The electronic version of this file/report should have the file name:

Type of document . Site Number . Year-Month . File *Year-Year* or Report name . pdf

letter._____ ._____-___.CorrespondenceFile_____.pdf

example: *letter . Site Number . Year-Month . CorrespondanceFileYear-Year . pdf*

report. V00625 .2001-01. SiteData-RemedActivities.pdf

example: *report . Site Number . Year-Month . ReportName . pdf*

if a non-foilable site: add ".nf.pdf" at end of file name

Project Site numbers will be proceeded by the following:

Municipal Brownfields - B
Superfund - HW
Spills - SP
ERP - E
VCP - V
BCP - C

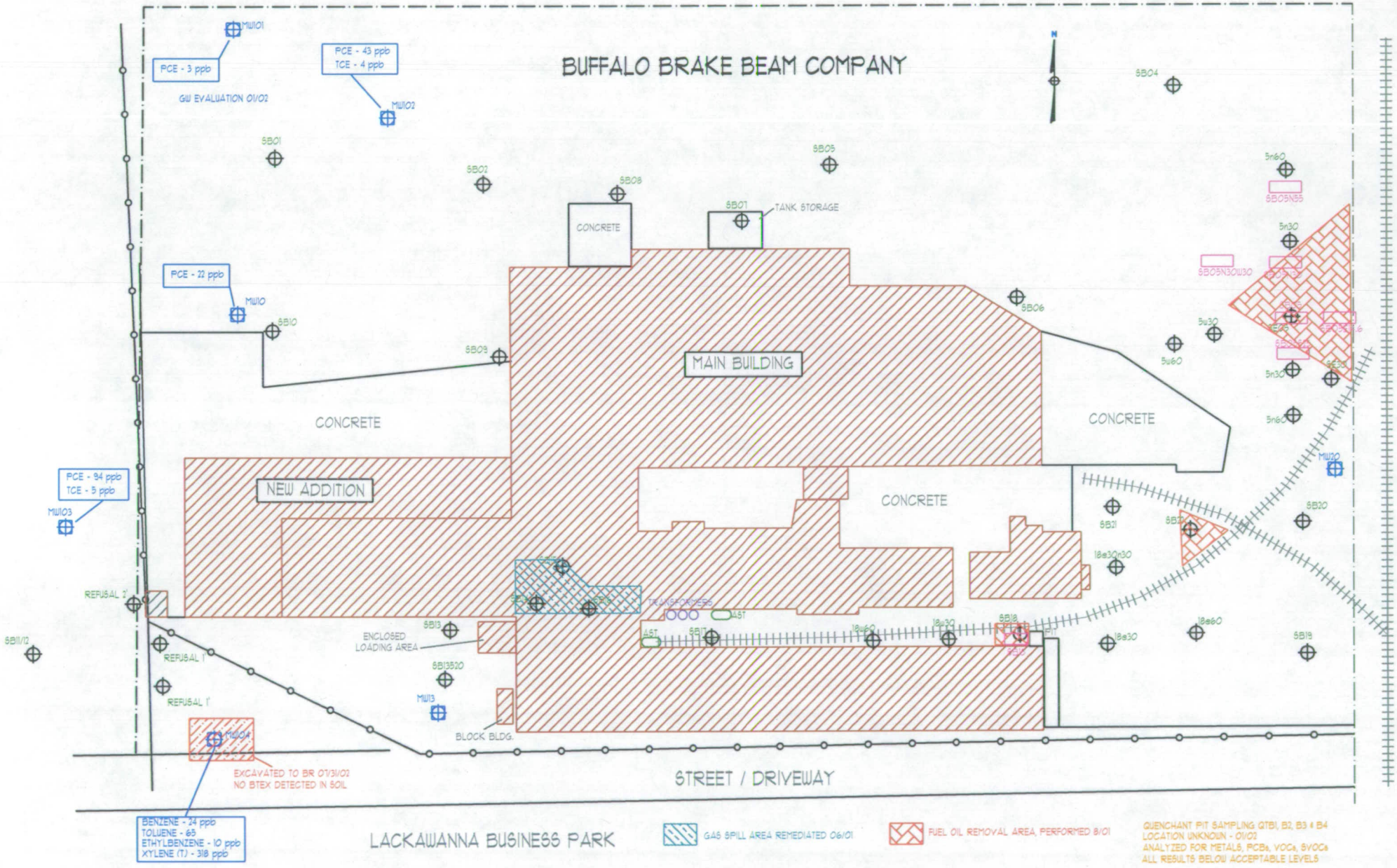
Summary of Site Data & Remedial Activities

BUFFALO BRAKE BEAM Rigel Enterprises Site

Voluntary Clean-Up

Lackawanna (C), Eire County

LEHIGH INDUSTRIAL PARK PROPERTY



RIGEL ENTERPRISES, INC.
ENVIRONMENTAL REMEDIATION WORK PLAN
January 23, 2001

Project # 1 "Chlorinated Solvents"

- Sterling Environmental Services will take several samples of the ground water at sample point MW10 to confirm the presence of Hazardous Materials, including chlorinated solvents.
- If Sterling's samples are found to be within NYS DEC acceptable limits a letter confirming this will be obtained from the NYS DEC and no further work will be performed.
- If Hazardous Materials, including chlorinated solvents are confirmed to be present in the ground water at levels exceeding the NYS DEC limits. Sterling Environmental will:
    - Determine ground water flow directions and potential off-site migration paths.
    - Identify receptors.
    - Attempt to identify off-site sources of contamination and responsible parties.
    - Work with NYS DEC and identified responsible parties for off-site sources of contamination to develop a plan to remediate the site.

Project # 2 "Fuel-Oil Spill"

- Reference is made to the attached letter dated January 24, 2001 from Sterling Environmental Services, Inc. that addresses this issue in greater detail. Specific reference is made to revised NYSDEC method for determining cleanup objectives for petroleum
    - SB5, SB18, SB20 and SB21 were identified in the base line report as requiring clean up based upon the STARS guidance. Under the new DEC guidance, TAGM 4046, all previously identified constituents are below the levels requiring remediation. Therefore no remediation will be performed on these sites.
    - SB22 has two (2) constituents exceeding TAGM 4046 values and will be remediated by excavating an area radiating out laterally ten (10) feet to a depth of five feet. The actual final excavation will be determined in the field by observation and PID screening. When field screening indicates a "clean" condition, soil samples will be taken from the sidewalls and the bottom and will be tested for all constituents found in this area by the base line study. Both the NYS DEC and Power Brace Corporation will be notified in advance of this work to allow for independent observation and testing. If the samples come back within the NYS DEC TAGM 4046 limits the excavated area will be back filled.

- History

Work to be done

Project # 3 "Gasoline Spill"

- Reference is made to the attached letter dated January 24, 2001 from Sterling Environmental Services, Inc. that addresses this issue in greater detail.
  - The "groundwater" identified in the "Baseline Report" was actual found above grade and most likely is not ground water.
    - This water will be pumped and removed.
  - The concrete floor around SB14 and SB16 will be removed and the area excavated to the foundation walls to the South and the East and thirty (30) feet to the North and fifty (50) feet to the West all to a depth of twelve (12) feet. The actual final excavation will be determined in the field by observation and PID screening. When field screening indicates a "clean" condition, soil samples will be taken from the sidewalls and the bottom and will be tested for all constituents found in this area by the base line study. Both the NYS DEC and Power Brace Corporation will be notified in advance of this work to allow for independent observation and testing. If the samples come back within the NYS DEC STARS limits the excavated area will be back filled and resurfaced with concrete.
    - This excavation will require that Power Brace Corporation allow access to this area. Power may have to be cut to the shipping area for several days. We don't believe that there will be a significant disruption in your operations since there are alternative shipping and receiving locations in the facility and there should be no disruptions in the new production facility.
  - The ground water to the South of SB14 and SB16 will be tested.

Project # 4 "Quenchent Pit"

- Based upon Power Brace Corporation providing access to this facility we will utilize Power Brace Corporation personnel to drain the tank. Sterling Environmental Services, Inc. will inspect and test the pit for leaks.
  - If no evidence of leaks is found, no further work will be performed.
  - If evidence of leaks are found the pit liner will be removed and soil and water samples will be taken to determine if any Hazardous Materials are present that exceed the NYS DEC levels. If so they will be remediated based on a plan developed after tests are received.
    - After remediation, if any, the liner will be reinstalled and repaired as appropriate.

Project # 5 "Ground Water Monitoring"

- All "dry wells" as outlined in the "Base Line" report will be filled and considered closed with no further work required.
- The wells that were tested in the "Base Line" report and any additional wells installed as part of Project One (1) through four (4) will be tested on a quarterly basis for only those constituents that were found in the "Base Line" report that exceeded NYS DEC acceptable levels. If after 4 consecutive "clean" tests this project will be considered closed.

STERLING
ENVIRONMENTAL SERVICES, INC.

January 24, 2001

Richard Adams
Buffalo Brake Beam Co.
400 Ingham Ave
Lackawanna, NY 14213

Dear Richard:

I have reviewed the Baseline Environmental Site Assessment prepared by Earth Tech, Inc in December 2000 for the Ingham Ave. property as well as the supporting documents you provided. Based upon the soil sample, analysis there are two areas that require remediation. The two areas requiring remediation are based on sample points SB22 and the two adjacent points SB14 and 16.

Please note that effective December 20, 2000 the NYSDEC dropped the use of the STARS guidance values for the purpose determining cleanup objectives at petroleum contaminated sites. The DEC is now using TAGM 4046 and a supplemental table as the basis for the cleanup objectives. I have attached a copy of the correspondence from the state, the supporting memorandum and applicable tables. The full text of TAGM 4046 can be found on the DEC website.

The site assessment was completed using the STARS guidance values as the cleanup objectives. I have compared the analytical results from the site assessment to the new cleanup objectives from TAGM 4046. Several of the sample points that were identified in the site assessment as requiring action are below the new cleanup objectives for all constituents and will not require remediation. These points are SB05, SB18, SB20 and SB21.

Sample point SB22 showed two constituents, as totals, above the TAGM 4046 recommended soil cleanup objectives at the 0 to 4 foot depth interval. These are Benzo(a)anthracene at 0.620 ppm and Chrysene at 0.820 ppm.

Sample points SB14 and SB16 are adjacent to one another beneath the floor inside the building. Both showed significant evidence of gasoline contamination and exceed the soil cleanup objectives for various constituents. A "ground water"

1372 CLINTON STREET • BUFFALO, NEW YORK 14206 • PHONE (716) 824-2407 • FAX (716) 824-2441

sample from SB14 indicates possible ground water impact. The shallow depth of this sample, 1.5 feet, compared to a water table at 8 to 13 feet depth elsewhere on site indicates that this is perched water below the building floor and not actual ground water.

My recommendation is to perform limited soil removals at each of the two areas discussed above in an effort to obtain a closed status. It is impossible to accurately estimate the volume that will need to be removed from the data available. Since a point source for the contamination has not been determined the identified sample points are not necessarily the center of the proposed excavations.

The following is a proposal of possible area limits as a starting point for excavation. The actual limits of excavation will be determined in the field by observation and PID screening. Please note the actual limits of excavation may vary significantly from the proposed limits and building structures may limit complete removal in the area of SB14 and 16 .

The proposed excavation limits for SB22 is an area starting at SB22 radiating out laterally 10 feet to a depth of approximately 5 feet.

The proposed excavation limits for the SB14 and 16 area are foundation walls to the North, South and West extending approximately 30 feet to the East to a depth of 12 feet. It appears that perched water may be encountered in this excavation and need to be removed and containerized for disposal.

Once the excavation is complete, discreet samples will be collected from the bottom and each of the four sidewalls. The samples will be submitted for lab analysis, as totals, for the STARS list of primary fuel oil components of concern, EPA Method 8021 and 8270. The sample results will then be compared to the TAGM 4046 recommended soil cleanup objectives. In the event that a sample fails to meet the cleanup objectives, additional excavation and resampling will be performed.

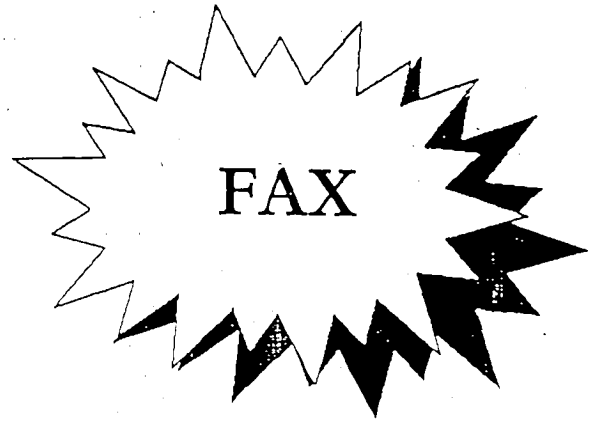
If you have any questions on this proposal or wish to discuss it further please feel free to call.

Sincerely,

Wayne K. Cameron

STERLING

ENVIRONMENTAL SERVICES



DATE: 1/24/01

RECIPIENT FAX #: 853-2109

TO: Richard Adams

FROM: Wayne Cameron

TOTAL NUMBER OF PAGES 12 (INCLUDING COVER SHEET)

COMMENTS:

1372 Clinton Street * Buffalo, NY 14206 * Phone (716) 824-2407 * Fax (716) 824-2441

New York State Department of Environmental Conservation
Division of Environmental Remediation, Region 9
270 Michigan Avenue, Buffalo, New York, 14203-2999
Phone: (716) 851-7220 • **FAX:** (716) 851-7226
Website: www.dec.state.ny.us

John P. Cahill
Commissioner

January 11, 2001

Dear Sir or Madam:

Determination of Soil Cleanup Levels

In an effort to provide greater consistency between programs within the NYSDEC Division of Environmental Remediation (DER), a directive has been issued (enclosed) requiring use of NYSDEC TAGM 4046 for determination of soil cleanup levels at all sites under DER's purview. The contents of TAGM 4046 can be found on the NYSDEC Website at <www.dec.state.ny.us>.

Please note that use of TAGM 4046 requires that soil samples be analyzed for the total concentration of analytes and that analysis of a TCLP extraction will not provide the necessary information. Please insure that any future soil analysis conforms to the above requirements.

Sincerely,

Peter J. Buechi, P.E.
Regional Environmental Remediation
Engineer

/sz

Enclosure

cc: Mr. Robert Leary
Spills Unit

01157

New York State Department of Environmental Conservation
Division of Environmental Remediation
MEMORANDUM

TO: Bureau Directors, Regional Spill Engineers, Regional Hazardous Waste Remediation Engineers, Section Chiefs
FROM: Michael J O'Toole, Jr. , Director
SUBJECT: Determination of Soil Cleanup Levels
DATE: DEC 20 2000

Since the Divisions of Hazardous Waste Remediation and Spills Management were combined, efforts have been underway to consolidate similar activities. One such effort is the determination of soil cleanup. Existing documents included TAGM 4046: Determination of Soil Cleanup Objectives and Levels, and STARS Memo #1 : Petroleum-Contaminated Soil Guidance Policy. TAGM 4046 was designed as guidance for the determination of soil cleanup levels at Inactive Hazardous Waste Sites. STARS #1 was designed to determine when petroleum contaminated soil can be released from regulation but has been used to determine soil cleanup levels. While a direct comparison of the guidance values is not possible for the contaminants included in both documents. (one uses total concentration while the other is leachate based), the values are not the same. This has lead to much confusion as well as some criticism of not being consistent across the program. A revised guidance document for the determination of soil cleanup at all contaminated sites is being developed. However, until that document is finalized and completes the process for approval of Departmental Policy, TAGM 4046 is to be used for the determination of soil cleanup levels at all sites that are under this Divisions' purview. The tables contained in STARS #1 will continue to be used for its intended purpose: "To provide direction on the handling, disposal, and/or reuse of nonhazardous petroleum contaminated soils."

TAGM 4046 contains soil cleanup objectives for volatile compounds, semi-volatile compounds, pesticides/PCBs and metals using criteria for the protection of groundwater and human health and the environment. There are some contaminants that are included in STARS #1 that are not listed in TAGM 4046. Soil cleanup objectives for those contaminants have been calculated and are attached and should be considered part of TAGM 4046. In general, the soil cleanup objectives for individual contaminants listed in TAGM 4046 should be used. However, TAGM 4046 does contain maximum values for classes of contaminants (e.g. total Semi-VOCs $\leq$ 500 ppm) that can be used when many specific contaminants from one class of contaminant are present with no single contaminant predominating.

It is recognized that petroleum spill sites do not go though the same process as inactive hazardous waste sites. This directive does not change the STARS #1 process or the process of determining the appropriate remedy at a petroleum spill site. The intent is only to substitute the soil cleanup objectives contained in TAGM 4046 for the numerical values in the tables in STARS #1. The primary objective is to achieve those values. However, if it is not feasible to achieve the objectives, further evaluation is conducted to determine if a higher value may be used for the specific spill site.

This directive is effective immediately. If there are any questions relative to the use of TAGM 4046 soil cleanup objectives for petroleum sites, please contact Jim Harrington at 518-457-0337.

Appendix A
Table 1
Recommended Soil Cleanup objectives for
Volatile Organic Compounds
1998

Contaminant	CAS Registry Number	Partition coefficient Koc	Groundwater Standards/ Criteria ug/l or ppb	Groundwater Standards / Criteria Designation	Soil Cleanup objectives to Protect GW Quality (ppm)	USEPA Health Based (HEAST)		Rec soil Cleanup Objective (ppm)	Detection Limit	Notations
						Carcinogens (ppm)	Systemic Toxicants (ppm)			
n-Butyl-Benzene	104-58-8	3523	5	P	17.62	N/A	N/A	18		
sec-Butyl-Benzene	135-98-8	4982	5	P	24.91	N/A	N/A	25		
Isopropylbenzene	98-82-8	948	5	P	4.74	N/A	3100	5		
p-Isopropyltoluene	99-87-6	2,114	5	P	10.57	N/A	N/A	11		
Methyl-Tert-Butyl-Ether (MTBE)	1634-04-4	12	10	G	0.12	N/A		0.12		B
N-Propylbenzene	103-65-1	2800	5	P	14.00	N/A	N/A	14		
1,2,4-Trimethylbenzene	95-63-6	2590	5	P	12.95	N/A	N/A	13		
1,3,5 - Trimethylbenzene	108-67-8	661	5	P	3.31	N/A	N/A	3.3		

A- Cleanup objective reflects changes to groundwater standards in June 1998 version of TOGS 1.1.1
B - A groundwater standard is under review and has not been finalized yet 10 ppb was used to reflect the guidance value published in the April 2000 amendment to TOGS 1.1.1
N/A - Not available
MDL - Method detection limit

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APPENDIX A of TAGM #4046

TABLE 1
Recommended soil cleanup objectives (mg/kg or ppm)
Volatile Organic Contaminants

Shortcut to TAGM 4046 Tables for SVOCs | Pesticides/PCBs | Heavy Metals

Contaminant	Partition Coefficient, Koc	Groundwater Standards/ Criteria, Cw (ug/l or ppb)	a Allowable soil conc., Cs (ppm)	b ** Soil cleanup objectives to protect GW quality (ppm)	USEPA Health Based (ppm) Carcin-ogens	Systemic Toxicants	CRQL (ppb)	*** Rec. Soil Cleanup Objective (ppm)
Acetone	2.2	50	0.0011	0.11	N/A	8,000	10	0.2
Benzene	83	0.7	0.0006	0.06	24	N/A	5	0.06
Benzoic Acid	54 *	50	0.027	2.7	N/A	300,000	5	2.7
2-Butanone	4.5 *	50	0.003	0.3	N/A	4,000	10	0.3
Carbon Disulfide	54 *	50	0.027	2.7	N/A	8,000	5	2.7
Carbon Tetrachloride	110 *	5	0.006	0.6	5.4	60	5	0.6
Chlorobenzene	330	5	0.017	1.7	N/A	2,000	5	1.7
Chloroethane	37 *	50	0.019	1.9	N/A	N/A	10	1.9
Chloroform	31	7	0.003	0.30	114	800	5	0.3
Dibromochloromethane	N/A	50	N/A	N/A	N/A	N/A	5	N/A
1,2-Dichlorobenzene	1,700	4.7	0.079	7.9	N/A	N/A	330	7.9
1,3-Dichlorobenzene	310 *	5	0.0155	1.55	N/A	N/A	330	1.6
1,4-Dichlorobenzene	1,700	5.	0.085	8.5	N/A	N/A	330	8.5
1,1-Dichloroethane	30	5.	0.002	0.2	N/A	N/A	5	0.2
1,2-Dichloroethane	14	5	0.001	0.1	7.7	N/A	5	0.1
1,1-Dichloroethene	65	5	0.004	0.4	12	700	5	0.4
1,2-Dichloroethene (trans)	59	5	0.003	0.3	N/A	2,000	5	0.3
1-3 dichloropropane	51	5	0.003	0.3	N/A	N/A	5	0.3
Ethylbenzene	1,100	5	0.055	5.5	N/A	8,000	5	5.5
113 Freon (1,1,2 Trichloro-	1,230 *	5	0.060	6.0	N/A	200,000	5	6.0

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1,2,2 Trifluoroethane)

Methylene chloride	21	5	0.001	0.1	93	5,000	5	0.1
4-Methyl-2-Pentanone	19 *	50	0.01	1.0	N/A	N/A	10	1.0
Tetrachloroethene	277	5	0.014	1.4	14	800	5	1.4
1,1,1-Trichloroethane	152	5	0.0076	0.76	N/A	7,000	5	0.8
1,1,2,2-Tetrachloroethane	118	5	0.006	0.6	35	N/A	5	0.6
1,2,3-trichloropropane	68	5	0.0034	0.34	N/A	80	5	0.4
1,2,4-trichlorobenzene	670 *	5	0.034	3.4	N/A	N/A	330	3.4
Toluene	300	5	0.015	1.5	N/A	20,000	5	1.5
Trichloroethene	126	5	0.007	0.70	64	N/A	5	0.7
Vinyl chloride	57	2	0.0012	0.12	N/A	N/A	10	0.2
Xylenes	240	5	0.012	1.2	N/A	200,000	--	1.2

a. Allowable Soil Concentration Cs = f x Cw x Koc
b. Soil cleanup objective = Cs x Correction Factor (CF)
N/A is not available

* Partition coefficient is calculated by using the following equation:
log Koc = -0.55 log S + 3.64, where S is solubility in water in ppm.
All other Koc values are experimental values.

