQ
1,2,3,7,8,9-HxCDF			ND		ND		ND	0.023	J
Total HxCDF			NA		NA		NA		NA
1,2,3,4,6,7,8-HpCDF		0.22		0.64		0.24		0.036	J
1,2,3,4,7,8,9-HpCDF		0.013	J	0.032	J	0.011	JQ	0.0033	J
Total HpCDF			NA		NA		NA		NA
OCDF		0.045		0.14		0.047		0.0063	J
Total TEQ	20	5.91		13.465		5.836		1.8626	

Table 3
Confirmatory Soil Sampling - Dioxin Results
Rapid Response Action - Area E
BA-4 Disposal Area

	Mass DEP S-1 Standard pg/g	SS051607-C-01W		SS051607-C-02W		SS051607-C-03W		SS051607-D-EB	
Constituent		TEQ	Qualifier	TEQ	Qualifier	TEQ	Qualifier	TEQ	Qualifier
2,3,7,8-TCDD			ND		ND		ND		ND
Total TCDD			NA		NA		NA		ND
1,2,3,7,8-PeCDD		0.31	JQ	0.21	JQ	0.375	JQ		ND
Total PeCDD			NA		NA		NA		ND
1,2,3,4,7,8-HxCDD		0.062	J	0.039	J	0.058	J		ND
1,2,3,6,7,8-HxCDD		0.16	J	0.11	J	0.22	J		ND
1,2,3,7,8,9-HxCDD		0.14	JQ	0.084	J	0.18	JQ		ND
Total HxCDD			NA		NA		NA		ND
1,2,3,4,6,7,8-HpCDD		0.39		0.28		0.44			ND
Total HpCDD			NA		NA		NA		ND
OCDD		1.3	JB	1.3	JB	1.5	JB	0.0046	JQB
2,3,7,8-TCDF			ND	0.022	JQ	0.025	JQ		ND
Total TCDF			NA		NA		NA		ND
1,2,3,7,8-PeCDF			ND	0.007	JQ		ND		ND
2,3,4,7,8-PeCDF		0.14	JQ	0.085	J	0.095	JQ		ND
Total PeCDF			NA		NA		NA		ND
1,2,3,4,7,8-HxCDF		0.045	JQ	0.047	J	0.06	JQ		ND
1,2,3,6,7,8-HxCDF		0.081	J	0.049	JQ	0.059	JQ		ND
2,3,4,6,7,8-HxCDF		0.025	JQ	0.029	JQ	0.025	JQ		ND
1,2,3,7,8,9-HxCDF			ND		ND		ND		ND
Total HxCDF			NA		NA		NA		ND
1,2,3,4,6,7,8-HpCDF		0.048	J	0.04	J	0.062			ND
1,2,3,4,7,8,9-HpCDF		0.0023	J	0.0031	J	0.0054	J		ND
Total HpCDF			NA		NA		NA		ND
OCDF		0.01	J	0.0073	J	0.012			ND
Total TEQ	20	2.7133		2.3124		3.1164		0.0046	

Notes/Qualifiers:

B - Present in associated blank sample.

J - Estimated result.

JB - Estimated result due to presence in associated blank sample.

NA - Not applicable or not available.

ND - Non-detect.

Q - Estimated maximum possible concentration (EMPC). This qualifier is used when the result is generated from chromatographic data that does not meet all the qualitative criteria for a positive identification given in the method. The criteria include the following areas:

*Ion abundance ratios must be within specified limits (+/- 15% of theoretical ion abundance ratio.)

*Retention time criteria (relative to the method-specified isotope labeled retention time standard).

*Co-maximization criterion. The two quantitation ion peaks must reach their maxima within 2 sections of each other.

*Polychlorinated dibenzofuran purity. No peak can be identified as a polychlorinated dibenzofuran if a polychlorinated diphenyl ether peak maximizes within +/- 2 seconds of the furan candidate.

S - Ion suppression evident. The trace indicated the signal from the lock mass of the calibration compound shows a deflection at the retention time of the analyte. This may indicate a temporary suppression of the instrument sensitivity, due to a matrix-borne interference.

TEF - 2,3,7,8-TCDD Toxicity Equivalency Factor [from "Interim Procedures for Estimating Risks Associated with Exposures to Mixtures of Chlorinated Dibenzo-p-Dioxin and -Dibenzofurans (CDDs and CDFs) and 1989 Update", (EPA/625/3-89/016, March 1989.)]

TEQ-Toxicity Equivalent Value

pg/g = picograms per gram

ATTACHMENT A

Photographs of BA-4 Disposal Area Soil Excavation (Areas A and E)

Photo 1: Area A Excavation



Photo 2: Soil Stockpile Area



Photo 3: Covered Soil Stockpile and Silt Fence



Photo 4: Construction Fence Around Excavation Area



Photo 5: Jet Engine Starter Cartridges





Photo 6: Area E Excavation



Photo 7: Area E Excavation



Photo 8: Roll-Off Loading



Photo 9: Lined Roll-Off



Photo 10: Soil Stockpile Area



Photo 11: Jet Engine Starter Cartridges



Photo 12: Area E Excavation



Photo 13: Area E Excavation

**ATTACHMENT B
FIELD RECORDS**

TETRA TECH EC, INC. INCIDENT REPORT

Discovered by: Red/Green Team Incident No: TT082906-01 Time: 1000 Date: 082906 Location BA-4 Disposal Area Pb Contaminated Soil
 Item Orientation: Various Depth (bgs) to center of mass (inches): 36-48 Distance from pin inches (for geophysical validation): Na
 Disposition: Secured in drum until direction is received from client

☒ 1. OE/UXO
 Type of Round: Cartridge
 Nomenclature: Aircraft Engine Starter Cartridges
 Quantity: 8 intact + loose propellant
Item must be photographed
 Size comparison measuring tool in photo is a 6" ruler
 Photo identified by incident number
 Is round fuzed? no
 If known, list fuze type:
 Explosive filler, if known: propellant
 Easting: 369341.6745
 Northing: 4617244.1403 Elevation 47.6587

☐ 2. Inert Round (AP, Extended, Practice)
 Type of Round:
 Nomenclature:
 Quantity:
Item must be photographed
 Size comparison measuring tool in photo
 Photo identified by incident number
 Northing:
 Easting:

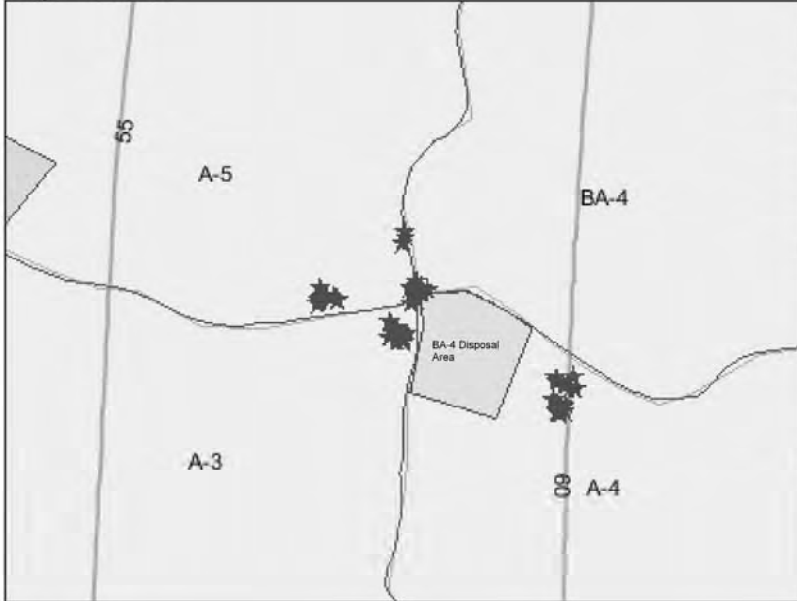
☐ 3. Soil Feature
 Description:
 Length (inches):
 Width (inches):
 Thickness (inches):
Item must be photographed
 Size comparison measuring tool in photo
 Photo identified by incident number
 Northing:
 Easting:



5. Condition:
☐ Good Condition ☒ Slightly Corroded ☐ Heavily Corroded
☒ Cracked Open ☒ Filler Leaking ☐ Explosive Residue Surrounding Round
☐ Pits Present
 Detonation Order: Lot #:
 Markings: none visible
 Degree of deformation (0 to 10): 3 - 10
 Orientation: scattered

Other Comments: These items were found during excavation of soil suspected of having Pb Contamination. Items were discovered outside of the area we were originally contracted to excavate. We received direction from Greg Pierce and Maj. Lafavre of USACOE to continue digging until all carts were removed.

Item Number: Flag Color: Geophysical ID:

EDMS Data Administration[VIEW MAP](#)[DATA](#)[DOCUMENT MANAGEMENT](#)[ARCHIVE SEARCH REPORT](#)[Home](#) > [Data](#) > UXO Data Summary Report**UXO Data Summary Report (LOCID SSASPATP01)****Map Location**

Incident No.	TT082906-01
LOCID	SSASPATP01
Disposition	Held in safe holding area
Discovery Date/Time	29-Aug-2006 0000 hrs
X Coord (Easting)	369341.7
Y Coord (Northing)	4617244.1
Data Quality	Final

- SSASPATP01
- UXO
- ★ Non-UXO

[Locator Map](#)**Item Information**

Item Category	UXO/OEW
Type of Round	Cartridge actuated device (CAD)
Quantity	9
Lot No	na
Round Size	Not Otherwise Specified
Round Model No.	unk
Fuze Model No.	na
Weight (lbs)	20
Attitude	
Orientation (degrees)	
Item Depth (inches below surface)	36

Item Description

aircraft engine starter cartri

CommentsSE corner 369343.4096 east, 4617244.8587 north SW corner 369341.6745 east, 4617244.1403 north NE corner 369343.2315 e
369341.1241 east, 4617246.4124 north Elevation 47.55[<< Back to Search Results](#)



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Fax (508) 747-8017
Asphalt/Concrete
Aggregates/Gravel

Route 130 Scituate
Sandwich, MA 02563
(508) 477-8814
Fax (508) 477-8251
Aggregates/Gravel

www.palanders.com

P. A. Landers, Inc.

Incorporated 1978

October 12, 2006

Tetra Tech
P.O. Box 300
Midwest City, OK

RE: Delivery of Borrow Materials
Otis Air Force Base

Certification

I, Daniel Graziano, certify that P.A. Landers Inc. Coleman Pit at Rte 130 Sandwich, Ma. is a proposed source of borrow or other material to be used as backfill on the Otis Air Force Base, and that it is not the subject of any Release Notifications, Release Tracking Numbers, Response Action Outcome Statements, Tier Classification or Activity and Use Limitations, as these terms are defined in the Massachusetts Contingency Plan, 310 C.M.R. 40.0000, and has not otherwise been listed or identified by the Massachusetts Department of Environmental Protection or the United States Environmental Protection Agency as a location on or under which hazardous wastes or other soil or groundwater contaminants have come to be located. I further certify that I have no knowledge of past or present releases of oil, hazardous materials or other soil or groundwater contaminants at the P.A. Landers, Coleman Pit site.

In preparing this certification, I have inquired of the owners and operators of P.A. Landers Inc. and the property owners. And have made reasonable efforts to verify the information contained herein and/or obtained from them by contacting the appropriate Regional Office of the Massachusetts Department of Environmental Protection.

I certify under penalties of law that I have personally examined and am familiar with the information contained in this Submittal, including any and all documents accompanying this certification, and that, based on my inquiry of those individuals immediately responsible for obtaining the information contained herein, is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for willfully submitting false, inaccurate or incomplete information.

Signed under the pains and penalties of perjury this 12th day of October, 2006

Daniel Graziano
General Sales Manager

Received Time Oct. 12, 10:19AM



P.A. Landers, Inc.

351 Winter Street
Hanover, Massachusetts 02339

PHONE: (781)826-8818 FAX: (781)829-8934

TICKET #: 3132976 REPRINT TIME: 9:00:50 AM DATE: 7/13/2007

JWS Ticket System

WEIGH MASTER:

SOLD TO:

TET10

TETRA TECH, INC.

Order No: 01

Loads Today: 1

Gty. Today: 23.50

SHIP TO: SANDWICH-OTIS AIR FORCE BA

Camp Edwards, West Truck R

8100 1748A

CHUCK 617-306-3936

8.00 PER TON MAT & 4.00 PER TON del

CUSTOMER ID.	PO	PO DESCRIPTION	LOCATION ID.
TET10		SANDWICH-OTIS AIR FORCE BASE	03
TRUCK ID.	TRUCK DESCRIPTION	COMMENTS	PERMIT
62	P.A. LANDERS 10 WHEELER	Deliver	
GROSS WT.	TARE WT.	NET WT.	MAT. ID.
78060	31060	47000	3
			3" MINUS GRAVEL
			23.50 Ton

WAIT TIME

RECEIVED BY: *Chad Carter*

Unit price
Delivery
Tax

P.A. Landers, Inc. will assume no responsibility for any damages to property when deliveries are made inside the sidewalk or damage done to bounding properties. No adjustment made after slip has been signed for measurement weight, time or amount.

