



Environmental Consulting & Technology, Inc.

COPY

27 August 2008

Waste & Hazardous
Materials Division

SEP - 2 2008

Mr. James Lucas
Michigan Department of Environmental Quality
Waste and Hazardous Materials Division, Storage Tank Unit
P.O. Box 30241
Lansing, Michigan 48909-7411

Subject: *Underground Storage Tank System Site Assessment Report
CMI-Tech Center, Inc., 1600 West 8-Mile Road, Ferndale, Michigan
Facility Identification No: 00006304
(ECT Project No. 08-0514)*

Dear Mr. Lucas:

On behalf of Hayes Lemmerz International, Inc. (Hayes Lemmerz), Environmental Consulting & Technology, Inc. (ECT) has prepared this Underground Storage Tank (UST) System Site Assessment Report to address the removal and decommissioning of two regulated USTs located at the above-referenced facility. *Further, based upon field observations made at the time of the UST removals and the analytical data/findings summarized herein, this correspondence also serves as a formal acknowledgement (pursuant to reporting guidelines promulgated under Part 211 of Public Act 451 of 1994, as amended) that Hayes Lemmerz and ECT are hereby rescinding the "suspected release" filed with the Michigan Department of Environmental Quality – Waste and Hazardous Materials Division on 12 August 2008.*

The subject UST system consisted of two 15,000-gallon, double walled tanks used for the storage of diesel fuel and unleaded gasoline. The USTs were positioned within a common excavation along the northwest corner of Building C, approximately 80 feet north of Building H, and approximately 20-25 feet east of Building B. As the UST systems were installed within a shallow water table area of the facility, the USTs were physically secured with steel anchored straps which were affixed to what appeared to be concrete dead-men. *(Note: A concrete pad was not observed beneath the USTs during removal.)* The location of the former UST systems is depicted on Figures 1 (Site Layout Map) and 2 (Excavation Detail).

Based upon initial inspection observations made by ECT personnel on 25 March 2008, a structurally sound, sub-grade spill containment unit was affixed to each UST system. Observations noted within each spill containment unit showed the UST systems were both engineered/designed with suction pumps which reportedly dispensed fuels eastward towards Building C through a network of double-walled underground fiberglass piping. No visible evidence of fuel spillage, leakage, petroleum residue, or otherwise was observed within the spill containment units that day or prior to undertaking the UST system removal/decommissioning activities summarized herein.

3125 Sovereign
Drive, Suite 9A
Lansing, Michigan
48911

(517)
272-9200

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272-9703

On 14 July 2008, ECT filed a "Notice of Intent to Remove" for the subject USTs with the Michigan Department of Environmental Quality - Waste and Hazardous Materials Division (MDEQ-WHMD). Following receipt of verbal approval to exhume the USTs from Doug Pentzien of the MDEQ-WHMD (SE Michigan District office), ECT scheduled the removal activities with Hayes Lemmerz, the City of Ferndale Fire Department, and Tri-County Services and Rentals, Inc. (a qualified UST removal contractor). The UST systems, at the time of removal, were registered as "temporarily closed" with the MDEQ-WHMD. *(Note: Following the removal of the USTs, an amended UST registration will be filed with the MDEQ-WHMD on or before 31 August 2008 to document the removals.)*

On 28 July 2008, Tri-County Services and Rentals, Inc. (TCS) and ECT mobilized to the facility to begin removal of the USTs. The UST system's ancillary piping was pressurized and evacuated of any residual fuels. Approximately 11 to 12 gallons of fuel were purged from the dispenser piping. Prior to unearthing the USTs, the monitoring and pumping apparatus were physically removed from inside the spill containment units to provide access to the inside of each UST through the existing ports constructed at the topsides of each tank. The residual fuels contained within the USTs were then removed and petroleum oil dry compound was applied to solidify all remaining liquids/solids contained within tanks. Approximately 70 gallons of mixed fuels (gasoline and diesel fuel) from the USTs were placed in two 55-gallon steel drums and transported off-site by TCS for reclamation by Usher Oil Company.

The soil overburden and adjacent soils alongside the USTs were then exhumed and the tanks were removed from the tank pit, staged above-grade, and examined for apparent evidence of oxidation, pitting, or breaches of structural integrity. *(Note: No petroleum vapors, soil discoloration, petroleum staining, etc. was observed to exist at the topside of the subject USTs during the removal efforts.)* The USTs appeared to be in very good condition with no evidence of oxidation, pitting, perforations, cracks, etc. The USTs were confirmed to be steel double-walled tanks (i.e., stiP₃) with cathodic protection. The actual size of each UST was 23.5 ft. long by 10.5 ft. in diameter with a reported volumetric operating design capacity of 15,000 gallons. Following removal, the USTs were staged on-site for shipment to a local recycling facility. The resulting UST excavation was approximately 43 ft. long by 43 ft. wide by 13.5 ft. deep. The UST removal activities were observed by Mr. Roger Schmidt, the City of Ferndale's Fire Chief.

During the UST removal activities, the excavated soils were field-screened using a calibrated Organic Vapor Monitor (OVM). The OVM was used to screen for petroleum volatile organic compounds (VOCs) and has a detection limit of 1 part per million (ppm). No OVM readings above the detection limit were observed in the soils screened during the removal of the USTs. Further, no apparent petroleum odors or soil discoloration/staining were noted in the soils surrounding or at the base of the UST cavity.

The soils encountered during removal of the USTs consisted of primarily a mixture of permeable sand and gravel. Following the removal of the northernmost (diesel fuel containing) UST, two discrete soil samples (D-1 and D-2) were collected for analyses (basal soils underlying each end of the UST) from depths of approximately 13.5 ft. below grade level (bgl). The soils sampled were moist to wet in physical appearance. Upon removal of the southernmost gasoline UST, discrete soil samples were collected from each end of the subject tank at a depth of 13.5 ft. bgl; however, the samples appeared to be saturated with groundwater. Following a short period of time, groundwater appeared to be flowing

into the base of the gasoline cavity; accordingly, and in conformance with Part 211 UST statutes, ECT personnel collected one representative groundwater sample (GW-1) from within the open cavity beneath the former gasoline UST.

The discrete soil samples collected from within the UST excavation were preserved in the field with methanol according to United States Environmental Protection Agency (US EPA) Method 5035. Samples were containerized in pre-labeled laboratory jars/vials and placed on ice in a cooler for continued preservation and shipment. Similarly, the groundwater sample was placed in a pre-labeled laboratory prepared jar/vial and placed on ice in a cooler for continued preservation and shipment.

On 29 July 2008, TCS and ECT mobilized to the facility to complete backfilling operations, off-site shipment of the USTs, and the removal of the UST system's ancillary product piping and vent lines. Groundwater was observed present across the exposed base of the excavation at a depth of approximately 10 ft. bgl; at this time a second groundwater sample (GW-2) was collected from the same location as GW-1. The amount of suspended sediments within the groundwater at the base of excavation had settled out over night and provided an opportunity to collect a more representative water sample. No observable petroleum sheen was present on the groundwater's surface. The groundwater sample was placed in a pre-labeled laboratory prepared jar/vial and placed on ice in a cooler for continued preservation and shipment.

To assess the soils adjacent to the product dispensing lines, discrete soil samples (P-1 and P-2) were obtained from beneath the piping along the eastern edge of the common UST excavation and in the area where the piping entered the building; see Figure 2. Following collection, the discrete soil samples were prepared in the field for laboratory analysis as described above, and subsequently placed on ice in a cooler for continued preservation and shipment. The product distribution lines were constructed of steel with fiberglass secondary containment. The product lines appeared to be in very good condition; however, portions of the fiberglass secondary containment for the gasoline lines (near P-2 and the northwest corner of Building C) appeared to have been re-sleeved/repared at some time in the past.

To abandon/seal the product distribution piping where removal became hindered by the existence of a sub-grade utility tunnel/grate (see Figure 2), TCS cut the piping near the point where the lines exit the tunnel from Building C. While cutting the gasoline dispenser line at the sub-grade utility tunnel/grate, a small volume of gasoline (less than one gallon) discharged to the subsurface soils adjacent to the terminus of the dispenser lines (proximal to P-2). TCS personnel expeditiously responded with petroleum sorbent pads and minimized the adverse affects of the unanticipated discharge. As it appeared that there was a small volume of fuel within the gasoline fuel line adjacent to the sub-grade tunnel/grate, TCS personnel entered the tunnel area and cut the gasoline line in a second location which appeared to be at a lower elevation. When the pipe was cut, personnel observed that residual fuel was contained within the interstice of the primary fuel and the secondary containment lines. Approximately one gallon of gasoline was recovered from the interstice between the primary fuel and secondary containment lines at the cut made within the tunnel. No residual fuel was recovered from the diesel fuel secondary containment line from within the tunnel. All fuel dispensing lines were appropriately drained and sealed where removal was not a cost-effective option. Based upon volumetric calculations, it is anticipated that between 0.25 to 0.5 gallons of gasoline was inadvertently discharged to the subsurface soils during the "de minimis spill" release incident disclosed above.

Pursuant to the "de minimis spill"/inadvertent release, TCS (at ECT's direction) undertook immediate soil abatement activities following the mitigation of the apparent discharge. Response actions included the removal of soils from beneath the "de minimis spill" area; approximately 1/3 cubic yard of soil was removed for appropriate disposal at Veolia ES Arbor Hills Landfill, Inc.