** Correction Factor (CF) of 100 is used as per TAGM #4046

*** As per TAGM #4046, Total VOCs < 10 ppm.

Note: Soil cleanup objectives are developed for soil organic carbon content (f) of 1%, and should be adjusted for the actual soil organic carbon content if it is known.

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APPENDIX A of TAGM #4046

TABLE 2
Recommended soil cleanup objectives (mg/kg or ppm)
Semi-Volatile Organic Contaminants

Shortcut to TAGM 4046 Tables for VOCs | Pesticides/PCBs | Heavy Metals

Contaminant	Partition Coefficient, Koc	Groundwater Standards/ Criteria, Cw (ug/l or ppb)	a Allowable soil conc., Cs (ppm)	b ** Soil cleanup objectives to protect GW quality (ppm)	USEPA Health Based (ppm) Carcin-ogens	Systemic Toxicants	CRQL (ppb)	*** Rec. Soil Cleanup Objective (ppm)
Acenaphthene	4,600	20	0.9	90.0	N/A	5,000	330	50.0 ***
Acenaphthylene	2,056 *	20	0.41	41.0	N/A	N/A	330	41.0
Aniline	13.8	5	0.001	0.1	123	N/A	330	0.1
Anthracene	14,000	50	7.00	700.0	N/A	20,000	330	50.0 ***
Benzo(a) anthracene	1,380,000	0.002	0.03	3.0	0.224	N/A	330	0.224 or MDL
Benzo (a) pyrene	5,500,000	0.002 (ND)	0.110	11.0	0.0609	N/A	330	0.061 or MDL
Benzo (b) fluoranthene	550,000	0.002	0.011	1.1	N/A	N/A	330	1.1
Benzo (g,h,i) perylene	1,600,000	5	8.0	800	N/A	N/A	330	50.0 ***
Benzo (k) fluoranthene	550,000	0.002	0.011	1.1	N/A	N/A	330	1.1
bis(2-ethylhexyl) phthalate	8,706 *	50	4.35	435.0	50	2,000	330	50.0 ***
Butylbenzylphthlate	2,430	50	1.215	122.0	N/A	20,000	330	50.0 ***
Chrysene	200,000	0.002	0.004	0.4	N/A	N/A	330	0.4
4- Chloroaniline	43 ****	5	0.0022	0.22	200	300	330	0.220 or MDL

4-Chloro-3-methylphenol	47	5	0.0024	0.24	N/A	N/A	330	0.240 or MDL
2-Chlorophenol	15 *	50	0.008	0.8	N/A	400	330	0.8
Dibenzofuran	1,230 *	5	0.062	6.2	N/A	N/A	330	6.2
Dibenzo(a,h) anthracene	33,000,000	50	1,650	165,000	0.0143	N/A	330	0.014 or MDL
3,3'-Dichlorobenzidine	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
2,4-Dichlorophenol	380	1	0.004	0.4	N/A	200	330	0.4
2,4-Dinitrophenol	38	5	0.002	0.2	N/A	200	1,600	0.200 or MDL
2,6 Dinitrotoluene	198*	5	0.01	1.0	1.03	N/A	330	1.0
Diethylphthlate	142	50	0.071	7.1	N/A	60,000	330	7.1
Dimethylphthlate	40	50	0.020	2.0	N/A	80,000	330	2.0
Di-n-butyl phthalate	162*	50	0.081	8.1	N/A	8,000	330	8.1
Di-n-octyl phthlate	2,346 *	50	1.2	120.0	N/A	2,000	330	50.0 ***
Fluoranthene	38,000	50	19	1900.0	N/A	3,000	330	50.0 ***
Fluorene	7,300	50	3.5	350.0	N/A	3,000	330	50.0 ***
Hexachlorobenzene	3,900	0.35	0.014	1.4	0.41	60	330	0.41
Indeno (1,2,3-cd) pyrene	1,600,000	0.002	0.032	3.2	N/A	N/A	330	3.2
Isophorone	88.31 *	50	0.044	4.40	1,707	20,000	330	4.40
2-methylnaphthalene	727 *	50	0.364	36.4	N/A	N/A	330	36.4
2-Methylphenol	15	5	0.001	0.1	N/A	N/A	330	0.100 or MDL
4-Methylphenol	17	50	0.009	0.9	N/A	4,000	330	0.9
Naphthalene	1,300	10	0.130	13.0	N/A	300	330	13.0
Nitrobenzene	36	5	0.002	0.2	N/A	40	330	0.200 or MDL
								0.430

2-Nitroaniline	86	5	0.0043	0.43	N/A	N/A	1,600	or MDL
2-Nitrophenol	65	5	0.0033	0.33	N/A	N/A	330	0.330 or MDL
4-Nitrophenol	21	5	0.001	0.1	N/A	N/A	1,600	0.100 or MDL
3-Nitroaniline	93	5	0.005	0.5	N/A	N/A	1,600	0.500 or MDL
Pentachlorophenol	1,022	1	0.01	1.0	N/A	2,000	1,600	1.0 or MDL
Phenanthrene	4,365 *	50	2.20	220.0	N/A	N/A	330	50.0 ***
Phenol	27	1	0.0003	0.03	N/A	50,000	330	0.03 or MDL
Pyrene	13,295 *	50	6.65	665.0	N/A	2,000	330	50.0 ***
2,4,5-Trichlorophenol	89 *	1	0.001	0.1	N/A	8,000	330	0.1

a. Allowable Soil Concentration Cs = f x Cw x Koc
b. Soil cleanup objective = Cs x Correction Factor (CF)
N/A is not available
MDL is Method Detection Limit

* Partition coefficient is calculated by using the following equation:
log Koc = -0.55 log S + 3.64, where S is solubility in water in ppm.
Other Koc values are experimental values.

** Correction Factor (CF) of 100 is used as per TAGM #4046

*** As per TAGM #4046, Total VOCs < 10 ppm., Total Semi- VOCs < 500ppm. and Individual Semi-VOCs < 50 ppm.

**** Koc is derived from the correlation Koc = 0.63 Kow (Determining Soil Response Action Levels..... EPA/540/2-89/057). Kow is obtained from the USEPA computer database 'MAIN'.

Note: Soil cleanup objectives are developed for soil organic carbon content (f) of 1%, and should be adjusted for the actual soil organic carbon content if it is known.

01165

Test Pit Sampling Activities
Fuel Oil Spill Area

Prepared for: Buffalo Brake Beam Site
400 Ingham Avenue
Lackawanna, NY

Prepared by: Sterling Environmental Services Inc.
1372 Clinton Street
Buffalo, NY

12/00

Table of Contents

INTRODUCTION

Sterling Environmental was retained by Rigel Enterprises for the purpose of installing test pits and retrieving samples as part of a further investigation of the area referred to as the *fuel oil spill area* at the former Buffalo Brake Beam property. Based upon the findings of the Baseline Environmental Site Assessment Prepared by Earth Tech, Inc. in December 2000, a spill report for this area was made to the NYSDEC and the area was assigned spill number 0009396. Rigel Enterprises agreed to remediate the area of SB22 to levels below the NYSDEC TAGM 4046 cleanup standards, for the NYSDEC STARS list of constituents for fuel oil. Representatives of Miner Enterprises were concerned that unacceptable levels of contaminants may be present in the areas of SB05 and SB18 as well. The two parties, Rigel and Miner, agreed to this test pit investigation as a means to address these concerns.

The agreed upon work plan called for one test pit at SB18 and five test pits in the SB05 area, one near the original point and four additional points at a 25 to 30 foot radius. If field observations indicated, additional pits would be installed. The test pits would be advanced in two-foot increments to the depth of the water table. A sample would be collected from each 2-foot increment for headspace screening for VOC's using a PID. Visual and olfactory observations would also be recorded for each interval. A sample would be collected for lab analysis from the interval of each pit exhibiting the highest potential level of contamination by instrument and/or observation.

The test pit and sampling activities were scheduled for May 4, 2001. Present for the test pit and sampling activities were Wayne Cameron and Jeremy Wells of Sterling, Jim Kelleran as backhoe operator and Kevin McGrath of Earth Tech as Miner's representative. The parties met at the site at 8:00 am, The weather was 65 degrees F and sunny with a slight west wind.

SUMMARY OF FIELD ACTIVITIES & OBSERVATIONS

The point SB05 was located in the field from the map prepared by Earth Tech as part of the Baseline Environmental Site Assessment. Based upon the proximity of this point to the fence it was agreed upon that a trench would be installed from SB05 in an easterly direction toward the fence line to the limit of reach of the backhoe. The western end of the trench would be considered the SB05 base point and the eastern end, 14.6 feet to the east, would be considered the eastern perimeter point, SB05-E14.6.

Test pit SB05 was advanced to a total depth of eight feet below ground surface where water was encountered. Headspace readings from the two-foot intervals ranged from 0.5 to 38 PPM. The top four feet were layered brown soil and black

carbonaceous grit backfill over brown silt with increasing moisture content with advancing depth. No odors were noted. The headspace reading from the four-foot depth, black grit, was 28 PPM and the six-foot depth was 38 PPM. The sample for lab analysis was taken of the soil directly below the black grit interface at the four-foot depth.

Test pit SB05-E14.6 was advanced to a total depth of five feet below ground surface. Water was encountered at a depth of four feet and pooled in the excavation at four and a half feet. Headspace readings from the two-foot intervals ranged from 4 to 70 PPM. The entire depth was layered brown soil and black carbonaceous grit backfill containing concrete rubble, wire and other debris. A strong septic odor was noted at the water interface. The highest headspace reading was from the four-foot depth, 70 PPM. The sample for lab analysis was taken of the soil at the four-foot depth. A sample of the water was also collected and allowed to settle. No sheen or phase separation was observed. The water sample was collected for field observation only. No lab analysis was performed on this sample.

Test pit SB05-S25 was located 25 feet to the south of SB05. This pit was advanced to a total depth of nine feet, eight inches below ground surface. Headspace readings from the two-foot intervals ranged from 3 to 40 PPM. The top eight feet was industrial backfill over very moist gray/brown silt. Mild unidentified odors were noted at four feet and nine feet. The highest headspace reading was 40 PPM from the nine foot, eight inch depth. The sample for lab analysis was taken at the nine foot, eight inch depth.

Test pit SB05-N30 was located 30 feet to the north of SB05. This pit was advanced to a total depth of four feet below ground surface. Headspace readings from the two-foot intervals ranged from 20 to 40 PPM. The entire depth was industrial backfill, black carbonaceous grit with ash, refractory and scrap metal. A mild unidentified odor was noted. Perched water was encountered at three feet, three inches. A black oil film was visible on the water. No sample was collected for lab analysis from this pit. The presence of free product dictates that this area needs to be remediated.

The original sampling plan was modified in the field upon finding free product at SB05-N30. In an effort to delineate the areal extent of the contamination two additional test pits were installed, one to the west and one to the north of SB05-N30. Test pit SB05-N30-W30 was located 30 feet to the west of SB05-N30. This pit was advanced to a total depth of six feet below ground surface. Headspace readings from the two-foot intervals ranged from 2 to 20ppm. The top three feet consisted of brown cover soil over very moist black grit. Below this was a gray/brown, wet, sandy silt. A water lens was encountered at five feet. Mild unidentified odors were noted from four feet down. The highest headspace reading was 20 PPM from the four-foot depth. The sample for lab analysis was taken at the four-foot depth.

Test pit SB05-N55 was located 25 feet to the north of SB05-N30. This pit was advanced to a total depth of six feet below ground surface. Headspace readings from the two-foot intervals ranged from 1.5 to 30 PPM. The top two feet was brown soil over black and white grit. Below this was a very moist, stratified, gray/brown silt. Mild unidentified odors were noted at four feet. The highest headspace reading was 30 PPM from the four-foot depth. The sample for lab analysis was taken at the four-foot depth.

The point SB18 was located in the field from the map prepared by Earth Tech as part of the Baseline Environmental Site Assessment. Test pit SB18 was advanced to a total depth of six feet below ground surface. Headspace readings from the two-foot intervals ranged from 12 to 70 PPM. The top four feet were black/brown soil over gray/brown silt. From four to five feet was a gravel lens with gray clay below. Strong petroleum odors were noted in the top four feet. The highest headspace reading was 70 PPM from the four-foot depth. The sample for lab analysis was taken at the four-foot depth.

Field Observations

Summary Table of Field Observations

Test Pit # SB05			
Depth Interval	**Headspace**	**Visual**	**Olfactory**
2'	3 PPM	Brown soil	No odor
4'	28 PPM	Black carbonaceous grit	No odor
6'	38 PPM	Moist brown silt	No odor
8'	0.5 PPM	Brown silt / water	No odor
10'			
Test Pit # SB05-E14.6			
Depth Interval	**Headspace**	**Visual**	**Olfactory**
2'	4 PPM	Brown soil with debris	No odor
4'	10 PPM	Black carbonaceous grit with debris	Unidentified odor
5'		Standing water	Strong septic odor
8'			
10'			
Test Pit # SB05-S25			
Depth Interval	**Headspace**	**Visual**	**Olfactory**
2'	3 PPM	Dark brown grit with debris	No odor
4'	38 PPM	Moist brown silt	Mild unidentified odor
6'	3.7 PPM	Brown silt changing to black	No odor
8'	35 PPM	Very moist gray silt	No odor
10'	40 PPM	Very moist gray/brown silt	Unidentified odor
Test Pit # SB05-N30			
Depth Interval	**Headspace**	**Visual**	**Olfactory**
2'	20 PPM	Black carbonaceous grit with ash &debris	Unidentified odor
4'	40 PPM	Saturated debris standing water with oil film	Unidentified odor
6'			
8'			
10'			

Test Pit # SB05-N30-W30			
Depth Interval	**Headspace**	**Visual**	**Olfactory**
2'	2 PPM	Brown soil / black grit	No odor
4'	20 PPM	Wet black carbonaceous grit	Unidentified odor
6'	7 PPM	Gray/brown silt water lens @ 5'	Unidentified odor
8'			
10'			

Test Pit # SB05-N55			
Depth Interval	**Headspace**	**Visual**	**Olfactory**
2'	1.5 PPM	Black & white grit	No odor
4'	30 PPM	Brown & gray stratified silt	Mild unidentified odor
6'	15 PPM	Very moist gray/brown silt	No odor
8'			
10'			

Test Pit # SB18			
Depth Interval	**Headspace**	**Visual**	**Olfactory**
2'	30 PPM	Black/brown soil	Strong petroleum odor
4'	70 PPM	Gray/brown silt	Strong petroleum odor
6'	12 PPM	Gravel lens over gray clay	No odor
8'			
10'			

SUMMARY OF ANALYTICAL RESULTS

Soil grab samples were collected from six of the seven test pits installed. These samples were submitted to Upstate Laboratories, Inc., under standard chain of custody procedures, for analysis for the NYSDEC STARS analyte list of VOC's by EPA Method 8260, SVOC's by EPA Method 8270 and TOC.

The following pages contain summary tables of the analytical results for each sample and the TAGM 4046 Recommended Soil Cleanup Objectives with adjustment for TOC. All concentrations, with the exception of TOC, are expressed in PPM for comparison purposes. Copies of the laboratory report and chain of custody are attached.

None of the samples from the test pits showed concentrations in excess of the TOC adjusted recommended soil cleanup objectives.

In general, detection limits were quite high for these samples due to matrix interference and the dilution factor. Constituents that were not detected but the detection limit exceeds the TOC adjusted recommended soil cleanup objective are note with an asterisk in the tables.