CUSTOMER COPY 1

TAPE

ATTACHMENT C
TRANSPORTATION AND DISPOSAL



Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

Tracking Number _____

A. Location Information

Important:
When filling out forms on the computer, use only the tab key to move your cursor - do not use the return key.



1. Provide the following information on the location where the waste was generated:

ASP - Area A Soil Removal

Release name (optional)

Pocasset Forestdale Road

Street

Camp Edwards/Massachusetts Military Reserv.

City/Town

Location aid

MA

State

8/29/06

To

02542

Zip code

2. Date/Period of generation:

8/29/06

From

3. U.S. EPA ID number:

MA0210092730

4. 21E release:

☐ Yes

☒ No

5. List additional tracking documents associated with this document:

B. Generator Information

1. Provide the following generator information:

CAMP EDWARDS

Name of organization

Dustin Burroughs

Contact name

1203 WEST INNER ROAD

Street address

MA

State

02542

Zip code

HAZARDOUS MATERIALS MGR.

Title

Bourne

City/Town

508-968-5834

Telephone number(including extension)

C. Owner and/or Operator Information

1. If the owner and/or operator is different from the generator as indicated in Section B, provide the following information:

Check applicable: ☐ owner ☐ operator

Name of organization

Contact name

Title

Street address

City/Town

State

Zip code

Telephone number

Ext.

Important:
This form is not to be used for the shipment of remediation wastes subject to management under section 310 CMR 40.0035 of the Massachusetts Contingency Plan nor is it to be used in lieu of a hazardous waste manifest for hazardous waste or recyclable materials subject to the Massachusetts Hazardous Waste Regulations 310 CMR 30.000.



Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

Tracking Number _____

D. Transporter/Common Carrier Information

1. Provide the following information:

Global Remediation Service Inc.

Transporter/Common carrier name

N/A

Hazardous waste license number (if applicable)

Licensing state (if applicable)

Tim Burbank

PM

Contact person

Title

1 Westinghouse Plaza Suite 4001

Street

Hyde Park

Ma.

02137

City/Town

State

Zip code

617-364-0012

201

Telephone number

Ext.

E. Receiving Facility Information

1. Provide the following information on the receiving facility:

Waste Management/ Taunton Landfill

Operator/Facility name

Peter Richer

Title

Contact person

340 East Britannia St.

Street

Taunton

Ma

02780

City/Town

State

Zip code

617-797-1534

Telephone number

Ext.

2. Type of facility:

☐ asphalt batch/cold mix

☐ asphalt batch/hot mix

☐ landfill/disposal

☒ landfill/ daily cover

☐ thermal processing

☐ landfill/structural fill

☐ other(specify): _____

3. Permit number: W031554



Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

Tracking Number _____

F. Description of Material

Check all that apply:

1. a. ☒ soil ☐ dredge material ☐ fill

b. Description: sandy loam/glacial till

c. Classification: ☐ MIT ☐ USDA ☐ USAEC ☐ ASEE

2. ☐ Other(describe): _____

3. Type of contamination:

a. ☐ gasoline ☐ diesel fuel ☐ #2 oil ☐ #4 oil
☐ #6 oil ☐ waste oil ☐ kerosene ☐ jet fuel

- b. ☐ Debris:

☐ demolition ☐ vegetative ☐ inorganic

c. ☒ Other(describe): Lead and metals contamination

4. Constituents of concern (check all that apply):

☐ As	☐ HVOCs
☐ Cd	☐ PATH
☐ Cr	☐ VOCs
☒ Pb	☐ PAHs
☐ Hg	☐ BNAs
☐ Na	☐ TPH
☐ PCBs	☐ Other(describe): _____

5. Analyses performed (check all that apply):

☒ As	☐ PATH
☒ Cd	☒ VOCs
☒ Cr	☐ PAHs
☒ Pb	☐ BNAs
☒ Hg	☒ TPH
☐ Na	☒ TCLP (inorganic)
☒ PCBs	☐ TCLP (organic)
☐ HVOCs	☒ Other(describe): <u>SVOCs, herbicides, pesticides, explosives, pH, Reactivity</u>

6. Screening performed:

Type _____

Instrument used _____

Constituents _____



Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

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Tracking Number _____

F. Description of Material (cont.)

7. Estimated volume of materials:

100

Cubic yards

Tons

Other(specify units)

8. Contaminant source (check one):

☐ transportation accident

☐ lost

☒ other(describe): Jet Starter Cartridges

9. Indicate which waste characterization support documentation is attached:

☐ site history information

☐ sampling and analytical methods/procedure

☒ laboratory data

☐ field screening data

If supporting documentation is not appended, provide an attachment stating the date and in connection with what document such information was previously submitted to the facility.

G. Qualified Environmental Professional Opinion

"I have personally examined and am familiar with the information contained on and submitted with this form. Based on this information, it is my opinion that the testing and assessment actions undertaken were adequate to characterize the waste, and that the facility or location can accept wastes with the characteristics described in this submittal. I am aware that significant penalties including, but not limited to, possible fines and imprisonment may result if I willfully submit information which I know to be false, inaccurate, or materially incomplete."

Tetra Tech EC, Inc.

Name of organization

Charles A. Collet

Name of professional

Sr. Project Manager

Title

617.457.8271

Telephone number

Signature

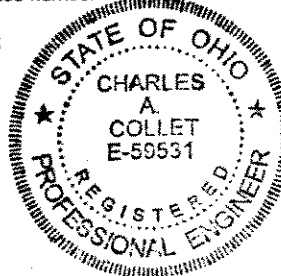
9/27/06

Date

E-59531

License number

Seal:





Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge
materials not subject to management under section 310 CMR 40.0035
nor manifesting under 310 CMR 30.000

Tracking Number _____

H. Certification of Generator

"I certify under penalties of law that I have personally examined and am familiar with the information contained in this submittal, including any and all documents accompanying this certification, and that, based on my inquiry of those individuals immediately responsible for obtaining the information contained herein is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties, including, but not limited to, possible fines and imprisonment, for willfully submitting false, inaccurate, or incomplete information."


Signature

28 OCT 2006
Date

Dustin Burroughs
Name(print)

I. Acknowledgment of Receipt by Receiving Facility

Receiving facility _____

Representative (print) _____

Title _____

Signature _____

Date _____



Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

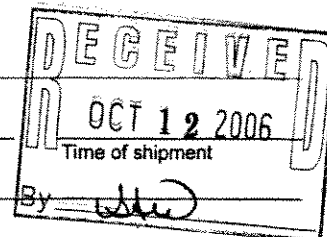
Tracking Number _____

J. Load Information

Note:
Make additional
copies of this page
as necessary.

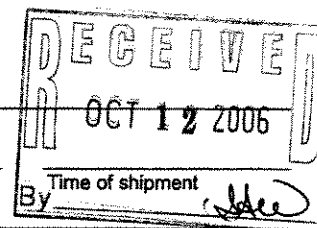
Load#: 1
Signature of transporter W. Brown
Date received 10-12-06 Time received 0930 07
Truck/Tractor registration MA 68776 10:31
Load size (cubic yards/tons) 23.18

Receiving facility Taunton
Date of shipment 10-12-06
Trailer registration 76025 MA



Load#: 2
Signature of transporter W. Brown
Date received 10-12-06 Time received 2:44
Truck/Tractor registration MA 68776 18.62
Load size (cubic yards/tons)

Receiving facility Taunton
Date of shipment 10-12-06
Trailer registration MA 76025



Load#: _____

Signature of transporter _____
Date received _____ Time received _____
Truck/Tractor registration _____
Load size (cubic yards/tons) _____

Receiving facility _____
Date of shipment _____ Time of shipment _____
Trailer registration _____

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons) 41.80
Total carried forward (cubic yards/tons) _____
Total carried forward and this page (cubic yards/tons) _____

Page 1 of 1



Taunton Landfill
340 East Britannia St
Taunton, MA, 02780
Ph: 508-821-4444

Original
Ticket# 754905

1175416

Customer Name GLOBALRS Global Remediaton Se Carrier GLOBAL GLOBAL REMEDIATION SERVICES
Ticket Date 10/12/2006 Vehicle# R11 Volume
Payment Type Credit Account Container
Manual Ticket# Driver
Hauling Ticket# Check#
Route Billing # 0000117
State Waste Code Gen EPA ID
Manifest *
Destination Grid
PO
Profile GR410 (WM - CONT SOIL RCG)
Generator NE-CAMPEDWARDS CAMP EDWARDS

	Time	Scale	Operator	Inbound	Gross	
In	10/12/2006 14:44:16	Scale1	SWASHBUR		Tare	37800 lb
Out	10/12/2006 14:44:50	MANUAL WT	SWASHBUR		Net	37240 lb
					Tons	18.62

Comments

Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
1 Cont Soil RCG-Tons	100	18.62	Tons				MA
2 FUEL-Fuel Surcharg	100		%				MA
3 PENV-Environmental	100		%				MA

Total Tax
Total Ticket

Driver's Signature

W Brown





Taunton Landfill
340 East Britannia St
Taunton, MA, 02780
Ph: 508-821-4444

Original
Ticket# 754840

1175351

Customer Name GLOBALRS Global Remediation Se Carrier GLOBAL GLOBAL REMEDIATION SERVICES
Ticket Date 10/12/2006 Vehicle# R11 Volume
Payment Type Credit Account Container
Manual Ticket# Driver
Hauling Ticket# Check#
Route Billing # 0000117
State Waste Code Gen EPA ID
Manifest *
Destination Grid
PO
Profile GR410 (WM - CONT SOIL RGC)
Generator NE-CAMPEDWARDS CAMP EDWARDS

	Time	Scale	Operator	Inbound	Gross	84160	lb
In	10/12/2006 10:31:30	Scale1	SWASHBUR		Tare	37800	lb
Out	10/12/2006 10:31:57	MANUAL WT	SWASHBUR		Net	46360	lb
					Tons		23.18

Comments

Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
1 Cont Soil RCG-Tons 100		23.18	Tons				MA
2 FUEL-Fuel Surcharg 100			%				MA
3 PENV-Environmental 100			%				MA

Total Tax
Total Ticket

Driver's Signature

W. Brown

403WM-N

[Signature]





Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

Tracking Number

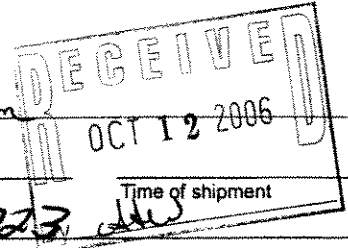
Ameritech **418**

J. Load Information

Note:
Make additional
copies of this page
as necessary.

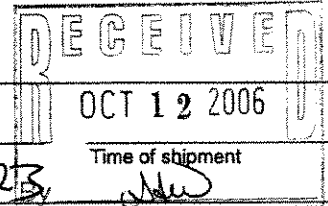
Load#: *[Signature]*
Signature of transporter
10-12-06
Date received 10:37 Time received
918378 ME
Truck/Tractor registration
27.57
Load size (cubic yards/tons)

Taunton
Receiving facility
Date of shipment 10-12-2006 Time of shipment
A654723
Trailer registration



Load#: *[Signature]*
Signature of transporter
10-12-06
Date received 1:49 Time received
918578 ME
Truck/Tractor registration
15.64
Load size (cubic yards/tons)

Taunton
Receiving facility
Date of shipment 10-12-2006 Time of shipment
A654723
Trailer registration



Load#: _____

Signature of transporter
Date received _____ Time received _____
Truck/Tractor registration
Load size (cubic yards/tons)

Receiving facility
Date of shipment _____ Time of shipment _____
Trailer registration

K. Log Sheet Volume Information

43.21
Total volume this page (cubic yards/tons)
Total carried forward (cubic yards/tons)
Total carried forward and this page (cubic yards/tons)

Page 1 of 1



Taunton Landfill
340 East Britannia St
Taunton, MA, 02780
Ph: 508-821-4444

Original
Ticket# 754841

1175352

Customer Name GLOBALRS Global Remediation Se Carrier AMERITECH AMERITECH/PROFILE
Ticket Date 10/12/2006 Vehicle# AMERIT418 Volume
Payment Type Credit Account Container
Manual Ticket# Driver PETER
Hauling Ticket# Check#
Route Billing # 0000117
State Waste Code Gen EPA ID
Manifest *
Destination Grid
PO
Profile GR410 (WM - CONT SOIL RGC)
Generator NE-CAMPEDWARDS CAMP EDWARDS

	Time	Scale	Operator	Inbound	Gross		
In	10/12/2006 10:37:12	Scale1	SWASHBUR		Tare	91440	1b
Out	10/12/2006 10:37:12		SWASHBUR		Net	36300	1b
					Tons	55140	1b
							27.57

Comments

Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
1 Cont Soil RCG-Tons	100	27.57	Tons				MA
2 FUEL-Fuel Surcharg	100		%				MA
3 PENV-Environmental	100		%				MA

