CH2MHILL

TRANSMITTAL

To:

Air National Guard

ANG/CEVR

3500 Fetchet Avenue

Andrews AFB, MD 20762-5157

From:

John Mason

CH2M HILL

1700 Market St., Suite 1600

Philadelphia, PA 19103-3916

Attn: Lance McDaniel

Date:

February 8, 2005

Re: ANG Hancock Site Inspection Technical Memorandum - Draft

We Are Sending You:

XXX Attached

Under separate cover via

Shop Drawings

Documents

Tracings

Prints

Specifications

Catalogs

Copy of letter

Other:

Quantity	Description
	Draft Technical Memorandum for the Site Inspection project at the ANG Hancock Base in Syracuse, New York

If material received is not as listed, please notify us at once

Remarks:

Enclosed is one copy of the Draft Technical Memorandum for your files. Please review the draft and provide comments to me at your earliest convenience. If you have any questions, please do not hesitate to call me at (215) 563-4244.

Copy To:

Mr. Dan Eaton (NYSDEC) - 2 Copies

Mr. Tim Sager (174th Fighter Wing - ANG Hancock) - 1 Copy

SITE INSPECTION DRAFT TECHNICAL MEMORANDUM Site 10

174th Fighter Wing Hancock Air National Guard Base Syracuse, New York

> Air National Guard 3500 Fetchet Avenue Andrews A.F.B., Maryland

> > February 2005





ANG Delivery Order Number 0015

ANG Hancock Site 10 Investigation and Results

PREPARED FOR:

United States Air National Guard

PREPARED BY:

CH2M HILL

DATE:

February 5, 2005

PROJECT NUMBER:

315161

The Defense Environmental Restoration Program was established in 1984 to promote and coordinate efforts for the evaluation and cleanup of contamination at Department of Defense (DoD) installations. The program currently includes the Environmental Restoration Program (ERP), through which potential contamination at DoD installations and formerly owned or used properties is investigated and, as necessary, site cleanups are conducted. The Air National Guard (ANG), through ANG Headquarters, conducts that portion of the ERP that is applicable to ANG units and facilities. This technical memorandum provides the results of field activities performed at Site 10 at the Hancock ANG Base located in Syracuse, New York under ANG Contract Number DAHA 92-01-D-009.

Facility Description and Background

The Hancock ANG Base is located in Syracuse, New York immediately south of and adjacent to the Syracuse International Airport (Figure 1). The ANG Base consists of several buildings and operational facilities separated into three main tracts of land (Tracts I, II, and III). Several sites at the facility were identified during the 1982 Phase 1 Records Search activities and environmental assessment of the identified sites was initiated under the ERP during the 1984 and 1989 Phase 2 Site Investigations. At the request of the New York State Department of Environmental Conservation (NYSDEC), additional environmental investigations were conducted during the 1999 Site Assessment project, which included Site 10.

Site 10 is located on the Tract III portion of the facility near the corner of Avenue D and 16th Street. Site 10 consists of a former building (Building 757) and the immediate area surrounding the building. Building 757 was used as a Hazardous Materials Storage Site beginning in 1980. According to Base personnel, the main hazardous materials stored in the building were pesticides, although poly chlorinated biphenyls (PCBs) may have also been stored in the building. The location is no longer used for storage and Building 757was demolished. Previous environmental investigations at the site were reportedly not conducted at the Site 10 location due to the uncertainty in adequately locating the site (Anaptek, February 2003).

In 2004, CH2M HILL reviewed historic aerial photographs and ANG/NYSDEC file records, and conducted interviews with ANG Hancock personnel to adequately locate the former Building 757. Based on these efforts, the former building location was identified and CH2M HILL submitted a Work Plan to assess surface and subsurface soil conditions at Site

10 to the ANG and NYSDEC in November 2004. The Work Plan was implemented in November 2004 after receiving NYSDEC approval.

The Work Plan involved the collection of surface and subsurface soil samples around the former Building 757 location and submission of the samples for analysis of pesticides and poly chlorinated biphenyls (PCBs). To assess the potential that the pesticides have degraded leaving an inorganic residue, the soil samples were also analyzed for metals. The purposes of this Technical Memorandum are to describe the activities conducted during the implementation of the approved Work Plan and to present the analytical results to assess the surface and subsurface soil conditions at Site 10. Groundwater sampling at Site 10 was not conducted as environmental impacts to the soil have not been established.

It is noted that previous site characterization activities at the ANG Base included the collection of representative soil samples across Tracts I, II, and III to establish a site background concentration of metals in the soils. The established site background standard was provided in the Site 1, 4, 9, 11, and AOC-P Site Assessment Report (CH2M HILL, 2004), and is used to evaluate metals concentrations in Site 10 soils.

Geologic and Hydrogeologic Setting

Regionally, the Hancock ANG Base is located on a relatively flat, low-lying area situated between Lake Ontario and the Onondaga Escarpment in Syracuse, New York. The surface drainage in the area of the site is to the south and southeast toward Ley Creek.

A simple layer-cake stratigraphy is found beneath the site with unconsolidated lacustrine (former lake) sediments overlying glacial till sediments, which overlay on sedimentary bedrock. The lacustrine sediment occur from near the surface to depths of about 50 ft below grade and are composed of silts with varying amounts of clay and fine to medium sand. The glacial till sediments are about 30 to 50 ft thick and consist of large cobbles and gravel in a silty clay matrix. The glacial till unit acts as a barrier to vertical flow of groundwater from the overlying lacustrine sediments to the underlying sedimentary bedrock. The sedimentary bedrock is composed of shales and siltstones of the Vernon Formation.