The UST system vent lines were also removed from the ground and alongside Building C. Following removal of the ancillary piping, the excavated areas were backfilled with clean fill and finished to grade with topsoil or the original surface material. Photographs of the UST system removal activities are presented in Attachment A.

Storm sewer catch basins and environmental monitoring wells were noted within the UST area, suggesting an underground drainage system exists south, west, and north of the UST area, while the presence of monitoring wells within the former UST area suggests the facility has had historic releases from an area proximal to the UST removal excavation. *(Note: Numerous UST vent pipes were observed at the facility south of the UST removal excavation adjacent to Building H. Through inquiry ECT has learned that all these vent lines are associated with the UST systems formerly owned/operated and removed by Ethyl Corporation.)*

Based on the subsurface conditions encountered at the facility concurrent with the UST removal activities, one discrete soil sample (D-2) and one groundwater sample (GW-2) collected during different hydrologic conditions within the UST excavation were selected for analysis. Further, two discrete soil samples were collected from beneath the dispensing lines connected to the subject UST systems. The samples were submitted to RTI Laboratories, Inc. (RTI) under chain-of-custody (COC) documentation for benzene, toluene, ethylbenzene, total xylenes, and polynuclear aromatic hydrocarbons analyses according to US EPA Methods 8260 and 8270 or 8310, respectively. Analytical laboratory reports and the COC document from these activities are presented in Attachment B.

Analytical results from the July 2008 soil/groundwater quality assessment samples, collected concurrent with the UST removal activities, indicate that petroleum hydrocarbons are present within the soil and shallow groundwater beneath the UST systems at concentrations exceeding reported laboratory detection limits; however, the reported concentrations are at levels below the Part 213 Tier 1 Residential and Commercial I Risk-Based Screening Levels.

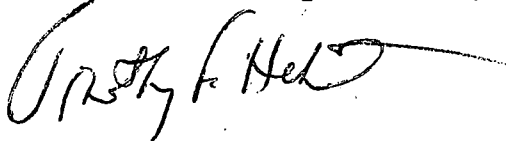
According to previous reports, a gasoline release was reported from one of the USTs in 1996 during a routine UST inspection. Reportedly, the tank system was repaired and approximately 90 cubic yards of gasoline impacted soils were removed from around the USTs and disposed off-site. Groundwater sampling performed at that time indicated gasoline constituents were present at concentrations below the Part 201 Generic Residential Criteria following the soil abatement efforts. A phase I baseline environmental assessment indicates that the 1996 release incident was closed by the MDEQ Storage Tank Division during February 1998. Further, several USTs were removed from the facility (approximately 73) in 1985 by the former owner, Ethyl Corporation. Field notes from the City of Ferndale Fire Department indicate that the several of the USTs were located north of Building D, north of Building H (between Buildings B and C), northwest of Building B, east of Building E, east of Building F, and southwest of Building R.

Based upon the analytical data contained herein as Attachment B, ECT filed a "suspected release" for the facility on 12 August 2008. As previously mentioned, field observations indicate that the USTs and associated ancillary piping appeared structurally sound and uncompromised at the time of removal; further, no apparent pitting or oxidation was observed on the USTs. Given the field observations made by ECT at the time of the UST system removals (i.e., the absence of detectable OVM deflections during soil screening efforts, the absence of petroleum vapors emitted during the UST removal activities, the absence of discolored/hydrocarbon stained soils and/or a petroleum sheen afloat the groundwater within the open UST cavity, and the existence of historical release closure data relevant to the subject UST systems and study area), ECT is of the opinion that the residual petroleum hydrocarbons observed within the soil and groundwater samples collected during July 2008 are likely attributable to documented releases occurring at the facility during the 1996 incident and/or prior to said time. Accordingly, we hereby rescind the reporting of the August 2008 "suspected release" and conclude no additional response actions are warranted to further evaluate our recent findings or the information disclosed herein.

Should you have any questions or require additional information, please contact me at (517) 272-9200.

Sincerely,

Environmental Consulting & Technology, Inc.



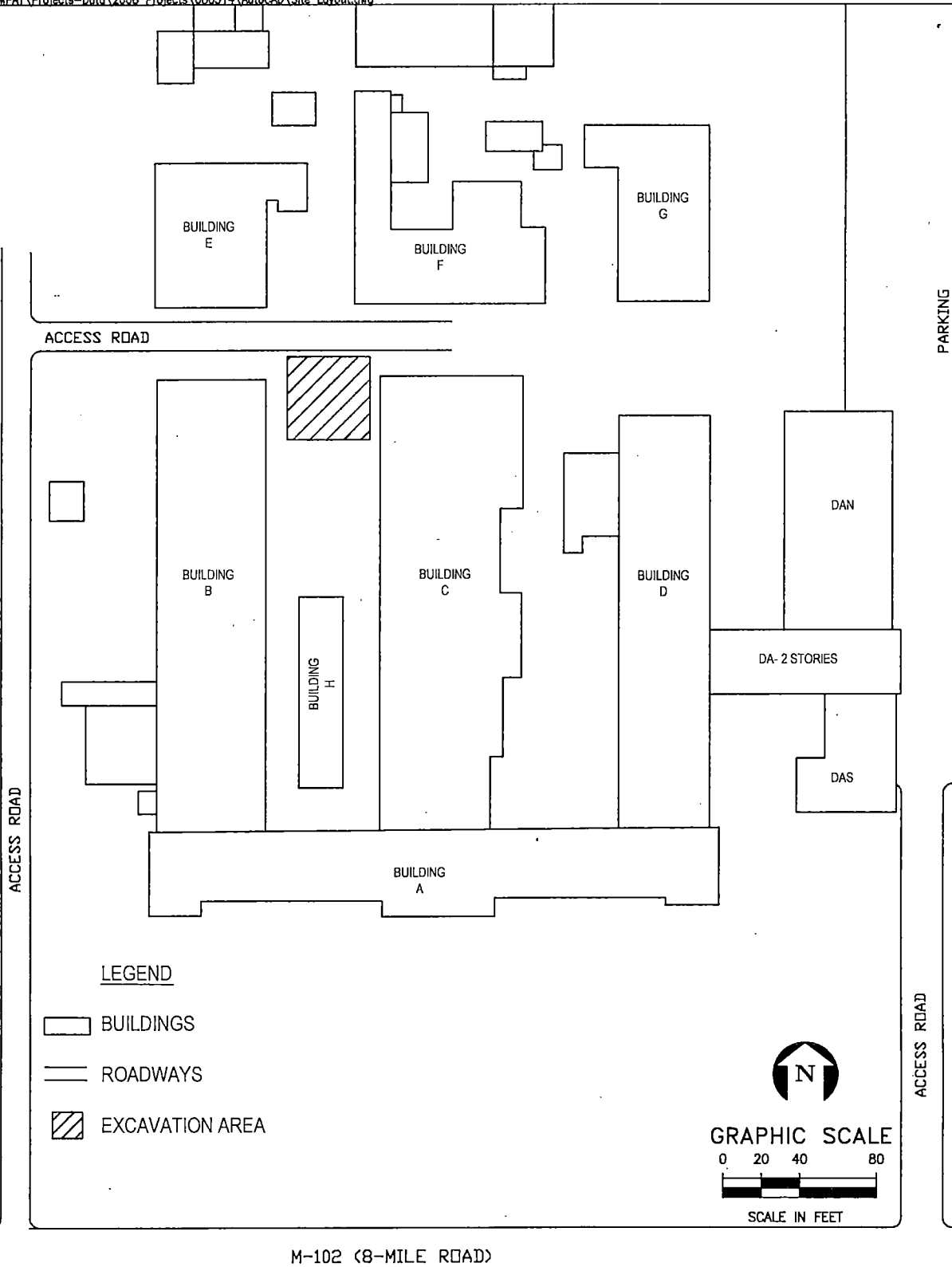
Timothy F. Hebert, CPG/RG, CUSTP #0023
Manager, Remediation Services

Figure 1 – Site Layout Map
Figure 2 – Excavation Detail




Attachment A – Site Photographs
Attachment B – Soil & Groundwater Quality Analytical Results

N: P-project data/2008 projects/080514/Site Assmt Rpt. doc

FIGURES



LEGEND

-  BUILDINGS
-  ROADWAYS
-  EXCAVATION AREA



GRAPHIC SCALE

0 20 40 80



SCALE IN FEET

M-102 (8-MILE ROAD)

FIGURE 1.
SITE LAYOUT MAP

Source: ECT, 2008.