Total Tax
Total Ticket

Driver's Signature

403WM-N





Taunton Landfill
340 East Britannia St
Taunton, MA, 02780
Ph: 508-821-4444

Original
Ticket# 754895

1175406

Customer Name GLOBALRS Global Remediation Se Carrier AMERITECH AMERITECH/PROFILE
Ticket Date 10/12/2006 Vehicle# AMERIT418 Volume
Payment Type Credit Account Container
Manual Ticket# Driver PETER
Hauling Ticket# Check#
Route Billing # 0000117
State Waste Code Gen EPA ID
Manifest *
Destination Grid
PO
Profile GR410 (WM - CONT SOIL RGC)
Generator NE-CAMPEDWARDS CAMP EDWARDS

	Time	Scale	Operator	Inbound	Gross	
In	10/12/2006 13:49:31	Scale1	SWASHBUR		Tare	67580 1b
Out	10/12/2006 13:49:31		SWASHBUR		Net	36300 1b
					Tons	31280 1b
						15.64

Comments

Product	LD%	Qty	UDM	Rate	Tax	Amount	Origin
1 Cont Soil RCG-Tons	100	15.64	Tons				MA
2 FUEL-Fuel Surcharg	100		%				MA
3 PENV-Environmental	100		%				MA

Total Tax
Total Ticket

Driver's Signature

403WM-N



USEPA-CLP FORMS

-1-

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

TT083006ASP-C-01N

Lab Name: STL BURLINGTON Contract: 26000

Lab Code: STLVT Case No.: 26000 SAS No.: _____ SDG No.: TT6

Matrix (soil/water): SOIL Lab Sample ID: 681896

Level (low/med): LOW Date Received: 9/6/2006

% Solids: 100.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	9830			P
7440-36-0	Antimony	0.60	U		P
7440-38-2	Arsenic	4.4			P
7440-39-3	Barium	30.3			P
7440-41-7	Beryllium	0.40			P
7440-42-8	Boron	3.9	B		P
7440-43-9	Cadmium	0.030	U		P
7440-70-2	Calcium	439			P
7440-47-3	Chromium	480			P
7440-48-4	Cobalt	3.7	B		P
7440-50-8	Copper	9.9			P
7439-89-6	Iron	14700			P
7439-92-1	Lead	6.1			P
7439-95-4	Magnesium	1860			P
7439-96-5	Manganese	250			P
7439-97-6	Mercury	0.019	B		CV
7439-98-7	Molybdenum	3.3			P
7440-02-0	Nickel	12.0			P
7440-09-7	Potassium	1580			P
7782-49-2	Selenium	0.37	U		P
7440-22-4	Silver	0.15	U		P
7440-23-5	Sodium	252	B		P
7440-28-0	Thallium	0.40	U		P
7440-62-2	Vanadium	21.8			P
7440-66-6	Zinc	20.6		E	P

Color Before: light brown Clarity Before: _____ Texture: fine

Color After: yellow Clarity After: cloudy Artifacts: _____

Comments:

USEPA-CLP FORMS

-1-

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

TT083006ASP-C-01S

Lab Name: STL BURLINGTON Contract: 26000

Lab Code: STLVT Case No.: 26000 SAS No.: _____ SDG No.: TT6

Matrix (soil/water): SOIL Lab Sample ID: 681897

Level (low/med): LOW Date Received: 9/6/2006

% Solids: 100.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	9760			P
7440-36-0	Antimony	0.60	U		P
7440-38-2	Arsenic	3.2			P
7440-39-3	Barium	23.0			P
7440-41-7	Beryllium	0.29	B		P
7440-42-8	Boron	2.7	B		P
7440-43-9	Cadmium	0.030	U		P
7440-70-2	Calcium	291	B		P
7440-47-3	Chromium	552			P
7440-48-4	Cobalt	2.9	B		P
7440-50-8	Copper	7.7			P
7439-89-6	Iron	14100			P
7439-92-1	Lead	6.3			P
7439-95-4	Magnesium	1070			P
7439-96-5	Manganese	155			P
7439-97-6	Mercury	0.015	B		CV
7439-98-7	Molybdenum	3.2			P
7440-02-0	Nickel	9.8			P
7440-09-7	Potassium	1000			P
7782-49-2	Selenium	0.37	U		P
7440-22-4	Silver	0.15	U		P
7440-23-5	Sodium	217	B		P
7440-28-0	Thallium	0.40	U		P
7440-62-2	Vanadium	19.2			P
7440-66-6	Zinc	20.8		E	P

Color Before: light brown Clarity Before: _____ Texture: fine

Color After: yellow Clarity After: cloudy Artifacts: _____

Comments:

USEPA-CLP FORMS

-1-

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

TT083006ASP-C-01E

Lab Name: STL BURLINGTON Contract: 26000

Lab Code: STLVT Case No.: 26000 SAS No.: _____ SDG No.: TT6

Matrix (soil/water): SOIL Lab Sample ID: 681898

Level (low/med): LOW Date Received: 9/6/2006

% Solids: 100.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	8620			P
7440-36-0	Antimony	0.57	U		P
7440-38-2	Arsenic	3.4			P
7440-39-3	Barium	17.0			P
7440-41-7	Beryllium	0.27	B		P
7440-42-8	Boron	2.2	B		P
7440-43-9	Cadmium	0.029	U		P
7440-70-2	Calcium	272	B		P
7440-47-3	Chromium	674			P
7440-48-4	Cobalt	2.0	B		P
7440-50-8	Copper	6.5			P
7439-89-6	Iron	15200			P
7439-92-1	Lead	4.1			P
7439-95-4	Magnesium	634			P
7439-96-5	Manganese	235			P
7439-97-6	Mercury	0.019	B		CV
7439-98-7	Molybdenum	1.0			P
7440-02-0	Nickel	7.6			P
7440-09-7	Potassium	837			P
7782-49-2	Selenium	0.35	U		P
7440-22-4	Silver	0.20	B		P
7440-23-5	Sodium	180	B		P
7440-28-0	Thallium	0.39	U		P
7440-62-2	Vanadium	16.5			P
7440-66-6	Zinc	10.5		E	P

Color Before: light brown Clarity Before: _____ Texture: fine

Color After: yellow Clarity After: cloudy Artifacts: _____

Comments:

USEPA-CLP FORMS

-1-

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

TT083006ASP-C-01W

Lab Name: STL BURLINGTON Contract: 26000

Lab Code: STLVT Case No.: 26000 SAS No.: _____ SDG No.: TT6

Matrix (soil/water): SOIL Lab Sample ID: 681899

Level (low/med): LOW Date Received: 9/6/2006

% Solids: 100.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	11000			P
7440-36-0	Antimony	0.82	B		P
7440-38-2	Arsenic	4.6			P
7440-39-3	Barium	31.9			P
7440-41-7	Beryllium	0.45			P
7440-42-8	Boron	3.8	B		P
7440-43-9	Cadmium	0.030	U		P
7440-70-2	Calcium	484			P
7440-47-3	Chromium	376			P
7440-48-4	Cobalt	3.8			P
7440-50-8	Copper	9.4			P
7439-89-6	Iron	15200			P
7439-92-1	Lead	7.0			P
7439-95-4	Magnesium	2190			P
7439-96-5	Manganese	209			P
7439-97-6	Mercury	0.015	B		CV
7439-98-7	Molybdenum	0.91			P
7440-02-0	Nickel	12.4			P
7440-09-7	Potassium	1690			P
7782-49-2	Selenium	0.36	U		P
7440-22-4	Silver	0.22	B		P
7440-23-5	Sodium	281	B		P
7440-28-0	Thallium	0.40	U		P
7440-62-2	Vanadium	21.6			P
7440-66-6	Zinc	24.5		E	P

Color Before: light brown Clarity Before: _____ Texture: fine

Color After: yellow Clarity After: cloudy Artifacts: _____

Comments:

USEPA-CLP FORMS

-1-

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

TT083006ASP-C-01B

Lab Name: STL BURLINGTON Contract: 26000

Lab Code: STLVT Case No.: 26000 SAS No.: _____ SDG No.: TT6

Matrix (soil/water): SOIL Lab Sample ID: 681900

Level (low/med): LOW Date Received: 9/6/2006

% Solids: 100.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	11700			P
7440-36-0	Antimony	0.89	B		P
7440-38-2	Arsenic	5.1			P
7440-39-3	Barium	32.6			P
7440-41-7	Beryllium	0.43			P
7440-42-8	Boron	3.9	B		P
7440-43-9	Cadmium	0.030	U		P
7440-70-2	Calcium	469			P
7440-47-3	Chromium	394			P
7440-48-4	Cobalt	3.6	B		P
7440-50-8	Copper	10.7			P
7439-89-6	Iron	16600			P
7439-92-1	Lead	10.3			P
7439-95-4	Magnesium	2170			P
7439-96-5	Manganese	135			P
7439-97-6	Mercury	0.014	B		CV
7439-98-7	Molybdenum	2.3			P
7440-02-0	Nickel	13.2			P
7440-09-7	Potassium	1630			P
7782-49-2	Selenium	0.36	U		P
7440-22-4	Silver	0.19	B		P
7440-23-5	Sodium	248	B		P
7440-28-0	Thallium	0.40	U		P
7440-62-2	Vanadium	20.7			P
7440-66-6	Zinc	29.7		E	P

Color Before: light brown Clarity Before: _____ Texture: fine

Color After: yellow Clarity After: cloudy Artifacts: _____

Comments:

USEPA-CLP FORMS

-1-

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

TT083006ASP-C-01B-FD

Lab Name: STL BURLINGTON Contract: 26000

Lab Code: STLVT Case No.: 26000 SAS No.: _____ SDG No.: TT6

Matrix (soil/water): SOIL Lab Sample ID: 681901

Level (low/med): LOW Date Received: 9/6/2006

% Solids: 100.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	10900			P
7440-36-0	Antimony	0.57	U		P
7440-38-2	Arsenic	4.5			P
7440-39-3	Barium	35.3			P
7440-41-7	Beryllium	0.46			P
7440-42-8	Boron	4.2	B		P
7440-43-9	Cadmium	0.029	U		P
7440-70-2	Calcium	476			P
7440-47-3	Chromium	356			P
7440-48-4	Cobalt	4.0			P
7440-50-8	Copper	11.6			P
7439-89-6	Iron	15500			P
7439-92-1	Lead	11.0			P
7439-95-4	Magnesium	2340			P
7439-96-5	Manganese	145			P
7439-97-6	Mercury	0.013	U		CV
7439-98-7	Molybdenum	2.4			P
7440-02-0	Nickel	14.3			P
7440-09-7	Potassium	1740			P
7782-49-2	Selenium	0.35	U		P
7440-22-4	Silver	0.24	B		P
7440-23-5	Sodium	283	B		P
7440-28-0	Thallium	0.38	U		P
7440-62-2	Vanadium	22.5			P
7440-66-6	Zinc	32.4		E	P

Color Before: light brown Clarity Before: _____ Texture: fine

Color After: yellow Clarity After: cloudy Artifacts: _____

Comments: _____

FORM 1
METHOD 331 ORGANICS ANALYSIS DATA SHEET

TTECMA SAMPLE NO.

83006ASPC01N

Lab Name: STL BURLINGTON

Contract: 26000

Lab Code: STLVT

Case No.: 26000

SAS No.:

SDG No.: TT6

Matrix: (soil/water) SOIL

Lab Sample ID: 681896

Sample wt/vol: 25.0 (g/mL) G

Lab File ID: P090706A06

% Moisture: 0 decanted: (Y/N) N

Date Received: 09/06/06

Extraction: (SepF/Cont/Sonc) OTHER

Date Extracted: 09/06/06

Concentrated Extract Volume: 100 (mL)

Date Analyzed: 09/07/06

Injection Volume: 100.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
---------	----------	---	---

14797-73-0-----Perchlorate			
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0.46	J
------	---

FORM 1
METHOD 331 ORGANICS ANALYSIS DATA SHEET

TTECMA SAMPLE NO.

06ASPC01S

Lab Name: STL BURLINGTON

Contract: 26000

Lab Code: STLVT

Case No.: 26000

SAS No.:

SDG No.: TT6

Matrix: (soil/water) SOIL

Lab Sample ID: 681897

Sample wt/vol: 25.0 (g/mL) G

Lab File ID: P090706A07

% Moisture: 0 decanted: (Y/N) N

Date Received: 09/06/06

Extraction: (SepF/Cont/Sonc) OTHER

Date Extracted: 09/06/06

Concentrated Extract Volume: 100 (mL)

Date Analyzed: 09/07/06

Injection Volume: 100.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
---------	----------	---	---

14797-73-0-----Perchlorate	0.41	J
----------------------------	------	---

FORM 1
METHOD 331 ORGANICS ANALYSIS DATA SHEET

TTECMA SAMPLE NO.

83006ASPC01E

Lab Name: STL BURLINGTON

Contract: 26000

Lab Code: STLVT

Case No.: 26000

SAS No.:

SDG No.: TT6

Matrix: (soil/water) SOIL

Lab Sample ID: 681898

Sample wt/vol: 25.0 (g/mL) G

Lab File ID: P090706A08

% Moisture: 0 decanted: (Y/N) N

Date Received: 09/06/06

Extraction: (SepF/Cont/Sonc) OTHER

Date Extracted: 09/06/06

Concentrated Extract Volume: 100 (mL)

Date Analyzed: 09/07/06

Injection Volume: 100.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

pH: ____

Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
---------	----------	---	---

14797-73-0-----Perchlorate			
----------------------------	--	--	--

0.29 J

FORM 1
METHOD 331 ORGANICS ANALYSIS DATA SHEET

TTECMA SAMPLE NO.