An unconfined surficial aquifer occurs in the lacustrine sediments beginning at a depth of 5 to 10 feet below grade across the site, although the low transmissivity of the aquifer precludes it as a viable potable water source. Existing overburden monitoring wells are screened across the groundwater table to assess the potential for floating product in the groundwater. A confined aquifer occurs in the bedrock below the glacial till aquitard. Existing bedrock monitoring wells on the ANG Base indicate that there is a strong upward flow potential between the confined bedrock aquifer and the unconfined surficial aquifer. This strong upward flow potential indicates that potential site-related contaminants would be limited to the surficial aquifer.

Site Investigation Activities

CH2M HILL implemented the site investigation activities identified in the Work Plan (November 2004) with the support of ANG personnel. ANG personnel assisted with underground utility clearance, security clearance, facilitating communications at the ANG Base, providing access to the sites, confirming the location of Site 10, and other logistical issues. Severn Trent Laboratories of Edison, New Jersey provided analytical laboratory

services. The activities described below were conducted in accordance with the NYSDEC-approved Work Plan (November 2004), including decontamination between sampling locations and sampling intervals, management of the investigation derived waste, and adherence to the site-specific health and safety plan.

Three soil borings, denoted as SB-10A, SB-10B, and SB-10C, were advanced using a hand auger at location around the former Building 757 (Figure 2). Soil samples were collected during boring advancement and screened with a PID to assess the presence of volatile organic compounds. The PID readings were recorded on a boring log along with a physical description of the soil sample (Appendix A). A total of six soil samples were collected from three soil borings, and included three surface soil samples collected from 0-2 inches below grade and three subsurface soil samples collected from 2.5 to 3.0 feet below grade. The soil samples were collected in certified-clean containers, labeled, and placed in an ice filled cooler. Each soil sample was documented on a chain-of-custody form along with the analytical methods, and sent to Severn Trent Laboratories, in Edison, New Jersey for analysis. In accordance with the Work Plan, the soil samples were submitted for analysis of priority pollutant metals (EPA Method 6010/7000), Pesticides (EPA Method 8081), and PCBs as Aroclors (EPA Method 8082). No deviations from the Work Plan occurred.

Between sampling intervals and boring locations, the hand auger was decontaminated by washing with a non-phosphate detergent solution and rinsing with distilled water. Investigation-derived waste, including spent decontamination fluids and excess soil cuttings, were discharged to the ground surface in the area of the borings.

The analytical results from the laboratory were validated in accordance with the QAPP (November 2004). The data validation effort included a review of the data accuracy, precision, and completeness, and concluded that the data are of good quality and are acceptable as reported and qualified.

Analytical Results

Appendix B contains summary tables of the validated analytical data set. The pesticide and PCB analyses were compared to the NYSDEC Recommended Soil Cleanup Objective (RSCO). The soil results for metals were compared to an established background standard (CH2M HILL, 2004).

Pesticides

Table 1 summarizes the pesticide results from the six soil samples collected. The pesticides 4,4-DDE and 4,4-DDT were detected in the shallow soil samples SB-10A and SB-10C. The specific concentrations detected are two orders-of-magnitude below the NYSDEC RSCO criteria of 2,100 μ g/Kg for both 4,4-DDE and 4,4-DDT. These detections confirm a limited release of pesticides at Site 10 and that the release did not adversely impact the environment. It is noted that the detection of low concentrations of pesticides at Site 10 in the shallow soil suggests minimal reworking of the surface soil during the storage building demolition.

4

Poly Chlorinated Biphenyls (PCBs)

The PCB results in soil are summarized on Table 2. With the exception of surface soil sample SB-10C, PCBs were not detected in the soil at the site. Surface soil SB-10C contained a detection of Aroclor-1260 at a concentration of 91 μ g/Kg, which is orders-of-magnitude below the NYSDEC RSCO criteria of 10,000 μ g/Kg. This isolated detection of Aroclor-1260 in the surface soil is likely related to the storage of PCBs at Site 10 and indicates a minimal environmental impact due to PCBs at Site 10. Also, the detection of PCBs in the surface soil further supports that the storage building demolition activities resulted in no (or minimal) reworking of the soil at Site 10.

Metals

Table 3 summarizes the metal results from the six soil samples collected from Site 10. A review of the data indicates that antimony, beryllium, cadmium, selenium, silver, and thallium were not detected in the soil samples. Also, the metals arsenic, chromium, copper, lead, and nickel were detected at concentrations below the established site background concentrations.

Zinc was detected at concentrations ranging from 22.5 mg/Kg to 54.3 mg/Kg. Of the six soil samples collected, only the SB-10C surface soil sample slightly exceeded the established site background standard of 50 mg/Kg. This detection of zinc is considered to be an isolated occurrence.