HAYES-LEMMERZ
1600 WEST 8-MILE ROAD
FERNDAL, MICHIGAN



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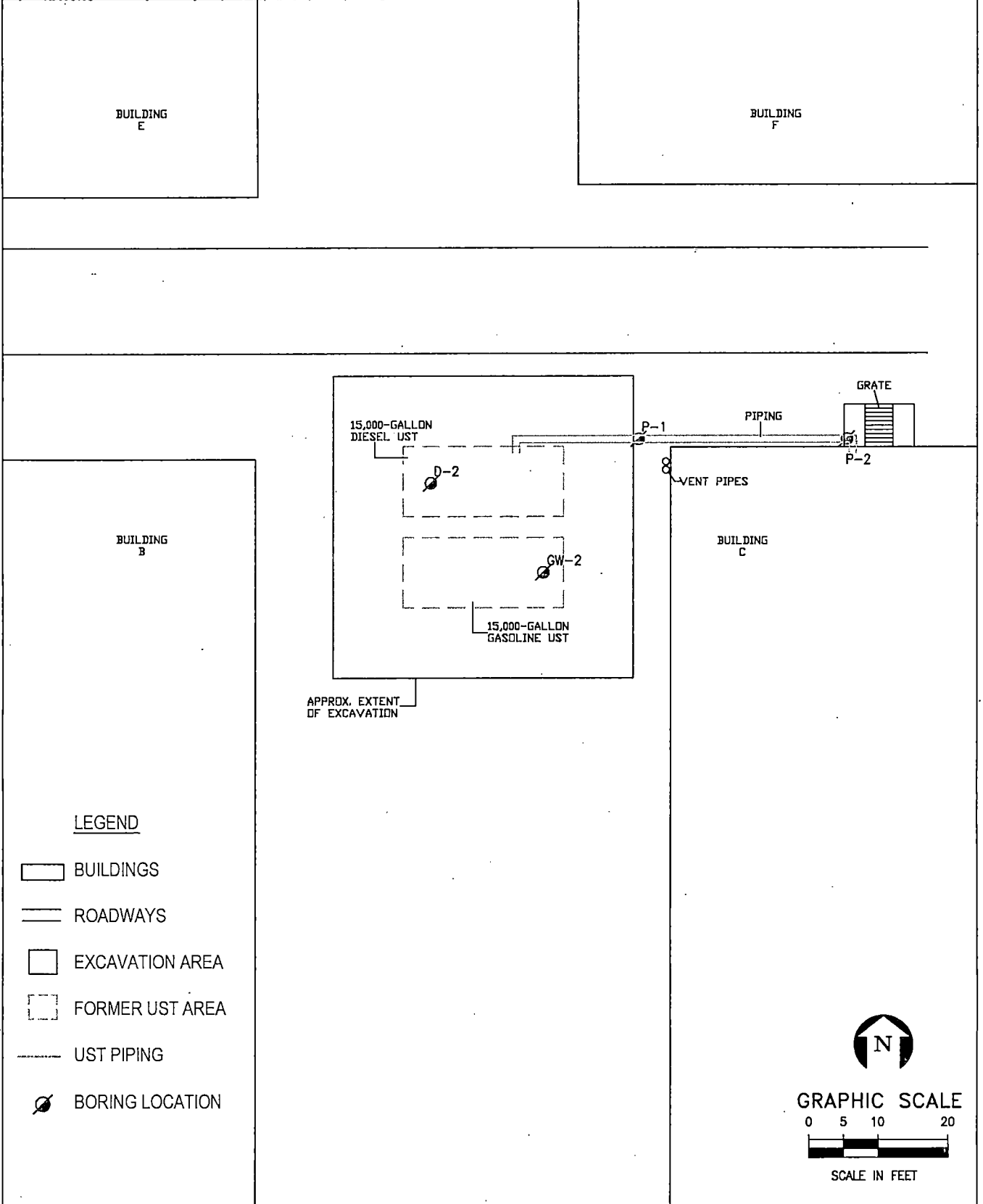


FIGURE 2.
EXCAVATION DETAIL

Source: ECT, 2008.

HAYES-LEMMERZ
1600 WEST 8-MILE ROAD
FERNDAL, MICHIGAN

ECT

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ATTACHMENTS

ATTACHMENT A

Site Photographs

PLATE 1



Photograph No. 1
Diesel UST removed from ground at CMI Tech Center, Inc. facility (28 July 2008)



Photograph No. 2
Excavation floor beneath diesel UST at CMI Tech Center, Inc. facility (28 July 2008)

PLATE 2



Photograph No. 3
Gasoline UST removed from ground at CMI Tech Center, Inc. facility (28 July 2008)



Photograph No. 4
Excavation floor beneath gasoline UST at CMI Tech Center, Inc. facility (28 July 2008)

PLATE 3



Photograph No. 5
Groundwater in excavation beneath former gasoline UST at CMI Tech Center, Inc. facility
(28 July 2008)



Photograph No. 6
Product piping line P-1 sample location at CMI Tech Center, Inc. facility (29 July 2008)

PLATE 4



Photograph No. 7
Product piping line P-2 sample location at CMI Tech Center, Inc. facility (29 July 2008)



Photograph No. 8
Product piping line excavation at CMI Tech Center, Inc. facility (29 July 2008)

ATTACHMENT B

Soil & Groundwater Quality Analytical Results



RTI LABORATORIES, INC.

31628 Glendale St.
Livonia, Michigan 48150
TEL: 734.422.8000
FAX: 734.422.5342
Website: www.rtilab.com

Analytical Report

(consolidated)

WO#: 0807A01

Date Reported: 8/11/2008

CLIENT: Environmental Consulting & Technology, Inc. Collection Date: 7/28/2008 1:15:00 PM
Project: Hayes-Lemmert - 08-0514
Lab ID: 0807A01-001 Matrix: SOIL
Client Sample ID D-2 13.5'

Analyses Result RL Qual Units DF Date Analyzed

**POLYNUCLEAR AROMATIC HYDROCARBONS
SEMI-VOLATILE ORGANIC COMPOUNDS**

SW8270C

Analyst: JW

2-Methylnaphthalene	ND	190	µg/Kg-dry	1	8/8/2008 9:26:00 PM
Acenaphthene	ND	190	µg/Kg-dry	1	8/8/2008 9:26:00 PM
Acenaphthylene	ND	190	µg/Kg-dry	1	8/8/2008 9:26:00 PM
Anthracene	ND	190	µg/Kg-dry	1	8/8/2008 9:26:00 PM
Benz(a)anthracene	140	190 J	µg/Kg-dry	1	8/8/2008 9:26:00 PM
Benzo(a)pyrene	130	190 J	µg/Kg-dry	1	8/8/2008 9:26:00 PM
Benzo(b)fluoranthene	200	190	µg/Kg-dry	1	8/8/2008 9:26:00 PM
Benzo(g,h,i)perylene	90	190 J	µg/Kg-dry	1	8/8/2008 9:26:00 PM
Benzo(k)fluoranthene	81	190 J	µg/Kg-dry	1	8/8/2008 9:26:00 PM
Chrysene	150	190 J	µg/Kg-dry	1	8/8/2008 9:26:00 PM
Dibenz(a,h)anthracene	ND	190	µg/Kg-dry	1	8/8/2008 9:26:00 PM
Fluoranthene	290	190	µg/Kg-dry	1	8/8/2008 9:26:00 PM
Fluorene	ND	190	µg/Kg-dry	1	8/8/2008 9:26:00 PM
Indeno(1,2,3-cd)pyrene	78	190 J	µg/Kg-dry	1	8/8/2008 9:26:00 PM
Naphthalene	ND	190	µg/Kg-dry	1	8/8/2008 9:26:00 PM
Phenanthrene	88	190 J	µg/Kg-dry	1	8/8/2008 9:26:00 PM
Pyrene	250	190	µg/Kg-dry	1	8/8/2008 9:26:00 PM
Surr: 2,4,6-Tribromophenol	75.9	25-93.9	%REC	1	8/8/2008 9:26:00 PM
Surr: 2-Fluorobiphenyl	79.0	26-105	%REC	1	8/8/2008 9:26:00 PM
Surr: 2-Fluorophenol	63.7	25-120	%REC	1	8/8/2008 9:26:00 PM
Surr: Nitrobenzene-d5	66.8	30.1-104	%REC	1	8/8/2008 9:26:00 PM
Surr: Phenol-d5	63.7	25-118	%REC	1	8/8/2008 9:26:00 PM
Surr: Terphenyl-d14	82.2	27.1-115	%REC	1	8/8/2008 9:26:00 PM

**VOLATILE ORGANIC COMPOUNDS - BTEX
VOLATILE ORGANIC COMPOUNDS**

SW8260B

Analyst: MT3

Benzene	ND	64	µg/Kg-dry	53.2	8/5/2008 3:43:00 PM
Ethylbenzene	ND	64	µg/Kg-dry	53.2	8/5/2008 3:43:00 PM
Toluene	ND	64	µg/Kg-dry	53.2	8/5/2008 3:43:00 PM
Xylenes, Total	ND	190	µg/Kg-dry	53.2	8/5/2008 3:43:00 PM
Surr: 4-Bromofluorobenzene	98.9	90-115	%REC	53.2	8/5/2008 3:43:00 PM
Surr: Dibromofluoromethane	100	88.4-108	%REC	53.2	8/5/2008 3:43:00 PM
Surr: Toluene-d8	95.4	90-112	%REC	53.2	8/5/2008 3:43:00 PM

Qualifiers: *X Value exceeds Maximum Contaminant Level
E Value above quantitation range
J Analyte detected below quantitation limits
ND Not Detected at the Reporting Limit
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
M Manual Integration used to determine area response
RL Reporting Detection Limit



RTI LABORATORIES, INC.