Analytical Results

Summary Table in PPM (mg/Kg)
Sample # SB05 0955H
TOC Level: 3.7216%

Constituent	Sample Results	TAGM4046 Rec. Soil Cleanup Objective	Soil Cleanup Objective Adjusted for TOC%
Benzene	<0.640 *	0.06	0.22
Ethylbenzene	<0.640	5.5	20.47
Toluene	<0.640	1.5	5.58
Total Xylene	<1.280	1.2	4.47
Isopropyl Benzene	<0.640	5.0	18.61
n-Propylbenzene	<0.640	14.0	52.10
p-Isopropyl Toluene	<0.640	11.0	40.94
1,2,4-TrimethylBenzene	<0.640	13.0	48.38
1,3,5-TrimethylBenzene	<0.640	33.0	122.81
n-Butyl Benzene	<0.640	18.0	66.99
sec-Butyl Benzene	<0.640	25.0	93.04
Naphthalene	<0.640	13.0	48.38
MTBE	<0.640 *	0.12	0.45
t-Butylbenzene	<0.640	10.0	37.22
Anthracene	0.450	50.0	186.08
Fluorene	1.100	50.0	186.08
Phenanthrene	1.700	50.0	186.08
Pyrene	<0.430	50.0	186.08
Acenaphthene	1.100	50.0	186.08
Benzo(a)anthracene	<0.430	0.224 or MDL	0.83 or MDL
Fluoranthene	<0.430	50.0	186.08
Benzo(b)fluoranthene	<0.430	1.10	4.09
Benzo(k)fluoranthene	<0.430	1.10	4.09
Chrysene	<0.430	0.40	1.49
Benzo(a)pyrene	<0.430	0.061 or MDL	0.23 or MDL
Benzo(g,h,I)perylene	<0.430	50.0	186.08
Indeno(1,2,3-cd)pyrene	<0.430	3.20	11.91
Dibenz(a,h)anthracene	<0.430	0.014 or MDL	0.05 or MDL

Analytical Results

Summary Table in PPM (mg/Kg)
Sample # SB05E14-6 1010H
TOC Level: 8.0655%

Constituent	Sample Results	TAGM4046 Rec. Soil Cleanup Objective	Soil Cleanup Objective Adjusted for TOC%
Benzene	<3.200*	0.06	0.48
Ethylbenzene	<3.200	5.5	44.36
Toluene	<3.200	1.5	12.10
Total Xylene	<6.400	1.2	9.68
Isopropyl Benzene	5.200	5.0	40.33
n-Propylbenzene	<3.200	14.0	112.92
p-Isopropyl Toluene	<3.200	11.0	88.72
1,2,4-TrimethylBenzene	<3.200	13.0	104.85
1,3,5-TrimethylBenzene	<3.200	33.0	266.16
n-Butyl Benzene	<3.200	18.0	145.18
sec-Butyl Benzene	<3.200	25.0	201.64
Naphthalene	<3.200	13.0	104.85
MTBE	<3.200*	0.12	0.97
t-Butylbenzene	<3.200	10.0	80.66
Anthracene	<4.200	50.0	403.28
Fluorene	6.000	50.0	403.28
Phenanthrene	10.000	50.0	403.28
Pyrene	<4.200	50.0	403.28
Acenaphthene	5.100	50.0	403.28
Benzo(a)anthracene	<4.200	0.224 or MDL	1.81 or MDL
Fluoranthene	<4.200	50.0	403.28
Benzo(b)fluoranthene	<4.200	1.10	8.87
Benzo(k)fluoranthene	<4.200	1.10	8.87
Chrysene	<4.200*	0.40	3.23
Benzo(a)pyrene	<4.200	0.061 or MDL	0.49 or MDL
Benzo(g,h,I)perylene	<4.200	50.0	403.28
Indeno(1,2,3-cd)pyrene	<4.200	3.20	25.81
Dibenz(a,h)anthracene	<4.200	0.014 or MDL	0.11

Analytical Results

Summary Table in PPM (mg/Kg)
Sample # SBO5S25 1105H
TOC Level: 0.4737%

Constituent	Sample Results	TAGM4046 Rec. Soil Cleanup Objective	Soil Cleanup Objective Adjusted for TOC%
Benzene	<0.540*	0.06	0.03
Ethylbenzene	<0.540	5.5	2.61
Toluene	<0.540	1.5	0.71
Total Xylene	<1.080*	1.2	0.57
Isopropyl Benzene	<0.540	5.0	2.37
n-Propylbenzene	<0.540	14.0	6.63
p-Isopropyl Toluene	<0.540	11.0	5.21
1,2,4-TrimethylBenzene	<0.540	13.0	6.16
1,3,5-TrimethylBenzene	<0.540	33.0	15.63
n-Butyl Benzene	<0.540	18.0	8.53
sec-Butyl Benzene	<0.540	25.0	11.84
Naphthalene	<0.540	13.0	6.16
MTBE	<0.540*	0.12	0.06
t-Butylbenzene	<0.540	10.0	4.74
Anthracene	<0.360	50.0	23.69
Fluorene	0.460	50.0	23.69
Phenanthrene	1.000	50.0	23.69
Pyrene	0.430	50.0	23.69
Acenaphthene	<0.360	50.0	23.69
Benzo(a)anthracene	<0.360	0.224 or MDL	0.11 or MDL
Fluoranthene	<0.360	50.0	23.69
Benzo(b)fluoranthene	<0.360	1.10	0.52
Benzo(k)fluoranthene	<0.360	1.10	0.52
Chrysene	<0.360*	0.40	0.19
Benzo(a)pyrene	<0.360	0.061 or MDL	0.03 or MDL
Benzo(g,h,I)perylene	<0.360	50.0	23.69
Indeno(1,2,3-cd)pyrene	<0.360	3.20	1.52
Dibenz(a,h)anthracene	<0.360	0.014 or MDL	0.007 or MDL

Analytical Results

Summary Table in PPM (mg/Kg)
Sample # SB05N30W30 1245H
TOC Level: 0.8239%

Constituent	Sample Results	TAGM4046 Rec. Soil Cleanup Objective	Soil Cleanup Objective Adjusted for TOC%
Benzene	<2.900*	0.06	0.05
Ethylbenzene	<2.900	5.5	4.53
Toluene	<2.900*	1.5	1.24
Total Xylene	<5.800*	1.2	0.99
Isopropyl Benzene	<2.900	5.0	4.12
n-Propylbenzene	<2.900	14.0	11.53
p-Isopropyl Toluene	<2.900	11.0	9.06
1,2,4-TrimethylBenzene	<2.900	13.0	10.71
1,3,5-TrimethylBenzene	<2.900	33.0	27.19
n-Butyl Benzene	5.900	18.0	14.83
sec-Butyl Benzene	<2.900	25.0	20.60
Naphthalene	<2.900	13.0	10.71
MTBE	<2.900*	0.12	0.10
t-Butylbenzene	<2.900	10.0	8.24
Anthracene	5.000	50.0	41.20
Fluorene	8.000	50.0	41.20
Phenanthrene	15.000	50.0	41.20
Pyrene	<3.800	50.0	41.20
Acenaphthene	6.800	50.0	41.20
Benzo(a)anthracene	<3.800	0.224 or MDL	0.18 or MDL
Fluoranthene	<3.800	50.0	41.20
Benzo(b)fluoranthene	<3.800*	1.10	0.91
Benzo(k)fluoranthene	<3.800*	1.10	0.91
Chrysene	<3.800*	0.40	0.33
Benzo(a)pyrene	<3.800	0.061 or MDL	0.05 or MDL
Benzo(g,h,I)perylene	<3.800	50.0	41.20
Indeno(1,2,3-cd)pyrene	<3.800*	3.20	2.64
Dibenz(a,h)anthracene	<3.800	0.014 or MDL	0.01 or MDL

Analytical Results

Summary Table in PPM (mg/Kg)
Sample # SBO5 N55 1320H
TOC Level: 2.0989%

Constituent	Sample Results	TAGM4046 Rec. Soil Cleanup Objective	Soil Cleanup Objective Adjusted for TOC%
Benzene	<0.037	0.06	0.13
Ethylbenzene	<0.037	5.5	11.54
Toluene	<0.037	1.5	3.15
Total Xylene	<0.074	1.2	2.52
Isopropyl Benzene	<0.037	5.0	10.49
n-Propylbenzene	<0.037	14.0	29.38
p-Isopropyl Toluene	<0.037	11.0	23.09
1,2,4-TrimethylBenzene	<0.037	13.0	27.29
1,3,5-TrimethylBenzene	<0.037	33.0	69.26
n-Butyl Benzene	0.099	18.0	37.78
sec-Butyl Benzene	<0.037	25.0	52.47
Naphthalene	<0.037	13.0	27.29
MTBE	<0.037	0.12	0.25
t-Butylbenzene	<0.037	10.0	20.99
Anthracene	<0.410	50.0	104.95
Fluorene	0.500	50.0	104.95
Phenanthrene	0.960	50.0	104.95
Pyrene	<0.410	50.0	104.95
Acenaphthene	0.420	50.0	104.95
Benzo(a)anthracene	<0.410	0.224 or MDL	0.47 or MDL
Fluoranthene	<0.410	50.0	104.95
Benzo(b)fluoranthene	<0.410	1.10	2.31
Benzo(k)fluoranthene	<0.410	1.10	2.31
Chrysene	<0.410	0.40	0.84
Benzo(a)pyrene	<0.410	0.061 or MDL	0.13 or MDL
Benzo(g,h,I)perylene	<0.410	50.0	104.95
Indeno(1,2,3-cd)pyrene	<0.410	3.20	6.72
Dibenz(a,h)anthracene	<0.410	0.014 or MDL	0.03 or MDL

Analytical Results

Summary Table in PPM (mg/Kg)
Sample # SB18 1425H
TOC Level: 1.0302%

Constituent	Sample Results	TAGM4046 Rec. Soil Cleanup Objective	Soil Cleanup Objective Adjusted for TOC%
Benzene	<0.630*	0.06	0.06
Ethylbenzene	<0.630	5.5	5.67
Toluene	<0.630	1.5	1.55
Total Xylene	<1.260*	1.2	1.24
Isopropyl Benzene	1.000	5.0	5.15
n-Propylbenzene	0.970	14.0	14.42
p-Isopropyl Toluene	<0.630	11.0	11.33
1,2,4-TrimethylBenzene	<0.630	13.0	13.39
1,3,5-TrimethylBenzene	0.810	33.0	34.00
n-Butyl Benzene	1.800	18.0	18.54
sec-Butyl Benzene	1.300	25.0	25.76
Naphthalene	<0.630	13.0	13.39
MTBE	<0.630*	0.12	0.12
t-Butylbenzene	<0.630	10.0	10.30
Anthracene	<1.70	50.0	51.51
Fluorene	2.100	50.0	51.51
Phenanthrene	5.900	50.0	51.51
Pyrene	2.000	50.0	51.51
Acenaphthene	2.100	50.0	51.51
Benzo(a)anthracene	<1.700	0.224 or MDL	0.23 or MDL
Fluoranthene	<1.700	50.0	51.51
Benzo(b)fluoranthene	<1.700*	1.10	1.13
Benzo(k)fluoranthene	<1.700*	1.10	1.13
Chrysene	<1.700*	0.40	0.41
Benzo(a)pyrene	<1.700	0.061 or MDL	0.063 or MDL
Benzo(g,h,I)perylene	<1.700	50.0	51.51
Indeno(1,2,3-cd)pyrene	<1.700	3.20	3.30
Dibenz(a,h)anthracene	<1.700	0.014 or MDL	0.0144 or MDL

CONCLUSIONS AND RECOMMENDATIONS

One discrete area of contamination has been identified within the fuel oil spill area as a result of this further investigation. The point identified is SB05-N30. This area is in addition to the SB22 area, which was previously identified, in the Baseline Environmental Site Assessment. Both areas will require remediation. A limited soil removal activity in these areas should be sufficient to address this situation.

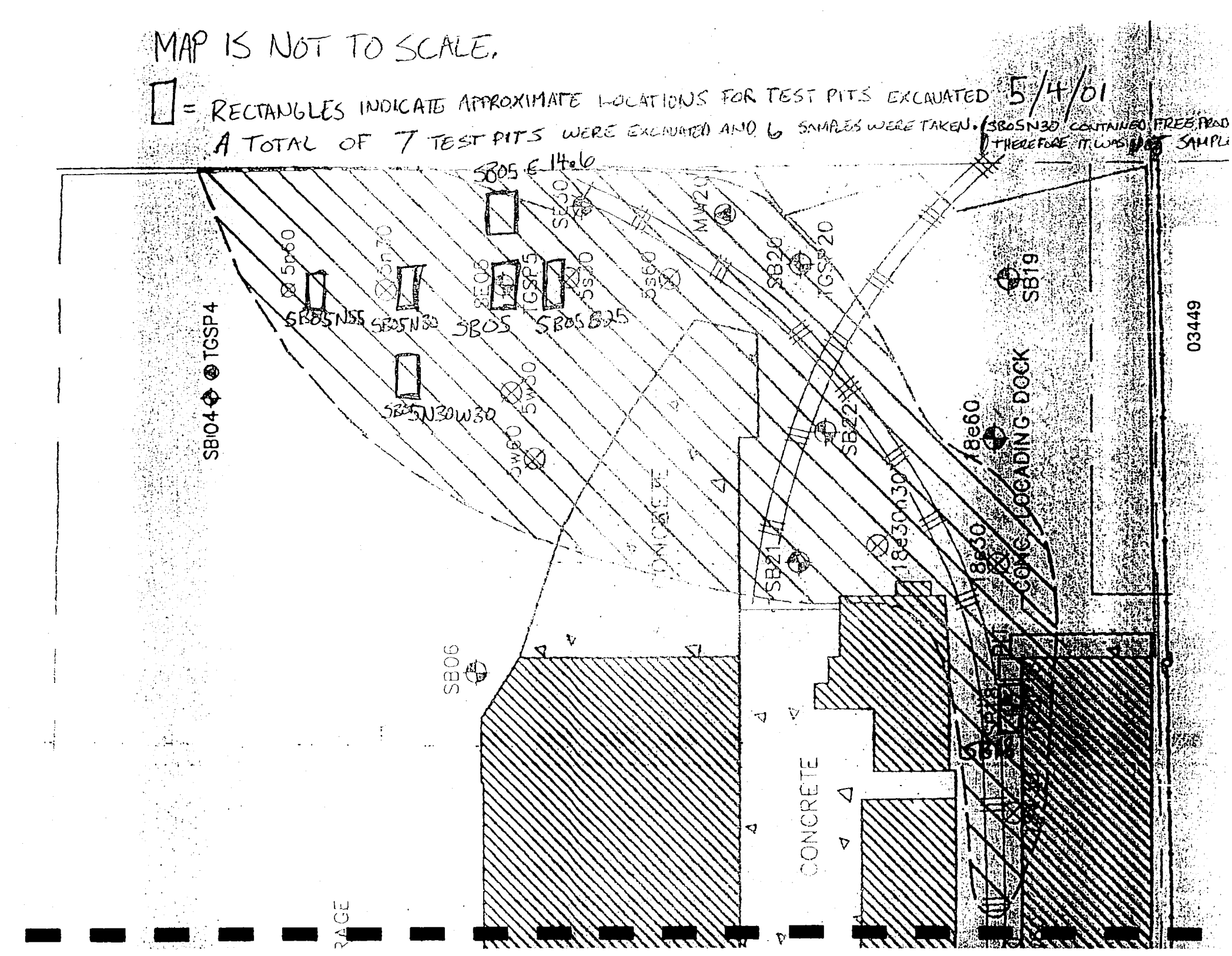
The visible oil encountered in test pit SB05-N30 appears to be confined to a perched water pocket within buried debris. The size of this debris pocket and the extent of impacted surrounding soil is not well delineated. It appears to be shallow in depth, not more than four or five feet. Points 30 feet to the south and west and 25 feet to the north were clean. The fence line was 39 feet to the east. As a worst case these points would be the maximum limits of excavation.

In addition, I would recommend a limited soil removal in the area of SB18. This is a subjective call based upon field observations. The sample results for this test pit are below the cleanup objectives. However, strong petroleum odors were noted throughout the top four feet of the excavation. TAGM 4046 states that "any time a soil exhibits a discernible odor nuisance, it shall not be considered clean even if it has met the numerical criteria".

MAP IS NOT TO SCALE.

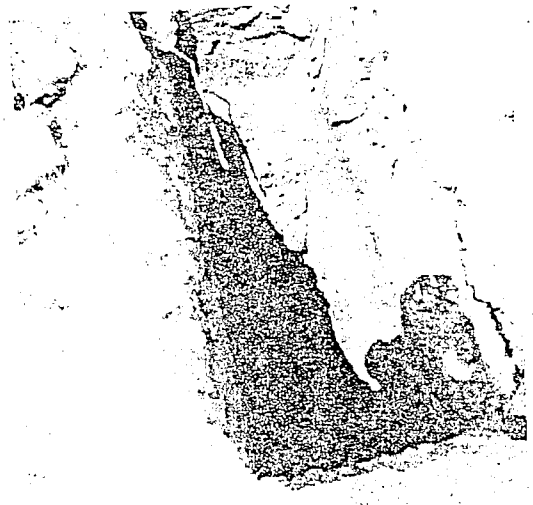
☐ = RECTANGLES INDICATE APPROXIMATE LOCATIONS FOR TEST PITS EXCAUATED 5/4/01

A TOTAL OF 7 TEST PITS WERE EXCAUATED AND 6 SAMPLES WERE TAKEN. (SB05N30 CONTAINED FREE PROD THEREFORE IT WAS NOT SAMPL



SB03
5/4/01 9:52

SB05E
5/4/01 9:50



SB05-28 5/4
11:10

Upstate Laboratories inc.

Shipping: 6034 Corporate Dr. • E. Syracuse, NY 13057-1017 • (315) 437-0255 • Fax (315) 437-1209
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New Jersey (201) 703-1324

May 29, 2001

Mr. Wayne K. Cameron
Project Manager
Sterling Env. Services, Inc.
1372 Clinton St.
Buffalo, NY 14206

Re: Analysis Report #12801020 - Buffalo Brake Beam

Dear Mr. Cameron:

Please find enclosed the results for your samples which were picked up by ULI personnel on May 7, 2001.

We have included the Chain of Custody Record as part of your report. You may need to reference this form for a more detailed explanation of your sample. Samples will be disposed of approximately one month from final report date.

Should you have any questions, please feel free to give us a call.

Thank you for your patronage.

Sincerely,

UPSTATE LABORATORIES, INC.

Anthony J. Scala
Director

AJS/jd

Enclosures: report, invoice

cc/encs: N. Scala, ULI
file

Note: Faxed results were given to your office on 5/23 and 5/29/01. AJS

Disclaimer: The test results and procedures utilized, and laboratory interpretations of data obtained by ULI as contained in this report are believed by ULI to be accurate and reliable for sample(s) tested. In accepting this report, the customer agrees that the full extent of any and all liability for actual and consequential damages of ULI for the services performed shall be equal to the fee charged to the customer for the services as liquidated damages.