83006ASPC01W

Lab Name: STL BURLINGTON Contract: 26000
Lab Code: STLVT Case No.: 26000 SAS No.: SDG No.: TT6
Matrix: (soil/water) SOIL Lab Sample ID: 681899
Sample wt/vol: 25.0 (g/mL) G Lab File ID: P090706A09
% Moisture: 0 decanted: (Y/N) N Date Received: 09/06/06
Extraction: (SepF/Cont/Sonc) OTHER Date Extracted: 09/06/06
Concentrated Extract Volume: 100 (mL) Date Analyzed: 09/07/06
Injection Volume: 100.0 (uL) Dilution Factor: 1.0
GPC Cleanup: (Y/N) N pH: ____ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
---------	----------	---	---

14797-73-0-----Perchlorate	0.57	J
----------------------------	------	---

FORM 1
METHOD 331 ORGANICS ANALYSIS DATA SHEET

TTECMA SAMPLE NO.

83006ASPC01B

Lab Name: STL BURLINGTON

Contract: 26000

Lab Code: STLVT

Case No.: 26000

SAS No.:

SDG No.: TT6

Matrix: (soil/water) SOIL

Lab Sample ID: 681900

Sample wt/vol: 25.0 (g/mL) G

Lab File ID: P090706A10

% Moisture: 0 decanted: (Y/N) N

Date Received: 09/06/06

Extraction: (SepF/Cont/Sonc) OTHER

Date Extracted: 09/06/06

Concentrated Extract Volume: 100 (mL)

Date Analyzed: 09/07/06

Injection Volume: 100.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

pH: ____

Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
---------	----------	---	---

14797-73-0-----Perchlorate			
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0.57	J
------	---

FORM 1
METHOD 331 ORGANICS ANALYSIS DATA SHEET

TTECMA SAMPLE NO.

006ASPC01BFD

Lab Name: STL BURLINGTON

Contract: 26000

Lab Code: STLVT

Case No.: 26000

SAS No.:

SDG No.: TT6

Matrix: (soil/water) SOIL

Lab Sample ID: 681901

Sample wt/vol: 25.0 (g/mL) G

Lab File ID: P090706A11

% Moisture: 0 decanted: (Y/N) N

Date Received: 09/06/06

Extraction: (SepF/Cont/Sonc) OTHER

Date Extracted: 09/06/06

Concentrated Extract Volume: 100 (mL)

Date Analyzed: 09/07/06

Injection Volume: 100.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

pH: ____

Sulfur Cleanup: (Y/N) N

CAS NO.

COMPOUND

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

Q

14797-73-0-----Perchlorate

0.55 J

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

TTECMA SAMPLE NO.

083006ASPC01

Lab Name: STL BURLINGTON

Contract: 26000

Lab Code: STLVT

Case No.: 26000

SAS No.:

SDG No.: TT5

Matrix: (soil/water) SOIL

Lab Sample ID: 681340

Sample wt/vol: 6.4 (g/mL) G

Lab File ID: 681340I2

Level: (low/med) LOW

Date Received: 08/31/06

% Moisture: not dec. 16

Date Analyzed: 09/13/06

GC Column: CAP ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: (uL)

Soil Aliquot Volume: (uL)

CAS NO. COMPOUND CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG Q

74-87-3	-----Chloromethane	4.6	U
75-01-4	-----Vinyl Chloride	4.6	U
74-83-9	-----Bromomethane	4.6	U
75-00-3	-----Chloroethane	4.6	U
75-35-4	-----1,1-Dichloroethene	4.6	U
67-64-1	-----Acetone	48	
75-15-0	-----Carbon Disulfide	4.6	U
75-09-2	-----Methylene Chloride	4.6	U
156-60-5	-----trans-1,2-Dichloroethene	4.6	U
1634-04-4	-----Methyl-t-Butyl Ether	4.6	U
75-34-3	-----1,1-Dichloroethane	4.6	U
108-05-4	-----Vinyl Acetate	4.6	U
156-59-2	-----cis-1,2-Dichloroethene	4.6	U
78-93-3	-----2-Butanone	4.6	U
74-97-5	-----Bromochloromethane	4.6	U
67-66-3	-----Chloroform	4.6	U
71-55-6	-----1,1,1-Trichloroethane	4.6	U
56-23-5	-----Carbon Tetrachloride	4.6	U
71-43-2	-----Benzene	4.6	U
107-06-2	-----1,2-Dichloroethane	4.6	U
79-01-6	-----Trichloroethene	4.6	U
78-87-5	-----1,2-Dichloropropane	4.6	U
74-95-3	-----Dibromomethane	4.6	U
75-27-4	-----Bromodichloromethane	4.6	U
110-75-8	-----2-Chloroethyl Vinyl Ether	4.6	U
10061-01-5	-----cis-1,3-Dichloropropene	4.6	U
108-10-1	-----4-Methyl-2-pentanone	4.6	U
108-88-3	-----Toluene	4.6	U
10061-02-6	-----trans-1,3-Dichloropropene	4.6	U
79-00-5	-----1,1,2-Trichloroethane	4.6	U
127-18-4	-----Tetrachloroethene	4.6	U
591-78-6	-----2-Hexanone	4.6	U
124-48-1	-----Dibromochloromethane	4.6	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

TTECMA SAMPLE NO.

083006ASPC01

Lab Name: STL BURLINGTON

Contract: 26000

Lab Code: STLVT

Case No.: 26000

SAS No.:

SDG No.: TT5

Matrix: (soil/water) SOIL

Lab Sample ID: 681340

Sample wt/vol: 6.4 (g/mL) G

Lab File ID: 681340I2

Level: (low/med) LOW

Date Received: 08/31/06

% Moisture: not dec. 16

Date Analyzed: 09/13/06

GC Column: CAP ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: (uL)

Soil Aliquot Volume: (uL)

CAS NO. COMPOUND CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG Q

106-93-4-----	1,2-Dibromoethane	4.6	U
108-90-7-----	Chlorobenzene	4.6	U
100-41-4-----	Ethylbenzene	4.6	U
1330-20-7-----	Xylene (m,p)	4.6	U
95-47-6-----	Xylene (o)	4.6	U
1330-20-7-----	Xylene (total)	4.6	U
100-42-5-----	Styrene	4.6	U
75-25-2-----	Bromoform	4.6	U
79-34-5-----	1,1,2,2-Tetrachloroethane	4.6	U
541-73-1-----	1,3-Dichlorobenzene	4.6	U
106-46-7-----	1,4-Dichlorobenzene	4.6	U
95-50-1-----	1,2-Dichlorobenzene	4.6	U
96-12-8-----	1,2-Dibromo-3-Chloropropane	4.6	U
120-82-1-----	1,2,4-Trichlorobenzene	4.6	U

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

TTECMA SAMPLE NO.

TT083006ASPC01

Lab Name: STL BURLINGTON

Contract: 26000

Lab Code: STLVT

Case No.: 26000

SAS No.:

SDG No.: TT5

Matrix: (soil/water) SOIL

Lab Sample ID: 681340

Sample wt/vol: 30.0 (g/mL) G

Lab File ID: 681340

Level: (low/med) LOW

Date Received: 08/31/06

% Moisture: 16 decanted: (Y/N) N

Date Extracted: 08/31/06

Concentrated Extract Volume: 500 (uL)

Date Analyzed: 09/07/06

Injection Volume: 2.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: ____

CAS NO. COMPOUND CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG Q

62-75-9-----N-Nitrosodimethylamine	390	U
62-53-3-----Aniline	990	U
108-95-2-----Phenol	390	U
111-44-4-----bis(2-Chloroethyl) Ether	390	U
95-57-8-----2-Chlorophenol	390	U
541-73-1-----1,3-Dichlorobenzene	390	U
106-46-7-----1,4-Dichlorobenzene	390	U
100-51-6-----Benzyl Alcohol	390	U
95-50-1-----1,2-Dichlorobenzene	390	U
95-48-7-----2-Methylphenol	390	U
108-60-1-----2,2'-oxybis(1-Chloropropane)	390	U
106-44-5-----4-Methylphenol	390	U
621-64-7-----N-Nitroso-di-n-propylamine	390	U
67-72-1-----Hexachloroethane	390	U
98-95-3-----Nitrobenzene	390	U
89-98-5-----2-Chlorobenzaldehyde	390	U
78-59-1-----Isophorone	390	U
587-04-2-----3-Chlorobenzaldehyde	390	U
104-88-1-----4-Chlorobenzaldehyde	390	U
88-75-5-----2-Nitrophenol	390	U
105-67-9-----2,4-Dimethylphenol	390	U
111-91-1-----bis(2-Chloroethoxy)methane	390	U
65-85-0-----Benzoic Acid	990	U
120-83-2-----2,4-Dichlorophenol	390	U
120-82-1-----1,2,4-Trichlorobenzene	390	U
91-20-3-----Naphthalene	390	U
106-47-8-----4-Chloroaniline	390	U
87-68-3-----Hexachlorobutadiene	390	U
59-50-7-----4-Chloro-3-methylphenol	390	U
91-57-6-----2-Methylnaphthalene	390	U
77-47-4-----Hexachlorocyclopentadiene	390	U
88-06-2-----2,4,6-Trichlorophenol	390	U
95-95-4-----2,4,5-Trichlorophenol	990	U

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

TTECMA SAMPLE NO.

TT083006ASPC01

Lab Name: STL BURLINGTON Contract: 26000
Lab Code: STLVT Case No.: 26000 SAS No.: SDG No.: TT5
Matrix: (soil/water) SOIL Lab Sample ID: 681340
Sample wt/vol: 30.0 (g/mL) G Lab File ID: 681340
Level: (low/med) LOW Date Received: 08/31/06
% Moisture: 16 decanted: (Y/N) N Date Extracted: 08/31/06
Concentrated Extract Volume: 500 (uL) Date Analyzed: 09/07/06
Injection Volume: 2.0 (uL) Dilution Factor: 1.0
GPC Cleanup: (Y/N) Y pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
118-91-2	2-Chlorobenzoic Acid	2000	U
91-58-7	2-Chloronaphthalene	390	U
88-74-4	2-Nitroaniline	990	U
131-11-3	Dimethylphthalate	390	U
208-96-8	Acenaphthylene	390	U
606-20-2	2,6-Dinitrotoluene	390	U
99-09-2	3-Nitroaniline	990	U
83-32-9	Acenaphthene	390	U
51-28-5	2,4-Dinitrophenol	990	U
132-64-9	Dibenzofuran	390	U
100-02-7	4-Nitrophenol	990	U
603-83-8	2-Methyl-3-Nitroaniline	390	U
121-14-2	2,4-Dinitrotoluene	390	U
106-19-4	Di-n-propyl Adipate	390	U
86-73-7	Fluorene	390	U
84-66-2	Diethylphthalate	390	U
7005-72-3	4-Chlorophenyl-phenylether	390	U
99-55-8	2-Methyl-5-Nitroaniline	390	U
100-01-6	4-Nitroaniline	990	U
534-52-1	4,6-Dinitro-2-methylphenol	990	U
86-30-6	N-nitrosodiphenylamine (1)	390	U
101-55-3	4-Bromophenyl-phenylether	390	U
118-74-1	Hexachlorobenzene	390	U
87-86-5	Pentachlorophenol	990	U
85-01-8	Phenanthrene	390	U
120-12-7	Anthracene	390	U
86-74-8	Carbazole	390	U
85-98-3	1,3-Diethyl-1,3-Diphenyl Ure	390	U
84-74-2	Di-n-butylphthalate	390	U
618-87-1	3,5-Dinitroaniline	390	U
119-75-5	2-Nitrodiphenylamine	390	U
206-44-0	Fluoranthene	29	J
129-00-0	Pyrene	27	J

(1) - Cannot be separated from Diphenylamine
FORM I SV

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

TTECMA SAMPLE NO.

TT083006ASPC01

Lab Name: STL BURLINGTON Contract: 26000
Lab Code: STLVT Case No.: 26000 SAS No.: SDG No.: TT5
Matrix: (soil/water) SOIL Lab Sample ID: 681340
Sample wt/vol: 30.0 (g/mL) G Lab File ID: 681340
Level: (low/med) LOW Date Received: 08/31/06
% Moisture: 16 decanted: (Y/N) N Date Extracted: 08/31/06
Concentrated Extract Volume: 500 (uL) Date Analyzed: 09/07/06
Injection Volume: 2.0 (uL) Dilution Factor: 1.0
GPC Cleanup: (Y/N) Y pH: ____

CAS NO. COMPOUND CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG Q

85-68-7-----	Butylbenzylphthalate	390	U
56-55-3-----	Benzo(a)anthracene	390	U
91-94-1-----	3,3'-Dichlorobenzidine	390	U
218-01-9-----	Chrysene	19	J
117-81-7-----	bis(2-Ethylhexyl)phthalate	390	U
117-84-0-----	Di-n-octylphthalate	390	U
205-99-2-----	Benzo(b)fluoranthene	20	J
207-08-9-----	Benzo(k)fluoranthene	390	U
50-32-8-----	Benzo(a)pyrene	390	U
193-39-5-----	Indeno(1,2,3-cd)pyrene	390	U
53-70-3-----	Dibenz(a,h)anthracene	390	U
191-24-2-----	Benzo(g,h,i)perylene	390	U

FORM 1
OTHER ORGANICS ANALYSIS DATA SHEET

TTECMA SAMPLE NO.