31628 Glendale St.
Livonia, Michigan 48150
TEL: 734.422.8000
FAX: 734.422.5342
Website: www.rtilab.com

Analytical Report

(consolidated)

WO#: 0807A01

Date Reported: 8/11/2008

CLIENT: Environmental Consulting & Technology, Inc. **Collection Date:** 7/28/2008 1:15:00 PM
Project: Hayes-Lemmert - 08-0514
Lab ID: 0807A01-001 **Matrix:** SOIL
Client Sample ID D-2 13.5'

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS - BTEX					D2216	Analyst: RJ
PERCENT MOISTURE						
Percent Moisture	17	1.0		wt%	1	8/1/2008 10:10:00 AM

Qualifiers: *X Value exceeds Maximum Contaminant Level B Analyte detected in the associated Method Blank
 E Value above quantitation range H Holding times for preparation or analysis exceeded
 J Analyte detected below quantitation limits M Manual Integration used to determine area response
 ND Not Detected at the Reporting Limit RL Reporting Detection Limit
 S Spike Recovery outside accepted recovery limits



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Analytical Report

(consolidated)

WO#: 0807A01

Date Reported: 8/11/2008

CLIENT: Environmental Consulting & Technology, Inc. Collection Date: 7/29/2008 7:35:00 AM
 Project: Hayes-Lemmert - 08-0514
 Lab ID: 0807A01-002 Matrix: GROUNDWATER
 Client Sample ID GW-2

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
POLYNUCLEAR AROMATIC HYDROCARBONS				SW8310	Analyst: MB	
2-Methylnaphthalene	ND	3.3		µg/L	1	8/7/2008 5:43:44 PM
Acenaphthene	ND	3.3		µg/L	1	8/7/2008 5:43:44 PM
Acenaphthylene	ND	3.3		µg/L	1	8/7/2008 5:43:44 PM
Anthracene	0.25	3.3	J	µg/L	1	8/7/2008 5:43:44 PM
Benz(a)anthracene	ND	3.3		µg/L	1	8/7/2008 5:43:44 PM
Benzo(a)pyrene	ND	3.3		µg/L	1	8/7/2008 5:43:44 PM
Benzo(b)fluoranthene	ND	3.3		µg/L	1	8/7/2008 5:43:44 PM
Benzo(g,h,i)perylene	ND	3.3		µg/L	1	8/7/2008 5:43:44 PM
Benzo(k)fluoranthene	0.83	3.3	J	µg/L	1	8/7/2008 5:43:44 PM
Chrysene	ND	3.3		µg/L	1	8/7/2008 5:43:44 PM
Dibenz(a,h)anthracene	ND	3.3		µg/L	1	8/7/2008 5:43:44 PM
Fluoranthene	ND	3.3		µg/L	1	8/7/2008 5:43:44 PM
Fluorene	ND	3.3		µg/L	1	8/7/2008 5:43:44 PM
Indeno(1,2,3-cd)pyrene	ND	3.3		µg/L	1	8/7/2008 5:43:44 PM
Naphthalene	6.9	3.3		µg/L	1	8/7/2008 5:43:44 PM
Phenanthrene	0.83	3.3	J	µg/L	1	8/7/2008 5:43:44 PM
Pyrene	ND	3.3		µg/L	1	8/7/2008 5:43:44 PM
Surr: p-Terphenyl	86.1	70-130		%REC	1	8/7/2008 5:43:44 PM
VOLATILE ORGANIC COMPOUNDS - BTEX				SW8260B	Analyst: MT3	
VOLATILE ORGANIC COMPOUNDS						
Benzene	0.70	1.0	J	µg/L	1	8/1/2008 6:00:00 PM
Ethylbenzene	0.29	1.0	J	µg/L	1	8/1/2008 6:00:00 PM
Methyl tert-butyl ether	27	5.0		µg/L	1	8/1/2008 6:00:00 PM
Toluene	1.5	1.0		µg/L	1	8/1/2008 6:00:00 PM
Xylenes, Total	2.1	3.0	J	µg/L	1	8/1/2008 6:00:00 PM
Surr: 4-Bromofluorobenzene	109	70-130		%REC	1	8/1/2008 6:00:00 PM
Surr: Dibromofluoromethane	104	70-130		%REC	1	8/1/2008 6:00:00 PM
Surr: Toluene-d8	92.3	70-130		%REC	1	8/1/2008 6:00:00 PM

Qualifiers: *X Value exceeds Maximum Contaminant Level B Analyte detected in the associated Method Blank
 E Value above quantitation range H Holding times for preparation or analysis exceeded
 J Analyte detected below quantitation limits M Manual Integration used to determine area response
 ND Not Detected at the Reporting Limit RL Reporting Detection Limit
 S Spike Recovery outside accepted recovery limits



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Analytical Report

(consolidated)

WO#: 0807A01

Date Reported: 8/11/2008

CLIENT: Environmental Consulting & Technology, Inc. Collection Date: 7/29/2008 9:10:00 AM
 Project: Hayes-Lemmert - 08-0514
 Lab ID: 0807A01-003 Matrix: SOIL
 Client Sample ID P-1 2'

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
POLYNUCLEAR AROMATIC HYDROCARBONS				SW8270C	Analyst: JW	
SEMI-VOLATILE ORGANIC COMPOUNDS						
2-Methylnaphthalene	ND	170		µg/Kg-dry	1	8/8/2008 9:51:00 PM
Acenaphthene	ND	170		µg/Kg-dry	1	8/8/2008 9:51:00 PM
Acenaphthylene	ND	170		µg/Kg-dry	1	8/8/2008 9:51:00 PM
Anthracene	49	170	J	µg/Kg-dry	1	8/8/2008 9:51:00 PM
Benz(a)anthracene	330	170		µg/Kg-dry	1	8/8/2008 9:51:00 PM
Benzo(a)pyrene	300	170		µg/Kg-dry	1	8/8/2008 9:51:00 PM
Benzo(b)fluoranthene	490	170		µg/Kg-dry	1	8/8/2008 9:51:00 PM
Benzo(g,h,i)perylene	210	170		µg/Kg-dry	1	8/8/2008 9:51:00 PM
Benzo(k)fluoranthene	170	170		µg/Kg-dry	1	8/8/2008 9:51:00 PM
Chrysene	350	170		µg/Kg-dry	1	8/8/2008 9:51:00 PM
Dibenz(a,h)anthracene	42	170	J	µg/Kg-dry	1	8/8/2008 9:51:00 PM
Fluoranthene	630	170		µg/Kg-dry	1	8/8/2008 9:51:00 PM
Fluorene	ND	170		µg/Kg-dry	1	8/8/2008 9:51:00 PM
Indeno(1,2,3-cd)pyrene	190	170		µg/Kg-dry	1	8/8/2008 9:51:00 PM
Naphthalene	ND	170		µg/Kg-dry	1	8/8/2008 9:51:00 PM
Phenanthrene	260	170		µg/Kg-dry	1	8/8/2008 9:51:00 PM
Pyrene	590	170		µg/Kg-dry	1	8/8/2008 9:51:00 PM
Surr: 2,4,6-Tribromophenol	81.6	25-93.9		%REC	1	8/8/2008 9:51:00 PM
Surr: 2-Fluorobiphenyl	88.9	26-105		%REC	1	8/8/2008 9:51:00 PM
Surr: 2-Fluorophenol	74.1	25-120		%REC	1	8/8/2008 9:51:00 PM
Surr: Nitrobenzene-d5	76.2	30.1-104		%REC	1	8/8/2008 9:51:00 PM
Surr: Phenol-d5	74.4	25-118		%REC	1	8/8/2008 9:51:00 PM
Surr: Terphenyl-d14	91.6	27.1-115		%REC	1	8/8/2008 9:51:00 PM
VOLATILE ORGANIC COMPOUNDS - BTEX				SW8260B	Analyst: MT3	
VOLATILE ORGANIC COMPOUNDS						
Benzene	65	54		µg/Kg-dry	51.9	8/5/2008 4:08:00 PM
Ethylbenzene	41	54	J	µg/Kg-dry	51.9	8/5/2008 4:08:00 PM
Toluene	510	54		µg/Kg-dry	51.9	8/5/2008 4:08:00 PM
Xylenes, Total	210	160		µg/Kg-dry	51.9	8/5/2008 4:08:00 PM
Surr: 4-Bromofluorobenzene	99.3	90-115		%REC	51.9	8/5/2008 4:08:00 PM
Surr: Dibromofluoromethane	99.6	88.4-108		%REC	51.9	8/5/2008 4:08:00 PM
Surr: Toluene-d8	96.8	90-112		%REC	51.9	8/5/2008 4:08:00 PM

Qualifiers: *X Value exceeds Maximum Contaminant Level
 E Value above quantitation range
 J Analyte detected below quantitation limits
 ND Not Detected at the Reporting Limit
 S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
 H Holding times for preparation or analysis exceeded
 M Manual Integration used to determine area response
 RL Reporting Detection Limit



RTI LABORATORIES, INC.