Mercury was detected at concentrations below the established site background standard of 0.1 mg/Kg in four of the six soil samples collected. It was, however, detected at concentrations above the standard in two subsurface soil samples (SB-10A and SB-10B) collected from 2.5 to 3 ft below grade. The mercury concentration detected in subsurface soil sample SB-10B was 0.12 mg/Kg, which is slightly above the established soil background standard of 0.1 mg/Kg and represents an isolated occurrence. The mercury concentration detected in subsurface soil sample SB-10A was 1.3 mg/Kg, which is about 10 times higher than the established soil background standard. As mercury was not detected in the surface soil sample SB-10A, the mercury exceedance in the subsurface soil sample may not be related to Site 10 activities. Furthermore, the pesticide analytical results do not indicate an environmental impact such that the mercury detection is likely not from potential degradation of pesticides at the site. Based on these results, the mercury exceedance above established site background standards in subsurface soil sample SB-10A is considered to be an isolated, naturally occurring condition.

Conclusions

The analytical results from the collection of surface and subsurface soil samples around the former Building 757 (Hazardous Materials Storage) confirm a limited number of pesticide and PCB detections in the surface soils at Site 10. The detections are limited to the surface soil samples (0 to 0.15 ft below grade) and the specific concentrations are order-of-magnitude below the NYSDEC Recommended Soil Cleanup Objectives, indicating no environmental impact at Site 10. The isolated detection of zinc and mercury in two soil samples at concentrations minimally above the established soil background concentrations are considered to be naturally occurring. Also, the isolated detection of mercury in one subsurface soil sample at a concentration above the established soil background

concentration is likely not related to activities at Building 757 and is not considered to be the result of pesticide degradation. Based on these results, a No Further Remedial Action Planned status is considered to be appropriate for Site 10.

Tables

Table 1
Air National Guard - Hancock Field, Syracuse New York
Site 10
Pesticides - Soil November 2004

Sample ID	Aldrin	alpha-BHC	beta-BHC	delta-BHC	gamma-BHC(Lindane)	Chlordane	4,4'-DDD	4,4'-DDE	4,4'-DDT	Dieldrin	Endosulfan I (1)	Endosulfan II (1)	Endosulfansulfate	Endrin	Endrinaldehyde	Heptachlor	Heptachlorepoxide	Toxaphene
Units	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg
*Standard		110	200	300	60	540	2900	2100	2100	44	900	900	1000	100	NA	100	20	NA
SB-10A_0-0.15	8.3U	8.3U	8.3U	8.3U	8.3U	83U	8.3U	13	26	8.3U	8.3U	8.3U	8.3U	8.3U	8.3U	8.3U	8.3U	83U
SB-10A_2.5-3.0	7.4U	7.4U	7.4U	7.4U	7.4U	74U	7.4U	7.4U	7.4U	7.4U	7.4U	7.4U	7.4U	7.4U	7.4U	7.4U	7.4U	74U
SB-10B_0-0.15	8.0U	8.0U	8.0U	8.0U	8.0U	80U	8.0U	8.0U	8.0U	8.0U	8.0U	8.0U	8.0U	8.0U	8.0U	8.0U	8.0U	80U
SB-10B_2.5-3.0	7.8U	7.8U	7.8U	7.8U	7.8U	78U	7.8U	7.8U	7.8U	7.8U	7.8U	7.8U	7.8U	7.8U	7.8U	7.8U	7.8U	78U
SB-10C_0-0.15	7.9U	7.9U	7.9Ü	7.9U	7.9U	79U	7.9U	10	48	7.9U	7.9U	7.9U	7.9U	7.9U	7.9U	7.9U	7.9U	79U
SB-10C_2.5-3.0	7.7U	7.7U	7.7U	7.7U	7.7U	77U	7.7U	7.7U	7.7U	7.7U	7.7U	7.7U	7.7U	7.7U	7.7U	7.7U	7.7U	77U

^{*}Standard New York TAGM Recommended Soil Cleanup Objective Criteria (ug/kg)

(1) Soil Cleanup criteria is provided for "Endosulfan" without specification if it is for Endosulfan I (alpha-Endosulfan) or Endosulfan II (beta-Endosulfan). NA - Not Applicable.

Qualifiers

U - The compound was not detected at the indicated concentration.

Table 2 Air National Guard - Hancock Field, Syracuse New York Site 10

	PCBs - Soil November 2004	
	ಶ	
	Ò	
	0	
	N	
	×	
	č	
	Ξ	
	Ĕ	
	Š	
	Ó	
	Ž	
	_	
	~	
	ŭ	
	~	
•	•	
•	Ø	1
1	œ	ı
	PCBs	
١	۰	

Aroclor-1268 (1)	ug/kg	10,000	830	740	800	780	790	77U
Aroclor-1262 (1)	ug/kg	10,000	830	740	800	780	790	770
Aroclor-1260 (1)	ug/kg	10,000	830	740	80U	780	91	77U
Aroclor-1254 (1)	ug/kg	10,000	830	74U	80U	780	790	77U
Aroclor-1248 (1)	ug/kg	10,000	830	740	800	780	790	770
Aroclor-1242 (1)	ug/kg	10,000	830	740	800	78U	790	77U
(t) \Z\$\Z\(1)	ug/kg	10,000	830	740	008	∩8 <i>L</i>	062	U22
Aroclor-1221 (1)	ug/kg	10,000	830	740	800	780	790	U77
(f) 9f0f-1oloo1A	ug/kg	10,000	830	74U	800	780	19∪	U77
Sample ID	Units	*Standard	-10A_0-0.15	SB-10A_2.5-3.0	SB-10B_0-0.15	-10B_2.5-3.0	-10C_0-0.15	SB-10C 2.5-3.0
Sar			SB-1	SB	SB	SB-1	SB-1	SB

*Standard New York TAGM Recommended Soil Cleanup Objective Criteria (mg/kg) (1) Values listed reflect the combined standards for "Total PCBs"

Qualifiers

U - The compound was not detected at the indicated concentration.