006ASPC01

Lab Name: STL BURLINGTON

Contract: 26000

Lab Code: STLVT

Case No.: 26000

SAS No.:

SDG No.: TT5

Matrix: (soil/water) SOIL

Lab Sample ID: 681340

Sample wt/vol: 30.0 (g/mL) G

Lab File ID: 07SE061432-R031

% Moisture: 16 decanted: (Y/N) N

Date Received: 08/31/06

Extraction: (SepF/Cont/Sonc) SONC

Date Extracted: 08/31/06

Concentrated Extract Volume: 10 (mL)

Date Analyzed: 09/07/06

Injection Volume: 1.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y

pH: ____

Sulfur Cleanup: (Y/N) N

CAS NO. COMPOUND CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG Q

319-84-6-----	alpha-BHC	2.0	U
319-85-7-----	beta-BHC	2.0	U
319-86-8-----	delta-BHC	2.0	U
58-89-9-----	gamma-BHC (Lindane)	2.0	U
76-44-8-----	Heptachlor	2.0	U
309-00-2-----	Aldrin	2.0	U
1024-57-3-----	Heptachlor epoxide	2.0	U
959-98-8-----	Endosulfan I	2.0	U
60-57-1-----	Dieldrin	4.0	U
72-55-9-----	4,4'-DDE	4.0	U
72-20-8-----	Endrin	4.0	U
33213-65-9-----	Endosulfan II	4.0	U
72-54-8-----	4,4'-DDD	4.0	U
1031-07-8-----	Endosulfan sulfate	4.0	U
50-29-3-----	4,4'-DDT	4.0	U
72-43-5-----	Methoxychlor	20	U
53494-70-5-----	Endrin ketone	4.0	U
7421-93-4-----	Endrin aldehyde	4.0	U
57-74-9-----	Chlordane	20	U
8001-35-2-----	Toxaphene	200	U
5103-74-2-----	gamma-Chlordane	2.0	U
5103-71-9-----	alpha-Chlordane	2.0	U

FORM 1
OTHER ORGANICS ANALYSIS DATA SHEET

TTECMA SAMPLE NO.

083006ASPC01

Lab Name: STL BURLINGTON

Contract: 26000

Lab Code: STLVT

Case No.: 26000

SAS No.:

SDG No.: TT5A

Matrix: (soil/water) SOIL

Lab Sample ID: 681340A

Sample wt/vol: 30.0 (g/mL) G

Lab File ID: 11SE062128-R131

% Moisture: 16 decanted: (Y/N) N

Date Received: 08/31/06

Extraction: (SepF/Cont/Sonc) SONC

Date Extracted: 08/31/06

Concentrated Extract Volume: 10 (mL)

Date Analyzed: 09/12/06

Injection Volume: 1.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y

pH: ____

Sulfur Cleanup: (Y/N) N

CAS NO. COMPOUND CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG Q

12674-11-2-----Aroclor-1016	20	U
11104-28-2-----Aroclor-1221	20	U
11141-16-5-----Aroclor-1232	20	U
53469-21-9-----Aroclor-1242	20	U
12672-29-6-----Aroclor-1248	20	U
11097-69-1-----Aroclor-1254	20	U
11096-82-5-----Aroclor-1260	20	U

FORM 1
HERBICIDES ORGANICS ANALYSIS DATA SHEET

TTECMA SAMPLE NO.

083006ASPC01

Lab Name: STL BURLINGTON

Contract: 26000

Lab Code: STLVT

Case No.: 26000

SAS No.:

SDG No.: TT5

Matrix: (soil/water) SOIL

Lab Sample ID: 681340

Sample wt/vol: 50.0 (g/mL) G

Lab File ID: 06SE061129-R121

% Moisture: 16 decanted: (Y/N) N

Date Received: 08/31/06

Extraction: (SepF/Cont/Sonc) OTHER

Date Extracted: 08/31/06

Concentrated Extract Volume: 25 (mL)

Date Analyzed: 09/06/06

Injection Volume: 1.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

pH: ____

Sulfur Cleanup: (Y/N) N

CAS NO. COMPOUND CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG Q

75-99-0-----	Dalapon	380	U
1918-00-9-----	Dicamba	23	U
93-65-2-----	MCP	9800	U
94-74-6-----	MCPA	9800	U
120-36-5-----	Dichlorprop	350	U
94-75-7-----	2,4-D	170	U
93-72-1-----	2,4,5-TP (Silvex)	19	U
93-76-5-----	2,4,5-T	21	U
88-85-7-----	Dinoseb	120	U
94-82-6-----	2,4-DB	190	U
87-86-5-----	Pentachlorophenol	20	U
51-36-5-----	3,5-Dichlorobenzoic acid	230	U
100-02-7-----	4-Nitrophenol	400	U

FORM 1
EXPLOSIVES ORGANICS ANALYSIS DATA SHEET

TTECMA SAMPLE NO.

TTASPC-01

Lab Name: STL BURLINGTON

Contract: 26000

Lab Code: STLVT

Case No.: 26000

SAS No.:

SDG No.: TT5

Matrix: (soil/water) SOIL

Lab Sample ID: 681340

Sample wt/vol: 15.0 (g/mL) G

Lab File ID: 05SE061803-R391

% Moisture: 0 decanted: (Y/N) N

Date Received: 08/31/06

Extraction: (SepF/Cont/Sonc) OTHER

Date Extracted: 09/05/06

Concentrated Extract Volume: 16 (mL)

Date Analyzed: 09/07/06

Injection Volume: 200.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

pH: ____

Sulfur Cleanup: (Y/N) N

CAS NO. COMPOUND CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG Q

59229-75-3-----	2,6-Diamino-4-nitrotoluene	27	U
6629-29-4-----	2,4-Diamino-6-nitrotoluene	13	U
2691-41-0-----	HMX	13	U
121-82-4-----	RDX	13	U
88-89-1-----	Picric acid	13	U
99-35-4-----	1,3,5-Trinitrobenzene	13	U
99-65-0-----	1,3-Dinitrobenzene	13	U
98-95-3-----	Nitrobenzene	13	U
479-45-8-----	Tetryl	13	U
55-63-0-----	Nitroglycerin	270	U
118-96-7-----	2,4,6-Trinitrotoluene	13	U
19406-51-0-----	4-Amino-2,6-dinitrotoluene	13	U
35572-78-2-----	2-Amino-4,6-dinitrotoluene	13	U
606-20-2-----	2,6-Dinitrotoluene	13	U
121-14-2-----	2,4-Dinitrotoluene	13	U
88-72-2-----	2-Nitrotoluene	13	U
99-99-0-----	4-Nitrotoluene	13	U
99-08-1-----	3-Nitrotoluene	13	U
78-11-5-----	PETN	530	U

USEPA-CLP FORMS

-1-

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

TT083006ASP-C-01 TCLP

Lab Name: STL BURLINGTON Contract: 26000

Lab Code: STLVT Case No.: 26000 SAS No.: _____ SDG No.: TT5

Matrix (soil/water): TCLP EXT Lab Sample ID: 681341

Level (low/med): LOW Date Received: 8/31/2006

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7440-38-2	Arsenic	4.7	U		P
7440-39-3	Barium	133	B		P
7440-43-9	Cadmium	1.6	B		P
7440-47-3	Chromium	1.3	U		P
7439-92-1	Lead	7.8	B		P
7439-97-6	Mercury	1.0	U		CV
7782-49-2	Selenium	4.8	U		P
7440-22-4	Silver	2.0	U		P

Color Before: colorless Clarity Before: clear Texture: _____

Color After: colorless Clarity After: clear Artifacts: _____

Comments: _____

USEPA-CLP FORMS

-1-

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

TT083006ASP-C-01

Lab Name: STL BURLINGTON Contract: 26000
Lab Code: STLVT Case No.: 26000 SAS No.: _____ SDG No.: TT5
Matrix (soil/water): SOIL Lab Sample ID: 681340
Level (low/med): LOW Date Received: 8/31/2006
% Solids: 84.4

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7440-38-2	Arsenic	3.0			P
7440-39-3	Barium	14.1	B		P
7440-43-9	Cadmium	0.035	U		P
7440-47-3	Chromium	8.9			P
7439-92-1	Lead	11.4			P
7439-97-6	Mercury	0.019	B		CV
7782-49-2	Selenium	0.42	U		P
7440-22-4	Silver	0.18	U		P
57-12-5	Cyanide	0.46	U		AS

Color Before: light brown Clarity Before: _____ Texture: medium
Color After: yellow Clarity After: cloudy Artifacts: _____

Comments: _____

WET CHEMISTRY

Sample Report Summary

Client Sample No.

TT083006ASP-C-01

Lab Name: STL BURLINGTON

Contract: 051302

SDG No.: TT5

Lab Code: STLV

Case No.: 26000

Lab Sample ID: 681340

Matrix: SOIL

Client: TTECMA

Date Received: 08/31/06

% Solids: 84.4

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
9030B/9034	Acid Soluble Sulfide	09/01/06	BLKSU090106A	mg/Kg	1	9.4	9.4	U
9045	Soil pH (std. units)	08/31/06	BLKPH083106A	pH Units	1	0.0	5.2	
IN623	Solids, Percent	08/31/06	N/A	%	1.0		84.4	

Site: ECC MMR

Lab Job No: X020

Matrix: SOIL

QA Batch: 8988

Total Petroleum Hydrocarbons (418.1)

<u>STL Edison</u>	<u>Client ID</u>	<u>Date</u>	<u>Date</u>	<u>Date</u>	<u>Percent</u>	<u>Dilution</u>	<u>Analytical</u>
<u>Sample #</u>		<u>Sampled</u>	<u>Extracted</u>	<u>Analyzed</u>	<u>Moisture</u>	<u>Factor</u>	<u>Result</u>
							<u>Units: mg/kg</u>

769578	681340A	08/30/06	09/15/06	09/18/06	17.5	1.0	40.9
--------	---------	----------	----------	----------	------	-----	------

Quantitation Limit for Total Petroleum Hydrocarbons (418.1) is 25.0 mg/kg.

Job Number: 213616

LABORATORY TEST RESULTS

Date: 09/07/2006

CUSTOMER: Severn Trent Laboratories-Burlington

PROJECT: TT5

ATTN: Jim Madison

Customer Sample ID: TT083006ASP-C-01
 Date Sampled.....: 08/30/2006
 Time Sampled.....: 11:00
 Sample Matrix.....: Soil

Laboratory Sample ID: 213616-1
 Date Received.....: 09/01/2006
 Time Received.....: 09:45

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
1030	Ignitability (solids) Ignitability, Solid Ignitability, Solid	Neg 1960					1 1	Pos/Neg * degrees	70978 70978		09/06/06 1502 09/06/06 1502	cdm cdm

* In Description = Dry Wgt.

Global R5 NHWM6R07132

Please print or type
(Form designed for use on a 24 (12-pitch) typewriter.)

**NON-HAZARDOUS
WASTE MANIFEST**

1. Generator's US EPA ID No.
MA0210082730

Manifest Doc. No. 2. Page 1
of 1

3. Generator's Name and Mailing Address

**Camp Edwards
1203 West Inner Road
Bourne MA 02542**

4. Generator's Phone

508-968-5874

5. Transporter 1 Company Name

Global Remediation Services Inc.

6. US EPA ID Number

MA000503823

A. Transporter's Phone

617 364-0012

7. Transporter 2 Company Name

8. US EPA ID Number

B. Transporter's Phone

9. Designated Facility Name and Site Address

**Waste Management of NH - Turnkey
97 Rochester Neck Road
Genie NH 03830**

10. US EPA ID Number

C. Facility's Phone

603 330-2100

11. Waste Shipping Name and Description

a. **Non-PCRA / Non-DOT Regulated Materials**

12. Containers

No.

Type

13. Total
Quantity

14. Unit
Wt/Vol

0010

15

T

D. Additional Descriptions for Materials Listed Above

a) **See Profile #10052801**

E. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information

**24 HR. EMERGENCY
PHONE 617-364-0012
GLOBAL REMEDIATION
SERVICES, INC.**

16. GENERATOR'S CERTIFICATION: I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Printed/Typed Name

Dustin Burroughs

Signature

Dustin Burroughs

Month Day Year

07 13 07

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name

Richard Tomlinson

Signature

Richard Tomlinson

Month Day Year

07 13 07

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name

Signature

Month Day Year

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of waste materials covered by this manifest except as noted in Item 19.