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TEL: 734.422.8000
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Website: www.rtilab.com

Analytical Report

(consolidated)

WO#: 0807A01

Date Reported: 8/11/2008

CLIENT: Environmental Consulting & Technology, Inc. **Collection Date:** 7/29/2008 9:10:00 AM
Project: Hayes-Lemmert - 08-0514
Lab ID: 0807A01-003 **Matrix:** SOIL
Client Sample ID P-1 2'

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS - BTEX					D2216	Analyst: RJ
PERCENT MOISTURE						
Percent Moisture	3.5	1.0		wt%	1	8/1/2008 10:10:00 AM

Qualifiers: *X Value exceeds Maximum Contaminant Level
 E Value above quantitation range
 J Analyte detected below quantitation limits
 ND Not Detected at the Reporting Limit
 S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
 H Holding times for preparation or analysis exceeded
 M Manual Integration used to determine area response
 RL Reporting Detection Limit



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Analytical Report

(consolidated)

WO#: 0807A01

Date Reported: 8/11/2008

CLIENT: Environmental Consulting & Technology, Inc. Collection Date: 7/29/2008 9:40:00 AM
 Project: Hayes-Lemmert - 08-0514
 Lab ID: 0807A01-004 Matrix: SOIL
 Client Sample ID P-2 2'

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
POLYNUCLEAR AROMATIC HYDROCARBONS				SW8270C	Analyst: JW	
SEMI-VOLATILE ORGANIC COMPOUNDS						
2-Methylnaphthalene	ND	170		µg/Kg-dry	1	8/8/2008 10:16:00 PM
Acenaphthene	ND	170		µg/Kg-dry	1	8/8/2008 10:16:00 PM
Acenaphthylene	ND	170		µg/Kg-dry	1	8/8/2008 10:16:00 PM
Anthracene	ND	170		µg/Kg-dry	1	8/8/2008 10:16:00 PM
Benz(a)anthracene	ND	170		µg/Kg-dry	1	8/8/2008 10:16:00 PM
Benzo(a)pyrene	ND	170		µg/Kg-dry	1	8/8/2008 10:16:00 PM
Benzo(b)fluoranthene	ND	170		µg/Kg-dry	1	8/8/2008 10:16:00 PM
Benzo(g,h,i)perylene	ND	170		µg/Kg-dry	1	8/8/2008 10:16:00 PM
Benzo(k)fluoranthene	ND	170		µg/Kg-dry	1	8/8/2008 10:16:00 PM
Chrysene	ND	170		µg/Kg-dry	1	8/8/2008 10:16:00 PM
Dibenz(a,h)anthracene	ND	170		µg/Kg-dry	1	8/8/2008 10:16:00 PM
Fluoranthene	ND	170		µg/Kg-dry	1	8/8/2008 10:16:00 PM
Fluorene	ND	170		µg/Kg-dry	1	8/8/2008 10:16:00 PM
Indeno(1,2,3-cd)pyrene	ND	170		µg/Kg-dry	1	8/8/2008 10:16:00 PM
Naphthalene	ND	170		µg/Kg-dry	1	8/8/2008 10:16:00 PM
Phenanthrene	ND	170		µg/Kg-dry	1	8/8/2008 10:16:00 PM
Pyrene	ND	170		µg/Kg-dry	1	8/8/2008 10:16:00 PM
Surr: 2,4,6-Tribromophenol	65.9	25-93.9		%REC	1	8/8/2008 10:16:00 PM
Surr: 2-Fluorobiphenyl	75.3	26-105		%REC	1	8/8/2008 10:16:00 PM
Surr: 2-Fluorophenol	66.0	25-120		%REC	1	8/8/2008 10:16:00 PM
Surr: Nitrobenzene-d5	66.9	30.1-104		%REC	1	8/8/2008 10:16:00 PM
Surr: Phenol-d5	67.1	25-118		%REC	1	8/8/2008 10:16:00 PM
Surr: Terphenyl-d14	78.1	27.1-115		%REC	1	8/8/2008 10:16:00 PM
VOLATILE ORGANIC COMPOUNDS - BTEX				SW8260B	Analyst: MT3	
VOLATILE ORGANIC COMPOUNDS						
Benzene	ND	59		µg/Kg-dry	56.8	8/5/2008 4:33:00 PM
Ethylbenzene	ND	59		µg/Kg-dry	56.8	8/5/2008 4:33:00 PM
Methyl tert-butyl ether	ND	300		µg/Kg-dry	56.8	8/5/2008 4:33:00 PM
Toluene	ND	59		µg/Kg-dry	56.8	8/5/2008 4:33:00 PM
Xylenes, Total	ND	180		µg/Kg-dry	56.8	8/5/2008 4:33:00 PM
Surr: 4-Bromofluorobenzene	100	90-115		%REC	56.8	8/5/2008 4:33:00 PM
Surr: Dibromofluoromethane	102	88.4-108		%REC	56.8	8/5/2008 4:33:00 PM
Surr: Toluene-d8	96.4	90-112		%REC	56.8	8/5/2008 4:33:00 PM

Qualifiers: *X Value exceeds Maximum Contaminant Level
 E Value above quantitation range
 J Analyte detected below quantitation limits
 ND Not Detected at the Reporting Limit
 S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
 H Holding times for preparation or analysis exceeded
 M Manual Integration used to determine area response
 RL Reporting Detection Limit



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Analytical Report

(consolidated)

WO#: 0807A01

Date Reported: 8/11/2008

CLIENT: Environmental Consulting & Technology, Inc. Collection Date: 7/29/2008 9:40:00 AM

Project: Hayes-Lemmert - 08-0514

Lab ID: 0807A01-004

Matrix: SOIL

Client Sample ID P-2 2'

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS - BTEX					D2216	Analyst: RJ
PERCENT MOISTURE						
Percent Moisture	4.5	1.0		wt%	1	8/1/2008 10:10:00 AM

Qualifiers:

- *X Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike Recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- M Manual Integration used to determine area response
- RL Reporting Detection Limit



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Analytical Report

(consolidated)

WO#: 0807A01

Date Reported: 8/11/2008

CLIENT: Environmental Consulting & Technology, Inc. **Collection Date:**

Project: Hayes-Lemmert - 08-0514

Lab ID: 0807A01-005

Matrix: WATER

Client Sample ID Water Trip Blank

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS - BTEX				SW8260B	Analyst: MT3	
VOLATILE ORGANIC COMPOUNDS						
Benzene	ND	1.0		µg/L	1	8/1/2008 4:14:00 PM
Ethylbenzene	ND	1.0		µg/L	1	8/1/2008 4:14:00 PM
Methyl tert-butyl ether	ND	5.0		µg/L	1	8/1/2008 4:14:00 PM
Toluene	ND	1.0		µg/L	1	8/1/2008 4:14:00 PM
Xylenes, Total	ND	3.0		µg/L	1	8/1/2008 4:14:00 PM
Surr: 4-Bromofluorobenzene	106	70-130		%REC	1	8/1/2008 4:14:00 PM
Surr: Dibromofluoromethane	104	70-130		%REC	1	8/1/2008 4:14:00 PM
Surr: Toluene-d8	103	70-130		%REC	1	8/1/2008 4:14:00 PM

Qualifiers:

- *X Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike Recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- M Manual Integration used to determine area response
- RL Reporting Detection Limit



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Analytical Report

(consolidated)

WO#: 0807A01

Date Reported: 8/11/2008

CLIENT: Environmental Consulting & Technology, Inc. **Collection Date:**
Project: Hayes-Lemmert - 08-0514
Lab ID: 0807A01-006 **Matrix:** METHANOL
Client Sample ID Methanol Trip Blank

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS - BTEX				SW8260B	Analyst: MT3	
VOLATILE ORGANIC COMPOUNDS						
Benzene	ND	50		µg/Kg	50	8/5/2008 3:15:00 PM
Ethylbenzene	ND	50		µg/Kg	50	8/5/2008 3:15:00 PM
Methyl tert-butyl ether	ND	250		µg/Kg	50	8/5/2008 3:15:00 PM
Toluene	ND	50		µg/Kg	50	8/5/2008 3:15:00 PM
Xylenes, Total	ND	150		µg/Kg	50	8/5/2008 3:15:00 PM
Surr: 4-Bromofluorobenzene	100	90-115		%REC	50	8/5/2008 3:15:00 PM
Surr: Dibromofluoromethane	97.9	88.4-108		%REC	50	8/5/2008 3:15:00 PM
Surr: Toluene-d8	93.6	90-112		%REC	50	8/5/2008 3:15:00 PM

Qualifiers: *X Value exceeds Maximum Contaminant Level B Analyte detected in the associated Method Blank
 E Value above quantitation range H Holding times for preparation or analysis exceeded
 J Analyte detected below quantitation limits M Manual Integration used to determine area response
 ND Not Detected at the Reporting Limit RL Reporting Detection Limit
 S Spike Recovery outside accepted recovery limits

CLIENT: Environmental Consulting & Technology, I
 Work Order: 0807A01
 Project: Hayes-Lemmert - 08-0514