03452

ATE: 05/29/01

Upstate Laboratories, Inc.
Analysis Results
Report Number: 12801020
Client I.D.: STERLING ENV. SERVICES, INC.
Sampled by: Client

APPROVAL: QS
QC: RS
Lab I.D.: 10170
BUFFALO BRAKE BEAM
SBO5 0955H 05/04/01 G

ULI I.D.: 12801020 Matrix: Soil

PARAMETERS	RESULTS	DATE ANAL.	KEY	FILE#
Percent Solids	78%	05/09/01		WD4661
EPA 8260 Petroleum, NYSDEC STARS List				
Benzene	<640ug/kg dw	05/11/01	01	VM3430
Ethylbenzene	<640ug/kg dw	05/11/01	01	VM3430
Toluene	<640ug/kg dw	05/11/01	01	VM3430
o-Xylene	<640ug/kg dw	05/11/01	01	VM3430
m-Xylene & p-Xylene	<640ug/kg dw	05/11/01	01	VM3430
Isopropyl Benzene	<640ug/kg dw	05/11/01	01	VM3430
n-Propylbenzene	<640ug/kg dw	05/11/01	01	VM3430
p-Isopropyl Toluene	<640ug/kg dw	05/11/01	01	VM3430
1,2,4-Trimethylbenzene	<640ug/kg dw	05/11/01	01	VM3430
1,3,5-Trimethylbenzene	<640ug/kg dw	05/11/01	01	VM3430
n-Butyl Benzene	<640ug/kg dw	05/11/01	01	VM3430
sec-Butyl Benzene	<640ug/kg dw	05/11/01	01	VM3430
Naphthalene	<640ug/kg dw	05/11/01	01	VM3430
MTBE	<640ug/kg dw	05/11/01	01	VM3430
t-Butylbenzene	<640ug/kg dw	05/11/01	01	VM3430
Petroleum, EPA Method 8270				
Anthracene	450ug/kg dw	05/17/01		SA2829
Fluorene	1100ug/kg dw	05/17/01		SA2829
Phenanthrene	1700ug/kg dw	05/17/01		SA2829
Pyrene	<430ug/kg dw	05/17/01		SA2829
Acenaphthene	1100ug/kg dw	05/17/01		SA2829
Benzo(a)anthracene	<430ug/kg dw	05/17/01		SA2829
Fluoranthene	<430ug/kg dw	05/17/01		SA2829
Benzo(b)fluoranthene	<430ug/kg dw	05/17/01		SA2829
Benzo(k)fluoranthene	<430ug/kg dw	05/17/01		SA2829
Chrysene	<430ug/kg dw	05/17/01		SA2829
Benzo(a)pyrene	<430ug/kg dw	05/17/01		SA2829
Benzo(g,h,i)perylene	<430ug/kg dw	05/17/01		SA2829
Indeno(1,2,3-cd)pyrene	<430ug/kg dw	05/17/01		SA2829
Dibenzo(a,h)anthracene	<430ug/kg dw	05/17/01		SA2829
TOC	37,216mg/kg	05/21/01		SC0001

dw = Dry weight

ATE: 05/29/01

Upstate Laboratories, Inc.
Analysis Results
Report Number: 12801020
Client I.D.: STERLING ENV. SERVICES, INC.
Sampled by: Client

APPROVAL: QS
QC: PS JF
Lab I.D.: 10170
BUFFALO BRAKE BEAM
SBO5E14-6 1010H 05/04/01 G

ULI I.D.: 12801021 Matrix: Soil

PARAMETERS	RESULTS	DATE ANAL.	KEY	FILE#
Percent Solids	79%	05/09/01		WD4661
EPA 8260 Petroleum, NYSDEC STARS List				
Benzene	<3200ug/kg dw	05/11/01	01	VM3430
Ethylbenzene	<3200ug/kg dw	05/11/01	01	VM3430
Toluene	<3200ug/kg dw	05/11/01	01	VM3430
o-Xylene	<3200ug/kg dw	05/11/01	01	VM3430
m-Xylene & p-Xylene	<3200ug/kg dw	05/11/01	01	VM3430
Isopropyl Benzene	5200ug/kg dw	05/11/01		VM3430
n-Propylbenzene	<3200ug/kg dw	05/11/01	01	VM3430
p-Isopropyl Toluene	<3200ug/kg dw	05/11/01	01	VM3430
1,2,4-Trimethylbenzene	<3200ug/kg dw	05/11/01	01	VM3430
1,3,5-Trimethylbenzene	<3200ug/kg dw	05/11/01	01	VM3430
n-Butyl Benzene	<3200ug/kg dw	05/11/01	01	VM3430
sec-Butyl Benzene	<3200ug/kg dw	05/11/01	01	VM3430
Naphthalene	<3200ug/kg dw	05/11/01	01	VM3430
MTBE	<3200ug/kg dw	05/11/01	01	VM3430
t-Butylbenzene	<3200ug/kg dw	05/11/01	01	VM3430
Petroleum, EPA Method 8270				
Anthracene	<4200ug/kg dw	05/15/01	05	SA2829
Fluorene	6000ug/kg dw	05/15/01		SA2829
Phenanthrene	10,000ug/kg dw	05/15/01		SA2829
Pyrene	<4200ug/kg dw	05/15/01	05	SA2829
Acenaphthene	5100ug/kg dw	05/15/01		SA2829
Benzo(a)anthracene	<4200ug/kg dw	05/15/01	05	SA2829
Fluoranthene	<4200ug/kg dw	05/15/01	05	SA2829
Benzo(b)fluoranthene	<4200ug/kg dw	05/15/01	05	SA2829
Benzo(k)fluoranthene	<4200ug/kg dw	05/15/01	05	SA2829
Chrysene	<4200ug/kg dw	05/15/01	05	SA2829
Benzo(a)pyrene	<4200ug/kg dw	05/15/01	05	SA2829
Benzo(g,h,i)perylene	<4200ug/kg dw	05/15/01	05	SA2829
Indeno(1,2,3-cd)pyrene	<4200ug/kg dw	05/15/01	05	SA2829
Dibenzo(a,h)anthracene	<4200ug/kg dw	05/15/01	05	SA2829
TOC	80,655mg/kg	05/21/01		SC0001

dw = Dry weight

ATE: 05/29/01

Upstate Laboratories, Inc.
Analysis Results
Report Number: 12801020
Client I.D.: STERLING ENV. SERVICES, INC.
Sampled by: Client

APPROVAL: GFS
QC: RS
Lab I.D.: 10170
BUFFALO BRAKE BEAM
SBO5S25 1105H 05/04/01 G

ULI I.D.: 12801022 Matrix: Soil

PARAMETERS	RESULTS	DATE ANAL.	KEY	FILE#
Percent Solids	93%	05/09/01		WD4661
EPA 8260 Petroleum, NYSDEC STARS List				
Benzene	<540ug/kg dw	05/11/01	01	VM3430
Ethylbenzene	<540ug/kg dw	05/11/01	01	VM3430
Toluene	<540ug/kg dw	05/11/01	01	VM3430
o-Xylene	<540ug/kg dw	05/11/01	01	VM3430
m-Xylene & p-Xylene	<540ug/kg dw	05/11/01	01	VM3430
Isopropyl Benzene	<540ug/kg dw	05/11/01	01	VM3430
n-Propylbenzene	<540ug/kg dw	05/11/01	01	VM3430
p-Isopropyl Toluene	<540ug/kg dw	05/11/01	01	VM3430
1,2,4-Trimethylbenzene	<540ug/kg dw	05/11/01	01	VM3430
1,3,5-Trimethylbenzene	<540ug/kg dw	05/11/01	01	VM3430
n-Butyl Benzene	<540ug/kg dw	05/11/01	01	VM3430
sec-Butyl Benzene	<540ug/kg dw	05/11/01	01	VM3430
Naphthalene	<540ug/kg dw	05/11/01	01	VM3430
MTBE	<540ug/kg dw	05/11/01	01	VM3430
t-Butylbenzene	<540ug/kg dw	05/11/01	01	VM3430
Petroleum, EPA Method 8270				
Anthracene	<360ug/kg dw	05/17/01		SA2829
Fluorene	460ug/kg dw	05/17/01		SA2829
Phenanthrene	1000ug/kg dw	05/17/01		SA2829
Pyrene	430ug/kg dw	05/17/01		SA2829
Acenaphthene	<360ug/kg dw	05/17/01		SA2829
Benzo(a)anthracene	<360ug/kg dw	05/17/01		SA2829
Fluoranthene	<360ug/kg dw	05/17/01		SA2829
Benzo(b)fluoranthene	<360ug/kg dw	05/17/01		SA2829
Benzo(k)fluoranthene	<360ug/kg dw	05/17/01		SA2829
Chrysene	<360ug/kg dw	05/17/01		SA2829
Benzo(a)pyrene	<360ug/kg dw	05/17/01		SA2829
Benzo(g,h,i)perylene	<360ug/kg dw	05/17/01		SA2829
Indeno(1,2,3-cd)pyrene	<360ug/kg dw	05/17/01		SA2829
Dibenzo(a,h)anthracene	<360ug/kg dw	05/17/01		SA2829
TOC	4737mg/kg	05/21/01		SC0001

dw = Dry weight

ATE: 05/29/01

Upstate Laboratories, Inc.
Analysis Results
Report Number: 12801020
Client I.D.: STERLING ENV. SERVICES, INC.
Sampled by: Client

APPROVAL: CJS
QC: PS
Lab I.D.: 10170
BUFFALO BRAKE BEAM
SBO5N30W30 1245H 05/04/01 G

ULI I.D.: 12801023 Matrix: Soil

PARAMETERS	RESULTS	DATE ANAL.	KEY	FILE#
Percent Solids	87%	05/09/01		WD4661
EPA 8260 Petroleum, NYSDEC STARS List				
Benzene	<2900ug/kg dw	05/11/01	01	VM3430
Ethylbenzene	<2900ug/kg dw	05/11/01	01	VM3430
Toluene	<2900ug/kg dw	05/11/01	01	VM3430
o-Xylene	<2900ug/kg dw	05/11/01	01	VM3430
m-Xylene & p-Xylene	<2900ug/kg dw	05/11/01	01	VM3430
Isopropyl Benzene	<2900ug/kg dw	05/11/01	01	VM3430
n-Propylbenzene	<2900ug/kg dw	05/11/01	01	VM3430
p-Isopropyl Toluene	<2900ug/kg dw	05/11/01	01	VM3430
1,2,4-Trimethylbenzene	<2900ug/kg dw	05/11/01	01	VM3430
1,3,5-Trimethylbenzene	<2900ug/kg dw	05/11/01	01	VM3430
n-Butyl Benzene	5900ug/kg dw	05/11/01		VM3430
sec-Butyl Benzene	<2900ug/kg dw	05/11/01	01	VM3430
Naphthalene	<2900ug/kg dw	05/11/01	01	VM3430
MTBE	<2900ug/kg dw	05/11/01	01	VM3430
t-Butylbenzene	<2900ug/kg dw	05/11/01	01	VM3430
Petroleum, EPA Method 8270				
Anthracene	5000ug/kg dw	05/23/01		SA2829
Fluorene	8000ug/kg dw	05/23/01		SA2829
Phenanthrene	15,000ug/kg dw	05/23/01		SA2829
Pyrene	<3800ug/kg dw	05/23/01		SA2829
Acenaphthene	6800ug/kg dw	05/23/01		SA2829
Benzo(a)anthracene	<3800ug/kg dw	05/23/01		SA2829
Fluoranthene	<3800ug/kg dw	05/23/01		SA2829
Benzo(b)fluoranthene	<3800ug/kg dw	05/23/01		SA2829
Benzo(k)fluoranthene	<3800ug/kg dw	05/23/01		SA2829
Chrysene	<3800ug/kg dw	05/23/01		SA2829
Benzo(a)pyrene	<3800ug/kg dw	05/23/01		SA2829
Benzo(g,h,i)perylene	<3800ug/kg dw	05/23/01		SA2829
Indeno(1,2,3-cd)pyrene	<3800ug/kg dw	05/23/01		SA2829
Dibenzo(a,h)anthracene	<3800ug/kg dw	05/23/01		SA2829
TOC	8239mg/kg	05/21/01		SC0001

dw = Dry weight

ATE: 05/29/01

Upstate Laboratories, Inc.
Analysis Results
Report Number: 12801020
Client I.D.: STERLING ENV. SERVICES, INC.
Sampled by: Client

APPROVAL: CJS
QC: PS
Lab I.D.: 10170
BUFFALO BRAKE BEAM
SBO5 N55 1320H 05/04/01 G

ULI I.D.: 12801024 Matrix: Soil

PARAMETERS	RESULTS	DATE ANAL.	KEY	FILE#
Percent Solids	81%	05/09/01		WD4661
EPA 8260 Petroleum, NYSDEC STARS List				
Benzene	<37ug/kg dw	05/11/01		VM3430
Ethylbenzene	<37ug/kg dw	05/11/01		VM3430
Toluene	<37ug/kg dw	05/11/01		VM3430
o-Xylene	<37ug/kg dw	05/11/01		VM3430
m-Xylene & p-Xylene	<37ug/kg dw	05/11/01		VM3430
Isopropyl Benzene	<37ug/kg dw	05/11/01		VM3430
n-Propylbenzene	<37ug/kg dw	05/11/01		VM3430
p-Isopropyl Toluene	<37ug/kg dw	05/11/01		VM3430
1,2,4-Trimethylbenzene	<37ug/kg dw	05/11/01		VM3430
1,3,5-Trimethylbenzene	<37ug/kg dw	05/11/01		VM3430
n-Butyl Benzene	99ug/kg dw	05/11/01		VM3430
sec-Butyl Benzene	<37ug/kg dw	05/11/01		VM3430
Naphthalene	<37ug/kg dw	05/11/01		VM3430
MTBE	<37ug/kg dw	05/11/01		VM3430
t-Butylbenzene	<37ug/kg dw	05/11/01		VM3430
Petroleum, EPA Method 8270				
Anthracene	<410ug/kg dw	05/17/01		SA2829
Fluorene	500ug/kg dw	05/17/01		SA2829
Phenanthrene	960ug/kg dw	05/17/01		SA2829
Pyrene	<410ug/kg dw	05/17/01		SA2829
Acenaphthene	420ug/kg dw	05/17/01		SA2829
Benzo(a)anthracene	<410ug/kg dw	05/17/01		SA2829
Fluoranthene	<410ug/kg dw	05/17/01		SA2829
Benzo(b)fluoranthene	<410ug/kg dw	05/17/01		SA2829
Benzo(k)fluoranthene	<410ug/kg dw	05/17/01		SA2829
Chrysene	<410ug/kg dw	05/17/01		SA2829
Benzo(a)pyrene	<410ug/kg dw	05/17/01		SA2829
Benzo(g,h,i)perylene	<410ug/kg dw	05/17/01		SA2829
Indeno(1,2,3-cd)pyrene	<410ug/kg dw	05/17/01		SA2829
Dibenzo(a,h)anthracene	<410ug/kg dw	05/17/01		SA2829
TOC	20,989mg/kg	05/21/01		SC0001

dw = Dry weight

ATE: 05/29/01

Upstate Laboratories, Inc.
Analysis Results
Report Number: 12801020
Client I.D.: STERLING ENV. SERVICES, INC.
Sampled by: Client

APPROVAL: CJS
QC: DS
Lab I.D.: 10170
BUFFALO BRAKE BEAM
SB 18 1425H 05/04/01 G

ULI I.D.: 12801025 Matrix: Soil

PARAMETERS	RESULTS	DATE ANAL.	KEY	FILE#
Percent Solids	79%	05/09/01		WD4661
EPA 8260 Petroleum, NYSDEC STARS List				
Benzene	<630ug/kg dw	05/11/01	01	VM3430
Ethylbenzene	<630ug/kg dw	05/11/01	01	VM3430
Toluene	<630ug/kg dw	05/11/01	01	VM3430
o-Xylene	<630ug/kg dw	05/11/01	01	VM3430
m-Xylene & p-Xylene	<630ug/kg dw	05/11/01	01	VM3430
Isopropyl Benzene	1000ug/kg dw	05/11/01		VM3430
n-Propylbenzene	970ug/kg dw	05/11/01		VM3430
p-Isopropyl Toluene	<630ug/kg dw	05/11/01	01	VM3430
1,2,4-Trimethylbenzene	<630ug/kg dw	05/11/01	01	VM3430
1,3,5-Trimethylbenzene	810ug/kg dw	05/11/01		VM3430
n-Butyl Benzene	1800ug/kg dw	05/11/01		VM3430
sec-Butyl Benzene	1300ug/kg dw	05/11/01		VM3430
Naphthalene	<630ug/kg dw	05/11/01	01	VM3430
MTBE	<630ug/kg dw	05/11/01	01	VM3430
t-Butylbenzene	<630ug/kg dw	05/11/01	01	VM3430
Petroleum, EPA Method 8270				
Anthracene	<1700ug/kg dw	05/23/01		SA2829
Fluorene	2100ug/kg dw	05/23/01		SA2829
Phenanthrene	5900ug/kg dw	05/23/01		SA2829
Pyrene	2000ug/kg dw	05/23/01		SA2829
Acenaphthene	2100ug/kg dw	05/23/01		SA2829
Benzo(a)anthracene	<1700ug/kg dw	05/23/01		SA2829
Fluoranthene	<1700ug/kg dw	05/23/01		SA2829
Benzo(b)fluoranthene	<1700ug/kg dw	05/23/01		SA2829
Benzo(k)fluoranthene	<1700ug/kg dw	05/23/01		SA2829
Chrysene	<1700ug/kg dw	05/23/01		SA2829
Benzo(a)pyrene	<1700ug/kg dw	05/23/01		SA2829
Benzo(g,h,i)perylene	<1700ug/kg dw	05/23/01		SA2829
Indeno(1,2,3-cd)pyrene	<1700ug/kg dw	05/23/01		SA2829
Dibenzo(a,h)anthracene	<1700ug/kg dw	05/23/01		SA2829
TOC	10,302mg/kg	05/21/01		SC0001

dw = Dry weight

KEY PAGE

1 MATRIX INTERFERENCE PRECLUDES LOWER DETECTION LIMITS
2 MATRIX INTERFERENCE
3 PRESENT IN BLANK
4 ANALYSIS NOT PERFORMED BECAUSE OF INSUFFICIENT SAMPLE
5 THE PRESENCE OF OTHER TARGET ANALYTE(S) PRECLUDES LOWER DETECTION LIMITS
6 BLANK CORRECTED
7 HEAD SPACE PRESENT IN SAMPLE
8 QUANTITATION LIMIT IS GREATER THAN THE CALCULATED REGULATORY LEVEL. THE QUANTITATION LIMIT THEREFORE BECOMES THE REGULATORY LEVEL.
9 THE OIL WAS TREATED AS A SOLID AND LEACHED WITH EXTRACTION FLUID
10 ADL(AVERAGE DETECTION LIMITS)
11 PQL(PRACTICAL QUANTITATION LIMITS)
12 SAMPLE ANALYZED OVER HOLDING TIME
13 DISSOLVED VALUE MAY BE HIGHER THAN TOTAL DUE TO CONTAMINATION FROM THE FILTERING PROCEDURE
14 SAMPLED BY ULI
15 DISSOLVED VALUE MAY BE HIGHER THAN TOTAL; HOWEVER, THE VALUES ARE WITHIN EXPERIMENTAL ERROR
16 AN INHIBITORY FACTOR WAS OBSERVED IN THIS ANALYSIS
17 PARAMETER NOT ANALYZED WITHIN 15 MINUTES OF SAMPLING
18 THE SERIAL DILUTION OF THIS SAMPLE SUGGESTS A POSSIBLE PHYSICAL AND/OR CHEMICAL INTERFERENT IN THIS DETERMINATION. THE DATA MAY BE BIASED EITHER HIGH OR LOW.
19 CALCULATION BASED ON DRY WEIGHT
20 INDICATES AN ESTIMATED VALUE, DETECTED BUT BELOW THE PRACTICAL QUANTITATION LIMITS
21 UG/KG AS REC.D / UG/KG DRY WT
22 MG/KG AS REC.D / MG/KG DRY WT
23 INSUFFICIENT SAMPLE PRECLUDES LOWER DETECTION LIMITS
24 SAMPLE DILUTED/BLANK CORRECTED
25 ND(NON-DETECTED)
26 MATRIX INTERFERENCE PRECLUDES LOWER DETECTION LIMITS/BLANK CORRECTED
27 SPIKE RECOVERY ABNORMALLY HIGH/LOW DUE TO MATRIX INTERFERENCE
28 POST-DIGESTION SPIKE FOR FURNACE AA ANALYSIS IS OUTSIDE OF THE CONTROL LIMITS (85-115%); HOWEVER, THE SAMPLE CONCENTRATION IS BELOW THE PQL
29 ANALYZED BY METHOD OF STANDARD ADDITIONS
30 METHOD PERFORMANCE STUDY HAS NOT BEEN COMPLETED/ND(NON-DETECTED)
31 FIELD MEASURED PARAMETER TAKEN BY CLIENT
32 TARGET ANALYTE IS BIODEGRADED AND/OR ENVIRONMENTALLY WEATHERED
33 NON-POTABLE WATER SOURCE
34 VOLATILE ASP CODES

(B)POSSIBLE/PROBABLE BLANK CONTAMINATION (D)ALL COMPOUNDS IDENTIFIED AT A SECONDARY DILUTION FACTOR (J)DETECTED BELOW THE CRQL
35 THE HYDROCARBONS DETECTED IN THE SAMPLE DID NOT CROSS-MATCH WITH COMMON PETROLEUM DISTILLATES
36 MATRIX INTERFERENCE CAUSING SPIKES TO RESULT IN LESS THAN 50.0% RECOVERY
37 MILLIGRAMS PER LITER (MG/L) / POUNDS (LBS) PER DAY
38 MILLIGRAMS PER LITER (MG/L) OF RESIDUAL CHLORINE (CL2) / POUNDS (LBS) PER DAY OF CL2
39 MICROGRAMS PER LITER (UG/L) / POUNDS (LBS) PER DAY
40 MILLIGRAMS PER LITER (MG/L) LINEAR ALKYL SULFONATE (LAS) / POUNDS (LBS) PER DAY LAS
41 RESULTS ARE REPORTED ON AN AS REC.D BASIS
42 THE SAMPLE WAS ANALYZED ON A TOTAL BASIS; THE TEST RESULT CAN BE COMPARED TO THE TCLP REGULATORY CRITERIA BY DIVIDING THE TEST RESULT BY 20, CREATING A THEORETICAL TCLP VALUE
43 METAL BY CONCENTRATION PROCEDURE
44 POSSIBLE CONTAMINATION FROM FIELD/LABORATORY

Upstate Laboratories, Inc.