Table 3
Air National Guard - Hancock Field, Syracuse New York
Site 10
Metals - Soil November 2004

Metals - Soil Novemb	2004												
Sample ID	Antimony	Arsenic	Beryllium	Cadmium	Chromium	Copper	Lead	Mercury	Nickel	Selenium	Silver	Thallium	Zinc
Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
*Standard	NA	7.5	0.16	1	10	25	NA	0.10	13	2	NA	NA	20
**Standard	ND	7.5	0.54	1	15	25	45	0.1	17.5	2	NA	NA	50
SB-10A_0-0.15	1.4U	4.1	0.34B	0.099U	9.8	22.9	18.3	0.04B	9.7	1.0U	0.35U	1.2U	41.4
SB-10A_2.5-3.0	1.3U	3.8	0.27B	0.089U	9.0	20.2	4.8	1.3	12.0	0.93U	0.31U	1.0U	22.5
SB-10B_0-0.15	1.4U	3.5	0.37B	0.096U	11.2	15.1	14.7	0.04B	12.1	1.0U	0.34U	1.1U	40.6
SB-10B_2.5-3.0	1.4U	3.5	0.41B	0.093U	10.2	23.1	5.8	0.12	14.0	0.98U	0.33U	1.1U	26.2
SB-10C_0-0.15	1.4U	3.8	0.33B	0.095U	8.7	16.9	28.1	0.05	9.7	0.99U	0.33U	1.1U	54.3
SB-10C_2.5-3.0	1.3U	3.8	0.35B	0.092U	8.7	18.5	14.6	0.05	10.8	0.97U	0.32U	1.1U	41.8

^{*}Standard New York TAGM Recommended Soil Cleanup Objective Criteria (mg/kg).

NA - Not Applicable.

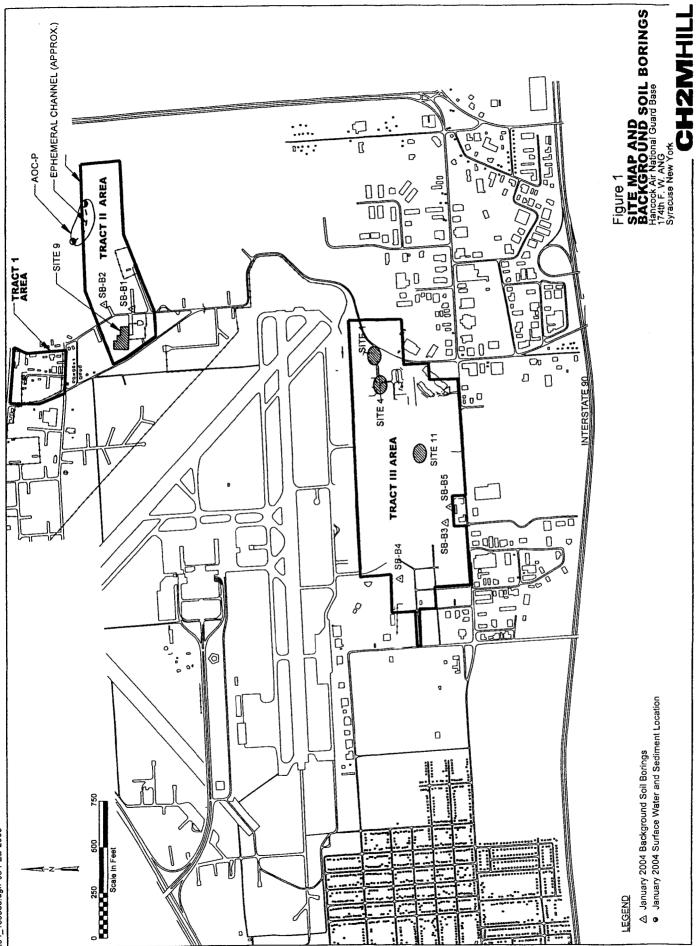
Bolded values exceed the established background for metals in soil.