Printed/Typed Name

Eric Metzger

Signature

Eric Metzger

Month Day Year

7 13 07



Turnkey Landfill
30 Rochester Neck Rd
Rochester, NH, 03839
Ph: (603) 330-2181

Customer Name GLOBAL REMEDIATION SERVICES G Carrier GLOBAL
Ticket Date 07/13/2007 Vehicle# 5
Payment Type Credit Account Container
Manual Ticket# Driver
Hauling Ticket# Check#
Route Billing # 0110
State Waste Code Gen EPA ID
Manifest + PO
Destination Profile 1000
Generator NE-CAMPEDWARDS CAMP EDWARDS

Time Scale Operator
In 07/13/2007 11:48:21 scale 1 inbound ERIC METZLER
Out 07/13/2007 12:46:51 scale 2 outbound Christina Blakey

Comments

Product	LD%	Qty	UOM	Rate
1 Cont Soil Met-Tons	100	10.47	Tons	
2 FUEL-Fuel Surcharg	100		%	
3 P3ENV-Environmenta	100		%	

OUT-OF-STATE SOLID WASTE TRANSPORTER DECLARATION: I certify that the information provided is true and correct to the best of my knowledge. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OF

Driver's Signature
404WM-Gonic, NH

Sample Delivery Group TT19
Validated Dioxin Results
MMR ASP E Area

TtEC Sample ID		SS051607-C-01W		SS051607-C-02W		SS051607-C-03W	
Lab Sample ID		H7E170121-001		H7E170121-002		H7E170121-003	
Sample Date		5/16/2007		5/16/2007		5/16/2007	
Preparation Date		5/17/2007		5/17/2007		5/17/2007	
Analysis Date		5/22/2007		5/22/2007		5/22/2007	
Matrix		Solid		Solid		Solid	
Sample Size		10 g		10 g		10 g	
Dilution Factor		1		1		1	
Percent Moisture		16		15		18	
Units		pg/g		pg/g		pg/g	
Constituent	TEF	Lab Results	TEQ Results	Lab Results	TEQ Results	Lab Results	TEQ Results
2,3,7,8-TCDD	1.00	1.2 U	ND	1.2 U	ND	1.2 U	ND
Total TCDD	NA	1.2 U	NA	0.2 JQ	NA	1.2 U	NA
1,2,3,7,8-PeCDD	0.50	0.62 JQ	0.31 JQ	0.42 JQ	0.21 JQ	0.75 JQ	0.375 JQ
Total PeCDD	NA	1.5 JQ	NA	1.2 JQ	NA	1.6 JQ	NA
1,2,3,4,7,8-HxCDD	0.10	0.62 J	0.062 J	0.39 J	0.039 J	0.58 J	0.058 J
1,2,3,6,7,8-HxCDD	0.10	1.6 J	0.16 J	1.1 J	0.11 J	2.2 J	0.22 J
1,2,3,7,8,9-HxCDD	0.10	1.4 JQ	0.14 JQ	0.84 J	0.084 J	1.8 JQ	0.18 JQ
Total HxCDD	NA	10 JQ	NA	6.8 JQ	NA	12 JQ	NA
1,2,3,4,6,7,8-HpCDD	0.01	39	0.39	28	0.28	44	0.44
Total HpCDD	NA	71	NA	51	NA	83	NA
OCDD	0.001	1300 JB	1.3 JB	1300 JB	1.3 JB	1500 JB	1.5 JB
2,3,7,8-TCDF	0.1	1.2 U	ND	0.22 JQ	0.022 JQ	0.25 JQ	0.025 JQ
Total TCDF	NA	14 JQ	NA	7.5 Q	NA	8.7 Q	NA
1,2,3,7,8-PeCDF	0.05	5.9 U	ND	0.14 JQ	0.007 JQ	6.1 U	ND
2,3,4,7,8-PeCDF	0.5	0.28 JQ	0.14 JQ	0.17 J	0.085 J	0.19 JQ	0.095 JQ
Total PeCDF	NA	13 JQ	NA	7.5 JQ	NA	9.8 JQ	NA
1,2,3,4,7,8-HxCDF	0.1	0.45 JQ	0.045 JQ	0.47 J	0.047 J	0.6 JQ	0.06 JQ
1,2,3,6,7,8-HxCDF	0.1	0.81 J	0.081 J	0.49 JQ	0.049 JQ	0.59 JQ	0.059 JQ
2,3,4,6,7,8-HxCDF	0.1	0.25 JQ	0.025 JQ	0.29 JQ	0.029 JQ	0.25 JQ	0.025 JQ
1,2,3,7,8,9-HxCDF	0.1	5.9 U	ND	5.9 U	ND	6.1 U	ND
Total HxCDF	NA	11 JQ	NA	9.2 JQ	NA	13 JQ	NA
1,2,3,4,6,7,8-HpCDF	0.01	4.8 J	0.048 J	4 J	0.04 J	6.2	0.062
1,2,3,4,7,8,9-HpCDF	0.01	0.23 J	0.0023 J	0.31 J	0.0031 J	0.54 J	0.0054 J
Total HpCDF	NA	11	NA	8.7 J	NA	14	NA
OCDF	0.001	10 J	0.01 J	7.3 J	0.0073 J	12	0.012

**Sample Delivery Group TT19
Validated Dioxin Results
MMR ASP E Area**

TtEC Sample ID Lab Sample ID Sample Date Preparation Date Analysis Date Matrix Sample Size Dilution Factor Percent Moisture Units		SS051607-C-01B H7E170121-004 5/16/2007 5/17/2007 5/22/2007 Solid 10 g 1 24 pg/g		SS051607-C-01E H7E170121-005 5/16/2007 5/17/2007 5/22/2007 Solid 10 g 1 18 pg/g		SS051607-C-01N H7E170121-006 5/16/2007 5/17/2007 5/22/2007 Solid 10 g 1 26 pg/g	
Constituent	TEF	Lab Results	TEQ Results	Lab Results	TEQ Results	Lab Results	TEQ Results
2,3,7,8-TCDD	1.00	1.3 U	ND	1.2 U	ND	1.4 U	ND
Total TCDD	NA	1.3 U	NA	1.1 JQ	NA	1.1 JQ	NA
1,2,3,7,8-PeCDD	0.50	1.2 J	0.6 J	2.9 J	1.45 J	1.2 J	0.6 J
Total PeCDD	NA	2.9 JQ	NA	11 JQ	NA	3.2 JQ	NA
1,2,3,4,7,8-HxCDD	0.10	1.5 JQ	0.15 JQ	3.8 J	0.38 J	1.5 J	0.15 J
1,2,3,6,7,8-HxCDD	0.10	5.8 J	0.58 J	13	1.3	4.5 JQ	0.45 JQ
1,2,3,7,8,9-HxCDD	0.10	5.4 J	0.54 J	12	1.2	5.1 J	0.51 J
Total HxCDD	NA	36 Q	NA	80	NA	31 Q	NA
1,2,3,4,6,7,8-HpCDD	0.01	120	1.2	270	2.7	110	1.1
Total HpCDD	NA	210	NA	490	NA	210	NA
OCDD	0.001	1900 JB	1.9 JB	4200 JB	4.2 JB	2200 JB	2.2 JB
2,3,7,8-TCDF	0.1	0.43 JQ	0.043 JQ	0.5 JQ	0.05 JQ	1.4 U	ND
Total TCDF	NA	8 QS	NA	15 Q	NA	8.3 Q	NA
1,2,3,7,8-PeCDF	0.05	0.28 JQ	0.014 JQ	0.56 J	0.028 J	0.16 JQ	0.008 JQ
2,3,4,7,8-PeCDF	0.5	0.39 JQ	0.195 JQ	0.67 JQ	0.335 JQ	0.28 JQ	0.14 JQ
Total PeCDF	NA	14 JQ	NA	24 Q	NA	11 JQ	NA
1,2,3,4,7,8-HxCDF	0.1	1.3 JQ	0.13 JQ	3.5 J	0.35 J	1.3 J	0.13 J
1,2,3,6,7,8-HxCDF	0.1	1.6 J	0.16 J	3.8 JQ	0.38 JQ	1.4 JQ	0.14 JQ
2,3,4,6,7,8-HxCDF	0.1	1.2 J	0.12 J	2.8 J	0.28 J	1.1 J	0.11 J
1,2,3,7,8,9-HxCDF	0.1	6.6 U	ND	6.1 U	ND	6.8 U	ND
Total HxCDF	NA	36 Q	NA	80 Q	NA	31 Q	NA
1,2,3,4,6,7,8-HpCDF	0.01	22	0.22	64	0.64	24	0.24
1,2,3,4,7,8,9-HpCDF	0.01	1.3 J	0.013 J	3.2 J	0.032 J	1.1 JQ	0.011 JQ
Total HpCDF	NA	52	NA	160 Q	NA	55 Q	NA
OCDF	0.001	45	0.045	140	0.14	47	0.047

Sample Delivery Group TT19
Validated Dioxin Results
MMR ASP E Area

TtEC Sample ID		SS051607-C-01S		SS051607-D-EB	
Lab Sample ID		H7E170121-007		H7E170121-008	
Sample Date		5/16/2007		5/16/2007	
Preparation Date		5/17/2007		5/18/2007	
Analysis Date		5/22/2007		5/22/2007	
Matrix		Solid		Water	
Sample Size		10 g		1020 mL	
Dilution Factor		1		1	
Percent Moisture		10		N/A	
Units		pg/g		pg/L	
Constituent	TEF	Lab Results	TEQ Results	Lab Results	TEQ Results
2,3,7,8-TCDD	1.00	1.1 U	ND	9.8 U	ND
Total TCDD	NA	1.1 U	NA	9.8 U	ND
1,2,3,7,8-PeCDD	0.50	0.41 J	0.205 J	49 U	ND
Total PeCDD	NA	0.81 J	NA	49 U	ND
1,2,3,4,7,8-HxCDD	0.10	0.39 J	0.039 J	49 U	ND
1,2,3,6,7,8-HxCDD	0.10	0.77 JQ	0.077 JQ	49 U	ND
1,2,3,7,8,9-HxCDD	0.10	0.77 JQ	0.077 JQ	49 U	ND
Total HxCDD	NA	7.2 JQ	NA	49 U	ND
1,2,3,4,6,7,8-HpCDD	0.01	27	0.27	49 U	ND
Total HpCDD	NA	51	NA	49 U	ND
OCDD	0.001	890 JB	0.89 JB	4.6 JQB	0.0046 JQB
2,3,7,8-TCDF	0.1	0.32 JQ	0.032 JQ	9.8 U	ND
Total TCDF	NA	5.6 Q	NA	9.8 U	ND
1,2,3,7,8-PeCDF	0.05	5.6 U	ND	49 U	ND
2,3,4,7,8-PeCDF	0.5	0.23 JQ	0.115 JQ	49 U	ND
Total PeCDF	NA	5.4 JQ	NA	49 U	ND
1,2,3,4,7,8-HxCDF	0.1	0.36 JQ	0.036 JQ	49 U	ND
1,2,3,6,7,8-HxCDF	0.1	0.32 J	0.032 J	49 U	ND
2,3,4,6,7,8-HxCDF	0.1	0.21 JQ	0.021 JQ	49 U	ND
1,2,3,7,8,9-HxCDF	0.1	0.23 J	0.023 J	49 U	ND
Total HxCDF	NA	7.5 JQ	NA	49 U	ND
1,2,3,4,6,7,8-HpCDF	0.01	3.6 J	0.036 J	49 U	ND
1,2,3,4,7,8,9-HpCDF	0.01	0.33 J	0.0033 J	49 U	ND
Total HpCDF	NA	8.8 J	NA	49 U	ND
OCDF	0.001	6.3 J	0.0063 J	98 U	ND

Sample Delivery Group TT19
Validated Dioxin Results
MMR ASP E Area

Notes:

- B - Present in associated blank sample.
- J - Estimated result.
- JB - Estimated result due to presence in associated blank sample.
- NA - Not applicable or not available.
- ND - Non-detect.
- Q - Estimated maximum possible concentration (EMPC). This qualifier is used when the result is generated from chromatographic data that does not meet all the qualitative criteria for a positive identification given in the method. The criteria include the following areas:
 - *Ion abundance ratios must be within specified limits (+/- 15% of theoretical ion abundance ratio.)
 - *Retention time criteria (relative to the method-specified isotope labeled retention time standard).
 - *Co-maximization criterion. The two quantitation ion peaks must reach their maxima within 2 sections of each other.
 - *Polychlorinated dibenzofuran purity. No peak can be identified as a polychlorinated dibenzofuran if a polychlorinated diphenyl ether peak maximizes within +/- 2 seconds of the furan candidate.
- S - Ion suppression evident. The trace indicated the signal from the lock mass of the calibration compound shows a deflection at the retention time of the analyte. This may indicate a temporary suppression of the instrument sensitivity, due to a matrix-borne interference.
- TEF - 2,3,7,8-TCDD Toxicity Equivalency Factor [from "Interim Procedures for Estimating Risks Associated with Exposures to Mixtures of Chlorinated Dibenzo-*p*-Dioxin and -Dibenzofurans (CDDs and CDFs) and 1989 Update", (EPA/625/3-89/016, March 1989.)]
- TEQ - Toxicity equivalent value