6034 Corporate Drive • E. Syracuse, NY 13057-1017
(315) 437 0255 Fax 437 1209

Chain Of Custody Record

5/22

Client	Client Project # / Project Name
Sterling Environmental	Buffalo Brake Beam
Client Contact: Wayne Cameron	**Phone #** 716 824-2407
	Site Location (city/state) Lackawanna, NY

Sample Location:	Date	Time	Matrix	Grab or Comp	ULI Internal Use Only	No. of Containers	STARS List 1)	STARS List 2)	3)	4)	5)	6)	7)	8)	9)	10)
SB05	5/4/01	9:55	Soil	Grab	12801020	(2)	X	X	X							
SB05E14-6	5/4/01	10:10	Soil	Grab	21	(2)	X	X	X							
SB05S25	5/4/01	11:05	Soil	Grab	22	(2)	X	X	X							
SB05N30W30	5/4/01	12:45	Soil	Grab	23	(2)	X	X	X							
SB05N55	5/4/01	13:20	Soil	Grab	24	(2)	X	X	X							
SB18	5/4/01	14:25	Soil	Grab	25	(2)	X	X	X							

Special Turnaround Time 10 Day (Lab Notification required)

Remarks

03460

parameter and method	sample bottle:	type	size	pres.
1)				
2)				
3) (% Solids) xc				
4)				
5)				
6)				
7)				
8)				
9)				
10)				

Note: The numbered columns above cross-reference with the numbered columns in the upper right-hand corner.

Sampled by: (Please Print) Wayne Cameron

Company: Sterling Environmental

ULI Internal Use Only
Delivery (check one):
☐ ULI Sampled
☒ Pickup ☐ Dropoff
☐ CC

Relinquished by: (Signature)	Date	Time	Received by: (Signature)
[signature]	5/7/01	12:00	Dawn Ellis
Dawn Ellis	5/7/01	1:30	
Relinquished by: (Signature)	Date	Time	Received by: (Signature)
Relinquished by: (Signature)	Date 5-8-01	Time 0750	Rec'd for Lab by: (Signature) K Crump

[redacted] Syracuse [redacted] Rochester [redacted] Rutland [redacted] Albany [redacted] Binghamton [redacted] Mahwah (NJ) [redacted]

REMEDIAL ACTIVITIES REPORT

Gasoline Spill Area
NYDEC spill # 9708447
Buffalo Brake Beam Site
400 Ingham Ave
Lackawanna, NY

Prepared: June 2001
By: Sterling Environmental Services, Inc.
1372 Clinton Street
Buffalo, NY 14206

Table of Contents

1. Introduction

The following Remedial Activities Report presents an in-depth description of the activities performed to delineate and further remediate NYSDEC spill # 9708447 (also referred to as the Gasoline Spill Area) Buffalo Brake Beam Site located at 400 Ingham Avenue, Lackawanna NY.

The New York State Department of Environmental Conservation originally issued the site spill # 9708447 in October 1997, after contaminated soil was discovered during an excavation project for a new building addition.

Sterling Environmental Services Inc. was then contracted in November 1997 to remediate the contaminated soils from the property so the proposed building could continue. The remedial activities required 212 tons of material to be removed and shipped to Modern Landfill Inc.; Model City, NY for disposal purposes. However, it was discovered at the time of excavation of the contaminated materials that contaminants extended under the footer and beneath the floor of the existing manufacturing building. Considering any further excavation would jeopardize the existing manufacturing facility, the NYSDEC issued a "Closed-Inactive" decision for the site.

As a result of the business recently being sold, the new owner, Miner Enterprises Inc. required as a condition of sale that the remaining contaminants be removed from the site. As a voluntary action (not required by local, state, or federal regulators), Sterling Environmental Services Inc. was commissioned to commence investigation and remedial activities taking place inside the manufacturing facility "crane room". A scope of pertinent information relative to remedial activities, follow-up sampling, analytical results, and conclusive actions is contained herein.

2. Remedial Activities

2.1. Safety

All remedial activities took place over a period of 4 working days beginning on Friday June 1, 2001 and continuing Monday the 4th, Tuesday the 5th and Friday June 8th, 2001. Remedial activities were set up and performed in accordance with all applicable laws, standards, and criteria.

Sterling employees donned level D protection and minimized exposure to contaminants by following a site-specific health and safety program that included hourly air monitoring. This was to ensure not only the respiratory safety of those involved in remedial activities, but also those employees of the plant who could possibly be exposed to contaminants.

Proper steps were taken to provide adequate ventilation within the facility. All exhaust fans were engaged along with the opening of all overhead and man doors in proximity to the remedial work area. This was done also to provided ample ventilation for the exhaust fumes of the heavy equipment used in excavating the contaminated soils.

Safe boundary lines were set up with yellow caution tape to keep unauthorized personnel out of the remedial area while work was in progress. This also ensured a safe observation area and adequate space for excavating equipment to operate without danger to human health.

2.2. Mobilization And Preparation

All equipment necessary for remedial activities was mobilized on Friday June 1, 2001. Crushed stone was delivered to the site and placed in the rail siding, using a backhoe to create a ramp for equipment access to the crane bay floor. Equipment used for excavation purposes included a machine mounted hydraulic jackhammer to break up the floor and an excavator to remove the concrete and underlying soils. All excavated material was direct loaded for disposal at CID – Division of Waste Management.

Sterling Environmental provided hand tools including; shovels, pick axes and brooms, along with sampling equipment and the PID (photo ionization detector) for air monitoring and soil screening. Sterling also provided pumping equipment and accessories in case any water was encountered during excavation. A portable Baker Tank was spotted on-site for temporary storage of any water encountered during excavation activities. No significant amount of water was encountered during excavation and the tank was not was not used.

Immediately prior to excavation, guardrails and posts were removed from the floor in the loading area to allow room for equipment to operate. A portable steel bridge was also taken out and replaced with smaller aluminum scaffolding.

Then, all miscellaneous items were removed from the wall area including some metal scraps, an air compressor, two old air canisters, and the above ground portion of the latex paint dip tank drain pipe. This allowed better access to the soils closest to the column and footer of the building.

2.3 Excavation of Soils

Preliminary excavation limits were established based upon available information. Two geoprobe points from the Earth Tech, Baseline Environmental Site Assessment showed unacceptable levels of contaminants. The one point was located in the southwest corner of the main floor of the crane bay and the rail siding retaining wall. (The western side of the west wall of the crane bay in this area was the site of the 1997 removal action.) The other point showing contamination was

located roughly due east of this point, three quarters of the way across the crane bay. A third geoprobe point located to the north of and between these two points, at the southeast corner of the latex paint dip tank, was considered clean.

The concrete floor was broken up, in the identified area of contamination, using the machine mounted hydraulic hammer. Excavation commenced at the southwest corner of the main floor of the crane bay and the rail siding retaining wall. Significant odors of aged gasoline were encountered at shallow depth in this corner. Excavation proceeded to the north following the west wall of the crane bay to just past the next column line. Odors diminished both with depth and distance from the southwest corner.

Particular care was taken in excavating this area both to slope the excavation below the footing to protect the building structure and to locate an in-house high voltage feed that ran through the excavation area but could not be precisely located. The high voltage feed was located during excavation and found to be in a conduit attached to the rail siding retaining wall directly above the footing.

No visual evidence of contamination was observed in the excavation with the exception of sheen present on the soil in the conduit bedding following the top of the footing of the rail siding retaining wall. This visual evidence diminished as the excavation proceeded to the east and was no longer observed at the eastern end of the excavation.

All excavated materials were direct loaded to dump trucks for transport to CID – Division of Waste Management for disposal as non-hazardous gasoline contaminated soil.

Excavation proceeded downward and outward from the southwest corner until visual, olfactory and PID screening indicated that a potentially clean limit had been obtained. The resulting excavation was to an average depth of 11 feet and measured 25 feet along the west wall, 60 feet across the crane bay following the rail siding the retaining wall and tapering, in an irregular fashion, to 16 feet along the east wall. A total of 563 tons of soil were removed and disposed of at CID in the initial removal action.

Confirmation samples were collected from the sidewalls and bottom of the excavation and submitted to a lab for analysis. Details of the sampling and analysis are included in the following section. Three of the seven samples collected failed to meet the cleanup objectives. These included the sample from below the footing of the west side wall, the eastern sample from the north sidewall and the composite sample from the bottom.

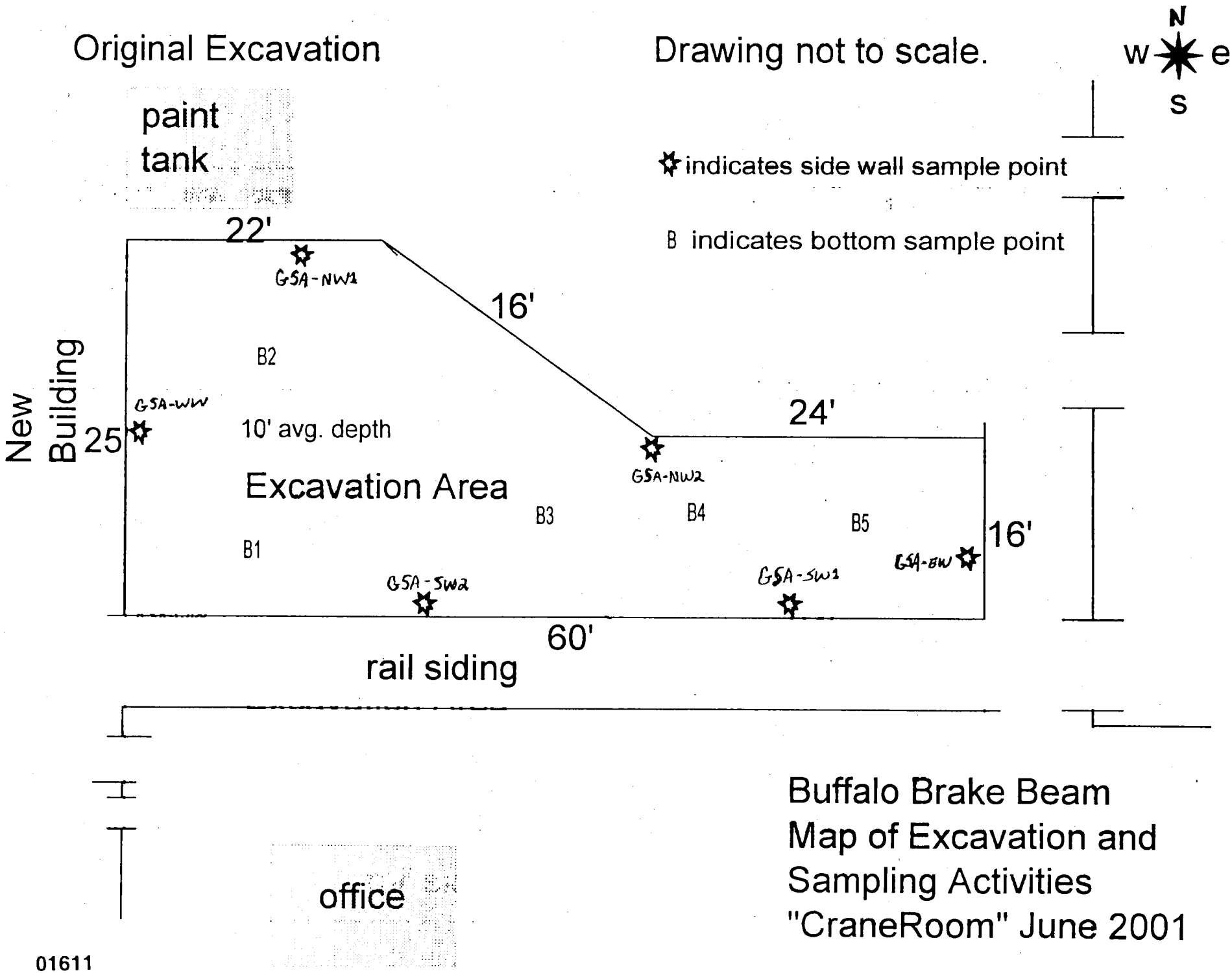
Additional excavation was undertaken on Friday June 8th to remove as much material as possible from between the support columns of the west wall; to cut back the eastern portion of the north wall and further clean out the bottom. The west wall

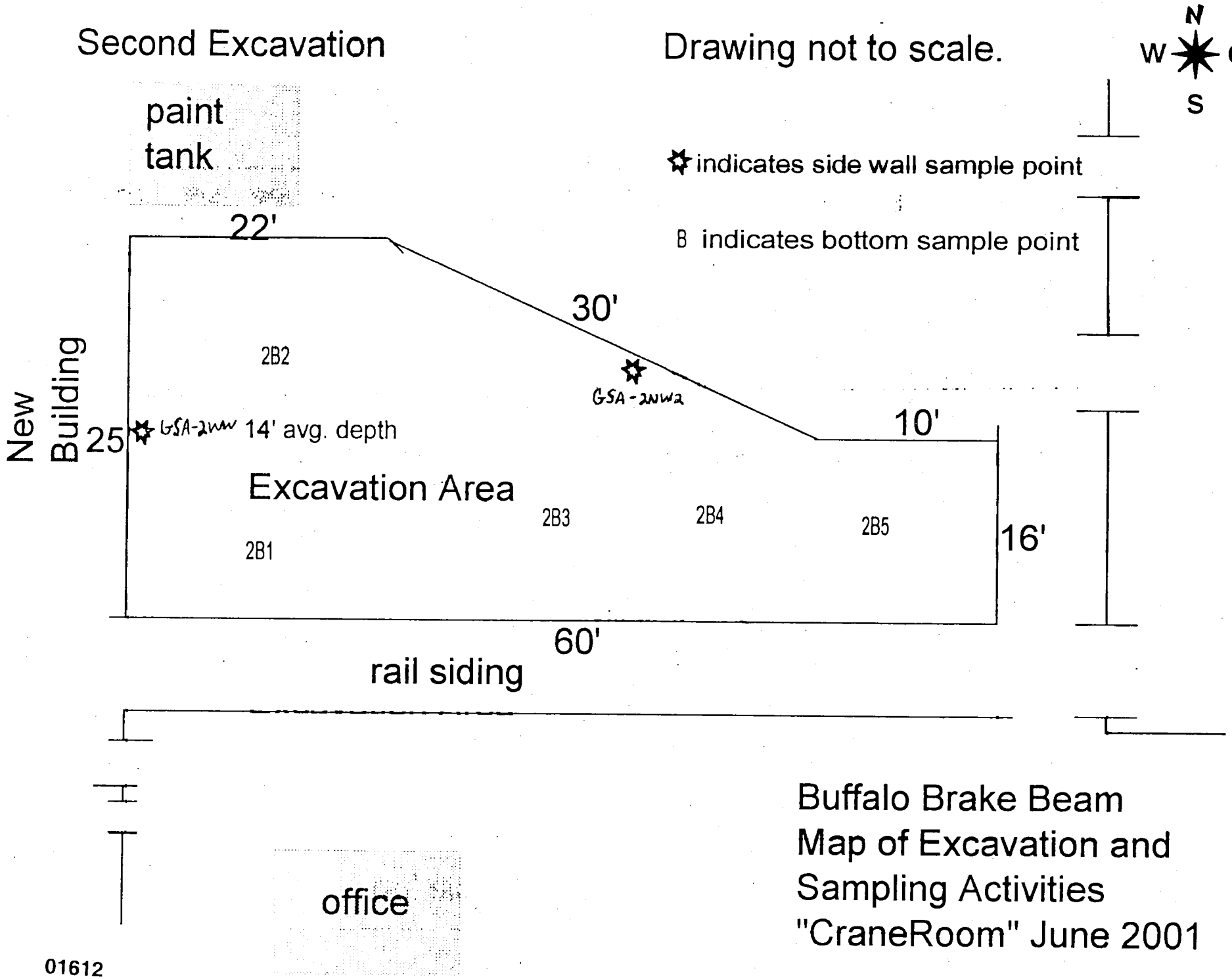
below the footing was cut back nearly to vertical between the support columns while maintaining a supporting slope to protect the column bases. An irregular protruding corner on the eastern end of the north wall where the failing sample was taken was cut back to a more gradual angle. The entire bottom was redressed and a gravel lens with elevated PID readings was found four inches below the surface in the central area of the excavation. The gravel lens was approximately 18 inches thick. Approximately three additional feet of soil was removed in this area including the lens and underlying soil. A total of 142 additional tons of soil were removed in this second round of excavation. The west wall below the footing, the eastern portion of the north wall and the bottom were resampled after this second round of removal. Analytical results for the north wall and bottom were below the cleanup objectives. As anticipated the soil beneath the footing on the west wall did not meet the cleanup objectives. No further removal could be performed in this direction without jeopardizing the structural integrity of the building. Therefore excavation activities were concluded and the excavation was back-filled.

3. Sampling and Analysis

Confirmation samples were collected from the excavation following each round of excavation. Individual grab samples were collected from the sidewalls and a five point composite sample was collected from the bottom of the excavation. Two sidewall samples, a western and an eastern one, were collected from the north and south walls in the initial round of sampling due to their relative length. Sidewall samples were collected approximately 18 inches above the bottom of the excavation at the center of the west and east wall and at the center of the eastern and western halves of the north and south walls. The second round of sampling only included the areas that failed the first round and were re-excavated. All samples were submitted to Upstate Laboratories, Inc. under standard chain of custody procedures, for analysis for the NYSDEC STARS analyte list of VOC's by EPA Method 8260 and TOC.

The following pages contain summary tables of the analytical results for each sample and the TAGM 4046 Recommended Soil Cleanup Objective with adjustment for TOC. All concentrations, with the exception of TOC, are expressed in PPM for comparison purposes. Copies of the laboratory report and chain of custody are attached along with diagrams showing the sample locations.