QC SUMMARY REPORT

BatchID: 11881

Sample ID: LCS-11881	SampType: LCS	TestCode: SW_8270S	Units: µg/Kg	Prep Date: 8/5/2008	RunNo: 22566						
Client ID: LCSS	Batch ID: 11881	TestNo: SW8270C		Analysis Date: 8/8/2008	SeqNo: 370337						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
2-Methylnaphthalene	500	160	666.7	0	74.6	49.3	102				
Acenaphthene	540	160	666.7	0	81.1	55	110				
Acenaphthylene	530	160	666.7	0	79.7	53.9	104				
Anthracene	580	160	666.7	0	86.3	59.9	111				
Benz(a)anthracene	600	160	666.7	0	90.2	62.9	113				
Benzo(a)pyrene	580	160	666.7	0	86.3	64.4	112				
Benzo(b)fluoranthene	550	160	666.7	0	82.6	56.2	116				
Benzo(g,h,i)perylene	550	160	666.7	0	82.3	56.6	121				
Benzo(k)fluoranthene	660	160	666.7	0	98.7	59	125				
Chrysene	600	160	666.7	0	90.6	64.2	117				
Dibenz(a,h)anthracene	570	160	666.7	0	85.2	61.7	117				
Fluoranthene	580	160	666.7	0	86.4	55.5	116				
Fluorene	570	160	666.7	0	86.0	57.9	117				
Indeno(1,2,3-cd)pyrene	570	160	666.7	0	85.8	63.3	114				
Naphthalene	460	160	666.7	0	68.8	47.8	106				
Phenanthrene	590	160	666.7	0	88.0	61.9	112				
Pyrene	590	160	666.7	0	87.9	60.3	120				
Surr: 2,4,6-Tribromophenol	720		833.3		86.8	24.6	180				
Surr: 2-Fluorobiphenyl	610		833.3		72.9	23.8	116				
Surr: 2-Fluorophenol	560		833.3		66.9	26.6	142				
Surr: Nitrobenzene-d5	540		833.3		64.8	21.1	116				
Surr: Phenol-d5	550		833.3		65.9	17	137				
Surr: Terphenyl-d14	630		833.3		75.1	30.3	132				

Sample ID: MB-11881	SampType: MBLK	TestCode: SW_8270S	Units: µg/Kg	Prep Date: 8/5/2008	RunNo: 22566						
Client ID: PBS	Batch ID: 11881	TestNo: SW8270C		Analysis Date: 8/8/2008	SeqNo: 370338						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
2-Methylnaphthalene	ND	160									

Qualifiers: E Value above quantitation range H Holding times for preparation or analysis exceeded J Analyte detected below quantitation lin
 M Manual Integration used to determine area response ND Not Detected at the Reporting Limit R RPD outside accepted recovery limits
 RL Reporting Detection Limit S Spike Recovery outside accepted recovery limits

CLIENT: Environmental Consulting & Technology, I
Work Order: 0807A01
Project: Hayes-Lemmert - 08-0514

QC SUMMARY REPORT

BatchID: 11881

Sample ID: MB-11881	SampType: MBLK	TestCode: SW_8270S	Units: µg/Kg	Prep Date: 8/5/2008	RunNo: 22566
Client ID: PBS	Batch ID: 11881	TestNo: SW8270C		Analysis Date: 8/8/2008	SeqNo: 370338

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Acenaphthene	ND	160									
Acenaphthylene	ND	160									
Anthracene	ND	160									
Benz(a)anthracene	ND	160									
Benzo(a)pyrene	ND	160									
Benzo(b)fluoranthene	ND	160									
Benzo(g,h,i)perylene	ND	160									
Benzo(k)fluoranthene	ND	160									
Chrysene	ND	160									
Dibenz(a,h)anthracene	ND	160									
Fluoranthene	ND	160									
Fluorene	ND	160									
Indeno(1,2,3-cd)pyrene	ND	160									
Naphthalene	ND	160									
Phenanthrene	ND	160									
Pyrene	ND	160									
Surr: 2,4,6-Tribromophenol	660		833.3		78.8	50	130				
Surr: 2-Fluorobiphenyl	710		833.3		85.8	50	130				
Surr: 2-Fluorophenol	610		833.3		73.1	50	130				
Surr: Nitrobenzene-d5	630		833.3		75.7	50	130				
Surr: Phenol-d5	610		833.3		73.7	50	130				
Surr: Terphenyl-d14	770		833.3		92.2	50	130				

Sample ID: 0808062-001BMS	SampType: MS	TestCode: SW_8270S	Units: µg/Kg-dry	Prep Date: 8/5/2008	RunNo: 22566
Client ID: ZZZZZZ	Batch ID: 11881	TestNo: SW8270C		Analysis Date: 8/8/2008	SeqNo: 370343

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
2-Methylnaphthalene	540	180	741.2	0	72.8	50	130				
Acenaphthene	600	180	741.2	0	81.5	50	130				
Acenaphthylene	580	180	741.2	0	78.0	50	130				
Anthracene	640	180	741.2	50.03	79.7	50	130				

Qualifiers: E Value above quantitation range H Holding times for preparation or analysis exceeded J Analyte detected below quantitation lin
 M Manual Integration used to determine area response ND Not Detected at the Reporting Limit R RPD outside accepted recovery limits
 RL Reporting Detection Limit S Spike Recovery outside accepted recovery limits

CLIENT: Environmental Consulting & Technology, I
Work Order: 0807A01
Project: Hayes-Lemmert - 08-0514

QC SUMMARY REPORT

BatchID: 11881

Sample ID:	0808062-001BMS	SampType:	MS	TestCode:	SW_8270S	Units:	µg/Kg-dry	Prep Date:	8/5/2008	RunNo:	22566
Client ID:	ZZZZZZ	Batch ID:	11881	TestNo:	SW8270C	Analysis Date:	8/8/2008	SeqNo:	370343		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benz(a)anthracene	890	180	741.2	332.4	74.8	50	130				
Benzo(a)pyrene	930	180	741.2	384.3	73.9	50	130				
Benzo(b)fluoranthene	980	180	741.2	486.9	65.8	50	130				
Benzo(g,h,i)perylene	1,100	180	741.2	493.6	75.2	50	130				
Benzo(k)fluoranthene	990	180	741.2	290.5	94.1	50	130				
Chrysene	980	180	741.2	394.7	79.1	50	130				
Dibenz(a,h)anthracene	720	180	741.2	0	97.3	50	130				
Fluoranthene	1,000	180	741.2	595.9	57.5	50	130				
Fluorene	620	180	741.2	0	83.1	50	130				
Indeno(1,2,3-cd)pyrene	900	180	741.2	366.9	72.2	50	130				
Naphthalene	500	180	741.2	0	66.8	50	130				
Phenanthrene	780	180	741.2	303.1	64.9	50	130				
Pyrene	1,300	180	741.2	665.2	89.8	50	130				
Surr: 2,4,6-Tribromophenol	720		926.5		77.8	50	130				
Surr: 2-Fluorobiphenyl	660		926.5		71.5	50	130				
Surr: 2-Fluorophenol	580		926.5		62.4	50	130				
Surr: Nitrobenzene-d5	590		926.5		63.5	50	130				
Surr: Phenol-d5	600		926.5		65.1	50	130				
Surr: Terphenyl-d14	870		926.5		94.2	50	130				

Sample ID:	0808062-001BMSD	SampType:	MSD	TestCode:	SW_8270S	Units:	µg/Kg-dry	Prep Date:	8/5/2008	RunNo:	22566
Client ID:	ZZZZZZ	Batch ID:	11881	TestNo:	SW8270C	Analysis Date:	8/8/2008	SeqNo:	370344		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
2-Methylnaphthalene	510	180	741.2	0	68.7	50	130	539.9	5.79	25	
Acenaphthene	550	180	741.2	0	73.7	50	130	604.1	10.1	25	
Acenaphthylene	520	180	741.2	0	69.6	50	130	578.5	11.4	25	
Anthracene	580	180	741.2	50.03	70.9	50	130	641.1	10.8	25	
Benzo(a)anthracene	850	180	741.2	332.4	70.3	50	130	886.8	3.79	25	
Benzo(a)pyrene	920	180	741.2	384.3	72.9	50	130	932.4	0.798	25	
Benzo(b)fluoranthene	930	180	741.2	486.9	59.5	50	130	975.0	4.95	25	

Qualifiers: E Value above quantitation range H Holding times for preparation or analysis exceeded J Analyte detected below quantitation lin
 M Manual Integration used to determine area response ND Not Detected at the Reporting Limit R RPD outside accepted recovery limits
 RL Reporting Detection Limit S Spike Recovery outside accepted recovery limits

CLIENT: Environmental Consulting & Technology, I
 Work Order: 0807A01
 Project: Hayes-Lemmer - 08-0514

QC SUMMARY REPORT

BatchID: 11881

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Sample ID: 0808062-001BMSD	SampType: MSD	TestCode: SW_8270S	Units: µg/Kg-dry	Prep Date: 8/5/2008	RunNo: 22566						
Client ID: ZZZZZZ	Batch ID: 11881	TestNo: SW8270C	Analysis Date: 8/8/2008	SeqNo: 370344							
Benzo(g,h,i)perylene	1,300	180	741.2	493.6	114	50	130	1,051	24.0	25	
Benzo(k)fluoranthene	920	180	741.2	290.5	84.5	50	130	988.3	7.51	25	
Chrysene	960	180	741.2	394.7	75.9	50	130	981.3	2.45	25	
Dibenz(a,h)anthracene	800	180	741.2	0	108	50	130	721.5	10.6	25	
Fluoranthene	910	180	741.2	595.9	42.5	50	130	1,022	11.5	25	S
Fluorene	560	180	741.2	0	75.2	50	130	615.9	9.91	25	
Indeno(1,2,3-cd)pyrene	1,100	180	741.2	366.9	98.0	50	130	902.0	19.2	25	
Naphthalene	430	180	741.2	0	58.6	50	130	495.5	13.1	25	
Phenanthrene	740	180	741.2	303.1	59.1	50	130	784.2	5.64	25	
Pyrene	1,300	180	741.2	665.2	84.5	50	130	1,331	3.00	25	
Surr: 2,4,6-Tribromophenol	630		926.5		68.2	50	130		0	25	
Surr: 2-Fluorobiphenyl	570		926.5		61.7	50	130		0	25	
Surr: 2-Fluorophenol	500		926.5		53.6	50	130		0	25	
Surr: Nitrobenzene-d5	510		926.5		55.1	50	130		0	25	
Surr: Phenol-d5	520		926.5		55.8	50	130		0	25	
Surr: Terphenyl-d14	730		926.5		78.5	50	130		0	25	