STL BURLINGTON
Sample ID: SS051607-C-01W
Trace Level Organic Compounds

Lot - Sample #....: H7E170121 - 001	Work Order #....: JW5E61AC	Matrix....: SOLID
Date Sampled....: 05/16/07	Date Received....: 05/17/07	Dilution Factor: 1
Prep Date....: 05/17/07	Analysis Date....: 05/22/07	Percent Moisture: 16
Prep Batch #....: 7137185		
Initial Wgt/Vol : 10 g	Instrument ID....: M2A	Method: SW846 8290
Analyst ID....: Patricia(Trish) M. Parsly		

PARAMETER	RESULT		MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	UNITS
2,3,7,8-TCDD	ND		1.2	0.31	pg/g
Total TCDD	ND		1.2	0.31	pg/g
1,2,3,7,8-PeCDD	0.62	Q J	5.9	0.14	pg/g
Total PeCDD	1.5	Q J	5.9	0.14	pg/g
1,2,3,4,7,8-HxCDD	0.62	J	5.9	0.11	pg/g
1,2,3,6,7,8-HxCDD	1.6	J	5.9	0.12	pg/g
1,2,3,7,8,9-HxCDD	1.4	Q J	5.9	0.11	pg/g
Total HxCDD	10	J Q	5.9	0.11	pg/g
1,2,3,4,6,7,8-HpCDD	39		5.9	0.16	pg/g
Total HpCDD	71		5.9	0.16	pg/g
OCDD	1300	B	12	0.27	pg/g
2,3,7,8-TCDF	ND		1.2	0.23	pg/g
Total TCDF	14	Q	1.2	0.23	pg/g
1,2,3,7,8-PeCDF	ND		5.9	0.12	pg/g
2,3,4,7,8-PeCDF	0.28	Q J	5.9	0.10	pg/g
Total PeCDF	13	J Q	5.9	0.11	pg/g
1,2,3,4,7,8-HxCDF	0.45	Q J	5.9	0.069	pg/g
1,2,3,6,7,8-HxCDF	0.81	J	5.9	0.065	pg/g
2,3,4,6,7,8-HxCDF	0.25	Q J	5.9	0.075	pg/g
1,2,3,7,8,9-HxCDF	ND		5.9	0.088	pg/g
Total HxCDF	11	Q J	5.9	0.073	pg/g
1,2,3,4,6,7,8-HpCDF	4.8	J	5.9	0.11	pg/g
1,2,3,4,7,8,9-HpCDF	0.23	J	5.9	0.13	pg/g
Total HpCDF	11		5.9	0.12	pg/g
OCDF	10	J	12	0.16	pg/g

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

TTECMA SAMPLE NO.

SS050307ASPEC01

Lab Name: STL BURLINGTON

Contract: 27000

Lab Code: STLVT

Case No.: 27000

SAS No.:

SDG No.: TT18

Matrix: (soil/water) SOIL

Lab Sample ID: 709238

Sample wt/vol: 7.5 (g/mL) G

Lab File ID: 709238I2

Level: (low/med) LOW

Date Received: 05/04/07

% Moisture: not dec. 19

Date Analyzed: 05/10/07

GC Column: CAP

ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (uL)

CAS NO. COMPOUND CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG Q

74-87-3	-----Chloromethane	4.1	U
75-01-4	-----Vinyl Chloride	4.1	U
74-83-9	-----Bromomethane	4.1	U
75-00-3	-----Chloroethane	4.1	U
75-35-4	-----1,1-Dichloroethene	4.1	U
67-64-1	-----Acetone	59	
75-15-0	-----Carbon Disulfide	4.1	U
75-09-2	-----Methylene Chloride	4.1	U
156-60-5	-----trans-1,2-Dichloroethene	4.1	U
1634-04-4	-----Methyl-t-Butyl Ether	4.1	U
75-34-3	-----1,1-Dichloroethane	4.1	U
108-05-4	-----Vinyl Acetate	4.1	U
156-59-2	-----cis-1,2-Dichloroethene	4.1	U
78-93-3	-----2-Butanone	6.0	
74-97-5	-----Bromochloromethane	4.1	U
67-66-3	-----Chloroform	4.1	U
71-55-6	-----1,1,1-Trichloroethane	4.1	U
56-23-5	-----Carbon Tetrachloride	4.1	U
71-43-2	-----Benzene	4.1	U
107-06-2	-----1,2-Dichloroethane	4.1	U
79-01-6	-----Trichloroethene	4.1	U
78-87-5	-----1,2-Dichloropropane	4.1	U
74-95-3	-----Dibromomethane	4.1	U
75-27-4	-----Bromodichloromethane	4.1	U
110-75-8	-----2-Chloroethyl Vinyl Ether	4.1	U
10061-01-5	-----cis-1,3-Dichloropropene	4.1	U
108-10-1	-----4-Methyl-2-pentanone	4.1	U
108-88-3	-----Toluene	4.1	U
10061-02-6	-----trans-1,3-Dichloropropene	4.1	U
79-00-5	-----1,1,2-Trichloroethane	4.1	U
127-18-4	-----Tetrachloroethene	4.1	U
591-78-6	-----2-Hexanone	4.1	U
124-48-1	-----Dibromochloromethane	4.1	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

TTECMA SAMPLE NO.

SS050307ASPEC01

Lab Name: STL BURLINGTON

Contract: 27000

Lab Code: STLVT

Case No.: 27000

SAS No.:

SDG No.: TT18

Matrix: (soil/water) SOIL

Lab Sample ID: 709238

Sample wt/vol: 7.5 (g/mL) G

Lab File ID: 709238I2

Level: (low/med) LOW

Date Received: 05/04/07

% Moisture: not dec. 19

Date Analyzed: 05/10/07

GC Column: CAP ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (uL)

CAS NO. COMPOUND CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG Q

106-93-4-----	1,2-Dibromoethane	4.1	U
108-90-7-----	Chlorobenzene	4.1	U
100-41-4-----	Ethylbenzene	4.1	U
1330-20-7-----	Xylene (m,p)	4.1	U
95-47-6-----	Xylene (o)	4.1	U
1330-20-7-----	Xylene (total)	4.1	U
100-42-5-----	Styrene	4.1	U
75-25-2-----	Bromoform	4.1	U
79-34-5-----	1,1,2,2-Tetrachloroethane	4.1	U
541-73-1-----	1,3-Dichlorobenzene	4.1	U
106-46-7-----	1,4-Dichlorobenzene	4.1	U
95-50-1-----	1,2-Dichlorobenzene	4.1	U
96-12-8-----	1,2-Dibromo-3-Chloropropane	4.1	U
120-82-1-----	1,2,4-Trichlorobenzene	4.1	U

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

TTECMA SAMPLE NO.

SS050307ASPEC01

Lab Name: STL BURLINGTON Contract: 27000

Lab Code: STLVT Case No.: 27000 SAS No.: SDG No.: TT18

Matrix: (soil/water) SOIL Lab Sample ID: 709238

Sample wt/vol: 30.0 (g/mL) G Lab File ID: 709238

Level: (low/med) LOW Date Received: 05/04/07

% Moisture: 19 decanted: (Y/N) N Date Extracted: 05/04/07

Concentrated Extract Volume: 500 (uL) Date Analyzed: 05/07/07

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
62-75-9-----	N-Nitrosodimethylamine_____	410	U
62-53-3-----	Aniline_____	1000	U
108-95-2-----	Phenol_____	410	U
111-44-4-----	bis(2-Chloroethyl) Ether_____	410	U
95-57-8-----	2-Chlorophenol_____	410	U
541-73-1-----	1,3-Dichlorobenzene_____	410	U
106-46-7-----	1,4-Dichlorobenzene_____	410	U
100-51-6-----	Benzyl Alcohol_____	410	U
95-50-1-----	1,2-Dichlorobenzene_____	410	U
95-48-7-----	2-Methylphenol_____	410	U
108-60-1-----	2,2'-oxybis(1-Chloropropane)_____	410	U
106-44-5-----	4-Methylphenol_____	410	U
621-64-7-----	N-Nitroso-di-n-propylamine_____	410	U
67-72-1-----	Hexachloroethane_____	410	U
98-95-3-----	Nitrobenzene_____	410	U
89-98-5-----	2-Chlorobenzaldehyde_____	410	U
78-59-1-----	Isophorone_____	410	U
587-04-2-----	3-Chlorobenzaldehyde_____	410	U
104-88-1-----	4-Chlorobenzaldehyde_____	410	U
88-75-5-----	2-Nitrophenol_____	410	U
105-67-9-----	2,4-Dimethylphenol_____	410	U
111-91-1-----	bis(2-Chloroethoxy)methane_____	410	U
65-85-0-----	Benzoic Acid_____	40	J
120-83-2-----	2,4-Dichlorophenol_____	410	U
120-82-1-----	1,2,4-Trichlorobenzene_____	410	U
91-20-3-----	Naphthalene_____	410	U
106-47-8-----	4-Chloroaniline_____	410	U
87-68-3-----	Hexachlorobutadiene_____	410	U
59-50-7-----	4-Chloro-3-methylphenol_____	410	U
91-57-6-----	2-Methylnaphthalene_____	410	U
77-47-4-----	Hexachlorocyclopentadiene_____	410	U
88-06-2-----	2,4,6-Trichlorophenol_____	410	U
95-95-4-----	2,4,5-Trichlorophenol_____	1000	U

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

TTECMA SAMPLE NO.

SS050307ASPEC01

Lab Name: STL BURLINGTON

Contract: 27000

Lab Code: STLVT

Case No.: 27000

SAS No.:

SDG No.: TT18

Matrix: (soil/water) SOIL

Lab Sample ID: 709238

Sample wt/vol: 30.0 (g/mL) G

Lab File ID: 709238

Level: (low/med) LOW

Date Received: 05/04/07

% Moisture: 19 decanted: (Y/N) N

Date Extracted: 05/04/07

Concentrated Extract Volume: 500 (uL)

Date Analyzed: 05/07/07

Injection Volume: 2.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
---------	----------	---	---

118-91-2-----	2-Chlorobenzoic Acid	2000	U
91-58-7-----	2-Chloronaphthalene	410	U
88-74-4-----	2-Nitroaniline	1000	U
131-11-3-----	Dimethylphthalate	410	U
208-96-8-----	Acenaphthylene	410	U
606-20-2-----	2,6-Dinitrotoluene	410	U
99-09-2-----	3-Nitroaniline	1000	U
83-32-9-----	Acenaphthene	410	U
51-28-5-----	2,4-Dinitrophenol	1000	U
132-64-9-----	Dibenzofuran	410	U
100-02-7-----	4-Nitrophenol	1000	U
603-83-8-----	2-Methyl-3-Nitroaniline	410	U
121-14-2-----	2,4-Dinitrotoluene	410	U
106-19-4-----	Di-n-propyl Adipate	410	U
86-73-7-----	Fluorene	410	U
84-66-2-----	Diethylphthalate	410	U
7005-72-3-----	4-Chlorophenyl-phenylether	410	U
99-55-8-----	2-Methyl-5-Nitroaniline	410	U
100-01-6-----	4-Nitroaniline	1000	U
534-52-1-----	4,6-Dinitro-2-methylphenol	1000	U
86-30-6-----	N-nitrosodiphenylamine (1)	410	U
101-55-3-----	4-Bromophenyl-phenylether	410	U
118-74-1-----	Hexachlorobenzene	410	U
87-86-5-----	Pentachlorophenol	1000	U
85-01-8-----	Phenanthrene	410	U
120-12-7-----	Anthracene	410	U
86-74-8-----	Carbazole	410	U
85-98-3-----	1,3-Diethyl-1,3-Diphenyl Ure	410	U
84-74-2-----	Di-n-butylphthalate	410	U
618-87-1-----	3,5-Dinitroaniline	410	U
119-75-5-----	2-Nitrodiphenylamine	410	U
206-44-0-----	Fluoranthene	410	U
129-00-0-----	Pyrene	410	U

(1) - Cannot be separated from Diphenylamine
FORM I SV

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

TTECMA SAMPLE NO.

SS050307ASPEC01

Lab Name: STL BURLINGTON

Contract: 27000

Lab Code: STLVT

Case No.: 27000

SAS No.:

SDG No.: TT18

Matrix: (soil/water) SOIL

Lab Sample ID: 709238

Sample wt/vol: 30.0 (g/mL) G

Lab File ID: 709238

Level: (low/med) LOW

Date Received: 05/04/07

% Moisture: 19 decanted: (Y/N) N

Date Extracted: 05/04/07

Concentrated Extract Volume: 500 (uL)

Date Analyzed: 05/07/07

Injection Volume: 2.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: ____

CAS NO. COMPOUND CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG Q

85-68-7-----	Butylbenzylphthalate	410	U
56-55-3-----	Benzo(a)anthracene	410	U
91-94-1-----	3,3'-Dichlorobenzidine	410	U
218-01-9-----	Chrysene	27	J
117-81-7-----	bis(2-Ethylhexyl)phthalate	54	JB
117-84-0-----	Di-n-octylphthalate	410	U
205-99-2-----	Benzo(b)fluoranthene	410	U
207-08-9-----	Benzo(k)fluoranthene	410	U
50-32-8-----	Benzo(a)pyrene	410	U
193-39-5-----	Indeno(1,2,3-cd)pyrene	410	U
53-70-3-----	Dibenz(a,h)anthracene	410	U
191-24-2-----	Benzo(g,h,i)perylene	410	U

FORM 1
OTHER ORGANICS ANALYSIS DATA SHEET

TTECMA SAMPLE NO.