Original Excavation
Drawing not to scale.
N
w
e
S
paint
tank
indicates side wall sample point
B indicates bottom sample point
22'
GSA-NW1
16'
B2
New
Building
GSA-WW
25'
10' avg. depth
24'
GSA-NW2
Excavation Area
B3
B4
B5
16'
B1
GSA-SW2
GSA-SW1
GSA-EW
60'
rail siding
office
Buffalo Brake Beam
Map of Excavation and
Sampling Activities
"CraneRoom" June 2001
01611



Buffalo Brake Beam
Map of Excavation and
Sampling Activities
"CraneRoom" June 2001

Analytical Results
Summary Tables in PPM (mg/Kg)
Sample # GSA-WW
TOC Level: 3.3852

Constituent	Sample Results	TAGM4046 Rec. Soil Cleanup Objective	Soil Cleanup Objective Adjusted for TOC%
Benzene	<2.700	0.06	0.20
Ethylbenzene	<2.700	5.5	18.62
Toluene	<2.700	1.5	5.08
Total Xylene	**7.700**	**1.2**	**4.06**
Isopropyl Benzene	**38.000**	**5.0**	**16.93**
n-Propylbenzene	3.200	14.0	47.39
p-Isopropyl Toluene	<2.700	11.0	37.24
1,2,4-TrimethylBenzene	11.000	13.0	44.01
1,3,5-TrimethylBenzene	<2.700	33.0	111.71
n-Butyl Benzene	8.000	18.0	60.93
sec-Butyl Benzene	<2.700	25.0	84.63
Naphthalene	3.500	13.0	44.01
MTBE	<2.700	0.12	0.41
t-Butylbenzene	<2.700	10.0	33.85

Sample # GSA-NW1
TOC Level: 2.4864

Constituent	Sample Results	TAGM4046 Rec. Soil Cleanup Objective	Soil Cleanup Objective Adjusted for TOC%
Benzene	<0.530	0.06	0.15
Ethylbenzene	<0.530	5.5	13.66
Toluene	<0.530	1.5	3.73
Total Xylene	<1.06	1.2	2.98
Isopropyl Benzene	11.000	5.0	12.43
n-Propylbenzene	0.850	14.0	34.81
p-Isopropyl Toluene	<0.530	11.0	27.35
1,2,4-TrimethylBenzene	3.000	13.0	32.32
1,3,5-TrimethylBenzene	<0.530	33.0	82.05
n-Butyl Benzene	2.600	18.0	44.76
sec-Butyl Benzene	1.300	25.0	62.16
Naphthalene	0.620	13.0	32.32
MTBE	<0.530	0.12	0.30
t-Butylbenzene	<0.530	10.0	24.86

Analytical Results
Summary Tables in PPM (mg/Kg)
Sample # GSA-NW2
TOC Level: 1.4054

Constituent	Sample Results	TAGM4046 Rec. Soil Cleanup Objective	Soil Cleanup Objective Adjusted for TOC%
Benzene	<0.540	0.06	0.08
Ethylbenzene	<0.540	5.5	7.73
Toluene	<0.540	1.5	2.11
Total Xylene	<1.08	1.2	1.69
Isopropyl Benzene	**19.000**	**5.0**	**7.03**
n-Propylbenzene	1.500	14.0	19.68
p-Isopropyl Toluene	<0.540	11.0	15.46
1,2,4-TrimethylBenzene	3.000	13.0	18.27
1,3,5-TrimethylBenzene	<0.540	33.0	46.38
n-Butyl Benzene	3.200	18.0	25.30
sec-Butyl Benzene	1.600	25.0	35.14
Naphthalene	<0.540	13.0	18.27
MTBE	<0.540	0.12	0.17
t-Butylbenzene	<0.540	10.0	14.05

Sample # GSA-EW
TOC Level: 1.5603

Constituent	Sample Results	TAGM4046 Rec. Soil Cleanup Objective	Soil Cleanup Objective Adjusted for TOC%
Benzene	<0.260	0.06	0.09
Ethylbenzene	<0.260	5.5	8.58
Toluene	<0.260	1.5	2.34
Total Xylene	0.490	1.2	1.87
Isopropyl Benzene	6.600	5.0	7.80
n-Propylbenzene	0.690	14.0	21.84
p-Isopropyl Toluene	<0.260	11.0	17.16
1,2,4-TrimethylBenzene	1.400	13.0	20.28
1,3,5-TrimethylBenzene	<0.260	33.0	51.49
n-Butyl Benzene	0.910	18.0	28.09
sec-Butyl Benzene	0.610	25.0	39.01
Naphthalene	<0.260	13.0	20.28
MTBE	<0.260	0.12	0.19
t-Butylbenzene	<0.260	10.0	15.60

Analytical Results
Summary Tables in PPM (mg/Kg)
Sample # GSA-SW1
TOC Level: 1.6864

Constituent	Sample Results	TAGM4046 Rec. Soil Cleanup Objective	Soil Cleanup Objective Adjusted for TOC%
Benzene	<0.270	0.06	0.10
Ethylbenzene	<0.270	5.5	9.28
Toluene	<0.270	1.5	2.53
Total Xylene	0.360	1.2	2.02
Isopropyl Benzene	3.200	5.0	8.43
n-Propylbenzene	<0.270	14.0	23.61
p-Isopropyl Toluene	<0.270	11.0	18.55
1,2,4-TrimethylBenzene	0.880	13.0	21.92
1,3,5-TrimethylBenzene	<0.270	33.0	55.65
n-Butyl Benzene	0.580	18.0	30.35
sec-Butyl Benzene	<0.270	25.0	42.16
Naphthalene	0.390	13.0	21.92
MTBE	<0.270	0.12	0.20
t-Butylbenzene	<0.270	10.0	16.86

Sample # GSA-SW2
TOC Level: 1.5377

Constituent	Sample Results	TAGM4046 Rec. Soil Cleanup Objective	Soil Cleanup Objective Adjusted for TOC%
Benzene	<0.270	0.06	0.09
Ethylbenzene	<0.270	5.5	8.46
Toluene	<0.270	1.5	2.31
Total Xylene	0.300	1.2	1.85
Isopropyl Benzene	4.100	5.0	7.69
n-Propylbenzene	0.400	14.0	21.53
p-Isopropyl Toluene	<0.270	11.0	16.91
1,2,4-TrimethylBenzene	1.300	13.0	19.99
1,3,5-TrimethylBenzene	<0.270	33.0	50.74
n-Butyl Benzene	0.980	18.0	27.68
sec-Butyl Benzene	0.410	25.0	38.44
Naphthalene	0.580	13.0	19.99
MTBE	<0.270	0.12	0.18
t-Butylbenzene	<0.270	10.0	15.38

Analytical Results
Summary Tables in PPM (mg/Kg)
Sample # GSA-B
TOC Level: 1.0488

Constituent	Sample Results	TAGM4046 Rec. Soil Cleanup Objective	Soil Cleanup Objective Adjusted for TOC%
Benzene	<1.300	0.06	0.06
Ethylbenzene	2.200	5.5	5.77
Toluene	<1.300	1.5	1.57
Total Xylene	**9.200**	**1.2**	**1.26**
Isopropyl Benzene	**42.000**	**5.0**	**5.24**
n-Propylbenzene	3.500	14.0	14.68
p-Isopropyl Toluene	<1.300	11.0	11.54
1,2,4-TrimethylBenzene	11.000	13.0	13.63
1,3,5-TrimethylBenzene	<1.300	33.0	34.61
n-Butyl Benzene	9.500	18.0	18.88
sec-Butyl Benzene	4.000	25.0	26.22
Naphthalene	5.800	13.0	13.63
MTBE	<1.300	0.12	0.13
t-Butylbenzene	<1.300	10.0	10.49

Sample # GSA-2NW2
TOC Level: 3.5377

Constituent	Sample Results	TAGM4046 Rec. Soil Cleanup Objective	Soil Cleanup Objective Adjusted for TOC%
Benzene	<0.003	0.06	0.21
Ethylbenzene	<0.003	5.5	19.46
Toluene	<0.003	1.5	5.31
Total Xylene	0.017	1.2	4.25
Isopropyl Benzene	0.040	5.0	17.69
n-Propylbenzene	<0.003	14.0	49.53
p-Isopropyl Toluene	<0.003	11.0	38.91
1,2,4-TrimethylBenzene	0.062	13.0	45.99
1,3,5-TrimethylBenzene	<0.003	33.0	116.74
n-Butyl Benzene	<0.003	18.0	63.68
sec-Butyl Benzene	<0.003	25.0	88.44
Naphthalene	0.014	13.0	45.99
MTBE	<0.003	0.12	0.42
t-Butylbenzene	<0.003	10.0	35.38

Analytical Results
Summary Tables in PPM (mg/Kg)
Sample # GSA-2WW
TOC Level: 1.2381

Constituent	Sample Results	TAGM4046 Rec. Soil Cleanup Objective	Soil Cleanup Objective Adjusted for TOC%
Benzene	<0.500	0.06	0.07
Ethylbenzene	<0.500	5.5	6.81
Toluene	<0.500	1.5	1.86
Total Xylene	<1.000	1.2	1.49
Isopropyl Benzene	**8.400**	**5.0**	**6.19**
n-Propylbenzene	0.630	14.0	17.33
p-Isopropyl Toluene	<0.500	11.0	13.62
1,2,4-TrimethylBenzene	2.600	13.0	16.10
1,3,5-TrimethylBenzene	<0.500	33.0	40.86
n-Butyl Benzene	<0.500	18.0	22.29
sec-Butyl Benzene	0.880	25.0	30.95
Naphthalene	1.800	13.0	16.10
MTBE	<0.500	0.12	0.15
t-Butylbenzene	<0.500	10.0	12.38

Sample # GSA-2B1-5
TOC Level: 1.4666

Constituent	Sample Results	TAGM4046 Rec. Soil Cleanup Objective	Soil Cleanup Objective Adjusted for TOC%
Benzene	<0.003	0.06	0.09
Ethylbenzene	<0.003	5.5	8.07
Toluene	<0.003	1.5	2.20
Total Xylene	<0.006	1.2	1.76
Isopropyl Benzene	0.083	5.0	7.33
n-Propylbenzene	<0.003	14.0	20.53
p-Isopropyl Toluene	<0.003	11.0	16.13
1,2,4-TrimethylBenzene	0.049	13.0	19.07
1,3,5-TrimethylBenzene	<0.003	33.0	48.40
n-Butyl Benzene	<0.003	18.0	26.40
sec-Butyl Benzene	<0.003	25.0	36.67
Naphthalene	0.017	13.0	19.07
MTBE	<0.003	0.12	0.18
t-Butylbenzene	<0.003	10.0	14.67

4. Conclusion

A total of 705 tons of gasoline contaminated soil were removed and disposed of at CID – Division of Waste Management in this voluntary remedial action. Lab analysis of confirmation samples collected from the bottom and the north, east and south side walls of the completed excavation showed all constituents of concern to be below the TOC adjusted recommended soil cleanup objectives of TAGM 4046. Lab analysis of the confirmation sample from the west wall below the footing showed Isopropyl Benzene in a concentration exceeding the TOC adjusted recommended soil cleanup objective. All of the soil that could be removed in this direction without jeopardizing the structural integrity of the building support wall was removed in this remedial action.

A prior remedial action for this same spill, in 1997, removed contaminated soil from the east side of the same wall at this location. The 1997 remedial action removed all contaminated soil on the east side of the wall with the exception of a slope below the footing to protect the support wall.

The remaining contaminated soil is in an area approximately 25 feet long north and south, starting at a depth of four feet below grade, the width of the footing, and sloping outward to the east and west to a depth of approximately 10 feet. The surface of this area on both sides of the wall is covered by concrete floor and is under roof. The bottom depth of the contaminated zone is greater than four feet above the groundwater table.

The remaining contaminated soil is de minimis in quantity, is separated from the surface and groundwater by at least four feet and is protected from rainwater percolation. The likelihood of any impact to human health or groundwater is considered minimal and no further action is recommended at this time. In the event that this building is demolished in the future, this remaining contamination should be addressed.

A monitoring well, MW13, installed by Earth Tech as part of the Baseline Environmental Site Assessment, is located down gradient from this spill site. Earth Tech attempted to sample this well in December 2000 but there was insufficient water present to obtain a sample. This well will be monitored on a quarterly basis for the presence of water. If a sufficient volume of water is present to obtain a sample the well will be sampled and the sample analyzed for the NYSDEC STARS analyte list of constituents of concern for gasoline to assess any groundwater impact from this spill. If the samples do not indicate any impact or if no sufficient volume of water for sampling is observed by the second quarter of 2002 this mater will be considered closed.

Appendix One

Upstate Laboratories Report

Upstate Laboratories inc.

Shipping: 6034 Corporate Dr. • E. Syracuse, NY 13057-1017 • (315) 437-0255 • Fax (315) 437-1209
Mailing: Box 289 • Syracuse, NY 13206
Albany (518) 459-3134
Binghamton (607) 724-0478
Buffalo (716) 649-2533
Rochester (716) 436-9070
New Jersey (201) 703-1324

June 18, 2001

Mr. Wayne K. Cameron
Project Manager
Sterling Env. Services, Inc.
1372 Clinton St.
Buffalo, NY 14206

Re: Analysis Report #15701067 - Buffalo Brake Beam

Dear Mr. Cameron:

Please find enclosed the results for your samples which were received on June 5, 2001.

We have included the Chain of Custody Record as part of your report. You may need to reference this form for a more detailed explanation of your sample. Samples will be disposed of approximately one month from final report date.

Should you have any questions, please feel free to give us a call.

Thank you for your patronage.

Sincerely,

UPSTATE LABORATORIES, INC.

Anthony J. Scala
Director

AJS/jd

Enclosures: report, invoice

cc/encs: N. Scala, ULI
file

Note: Faxed results were given to your office on 6/7/01. AJS

Disclaimer: The test results and procedures utilized, and laboratory interpretations of data obtained by ULI as contained in this report are believed by ULI to be accurate and reliable for sample(s) tested. In accepting this report, the customer agrees that the full extent of any and all liability for actual and consequential damages of ULI for the services performed shall be equal to the fee charged to the customer for the services as liquidated damages.

01620

DATE: 06/18/01

Upstate Laboratories, Inc.
Analysis Results
Report Number: 15701067
Client I.D.: STERLING ENV. SERVICES, INC.
Sampled by: Client

APPROVAL:
QC: _____
Lab I.D.: 10170
BUFFALO BRAKE BEAM
GSA-WW 1215H 06/05/01 G

ULI I.D.: 15701067 Matrix: Soil

PARAMETERS	RESULTS	DATE ANAL.	KEY	FILE#
Percent Solids	92%	06/07/01		WD5030
TOC	33,852mg/kg	06/06/01		SC0001
EPA 8260 Petroleum, NYSDEC STARS List				
Benzene	<2700ug/kg dw	06/06/01	05	VM3462
Ethylbenzene	<2700ug/kg dw	06/06/01	05	VM3462
Toluene	<2700ug/kg dw	06/06/01	05	VM3462
o-Xylene	3000ug/kg dw	06/06/01		VM3462
m-Xylene & p-Xylene	4700ug/kg dw	06/06/01		VM3462
Isopropyl Benzene	38,000ug/kg dw	06/06/01		VM3462
n-Propylbenzene	3200ug/kg dw	06/06/01		VM3462
p-Isopropyl Toluene	<2700ug/kg dw	06/06/01	05	VM3462
1,2,4-Trimethylbenzene	11,000ug/kg dw	06/06/01		VM3462
1,3,5-Trimethylbenzene	<2700ug/kg dw	06/06/01	05	VM3462
n-Butyl Benzene	8000ug/kg dw	06/06/01		VM3462
sec-Butyl Benzene	<2700ug/kg dw	06/06/01	05	VM3462
Naphthalene	3500ug/kg dw	06/06/01		VM3462
MTBE	<2700ug/kg dw	06/06/01	05	VM3462
t-Butylbenzene	<2700ug/kg dw	06/06/01	05	VM3462

dw = Dry weight

DATE: 06/18/01

Upstate Laboratories, Inc.
Analysis Results
Report Number: 15701067
Client I.D.: STERLING ENV. SERVICES, INC.
Sampled by: Client

APPROVAL
QC:
Lab I.D.: 10170
BUFFALO BRAKE BEAM
GSA-NW-1 1225H 06/05/01 G

ULI I.D.: 15701068 Matrix: Soil

PARAMETERS	RESULTS	DATE ANAL.	KEY	FILE#
Percent Solids	94%	06/07/01		WD5030
TOC	24,864mg/kg	06/06/01		SC0001
EPA 8260 Petroleum, NYSDEC STARS List				
Benzene	<530ug/kg dw	06/06/01	05	VM3462
Ethylbenzene	<530ug/kg dw	06/06/01	05	VM3462
Toluene	<530ug/kg dw	06/06/01	05	VM3462
o-Xylene	<530ug/kg dw	06/06/01	05	VM3462
m-Xylene & p-Xylene	<530ug/kg dw	06/06/01	05	VM3462
Isopropyl Benzene	11,000ug/kg dw	06/06/01		VM3462
n-Propylbenzene	850ug/kg dw	06/06/01		VM3462
p-Isopropyl Toluene	<530ug/kg dw	06/06/01	05	VM3462
1,2,4-Trimethylbenzene	3000ug/kg dw	06/06/01		VM3462
1,3,5-Trimethylbenzene	<530ug/kg dw	06/06/01	05	VM3462
n-Butyl Benzene	2600ug/kg dw	06/06/01		VM3462
sec-Butyl Benzene	1300ug/kg dw	06/06/01		VM3462
Naphthalene	620ug/kg dw	06/06/01		VM3462
MTBE	<530ug/kg dw	06/06/01	05	VM3462
t-Butylbenzene	<530ug/kg dw	06/06/01	05	VM3462

dw = Dry weight

DATE: 06/18/01

Upstate Laboratories, Inc.
Analysis Results
Report Number: 15701067
Client I.D.: STERLING ENV. SERVICES, INC.
Sampled by: Client

APPROVAL:
QC:
Lab I.D.: 10170
BUFFALO BRAKE BEAM
GSA-NW2 1230H 06/05/01 G

ULI I.D.: 15701069
Matrix: Soil

PARAMETERS	RESULTS	DATE ANAL.	KEY	FILE#
Percent Solids	93%	06/07/01		WD5030
TOC	14,054mg/kg	06/06/01		SC0001
EPA 8260 Petroleum, NYSDEC STARS List				
Benzene	<540ug/kg dw	06/06/01	05	VM3462
Ethylbenzene	<540ug/kg dw	06/06/01	05	VM3462
Toluene	<540ug/kg dw	06/06/01	05	VM3462
o-Xylene	<540ug/kg dw	06/06/01	05	VM3462
m-Xylene & p-Xylene	<540ug/kg dw	06/06/01	05	VM3462
Isopropyl Benzene	19,000ug/kg dw	06/06/01		VM3462
n-Propylbenzene	1500ug/kg dw	06/06/01		VM3462
p-Isopropyl Toluene	<540ug/kg dw	06/06/01	05	VM3462
1,2,4-Trimethylbenzene	3000ug/kg dw	06/06/01		VM3462
1,3,5-Trimethylbenzene	<540ug/kg dw	06/06/01	05	VM3462
n-Butyl Benzene	3200ug/kg dw	06/06/01		VM3462
sec-Butyl Benzene	1600ug/kg dw	06/06/01		VM3462
Naphthalene	<540ug/kg dw	06/06/01	05	VM3462
MTBE	<540ug/kg dw	06/06/01	05	VM3462
t-Butylbenzene	<540ug/kg dw	06/06/01	05	VM3462

dw = Dry weight

DATE: 06/18/01

Upstate Laboratories, Inc.
Analysis Results
Report Number: 15701067
Client I.D.: STERLING ENV. SERVICES, INC. BUFFALO BRAKE BEAM
Sampled by: Client GSA-EW 1235H 06/05/01 G

APPROVAL:
QC:
Lab I.D.: 10170

ULI I.D.: 15701070 Matrix: Soil

PARAMETERS	RESULTS	DATE ANAL.	KEY	FILE#
Percent Solids	95%	06/07/01		WD5030
TOC	15,603mg/kg	06/06/01		SC0001
EPA 8260 Petroleum, NYSDEC STARS List				
Benzene	<260ug/kg dw	06/06/01	05	VM3462
Ethylbenzene	<260ug/kg dw	06/06/01	05	VM3462
Toluene	<260ug/kg dw	06/06/01	05	VM3462
o-Xylene	<260ug/kg dw	06/06/01	05	VM3462
m-Xylene & p-Xylene	490ug/kg dw	06/06/01		VM3462
Isopropyl Benzene	6600ug/kg dw	06/06/01		VM3462
n-Propylbenzene	690ug/kg dw	06/06/01		VM3462
p-Isopropyl Toluene	<260ug/kg dw	06/06/01	05	VM3462
1,2,4-Trimethylbenzene	1400ug/kg dw	06/06/01		VM3462
1,3,5-Trimethylbenzene	<260ug/kg dw	06/06/01	05	VM3462
n-Butyl Benzene	910ug/kg dw	06/06/01		VM3462
sec-Butyl Benzene	610ug/kg dw	06/06/01		VM3462
Naphthalene	<260ug/kg dw	06/06/01	05	VM3462
MTBE	<260ug/kg dw	06/06/01	05	VM3462
t-Butylbenzene	<260ug/kg dw	06/06/01	05	VM3462

dw = Dry weight

DATE: 06/18/01

Upstate Laboratories, Inc.
Analysis Results
Report Number: 15701067
Client I.D.: STERLING ENV. SERVICES, INC. BUFFALO BRAKE BEAM
Sampled by: Client GSA-SW1 1240H 06/05/01 G