Qualifiers

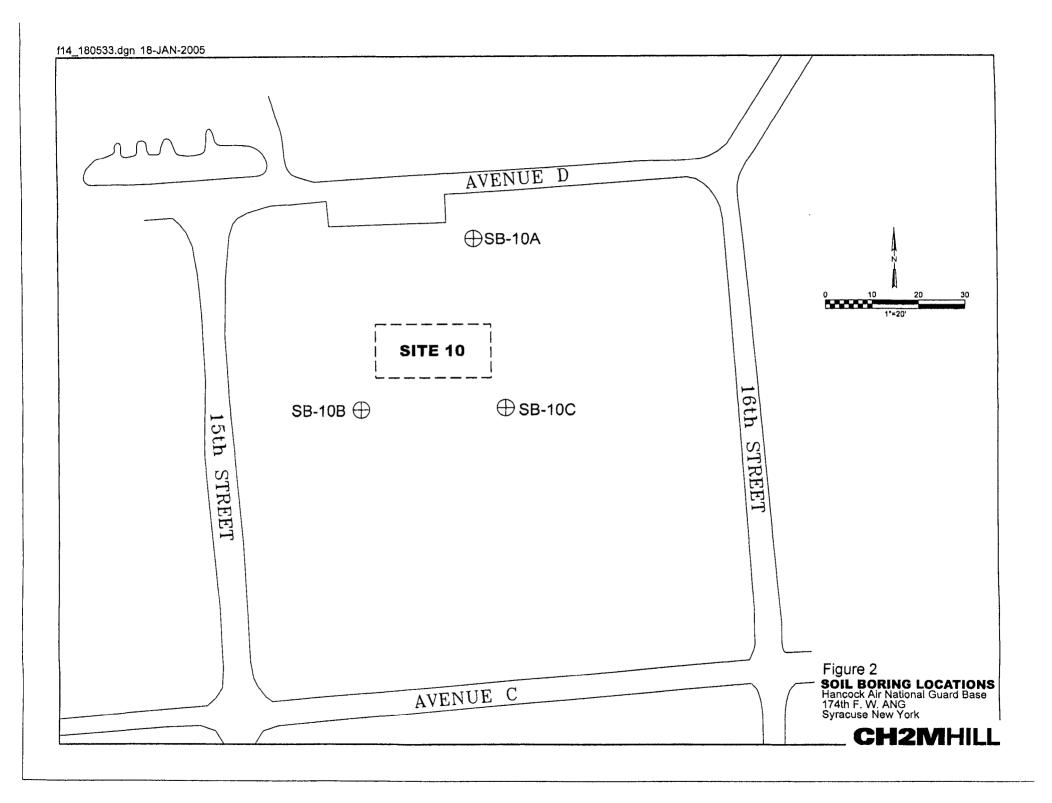
- U The compound was not detected at the indicated concentration.
- B Reported value is less than the Reporting Limit but greater than the Instrument Detection Limit.

^{**}Standard Established Site Background Concentration.

Figures



f04_180533.dgn 08-FEB-2005



Appendix A
Soil Boring Logs



PROJECT NUMBER 315161.PM.RP BORING NUMBER SB-10A(0-0.15)-113004 SB-10A(2.5-3.0)-113004

SHEET 1 OF 1

SOIL BORING LOG

PROJECT : ANG Hancock	LOCATION : Syracuse, NY
FLEVATION:	DRILLING CONTRACTOR:

DRILLING METHOD AND EQUIPMENT USED : Hand Auger

WATER LEVELS : START : 11/30/04 9:30 END : 11/30/04 10:30 LOGGER : I. Zmudzin

WATER	LEVELS	:		START:	11/30/04 9:30 END : 11/30/04 10:30	LOGGER: I. Zmudzin
		SAMPLE		STANDARD	SOIL DESCRIPTION	COMMENTS
DEPTH BELOW SURFACE (FT)	o INTERVAL	S NUMBER AND TYPE	RECOVERY (FT)	PENETRATION TEST RESULTS 6"-6"-6"-6" (N) N/A	SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY, OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY. 10 YR 2/2 V.Dark Brown, moist, fine sand	DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TESTS, AND INSTRUMENTATION. OVM (ppm): Breathing Zone Headspace 0.0 ppm
- - -	0-0.0				and silt, slightly plastic, loose, some gravel and roots	-
0.5 - - -	0.5-1.0	SB-2	6*	N/A	5 YR 4/3 Reddish Brown, moist, loose, fine sand and silt, slightly plastic, some roots	0.0 ppm
- 1.0 - - -	1.0-1.5	SB-3	6"	N/A	SAA _	0.0 ppm
- 1.5 - - -	1.5-2.0	SB-4	6"	N/A	5 YR 3/4 Dark Reddish Brown, moist, medium density, fine sand and trace silt, slightly plastic	
2.0 - - -	2.0-2.5	SB-5	6"	N/A	SAA _	0.0 ppm
2.5 - - - - 3.0	2.5-3.0	SB-6	6*	N/A	SAA with some gravel	0.0 ppm



PROJECT NUMBER 315161.PM.RP BORING NUMBER SB-10B(0-0.15)-113004 SB-10B(2 5-3 0)-113004

SHEET 1 OF 1

SOIL BORING LOG

PROJECT : ANG Hancock	LOCATION: Syracuse, NY

ELEVATION: DRILLING CONTRACTOR:

DRILLING METHOD AND EQUIPMENT USED : Hand Auger

WATER LEVELS: START: 11/30/04 10:35 FND : 11/30/04 11:30 LOGGER : I. Zmudzin

WATER	LEVELS:			START	11/30/04 10:35 END : 11/30/04 11:30	LOGGER: 1. Zmudzin
		SAMPLE		STANDARD	SOIL DESCRIPTION	COMMENTS
DEPTH BELOW SURFACE (FT)		SAMI EL		PENETRATION		
ELC		ш	RY	TEST	SOIL NAME, USCS GROUP SYMBOL, COLOR,	DEPTH OF CASING, DRILLING RATE,
H B	. ₹	Ä YP	Ş.	RESULTS	MOISTURE CONTENT, RELATIVE DENSITY,	DRILLING FLUID LOSS,
T.F.	INTERVAL	NUMBER AND TYPE	RECOVERY (FT)	6"-6"-6"-6"	OR CONSISTENCY, SOIL STRUCTURE,	TESTS, AND INSTRUMENTATION.
DE SU		₹ ₹	F. (F.	(N)	MINERALOGY.	OVM (ppm): Breathing Zone Headspace
0	0-0.5	SB-1	6"	N/A	7.5 YR 3/2 Dark Brown, moist, loose,	0.0 ppm
-					well sorted sand and silt, low plasticity, some roots, trace grave!	_
					dome room, tage grever	
1 -						_
_		'			_	_
-					_	~
0.5	0.5-1.0	SB-2	6"	N/A	SAA	0.0 ppm
1						
-					-	-
					_	_
-					-	-
1.0	1.0-1.5	SB-3	6*	N/A	SAAi	0.0 ppm
						-
_		·			_	_
1						
-					-	-
					_	
					_	_
_					~	_
1.5	1520	SB-4	6"	N/A	SAA with some gravel and rubble (fill)	0.0 ppm
1.5	1.5-2.0	36-4	0	IVA	SACK WILL SOINE GLAVEL AND TODDIE (IIII)	
						_
_					-	-
-					~	=
_						_
	2225	00 C	6"	N/A	EVD 2/4 Dady Raddish Brown maist	0.0 000
2.0	2.0-2.5	SB-5	0.	IN/A	5 YR 3/4 Dark Reddish Brown, moist, loose, fine sand and silt, well sorted,	0.0 ppm
					slight plasticity	_
-						_
-					-	
-					_	-
_					_	_
	امدما	cn c	₆ ,,,	N1/A	SAA with some gravel	0.0 ppm
2.5	2.5-3.0	SB-6	6"	N/A	SAA with some gravel	0.0 ppm
-					_	_]
_					_	_
-					-	-
					_	_
						t.
3.0						



PROJECT NUMBER 315161.PM.RP BORING NUMBER SB-10C(0-0.15)-113004 SB-10C(2 5-3 0)-113004

SHEET 1 OF 1

SOIL BORING LOG

PROJECT : ANG Hancock	LOCATION : Syracuse, NY	
ELEVATION:	DRILLING CONTRACTOR:	
DOUGLED AND FOUNDMENT LICE	D. Hond Augus	

			EQUIPME	NT USED : Han	d Auger		· · · · · · · · · · · · · · · · · · ·
WATER	LEVELS	:			: 11/30/04 11:35 END : 11/30/04 12:15	LOGGER:	I. Zmudzin
>		SAMPLE		STANDARD	SOIL DESCRIPTION	 	COMMENTS
DEPTH BELOW SURFACE (FT)		Γ		PENETRATION TEST	SOIL NAME, USCS GROUP SYMBOL, COLOR.	DEPTH OF (CASING, DRILLING RATE,
E E	/At	NUMBER AND TYPE	RECOVERY (FT)	RESULTS	MOISTURE CONTENT, RELATIVE DENSITY,	DRILLING F	
T.A.A.	INTERVAL	A C	Š (6"-6"-6"-6"	OR CONSISTENCY, SOIL STRUCTURE,	l l	INSTRUMENTATION.
SCE	N.	N SC	RE((N)	MINERALOGY.	OVM (ppm):	Breathing Zone Headspace
0	0-0.5	SB-1	6"	N/A	7.5 YR 4/4 Brown/Dark Brown, moist,	0.0 ppm	
-					loose, fine sand and silt, well sorted, low plasticity, roots present	-1	_
_						_	_
						ł	
-						7	_
-						-1	_
0.5	0.5-1.0	SB-2	6 *	N/A	SAA	0.0 ppm	_
-		i				-	-
_						_	_
						_	
_							
-						-	-
1.0	1.0-1.5	SB-3	6"	N/A	SAA with some gravel	0.0 ppm	 -
						1	
-						1	_
-						-	1
						_]	
	i					Í	
-						-	-
1.5	1.5-2.0	SB-4	6"	N/A	Fill - sand to gravel, poorly sorted, no	0.0 ppm	
]					plasticity	j	
-	Ì					1	_
-						-	_
I _						_	_
			6.7		5 NO 4/2 Death Death		
2.0	2.0-2.5	SB-5	6"	N/A	5 YR 4/3 Reddish Brown, moist, loose, medium sand and silt, well sorted with	0.0 ppm	
_				į	trace gravel, low plasticity	_	_
-						1	-
-						-[-
						_	
1 25	2520	SB-6	6"	N/A	SAA	0.0 ppm	
2.5	2.5-3.0	∂ D-0	Ü	14/74	_	ווען ט.ט	
_						-	_
						j	l
~							~]
] -						-	-{
_						_	_
3.0				•		ł	
J.J					<u> </u>		

Appendix B
Summary of Analytical Results

The Action Levels listed reflect current STL Edison knowledge of the standards and are intended as general guidance for the user. Please consult appropriate regulations and cleanup standards for your specific application.