50307ASPEC01

Lab Name: STL BURLINGTON

Contract: 27000

Lab Code: STLVT

Case No.: 27000

SAS No.:

SDG No.: TT18

Matrix: (soil/water) SOIL

Lab Sample ID: 709238

Sample wt/vol: 30.0 (g/mL) G

Lab File ID: 09MAY070826-R081

% Moisture: 19 decanted: (Y/N) N

Date Received: 05/04/07

Extraction: (SepF/Cont/Sonc) SONC

Date Extracted: 05/04/07

Concentrated Extract Volume: 10 (mL)

Date Analyzed: 05/09/07

Injection Volume: 1.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: ____

Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG		Q
319-84-6	alpha-BHC	2.1	U	
319-85-7	beta-BHC	2.1	U	
319-86-8	delta-BHC	2.1	U	
58-89-9	gamma-BHC (Lindane)	2.1	U	
76-44-8	Heptachlor	2.1	U	
309-00-2	Aldrin	2.1	U	
1024-57-3	Heptachlor epoxide	2.1	U	
959-98-8	Endosulfan I	2.1	U	
60-57-1	Dieldrin	4.1	U	
72-55-9	4,4'-DDE	13		
72-20-8	Endrin	4.1	U	
33213-65-9	Endosulfan II	4.1	U	
72-54-8	4,4'-DDD	4.1	U	
1031-07-8	Endosulfan sulfate	4.1	U	
50-29-3	4,4'-DDT	12		
72-43-5	Methoxychlor	21	U	
53494-70-5	Endrin ketone	4.1	U	
7421-93-4	Endrin aldehyde	4.1	U	
57-74-9	Chlordane	21	U	
8001-35-2	Toxaphene	210	U	
5103-74-2	gamma-Chlordane	2.1	U	
5103-71-9	alpha-Chlordane	2.1	U	

FORM I OTHER

FORM 1
OTHER ORGANICS ANALYSIS DATA SHEET

TTECMA SAMPLE NO.

50307ASPEC01

Lab Name: STL BURLINGTON

Contract: 27000

Lab Code: STLVT

Case No.: 27000

SAS No.:

SDG No.: TT18

Matrix: (soil/water) SOIL

Lab Sample ID: 709238

Sample wt/vol: 30.0 (g/mL) G

Lab File ID: 07MAY070949-R041

% Moisture: 19 decanted: (Y/N) N

Date Received: 05/04/07

Extraction: (SepF/Cont/Sonc) SONC

Date Extracted: 05/04/07

Concentrated Extract Volume: 10 (mL)

Date Analyzed: 05/07/07

Injection Volume: 1.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

pH: ____

Sulfur Cleanup: (Y/N) Y

CAS NO. COMPOUND CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG Q

12674-11-2-----Aroclor-1016	21	U
11104-28-2-----Aroclor-1221	21	U
11141-16-5-----Aroclor-1232	21	U
53469-21-9-----Aroclor-1242	21	U
12672-29-6-----Aroclor-1248	21	U
11097-69-1-----Aroclor-1254	21	U
11096-82-5-----Aroclor-1260	21	U

FORM 1
HERBICIDES ORGANICS ANALYSIS DATA SHEET

TTECMA SAMPLE NO.

50307ASPEC01

Lab Name: STL BURLINGTON

Contract: 27000

Lab Code: STLVT

Case No.: 27000

SAS No.:

SDG No.: TT18

Matrix: (soil/water) SOIL

Lab Sample ID: 709238

Sample wt/vol: 50.0 (g/mL) G

Lab File ID: 07MAY071052-R091

% Moisture: 19 decanted: (Y/N) N

Date Received: 05/04/07

Extraction: (SepF/Cont/Sonc) OTHER

Date Extracted: 05/06/07

Concentrated Extract Volume: 25 (mL)

Date Analyzed: 05/07/07

Injection Volume: 1.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

pH: ____

Sulfur Cleanup: (Y/N) N

CAS NO. COMPOUND CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG Q

75-99-0-----	Dalapon	400	U
1918-00-9-----	Dicamba	23	U
93-65-2-----	MCP	10000	U
94-74-6-----	MCPA	10000	U
120-36-5-----	Dichlorprop	360	U
94-75-7-----	2,4-D	170	U
93-72-1-----	2,4,5-TP (Silvex)	20	U
93-76-5-----	2,4,5-T	22	U
88-85-7-----	Dinoseb	120	U
94-82-6-----	2,4-DB	200	U
87-86-5-----	Pentachlorophenol	21	U
51-36-5-----	3,5-Dichlorobenzoic acid	230	U
100-02-7-----	4-Nitrophenol	420	U

FORM 1
EXPLOSIVES ORGANICS ANALYSIS DATA SHEET

TTECMA SAMPLE NO.

50307ASPEC01

Lab Name: STL BURLINGTON

Contract: 27000

Lab Code: STLVT

Case No.: 27000

SAS No.:

SDG No.: TT18

Matrix: (soil/water) SOIL

Lab Sample ID: 709238

Sample wt/vol: 2.0 (g/mL) G

Lab File ID: 07MAY071017-R221

% Moisture: 0 decanted: (Y/N) N

Date Received: 05/04/07

Extraction: (SepF/Cont/Sonc) OTHER

Date Extracted: 05/05/07

Concentrated Extract Volume: 20 (mL)

Date Analyzed: 05/08/07

Injection Volume: 200.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

pH: ____

Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
---------	----------	---	---

59229-75-3-----	2,6-Diamino-4-nitrotoluene	250	U
6629-29-4-----	2,4-Diamino-6-nitrotoluene	120	U
2691-41-0-----	HMX	120	U
121-82-4-----	RDX	120	U
88-89-1-----	Picric acid	120	U
99-35-4-----	1,3,5-Trinitrobenzene	120	U
99-65-0-----	1,3-Dinitrobenzene	120	U
98-95-3-----	Nitrobenzene	120	U
479-45-8-----	Tetryl	120	U
55-63-0-----	Nitroglycerin	2500	U
118-96-7-----	2,4,6-Trinitrotoluene	120	U
19406-51-0-----	4-Amino-2,6-dinitrotoluene	120	U
35572-78-2-----	2-Amino-4,6-dinitrotoluene	120	U
606-20-2-----	2,6-Dinitrotoluene	120	U
121-14-2-----	2,4-Dinitrotoluene	120	U
88-72-2-----	2-Nitrotoluene	120	U
99-99-0-----	4-Nitrotoluene	120	U
99-08-1-----	3-Nitrotoluene	120	U
78-11-5-----	PETN	5000	U

USEPA-CLP FORMS

-I-

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

SS050307ASPE-C-01

Lab Name: STL BURLINGTON Contract: 27000
Lab Code: STLVT Case No.: 27000 SAS No.: _____ SDG No.: TT18
Matrix (soil/water): SOIL Lab Sample ID: 709238
Level (low/med): LOW Date Received: 05/04/07
% Solids: 80.8

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7440-38-2	Arsenic	3.3			P
7440-39-3	Barium	17.9	B		P
7440-43-9	Cadmium	0.26	B		P
7440-47-3	Chromium	11.2			P
7439-92-1	Lead	12.1			P
7439-97-6	Mercury	0.019	U		CV
7782-49-2	Selenium	0.30	U		P
7440-22-4	Silver	0.33	U		P
57-12-5	Cyanide	0.57	U		AS

Color Before: brown Clarity Before: _____ Texture: medium
Color After: light brown Clarity After: cloudy Artifacts: _____

Comments: _____

WET CHEMISTRY

Sample Report Summary

Client Sample No.

SS050307ASPE-C-01

Lab Name: STL BURLINGTON

Contract: 1017987-3

SDG No.: TT18

Lab Code: STLVT

Case No.: 27000

Lab Sample ID: 709238

Matrix: SOIL

Client: TTECMA

Date Received: 05/04/07

% Solids: 80.8

Method	Parameter	Analytical Run Date	Analytical Batch	Units	DF	RL	Conc.	Qual.
9030B/9034	Acid Soluble Sulfide	05/10/07	BLKSU051007A	mg/Kg	1	19.2	19.2	U
9045	Soil pH (std. units)	05/04/07	BLKPH050407A	pH Units	1	0.0	4.4	
IN623	Solids, Percent	05/07/07	N/A	%	1.0		80.8	

Analytical Data

Client: Severn Trent Laboratories, Inc.

Job Number: 680-26462-1

Sdg Number: 68026462

General Chemistry

Client Sample ID: SS050307ASPE-C-01

Lab Sample ID: 680-26462-1

Date Sampled: 05/03/2007 1105

Client Matrix: Solid

% Moisture: 20.5

Date Received: 05/05/2007 0900

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
TPH (1664A)	25	U	mg/Kg	25	130	1.0	1664A
	Any Batch: 680-74550	Date Analyzed	05/09/2007 1529				DryWt Corrected: Y
	Prep Batch: 680-74472	Date Prepared:	05/08/2007 1750				

Analyte	Result	Qual	Units		Dil	Method
Ignitability	NB		mm/sec		1.0	1030
	Any Batch: 680-74777	Date Analyzed	05/10/2007 1200			DryWt Corrected: N

STL BURLINGTON
Sample ID: SS050307ASPE-C-01
Trace Level Organic Compounds

Lot - Sample #....:	H7E190112 - 001	Work Order #....:	JXAXG1AC	Matrix....:	SOLID
Date Sampled....:	05/03/07	Date Received....:	05/19/07	Dilution Factor:	1
Prep Date....:	05/21/07	Analysis Date....:	05/30/07	Percent Moisture:	20
Prep Batch #:	7141161				
Initial Wgt/Vol :	10 g	Instrument ID....:	M2A	Method:	SW846 8290
Analyst ID....:	Melissa A. Davidson				

PARAMETER	RESULT		MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	UNITS
2,3,7,8-TCDD	ND		1.3	0.52	pg/g
Total TCDD	ND		1.3	0.52	pg/g
1,2,3,7,8-PeCDD	1.5	J	6.3	0.35	pg/g
Total PeCDD	3.3	Q J	6.3	0.35	pg/g
1,2,3,4,7,8-HxCDD	2.2	J	6.3	0.30	pg/g
1,2,3,6,7,8-HxCDD	6.5		6.3	0.36	pg/g
1,2,3,7,8,9-HxCDD	6.1	J	6.3	0.31	pg/g
Total HxCDD	39		6.3	0.32	pg/g
1,2,3,4,6,7,8-HpCDD	140	B	6.3	0.40	pg/g
Total HpCDD	250	B	6.3	0.40	pg/g
OCDD	2900	B	13	0.42	pg/g
2,3,7,8-TCDF	ND		1.3	0.44	pg/g
Total TCDF	6.2	Q	1.3	0.44	pg/g
1,2,3,7,8-PeCDF	ND		6.3	0.34	pg/g
2,3,4,7,8-PeCDF	ND		6.3	0.28	pg/g
Total PeCDF	14	J Q	6.3	0.30	pg/g
1,2,3,4,7,8-HxCDF	1.3	Q J	6.3	0.18	pg/g
1,2,3,6,7,8-HxCDF	1.5	Q J	6.3	0.20	pg/g
2,3,4,6,7,8-HxCDF	1.3	Q J	6.3	0.22	pg/g
1,2,3,7,8,9-HxCDF	ND		6.3	0.24	pg/g
Total HxCDF	28	Q	6.3	0.21	pg/g
1,2,3,4,6,7,8-HpCDF	27		6.3	0.27	pg/g
1,2,3,4,7,8,9-HpCDF	1.5	Q J	6.3	0.38	pg/g
Total HpCDF	62	Q	6.3	0.31	pg/g
OCDF	49		13	0.30	pg/g

ATTACHMENT D
AGENCY COMMENTS AND RESPONSES

**Final BA-4 Disposal Area Rapid Response Action
Completion of Work Report
Response to EPA comments**

1. **Page 1, Section 1.0, 2nd Paragraph, 1st Sentence – For clarity, edit “recovered” to “removed along with surrounding soil.”**

Response: The text was revised.

2. **Page 4, Section 2.2.2, General – Include an explanatory paragraph stating reasons why explosives are not an analytical group of interest. In reviewing the site history, samples collected during the MSP Phase 2 investigation were analyzed for explosives.**

Response: The requested text was added.

3. **Page 6, Section 4.0, 3rd Paragraph – Include estimate of tonnage of excavated soil for Area E as is presented in previous paragraph on Area A.**

Response: The text was revised.