APPROVAL:
QC:
Lab I.D.: 10170

ULI I.D.: 15701071 Matrix: Soil

PARAMETERS	RESULTS	DATE ANAL.	KEY	FILE#
Percent Solids	94%	06/07/01		WD5030
TOC	16,864mg/kg	06/06/01		SC0001
EPA 8260 Petroleum, NYSDEC STARS List				
Benzene	<270ug/kg dw	06/06/01	05	VM3462
Ethylbenzene	<270ug/kg dw	06/06/01	05	VM3462
Toluene	<270ug/kg dw	06/06/01	05	VM3462
o-Xylene	<270ug/kg dw	06/06/01	05	VM3462
m-Xylene & p-Xylene	360ug/kg dw	06/06/01		VM3462
Isopropyl Benzene	3200ug/kg dw	06/06/01		VM3462
n-Propylbenzene	<270ug/kg dw	06/06/01	05	VM3462
p-Isopropyl Toluene	<270ug/kg dw	06/06/01	05	VM3462
1,2,4-Trimethylbenzene	880ug/kg dw	06/06/01		VM3462
1,3,5-Trimethylbenzene	<270ug/kg dw	06/06/01	05	VM3462
n-Butyl Benzene	580ug/kg dw	06/06/01		VM3462
sec-Butyl Benzene	<270ug/kg dw	06/06/01	05	VM3462
Naphthalene	390ug/kg dw	06/06/01		VM3462
MTBE	<270ug/kg dw	06/06/01	05	VM3462
t-Butylbenzene	<270ug/kg dw	06/06/01	05	VM3462

dw = Dry weight

DATE: 06/18/01

Upstate Laboratories, Inc.
Analysis Results
Report Number: 15701067
Client I.D.: STERLING ENV. SERVICES, INC.
Sampled by: Client

APPROVAL
QC:
Lab I.D.: 10170
BUFFALO BRAKE BEAM
GSA-SW2 1245H 06/05/01-G

ULI I.D.: 15701072 Matrix: Soil

PARAMETERS	RESULTS	DATE ANAL.	KEY	FILE#
Percent Solids	94%	06/07/01		WD5030
TOC	15,377mg/kg	06/06/01		SC0001
EPA 8260 Petroleum, NYSDEC STARS List				
Benzene	<270ug/kg dw	06/06/01	05	VM3462
Ethylbenzene	<270ug/kg dw	06/06/01	05	VM3462
Toluene	<270ug/kg dw	06/06/01	05	VM3462
o-Xylene	<270ug/kg dw	06/06/01	05	VM3462
m-Xylene & p-Xylene	300ug/kg dw	06/06/01		VM3462
Isopropyl Benzene	4100ug/kg dw	06/06/01		VM3462
n-Propylbenzene	400ug/kg dw	06/06/01		VM3462
p-Isopropyl Toluene	<270ug/kg dw	06/06/01	05	VM3462
1,2,4-Trimethylbenzene	1300ug/kg dw	06/06/01		VM3462
1,3,5-Trimethylbenzene	<270ug/kg dw	06/06/01	05	VM3462
n-Butyl Benzene	980ug/kg dw	06/06/01		VM3462
sec-Butyl Benzene	410ug/kg dw	06/06/01		VM3462
Naphthalene	580ug/kg dw	06/06/01		VM3462
MTBE	<270ug/kg dw	06/06/01	05	VM3462
t-Butylbenzene	<270ug/kg dw	06/06/01	05	VM3462

dw = Dry weight

DATE: 06/18/01

Upstate Laboratories, Inc.
Analysis Results
Report Number: 15701067
Client I.D.: STERLING ENV. SERVICES, INC.
Sampled by: Client

APPROVAL:
QC:
Lab I.D.: 10170
BUFFALO BRAKE BEAM
GSA-B 1255H 06/05/01 G

ULI I.D.: 15701073 Matrix: Soil

PARAMETERS	RESULTS	DATE ANAL.	KEY	FILE#
Percent Solids	93%	06/07/01		WD5030
TOC	10,488mg/kg	06/06/01		SC0001
EPA 8260 Petroleum, NYSDEC STARS List				
Benzene	<1300ug/kg dw	06/07/01	05	VM3465
Ethylbenzene	2200ug/kg dw	06/07/01		VM3465
Toluene	<1300ug/kg dw	06/07/01	05	VM3465
o-Xylene	<1300ug/kg dw	06/07/01	05	VM3465
m-Xylene & p-Xylene	9200ug/kg dw	06/07/01		VM3465
Isopropyl Benzene	42,000ug/kg dw	06/07/01		VM3465
n-Propylbenzene	3500ug/kg dw	06/07/01		VM3465
p-Isopropyl Toluene	<1300ug/kg dw	06/07/01	05	VM3465
1,2,4-Trimethylbenzene	11,000ug/kg dw	06/07/01		VM3465
1,3,5-Trimethylbenzene	<1300ug/kg dw	06/07/01	05	VM3465
n-Butyl Benzene	9500ug/kg dw	06/07/01		VM3465
sec-Butyl Benzene	4000ug/kg dw	06/07/01		VM3465
Naphthalene	5800ug/kg dw	06/07/01		VM3465
MTBE	<1300ug/kg dw	06/07/01	05	VM3465
t-Butylbenzene	<1300ug/kg dw	06/07/01	05	VM3465

dw = Dry weight

Upstate Laboratories, Inc.

6034 Corporate Drive • E. Syracuse, NY 13057-1017
(315) 437 0255 Fax 437 1209

Chain Of Custody Record

6 | 7 HM

Client	Client Project # / Project Name
Sterling Environmental	Buffalo Brake Beam
Client Contact: Wayne Cameron	**Phone #:** 716 824-2407
	Site Location (city/state): Lackawanna, NY

Sample Location	Date	Time	Matrix	Grab or Comp.	ULI Internal Use Only	No. of Containers	1) STARS List 1&2	2)	3) Soil - TCL	4)	5)	6)	7)	8)	9)	10)
GSA-WW	6/5/01	12:15	Soil	Grab	1570167	1	X	X	X							
GSA-NW1		12:25			68	1	X	X	X							
GSA-NW2		12:30			69	1	X	X	X							
GSA-EW		12:35			70	1	X	X	X							
GSA-SW1		12:40			71	1	X	X	X							
GSA-SW2		12:45			72	1	X	X	X							
GSA-B		12:55		Comp	73	1	X	X	X							

Special Turnaround Time 24 Hr (Lab Notification required)

Remarks: Rush 24 Hour

parameter and method	sample bottle: type	size	pres.
1)			
2) (% Solids) ICC			
3)			
4)			
5)			
6)			
7)			
8)			
9) 01628			
10)			

Note: The numbered columns above cross-reference with the numbered columns in the upper right-hand corner.

Sampled by: (Please Print) Wayne Cameron

Company: Sterling Environmental

ULI Internal Use Only

Delivery (check one):
☐ ULI Sampled
☐ Pickup ☒ Dropoff
~~☒ GC~~ CDL

Relinquished by: (Signature)	Date	Time	Received by: (Signature)
[signature]	6/5/01	3:40	Dawn Ellis
Dawn Ellis	6/5/01	1700	
	6-6-01	0852	[signature]

Syracuse Rochester (Buffalo) Albany Binghamton Fair Lawn (NJ)

Upstate Laboratories inc.

Shipping: 6034 Corporate Dr. • E. Syracuse, NY 13057-1017 • (315) 437-0255 • Fax (315) 437-1209
Mailing: Box 289 • Syracuse, NY 13206
Albany (518) 459-3134
Binghamton (607) 724-0478
Buffalo (716) 649-2533
Rochester (716) 436-9070
New Jersey (201) 703-1324

June 18, 2001

Mr. Wayne K. Cameron
Project Manager
Sterling Env. Services, Inc.
1372 Clinton St.
Buffalo, NY 14206

Re: Analysis Report #16201061 - Buffalo Brake Beam

Dear Mr. Cameron:

Please find enclosed the results for your samples which were received on June 11, 2001.

We have included the Chain of Custody Record as part of your report. You may need to reference this form for a more detailed explanation of your sample. Samples will be disposed of approximately one month from final report date.

Should you have any questions, please feel free to give us a call.

Thank you for your patronage.

Sincerely,

UPSTATE LABORATORIES, INC.

Anthony J. Scala
Director

AJS/jd

Enclosures: report, invoice

cc/encs: N. Scala, ULI
file

Note: Faxed results were given to your office on 6/12/01. AJS

Disclaimer: The test results and procedures utilized, and laboratory interpretations of data obtained by ULI as contained in this report are believed by ULI to be accurate and reliable for sample(s) tested. In accepting this report, the customer agrees that the full extent of any and all liability for actual and consequential damages of ULI for the services performed shall be equal to the fee charged to the customer for the services as liquidated damages.

01629

DATE: 06/18/01

Upstate Laboratories, Inc.
Analysis Results
Report Number: 16201061
Client I.D.: STERLING ENV. SERVICES, INC. BUFFALO BRAKE BEAM
Sampled by: Client GSA-2NW2 1450H 06/08/01 G

APPROVAL:
QC:
Lab I.D.: 10170

ULI I.D.: 16201061 Matrix: Soil

PARAMETERS	RESULTS	DATE ANAL.	KEY	FILE#
TOC	35,377mg/kg	06/11/01		SC0001
EPA 8260 Petroleum, NYSDEC STARS List				
Benzene	<3ug/kg	06/11/01		VM3472
Ethylbenzene	<3ug/kg	06/11/01		VM3472
Toluene	<3ug/kg	06/11/01		VM3472
o-Xylene	17ug/kg	06/11/01		VM3472
m-Xylene & p-Xylene	<3ug/kg	06/11/01		VM3472
Isopropyl Benzene	40ug/kg	06/11/01		VM3472
n-Propylbenzene	<3ug/kg	06/11/01		VM3472
p-Isopropyl Toluene	<3ug/kg	06/11/01		VM3472
1,2,4-Trimethylbenzene	62ug/kg	06/11/01		VM3472
1,3,5-Trimethylbenzene	<3ug/kg	06/11/01		VM3472
n-Butyl Benzene	<3ug/kg	06/11/01		VM3472
sec-Butyl Benzene	<3ug/kg	06/11/01		VM3472
Naphthalene	14ug/kg	06/11/01		VM3472
MTBE	<3ug/kg	06/11/01		VM3472
t-Butylbenzene	<3ug/kg	06/11/01		VM3472

dw = Dry weight

DATE: 06/18/01

Upstate Laboratories, Inc.
Analysis Results
Report Number: 16201061
Client I.D.: STERLING ENV. SERVICES, INC.
Sampled by: Client

APPROVAL: _____
QC: _____
Lab I.D.: 10170
BUFFALO BRAKE BEAM
GSA-2WW 1600H 06/08/01 G

ULI I.D.: 16201062 Matrix: Soil

PARAMETERS	RESULTS	DATE ANAL.	KEY	FILE#
TOC	12,381mg/kg	06/11/01		SC0001
EPA 8260 Petroleum, NYSDEC STARS List				
Benzene	<500ug/kg	06/11/01	05	VM3472
Ethylbenzene	<500ug/kg	06/11/01	05	VM3472
Toluene	<500ug/kg	06/11/01	05	VM3472
o-Xylene	<500ug/kg	06/11/01	05	VM3472
m-Xylene & p-Xylene	<500ug/kg	06/11/01	05	VM3472
Isopropyl Benzene	8400ug/kg	06/11/01		VM3472
n-Propylbenzene	630ug/kg	06/11/01		VM3472
p-Isopropyl Toluene	<500ug/kg	06/11/01	05	VM3472
1,2,4-Trimethylbenzene	2600ug/kg	06/11/01		VM3472
1,3,5-Trimethylbenzene	<500ug/kg	06/11/01	05	VM3472
n-Butyl Benzene	<500ug/kg	06/11/01	05	VM3472
sec-Butyl Benzene	880ug/kg	06/11/01		VM3472
Naphthalene	1800ug/kg	06/11/01		VM3472
MTBE	<500ug/kg	06/11/01	05	VM3472
t-Butylbenzene	<500ug/kg	06/11/01	05	VM3472

dw = Dry weight

DATE: 06/18/01

Upstate Laboratories, Inc.
Analysis Results
Report Number: 16201061
Client I.D.: STERLING ENV. SERVICES, INC.
Sampled by: Client

APPROVAL:
QC:
Lab I.D.: 10170
BUFFALO BRAKE BEAM
GSA-2B1-5 1550H 06/08/01 G

ULI I.D.: 16201063 Matrix: Soil

PARAMETERS	RESULTS	DATE ANAL.	KEY	FILE#
TOC	14,666mg/kg	06/11/01		SC0001
EPA 8260 Petroleum, NYSDEC STARS List				
Benzene	<3ug/kg	06/11/01		VM3472
Ethylbenzene	<3ug/kg	06/11/01		VM3472
Toluene	<3ug/kg	06/11/01		VM3472
o-Xylene	<3ug/kg	06/11/01		VM3472
m-Xylene & p-Xylene	<3ug/kg	06/11/01		VM3472
Isopropyl Benzene	83ug/kg	06/11/01		VM3472
n-Propylbenzene	<3ug/kg	06/11/01		VM3472
p-Isopropyl Toluene	<3ug/kg	06/11/01		VM3472
1,2,4-Trimethylbenzene	49ug/kg	06/11/01		VM3472
1,3,5-Trimethylbenzene	<3ug/kg	06/11/01		VM3472
n-Butyl Benzene	<3ug/kg	06/11/01		VM3472
sec-Butyl Benzene	<3ug/kg	06/11/01		VM3472
Naphthalene	17ug/kg	06/11/01		VM3472
MTBE	<3ug/kg	06/11/01		VM3472
t-Butylbenzene	<3ug/kg	06/11/01		VM3472

dw = Dry weight

Upstate Laboratories, Inc.
6034 Corporate Drive • E. Syracuse, NY 13057-1017
(315) 437 0255 Fax 437 1209

Chain Of Custody Record

6/12 Hrs 24 Hr Rush As Per Tom S

Client: STERLING ENVIRONMENTAL
Client Project # / Project Name: Buffalo Brake Beam
Client Contact: Wayne R. Cameron
Phone #: (716) 834 2407
Site Location (city/state): LACKAWANNA NY

Sample Location	Date	Time	Matrix	Grab or Comp.	ULI Internal Use Only	No. of Containers	1) 8260 STARS	2) TCC	3)	4)	5)	6)	7)	8)	9)	10)	Special Turnaround Time ____ (Lab Notification required) Remarks
GSA-2NW2	6/8/01	14:50	Soil	GRAB	162010 61	1	X	X									
GSA-2WW	6/8/01	16:00	Soil	GRAB	62	1	X	X									
GSA-2B1-5	6/8/01	15:50	Soil	COMP	63	1	X	X									

parameter and method	sample bottle: type	size	pres.
1)			
2)			
3)			
4)			
5)			
6)			
7)			
8)			
9) 01633			
10)			

Note: The numbered columns above cross-reference with the numbered columns in the upper right-hand corner.

Sampled by: (Please Print) Wayne Cameron
Company: Sterling Environmental

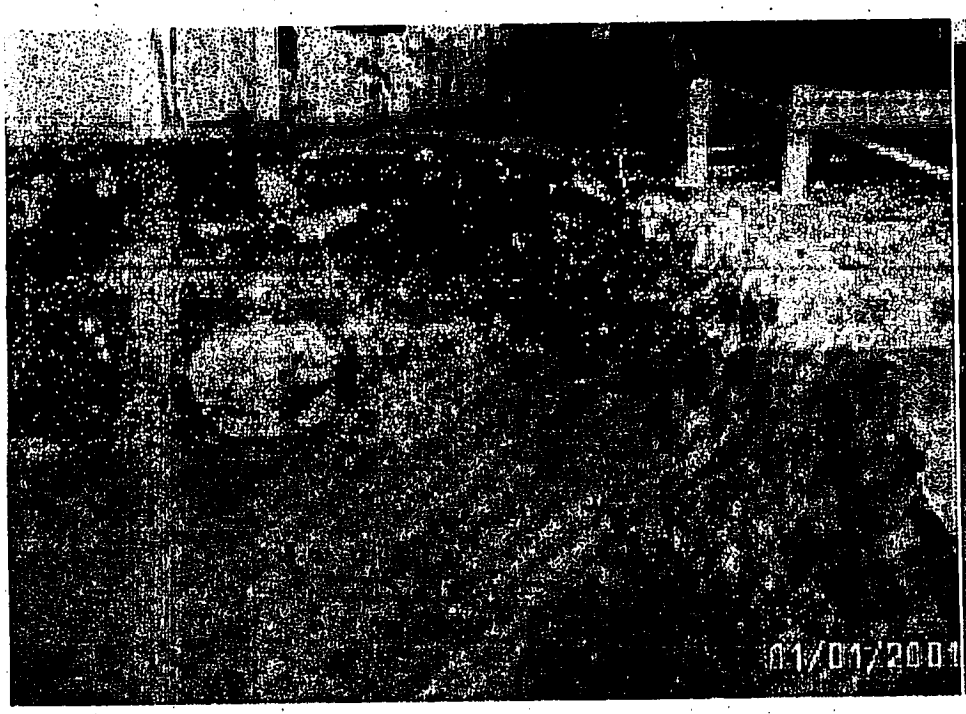
ULI Internal Use Only
Delivery (check one):
☐ ULI Sampled
☐ Pickup ☐ Dropoff
☐ CC ______

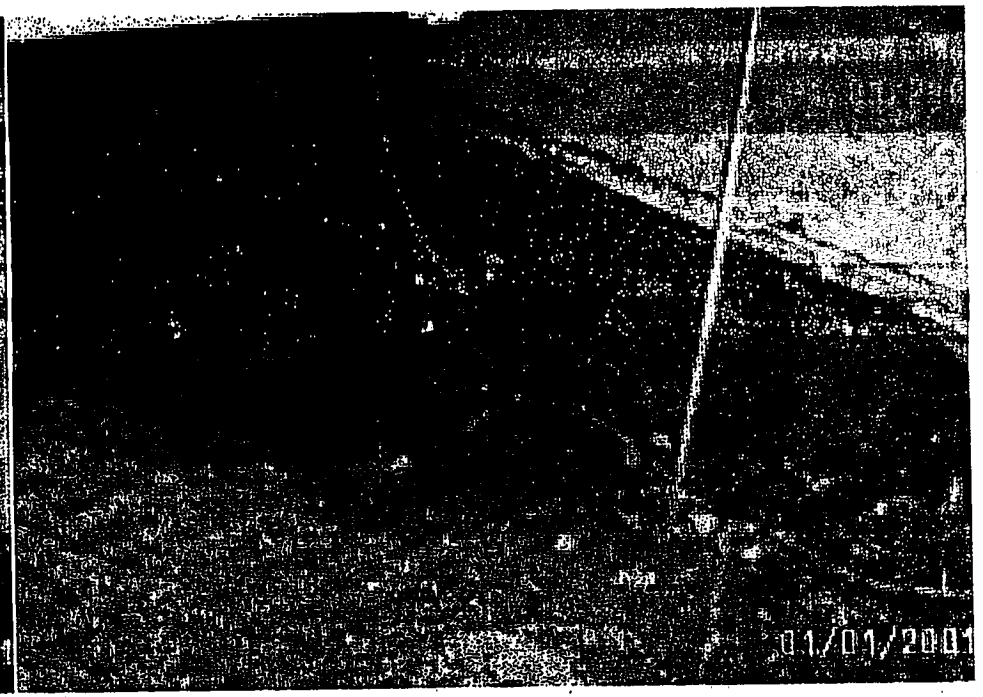
Relinquished by: (Signature)	Date	Time	Received by: (Signature)
[signature]			
Relinquished by: (Signature)	Date	Time	Received by: (Signature)
Relinquished by: (Signature)	Date	Time	Received by: (Signature)
Relinquished by: (Signature)	Date	Time	Rec'd for Lab by: (Signature)
			[signature]