Sample ID	New York TAGM	SB-10A_0-0.15	SB-10A_2.5-3.0	SB-10B_0-0.15	SB-10B_2.5-3.0
Lab Sample Number	Rec, Soil	589112	589113	589114	589115
Sampling Date	Cleanup Objective	11/30/04	11/30/04	11/30/04	11/30/04
Matrix	Criteria (ug/kg)	SOLID	SOLID	SOLID	SOLID
Dilution Factor		1.0	1.0	1.0	0.1
Units		ug/kg	ug/kg	ug/kg	ug/kg
PESTICIDES/PCBs					
(1) Aroclor-1016	AZ.	83 ∩	74 U	30 U	U 87
(1) Aroclor-1221	AZ.	83 C	74 U	80 U	N 82
(1) Aroclor-1232	AN	83 ∩	74 U	90 O	J 8 2
(1) Aroclor-1242	A Z	83 U	74 U	08 ∪	∪ 87
(1) Aroclor-1248	AN.	93 U	74 U	D 08	0 82
(1) Aroclor-1254	A Z	83 O		∪ 08	0 82
(1) Aroclor-1260	ďΖ	83 ∪	74 U	0 08	U 87
(1) Aroclor-1262	AZ	83 U	74 U	D 08	78 ∪
(1) Arocior-1268	AN.	83 U	74 U	0 08	78 U

(1) Values listed reflect the combined standards for "Total PCBs" (2) Soil Cleanup criteria is provided for "Endosulfan" without specification if it is for Endosulfan I(alpha-Endosulfan) or Endosulfan II(beta-Endosulfan).

Qualifiers

U - The compound was not defected at the indicated concentration.
 J - Data indicates the presence of a compound that meets the identification criteria. The result is less than the quantitation limit but greater than zero.

The concentration given is an approximate value.

B - The analyle was found in the laboratory blank as well as the sample. This indicates possible laboratory contamination of the environmental sample.
 P - For dual column analysis, the percent difference between the quantitated concentrations on the two columns is greater than 40%
 For dual column analysis, the lowest quantitated concentration is being reported due to coekuling interference.
 Not analyzed.

Checked By: OK Make Corrections

Page 1

2/8/2005 10:48 AM

Sample ID	New York TAGM	SB-10A_0-0.15	SB-10A_2.5-3.0	SB-10B_0-0.15	SB-108_2.5-3.0
Lab Sample Number	Rec. Soil	589112	589113	589114	589115
Sampling Date	Cleanup Objective	11/30/04	11/30/04	11/30/04	11/30/04
Matrix	Criteria (ug/kg)	SOLID	SOLID	SOLID	SOLID
Dilution Factor		1.0	1.0	1.0	1.0
Units		ug/kg	ug/kg	ug/kg	ug/kg
PESTICIDES/PCBs		j			
Aldrin	41	8.3 ∪	7.4 U	8.0 ∪	7.8 U
alpha-BHC	110	8.3 ∪	7.4 U	8.0 ∪	7.8 U
beta-BHC	200	8.3 U	7.4 ∪	8.0 ∪	7.8 U
delta-BHC	300	8.3 ∪	7.4 ∪ ↓	8.0 ∪	7.8 ∪ ∤
gamma-BHC(Lindane)	60	8.3 U	7.4 U	8.0 ∪	7.8 U
Chlordane	540	83 ∪	74 U	80 U	78 U
4,4'-DDD	2900	8.3 U	7.4 ∪	8.0 ∪	7.8 ∪
4,4'-DDE	2100	13	7.4 U	8.0 ∪	7.8 ∪
4,4'-DDT	2100	26	7.4 U	8.0 U	7.8 U
Dieldrin	44	8.3 U	7.4 U	8.0 ∪ (7.8 ∪
(2) Endosulfanl	900	8.3 U	7.4 ∪ 1	8.0 U	7.8 ∪
(2) Endosulfanii	NA NA	8.3 U	7.4 ∪	8.0 ∪	7.8 ∪
Endosulfansulfate	1000	8.3 U	7.4 U	8.0 ∪	7.8 U
Endrin	100	8.3 U	7.4 U	8.0 ∪	7.8 U
Endrinaldehyde	NA.	8.3 U	7.4 U	8.0 U	7.8 U
Heptachlor	100	8.3 ∪ }	7.4 ∪ }	8.0 ∪	7.8 U
Heptachlorepoxide	NA	8.3 ∪	7.4 U	8.0 ∪	7.B U
Toxaphene	NA	83 U	74 U	80 U	78 U

⁽¹⁾ Values listed reflect the combined standards for "Total PCBs"

Qualifiers

- U The compound was not detected at the indicated concentration.
- J Data indicates the presence of a compound that meets the identification criteria. The result is less than the quantitation limit but greater than zero. The concentration given is en approximate value.
- B The analyte was found in the laboratory blank as well as the sample. This indicates possible laboratory contamination of the environmental sample.
- P For dual column analysis, the percent difference between the quantitated concentrations on the two columns is greater than 40%
- * For dual column analysis, the lowest quantilated concentration is being reported due to coeluting interference.
- NR Not analyzed.

Checked By:
OK
Make Corrections

⁽²⁾ Soil Cleanup criteria is provided for "Endosulfan" without specification if it is for Endosulfan I(alpha-Endosulfan) or Endosulfan II(beta-Endosulfan).