Qualifiers: E Value above quantitation range H Holding times for preparation or analysis exceeded J Analyte detected below quantitation lin
 M Manual Integration used to determine area response ND Not Detected at the Reporting Limit R RPD outside accepted recovery limits
 RL Reporting Detection Limit S Spike Recovery outside accepted recovery limits

CLIENT: Environmental Consulting & Technology, I
 Work Order: 0807A01
 Project: Hayes-Lemmert - 08-0514

QC SUMMARY REPORT

BatchID: 11890

Sample ID: Ics-11890	SampType: Ics	TestCode: sw_8310a	Units: µg/L	Prep Date: 8/4/2008	RunNo: 22533						
Client ID: LCSW	Batch ID: 11890	TestNo: SW8310		Analysis Date: 8/7/2008	SeqNo: 369738						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
2-Methylnaphthalene	20	1.0	22.50	0	87.3	70	130				
Acenaphthene	48	1.0	50.00	0	95.0	70	130				
Acenaphthylene	40	1.0	50.00	0	79.4	70	130				
Anthracene	4.1	1.0	5.000	0	82.6	70	130				
Benz(a)anthracene	4.7	1.0	5.000	0	94.1	70	130				
Benzo(a)pyrene	5.1	1.0	5.000	0	102	70	130				
Benzo(b)fluoranthene	4.7	1.0	5.000	0	93.2	70	130				
Benzo(g,h,i)perylene	5.2	1.0	5.000	0	104	70	130				
Benzo(k)fluoranthene	4.9	1.0	5.000	0	98.1	70	130				
Chrysene	4.8	1.0	5.000	0	95.2	70	130				
Dibenz(a,h)anthracene	4.8	1.0	5.000	0	95.3	70	130				
Fluoranthene	4.3	1.0	5.000	0	86.0	70	130				
Fluorene	4.1	1.0	5.000	0	82.8	70	130				
Indeno(1,2,3-cd)pyrene	4.8	1.0	5.000	0	97.0	70	130				
Naphthalene	44	1.0	50.00	0	87.3	70	130				
Phenanthrene	4.4	1.0	5.000	0	88.3	70	130				
Pyrene	4.7	1.0	5.000	0	93.4	70	130				
Surr: p-Terphenyl	5.0		5.000		101	70	130				

Sample ID: Icsd-11890	SampType: Icsd	TestCode: sw_8310a	Units: µg/L	Prep Date: 8/4/2008	RunNo: 22533						
Client ID: LCSS02	Batch ID: 11890	TestNo: SW8310		Analysis Date: 8/7/2008	SeqNo: 369739						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
2-Methylnaphthalene	21	1.0	22.50	0	94.9	70	130	19.64	8.30	25	
Acenaphthene	47	1.0	50.00	0	93.4	70	130	47.51	1.72	25	
Acenaphthylene	41	1.0	50.00	0	81.4	70	130	39.70	2.50	25	
Anthracene	4.1	1.0	5.000	0	82.9	70	130	4.130	0.402	25	
Benz(a)anthracene	4.7	1.0	5.000	0	94.7	70	130	4.705	0.639	25	
Benzo(a)pyrene	5.3	1.0	5.000	0	106	70	130	5.100	3.53	25	
Benzo(b)fluoranthene	4.8	1.0	5.000	0	95.6	70	130	4.661	2.49	25	
Benzo(g,h,i)perylene	4.9	1.0	5.000	0	98.8	70	130	5.208	5.30	25	

Qualifiers: E Value above quantitation range H Holding times for preparation or analysis exceeded J Analyte detected below quantitation lim
 M Manual Integration used to determine area response ND Not Detected at the Reporting Limit R RPD outside accepted recovery limits
 RL Reporting Detection Limit S Spike Recovery outside accepted recovery limits

CLIENT: Environmental Consulting & Technology, I
 Work Order: 0807A01
 Project: Hayes-Lemmert - 08-0514

QC SUMMARY REPORT

BatchID: 11890

Sample ID: lcsd-11890	SampType: lcsd	TestCode: sw_8310a	Units: µg/L	Prep Date: 8/4/2008	RunNo: 22533						
Client ID: LCSS02	Batch ID: 11890	TestNo: SW8310		Analysis Date: 8/7/2008	SeqNo: 369739						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzo(k)fluoranthene	5.0	1.0	5.000	0	99.7	70	130	4.907	1.53	25	
Chrysene	4.8	1.0	5.000	0	96.5	70	130	4.760	1.30	25	
Dibenz(a,h)anthracene	4.6	1.0	5.000	0	91.5	70	130	4.767	4.07	25	
Fluoranthene	4.4	1.0	5.000	0	87.7	70	130	4.298	2.01	25	
Fluorene	4.5	1.0	5.000	0	89.4	70	130	4.139	7.64	25	
Indeno(1,2,3-cd)pyrene	4.8	1.0	5.000	0	96.2	70	130	4.848	0.820	25	
Naphthalene	48	1.0	50.00	0	96.4	70	130	43.66	9.85	25	
Phenanthrene	4.6	1.0	5.000	0	92.0	70	130	4.416	4.11	25	
Pyrene	4.8	1.0	5.000	0	96.5	70	130	4.672	3.21	25	
Surr: p-Terphenyl	5.1		5.000		101	70	130		0	25	

Sample ID: mb-11890	SampType: mblk	TestCode: sw_8310a	Units: µg/L	Prep Date: 8/4/2008	RunNo: 22533						
Client ID: PBW	Batch ID: 11890	TestNo: SW8310		Analysis Date: 8/7/2008	SeqNo: 369740						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
2-Methylnaphthalene	ND	1.0									
Acenaphthene	ND	1.0									
Acenaphthylene	ND	1.0									
Anthracene	ND	1.0									
Benz(a)anthracene	ND	1.0									
Benzo(a)pyrene	ND	1.0									
Benzo(b)fluoranthene	ND	1.0									
Benzo(g,h,i)perylene	ND	1.0									
Benzo(k)fluoranthene	ND	1.0									
Chrysene	ND	1.0									
Dibenz(a,h)anthracene	ND	1.0									
Fluoranthene	ND	1.0									
Fluorene	ND	1.0									
Indeno(1,2,3-cd)pyrene	ND	1.0									
Naphthalene	ND	1.0									
Phenanthrene	ND	1.0									

Qualifiers: E Value above quantitation range H Holding times for preparation or analysis exceeded J Analyte detected below quantitation limit
 M Manual Integration used to determine area response ND Not Detected at the Reporting Limit R RPD outside accepted recovery limits
 RL Reporting Detection Limit S Spike Recovery outside accepted recovery limits

CLIENT: Environmental Consulting & Technology, I
Work Order: 0807A01
Project: Hayes-Lemmert - 08-0514

QC SUMMARY REPORT

BatchID: 11890

Sample ID: mb-11890	SampType: mblk	TestCode: sw_8310a	Units: µg/L	Prep Date: 8/4/2008	RunNo: 22533						
Client ID: PBW	Batch ID: 11890	TestNo: SW8310		Analysis Date: 8/7/2008	SeqNo: 369740						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Pyrene	ND	1.0									
Surr: p-Terphenyl	5.8		5.000		115	70	130				

Qualifiers: E Value above quantitation range H Holding times for preparation or analysis exceeded J Analyte detected below quantitation lin
 M Manual Integration used to determine area response ND Not Detected at the Reporting Limit R RPD outside accepted recovery limits
 RL Reporting Detection Limit S Spike Recovery outside accepted recovery limits

CLIENT: Environmental Consulting & Technology, I
Work Order: 0807A01
Project: Hayes-Lemmert - 08-0514

QC SUMMARY REPORT

BatchID: R22421

Sample ID: 10ug/L LCS 10uL	SampType: LCS	TestCode: SW_8260A	Units: µg/L	Prep Date:	RunNo: 22421						
Client ID: LCSW	Batch ID: R22421	TestNo: SW8260B		Analysis Date: 8/1/2008	SeqNo: 367628						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	8.6	1.0	10.00	0	86.5	70	130				
Ethylbenzene	9.1	1.0	10.00	0	91.2	70	130				
Methyl tert-butyl ether	17	5.0	20.00	0	84.8	70	130				
Toluene	9.2	1.0	10.00	0	92.0	70	130				
Xylenes, Total	27	3.0	30.00	0	89.1	70	130				
Surr: 4-Bromofluorobenzene	54		50.00		107	70	130				
Surr: Dibromofluoromethane	51		50.00		101	70	130				
Surr: Toluene-d8	53		50.00		107	70	130				

Sample ID: MBLK 5mL DI H2O(SampType: MBLK	TestCode: SW_8260A	Units: µg/L	Prep Date:	RunNo: 22421						
Client ID: PBW	Batch ID: R22421	TestNo: SW8260B		Analysis Date: 8/1/2008	SeqNo: 367628						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	ND	1.0									
Ethylbenzene	ND	1.0									
Methyl tert-butyl ether	ND	5.0									
Toluene	ND	1.0									
Xylenes, Total	ND	3.0									
Surr: 4-Bromofluorobenzene	53		50.00		106	70	130				
Surr: Dibromofluoromethane	52		50.00		104	70	130				
Surr: Toluene-d8	52		50.00		103	70	130				

Sample ID: 0807A00-001A MS	SampType: MS	TestCode: SW_8260A	Units: µg/L	Prep Date:	RunNo: 22421						
Client ID: ZZZZZZ	Batch ID: R22421	TestNo: SW8260B		Analysis Date: 8/1/2008	SeqNo: 367631						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	1,400	10	100.0	1,268	110	72.8	143				
Ethylbenzene	750	10	100.0	650.5	104	80.1	128				
Methyl tert-butyl ether	200	50	200.0	0	100	43.4	153				
Toluene	260	10	100.0	198.8	63.2	68.6	141				S
Xylenes, Total	2,500	30	300.0	2,239	86.7	72.1	133				

Qualifiers: E Value above quantitation range H Holding times for preparation or analysis exceeded J Analyte detected below quantitation lin
 M Manual Integration used to determine area response ND Not Detected at the Reporting Limit R RPD outside accepted recovery limits
 RL Reporting Detection Limit S Spike Recovery outside accepted recovery limits

CLIENT: Environmental Consulting & Technology, I
Work Order: 0807A01
Project: Hayes-Lemmert - 08-0514

QC SUMMARY REPORT

BatchID: R22421

Sample ID: 0807A00-001A MS	SampType: MS	TestCode: SW_8260A	Units: µg/L	Prep Date:	RunNo: 22421						
Client ID: ZZZZZZ	Batch ID: R22421	TestNo: SW8260B		Analysis Date: 8/1/2008	SeqNo: 367631						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	540		500.0		108	92	115				
Surr: Dibromofluoromethane	530		500.0		107	81.6	126				
Surr: Toluene-d8	460		500.0		92.9	92.4	112				

Sample ID: 0807A00-001A MSD	SampType: MSD	TestCode: SW_8260A	Units: µg/L	Prep Date:	RunNo: 22421						
Client ID: ZZZZZZ	Batch ID: R22421	TestNo: SW8260B		Analysis Date: 8/1/2008	SeqNo: 367633						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	1,400	10	100.0	1,268	98.0	72.8	143	1,378	0.889	25	
Ethylbenzene	760	10	100.0	650.5	109	80.1	128	754.2	0.713	25	
Methyl tert-butyl ether	210	50	200.0	0	104	43.4	153	200.9	3.38	25	
Toluene	290	10	100.0	198.8	86.9	68.6	141	262.0	8.65	25	
Xylenes, Total	2,500	30	300.0	2,239	89.7	72.1	133	2,499	0.363	25	
Surr: 4-Bromofluorobenzene	540		500.0		107	92	115		0	25	
Surr: Dibromofluoromethane	530		500.0		106	81.6	126		0	25	
Surr: Toluene-d8	500		500.0		101	92.4	112		0	25	

Qualifiers: E Value above quantitation range H Holding times for preparation or analysis exceeded J Analyte detected below quantitation lin
 M Manual Integration used to determine area response ND Not Detected at the Reporting Limit R RPD outside accepted recovery limits
 RL Reporting Detection Limit S Spike Recovery outside accepted recovery limits

CLIENT: Environmental Consulting & Technology, I .
Work Order: 0807A01
Project: Hayes-Lemmert - 08-0514

QC SUMMARY REPORT

BatchID: R22423

Sample ID: 0807A01-004BDUP	SampType: DUP	TestCode: PMOIST	Units: wt%	Prep Date:	RunNo: 22423						
Client ID: P-2 2'	Batch ID: R22423	TestNo: D2216		Analysis Date: 8/1/2008	SeqNo: 367664						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Percent Moisture	4.1	1.0						4.515	8.47	20	

Qualifiers: E Value above quantitation range H Holding times for preparation or analysis exceeded J Analyte detected below quantitation lin
 M Manual Integration used to determine area response ND Not Detected at the Reporting Limit R RPD outside accepted recovery limits
 RL Reporting Detection Limit S Spike Recovery outside accepted recovery limits

CLIENT: Environmental Consulting & Technology, I
 Work Order: 0807A01
 Project: Hayes-Lemmert - 08-0514

QC SUMMARY REPORT

BatchID: R22480

Sample ID: 10ug/KG LCS 10uL	SampType: LCS	TestCode: SW_8260S	Units: µg/Kg	Prep Date:	RunNo: 22480						
Client ID: LCSS	Batch ID: R22480	TestNo: SW8260B		Analysis Date: 8/5/2008	SeqNo: 368780						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	530	30	500.0	0	106	70	130				
Ethylbenzene	510	50	500.0	0	103	70	130				
Methyl tert-butyl ether	940	250	1,000	0	93.8	70	130				
Toluene	510	50	500.0	0	102	70	130				
Xylenes, Total	1,500	150	1,500	0	100	70	130				
Surr: 4-Bromofluorobenzene	2,500		2,500		102	90	115				
Surr: Dibromofluoromethane	2,400		2,500		97.6	88.4	108				
Surr: Toluene-d8	2,400		2,500		94.4	90	112				

Sample ID: MBLK 1mLMEOH(22	SampType: MBLK	TestCode: SW_8260S	Units: µg/Kg	Prep Date:	RunNo: 22480						
Client ID: PBS	Batch ID: R22480	TestNo: SW8260B		Analysis Date: 8/5/2008	SeqNo: 368781						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	ND	30									
Ethylbenzene	ND	50									
Methyl tert-butyl ether	ND	250									
Toluene	ND	50									
Xylenes, Total	ND	150									
Surr: 4-Bromofluorobenzene	2,500		2,500		100	90	115				
Surr: Dibromofluoromethane	2,500		2,500		101	88.4	108				
Surr: Toluene-d8	2,400		2,500		94.7	90	112				

Sample ID: 0808062-002A MS	SampType: MS	TestCode: SW_8260S	Units: µg/Kg-dry	Prep Date:	RunNo: 22480						
Client ID: ZZZZZZ	Batch ID: R22480	TestNo: SW8260B		Analysis Date: 8/5/2008	SeqNo: 368790						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	590	32	525.9	0	112	52.5	136				
Ethylbenzene	540	53	525.9	0	102	82.3	119				
Methyl tert-butyl ether	1,000	260	1,052	0	95.8	81.2	116				
Toluene	550	53	525.9	0	104	81.9	119				
Xylenes, Total	1,600	160	1,578	0	100	62.1	143				

Qualifiers: E Value above quantitation range H Holding times for preparation or analysis exceeded J Analyte detected below quantitation lin
 M Manual Integration used to determine area response ND Not Detected at the Reporting Limit R RPD outside accepted recovery limits
 RL Reporting Detection Limit S Spike Recovery outside accepted recovery limits

CLIENT: Environmental Consulting & Technology, I
Work Order: 0807A01
Project: Hayes-Lemmert - 08-0514

QC SUMMARY REPORT

BatchID: R22480

Sample ID: 0808062-002A MS	SampType: MS	TestCode: SW_8260S	Units: µg/Kg-dry	Prep Date:	RunNo: 22480						
Client ID: ZZZZZZ	Batch ID: R22480	TestNo: SW8260B		Analysis Date: 8/5/2008	SeqNo: 368790						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	2,700		2,629		101	95.9	130				
Surr: Dibromofluoromethane	2,800		2,629		105	90.4	111				
Surr: Toluene-d8	2,500		2,629		95.3	100	116				S

Sample ID: 0808062-002A MSD	SampType: MSD	TestCode: SW_8260S	Units: µg/Kg-dry	Prep Date:	RunNo: 22480						
Client ID: ZZZZZZ	Batch ID: R22480	TestNo: SW8260B		Analysis Date: 8/5/2008	SeqNo: 368791						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	590	32	525.9	0	112	52.5	136	587.9	0.446	13.5	
Ethylbenzene	530	53	525.9	0	101	82.3	119	535.3	0.690	15.5	
Methyl tert-butyl ether	1,200	260	1,052	0	110	81.2	116	1,008	13.8	17.5	
Toluene	540	53	525.9	0	103	81.9	119	545.3	0.386	16.2	
Xylenes, Total	1,600	160	1,578	0	99.7	62.1	143	1,578	0.334	16.5	
Surr: 4-Bromofluorobenzene	2,700		2,629		103	95.9	130		0	25	
Surr: Dibromofluoromethane	2,800		2,629		106	90.4	111		0	25	
Surr: Toluene-d8	2,500		2,629		95.1	100	116		0	25	S

Qualifiers: E Value above quantitation range H Holding times for preparation or analysis exceeded J Analyte detected below quantitation limit
 M Manual Integration used to determine area response ND Not Detected at the Reporting Limit R RPD outside accepted recovery limits
 RL Reporting Detection Limit S Spike Recovery outside accepted recovery limits