New YC	New York TAGM Rec Soil Si	Established te Background	SB-10A_0-0.15 589112	SB-10A_2.5-3.0 589113	SB-10B_0-0.15 589114	SB-10B_2.5-3.0 589115	
Cleanup	ctive	•	11/30/04	11/30/04	11/30/04	11/30/04	
Criteria	Criteria (mg/kg)		SOLID	SOLID	SOLID	SOLID	
	i		Y Z	٩Z	₹Z	V Z	_
			mg/kg	mg/kg	mg/kg	mg/kg	\neg
	ď	Q	U 4.1	1.3 U	U 4.1	1.4	5
	7.5	7.5	4.1	3.8	3.5	3.5	
	0.16	0.54	0.34 B	0.27 B	0.37 B	0.41	œ
	-	-	n 660.0		0.09e U	0.093	\supset
-	10	15	8.0	0.6	11.2	10.2	
	25	25	22.9	20.2	15.1	23.1	
-	Ϋ́	45	18.3	8.4	14.7	5.8	
	0.10	0.1	0.04 B	1.3	0.04 B		
	13	17.5	9.7	12.0	12.1	14.0	
	2	2	J. 0.1	U 56.0	J. 0.L	86.0	5
	₹ Z		0.35 U	0.31 U	0.34 U	0.33	5
	K Z		1.2 U	J. 0.1	J.1 U	1.1	⊃
	20	20	41.4	22.5	40.6	26.2	

Qualiffers

U - The compound was not detected at the indicated concentration.

B - Reported value is less than the Reporting Limit but greater than the Instrument Detection Limit.

N - The spiked sample recovery is not within control limits.

NR - Not analyzed.

2/8/2005 10:48 AM

The Action Levels listed reflect current guidance for the user. Please consult

Sample ID	SB-10C_0-0.15	SB-10C_2.5-3.0
Lab Sample Number	589116	589117
Sampling Date	11/30/04	11/30/04
Matrix	SOLID	SOLID
Dilution Factor	1.0	1.0
Units	ug/kg	ug/kg
PESTICIDES/PCBs		
(1) Aroclor-1016	79 U	77 U
(1) Aroclor-1221	79 ∪	77 U
(1) Aroclor-1232	79 U	77 U
(1) Aroclor-1242	79 U	77 U
(1) Aroclor-1248	79 ∪	77 U
(1) Aroclor-1254	79 ∪	77 U
(1) Aroclor-1260	91	77 U
(1) Aroclor-1262	79 U	77 U
(1) Aroclor-1268	79 U	77 U

- (1) Values listed reflect the combined s
- (2) Soil Cleanup criteria is provided for

Qualifiers

- U The compound was not detected at the indicated
- J Data indicates the presence of a compound that
 The concentration given is an approximate value
- B The analyte was found in the laboratory blank as
- P For dual column analysis, the percent difference
- * For dual column analysis, the lowest quantitated

NR - Not analyzed.

Checked By:
OK
Make Corrections

Samp	le ID	SB-10C_0-0.15	SB-10C_2.5-3.0
Lab S	ample Number	589116	589117
Samp	ling Date	11/30/04	11/30/04
Matrix		SOLID	SOLID
Dilutio	n Factor	1.0	1.0
Units		ug/kg	ug/kg
1			
PEST	ICIDES/PCBs		
	Aldrin	7.9 U	7,7 U
1	alpha-BHC	7.9 ∪	7.7 U
	beta-BHC	7.9 U	7.7 U
i	delta-BHC	7.9 U	7. 7 U
	gamma-BHC(Lindane)	7.9 U	7.7 U
1	Chlordane	79 ∪	77 U
1	4,4'-DDD	7.9 U	7.7 U
ļ	4,4'-DDE	10	7.7 U
	4,4'-DDT	48	7.7 U
ì	Dieldrin	7.9 U	7.7 U
(2)	Endosulfani	7.9 U	7. 7 U
(2)	Endosulfanii	7.9 U	7.7 U
ĺ	Endosulfansulfate	7.9 U	7.7 U
	Endrin	7.9 ∪	7.7 U
	Endrinaldehyde	7.9 ∪	7.7 U
Ì	Heptachlor	7.9 U	7.7 U
1	Heptachlorepoxide	7.9 U	7.7 U
	Toxaphene		

- (1) Values listed reflect the combined s
- (2) Soil Cleanup criteria is provided for

Qualifiers

- \boldsymbol{U} The compound was not detected at the indicated
- J Data indicates the presence of a compound that
 The concentration given is an approximate value
- B The analyte was found in the laboratory blank as
- P For dual column analysis, the percent difference
- * For dual column analysis, the lowest quantitated
- NR Not analyzed.

Checked By:
OK
Make Corrections

Sample ID	SB-10C_0-0.15		SB-10C 2.5-3.0
Lab Sample Number	589116	- }	589117
Sampling Date	11/30/04		11/30/04
Matrix	SOLID	- 1	SOLID
Dilution Factor	NA	ļ	NA
Units	mg/kg		mg/kg
		Ì	
METALS	Ì	-	
Antimony	1.4	U	1.3 U
Arsenic	3.8	ľ	3.8
Beryllium	0.33	в	0.35 B
Cadmium	0.095	U	0.092 U
Chromium	8.7	ſ	8.7
Copper	16.9	- }	18.5
Lead	28.1	- [14.6
Mercury	0.05	1	0.05
Nickel	9.7		10.8
Selenium	0.99	υĺ	0.97 U
Silver	0.33	υ	0.32 U
Thallium	1.1	υİ	1.1 Ū
Zinc	54.3		41.8

Qualifiers

- \boldsymbol{U} The compound was not detected at the indicated
- B Reported value is less than the Reporting Limit b
- N The spiked sample recovery is not within control
- NR Not analyzed.