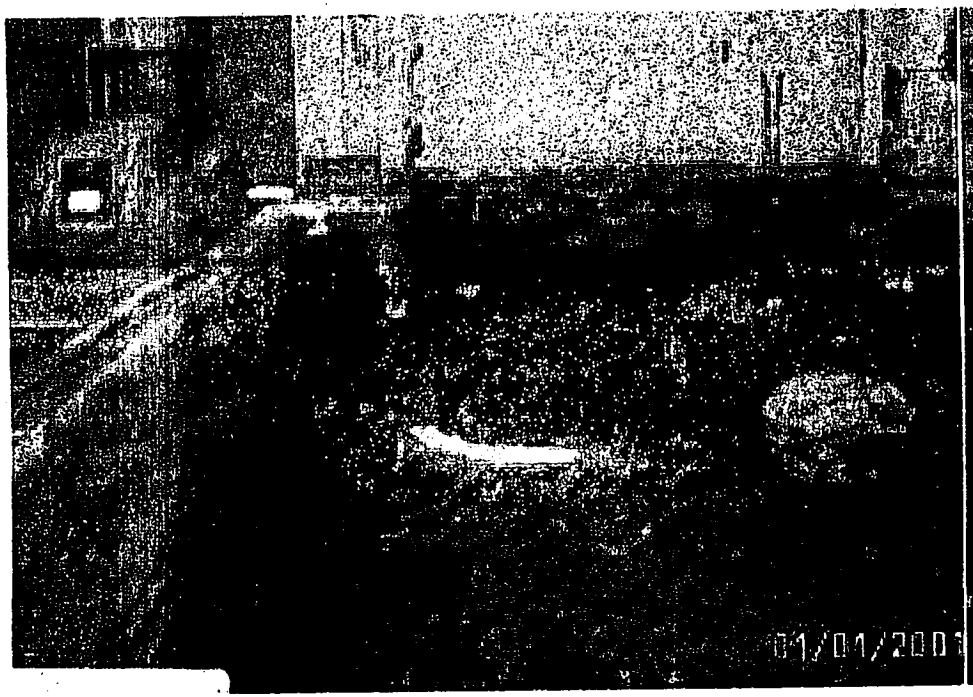
R Camp 6/11/01 1800

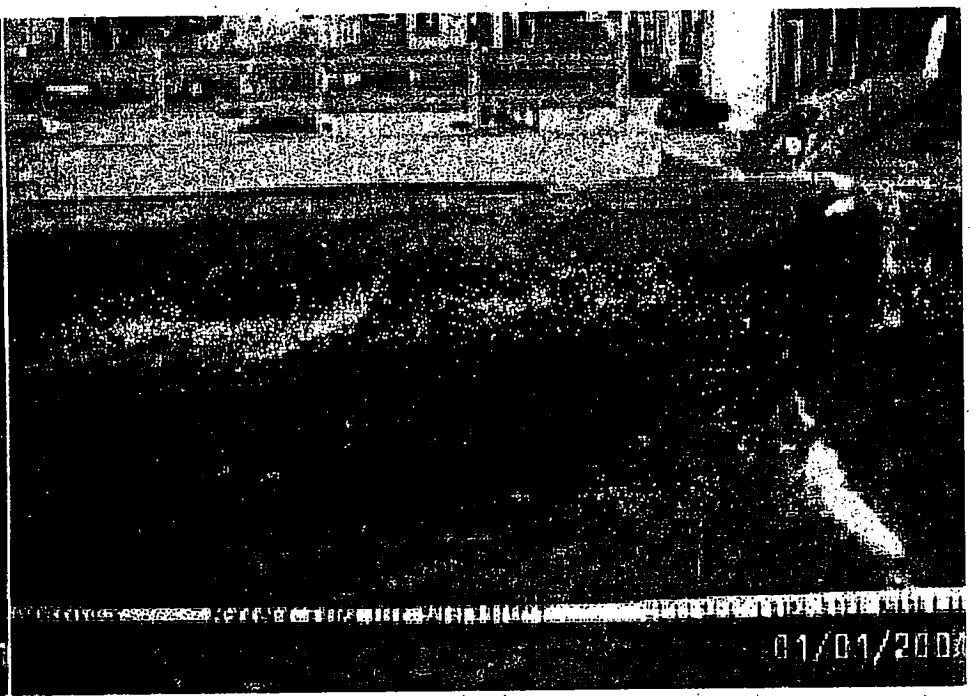
Appendix Two

Photographs of Excavation









01635

Appendix Three

Dump Truck Activity Report

Dump Truck Activity

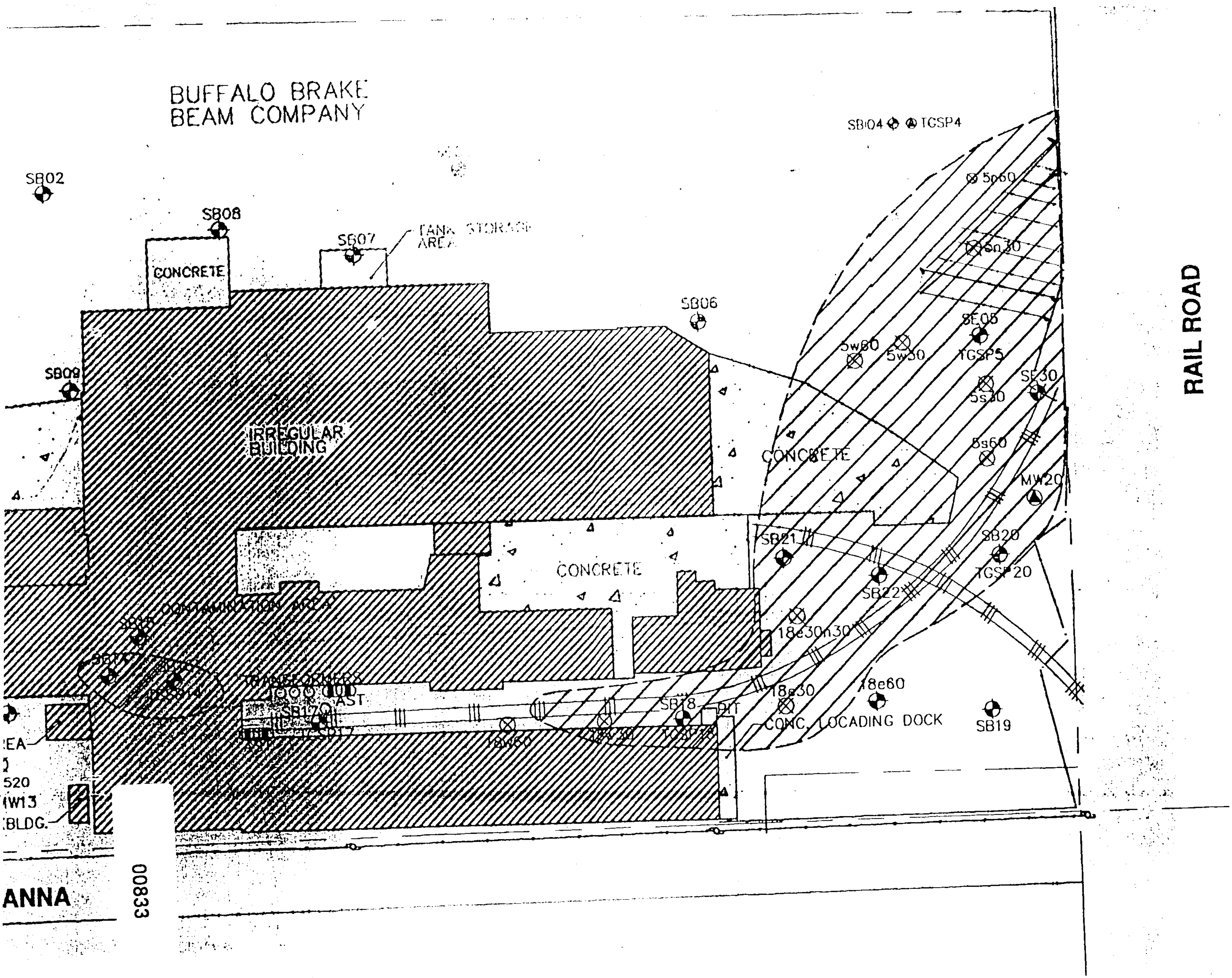
Date	Truck #	Time In	Time Out	Weight in Tons
6/1	L 42	3:30	3:45	26.75
6/1	L 45	3:45	4:00	21.18
6/1	A 48	4:00	4:15	27.15

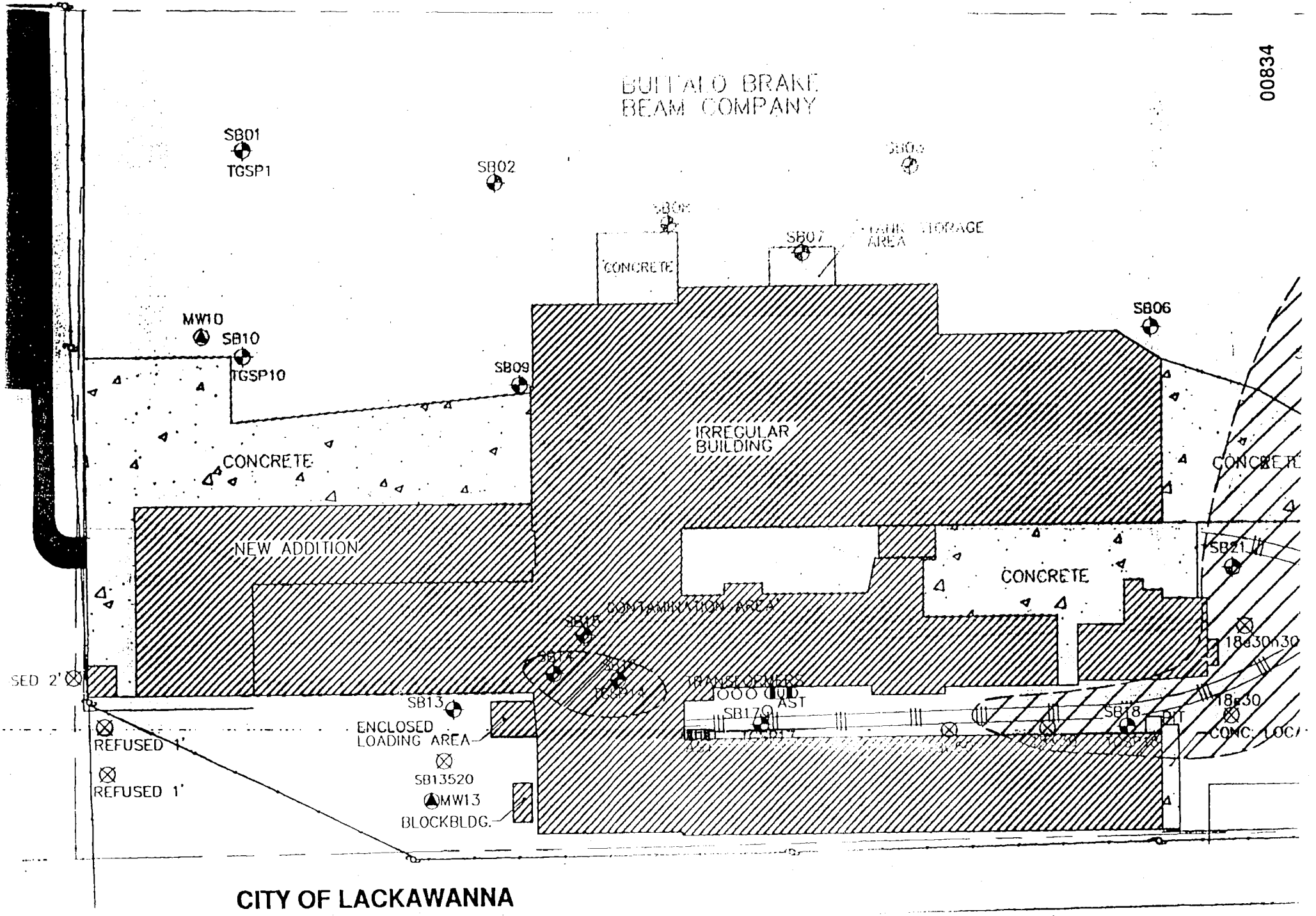
Date	Truck #	Time In	Time Out	Weight in Tons
6/4	A 48	6:10	6:30	29.26
6/4	A 46	6:30	6:55	30.02
6/4	L 47	6:55	7:40	36.63
6/4	A 17	7:40	7:50	25.41
6/4	A 43	9:00	9:20	34.80
6/4	L 47	10:00	10:15	33.83
6/4	A 17	10:15	10:40	25.95
6/4	A 43	11:15	11:30	36.02
6/4	L 47	12:20	12:40	33.57
6/4	A 17	12:50	1:10	24.70
6/4	L 47	2:30	2:50	36.49

Date	Truck #	Time In	Time Out	Weight in Tons
6/5	L 47	6:40	7:15	34.86
6/5	A 25	8:05	8:25	28.49
6/5	A 17	9:15	9:35	26.79
6/5	A 48	10:00	10:25	25.89
6/5	A 25	11:20	11:50	24.97

Date	Truck #	Time In	Time Out	Weight in Tons
6/8	A 32	11:15	11:35	23.36
6/8	L 47	1:00	1:10	37.11
6/8	A 32	1:25	1:40	23.67
6/8	A 46	3:10	3:20	26.02
6/8	L 47	3:30	3:45	31.60

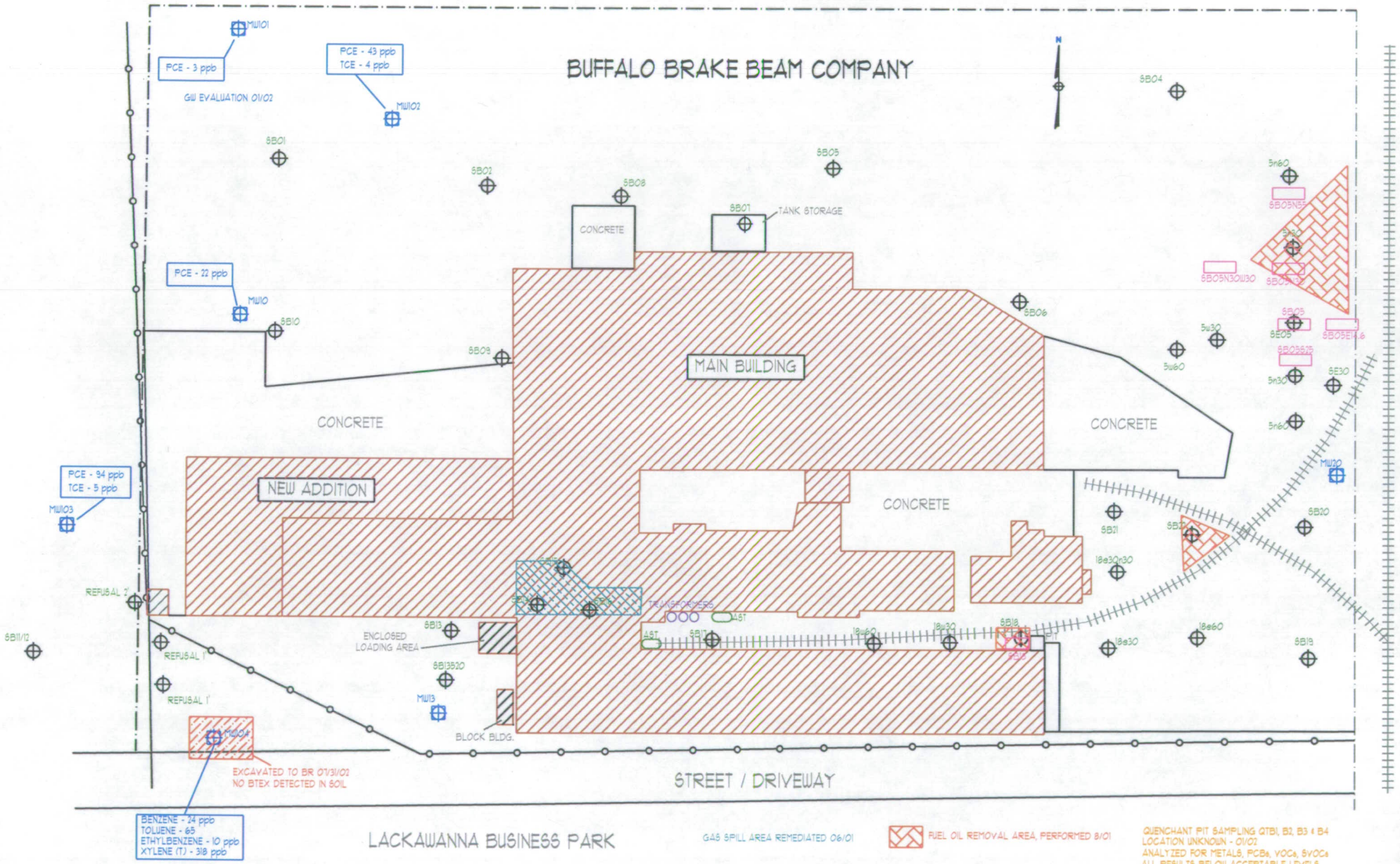
Hydraulic Oil contaminated Soil from the track area - chromium & lead samples 08/94


BUFFALO BRAKE
BEAM COMPANY
SB02
SB08
SB07
TANK STORAGE
AREA
CONCRETE
TGSP4
5n60
5n30
SB06
SB09
IRREGULAR
BUILDING
5w60
5w30
SE05
TGSP5
SE30
5s30
5s60
CONCRETE
MW20
RAIL ROAD
SB21
SB20
TGSP20
CONCRETE
SB22
CONTAMINATION AREA
18e30n30
18e60
18e30
TRANSFORMERS
AST
SB18
PIT
CONC. LOADING DOCK
SB19
MW13
BLDG.
ANNA
00833



CITY OF LACKAWANNA

LEHIGH INDUSTRIAL PARK PROPERTY



REMEDIAL ACTIVITIES REPORT

Fuel Oil Spill Area
NYDEC spill # 0009396
Buffalo Brake Beam Site
400 Ingham Ave
Lackawanna, NY

Prepared: September 2001
By: Sterling Environmental Services, Inc.
1372 Clinton Street
Buffalo, NY 14206

Table of Contents

1. Introduction

The following Remedial Activities Report presents a description of the activities performed to delineate and remediate NYSDEC spill # 0009396 (also referred to as the Fuel Oil Spill Area) Buffalo Brake Beam Site located at 400 Ingham Avenue, Lackawanna NY.

The New York State Department of Environmental Conservation (NYSDEC) issued the site spill # 0009396 after contaminated soils were discovered by Earth Tech Inc.(Earth Tech) during an environmental assessment of the property. Earth Tech's report, issued in December 2000, was commissioned by Miner Enterprises Inc.(Miner) while pending the purchase of the property from the prior owner. As a condition of sale, the prior owner agreed to address a number of environmental issues pertaining to the property including a possible fuel oil spill in the "yard area" east of the manufacturing facilities.

Sterling Environmental Services Inc.(Sterling) was retained to commence investigation and remediation of contaminated soils. On the basis of the Earth Tech, Baseline Environmental Site Assessment and follow-up Test pit investigation by Sterling, three distinct areas of contamination were identified within this spill area. These three areas are identified by their initial sample point identification numbers; SB05, SB22 and SB18. The following report covers remedial activities for these three areas.

A scope of pertinent information relative to remedial activities, follow-up sampling, analytical results, and conclusions is contained herein.

2. Remedial Activities

2.1. Safety

All remedial activities took place over a period of 3 working days beginning Monday August 20th, 2001 and continuing through Wednesday August 22nd, 2001. Remedial activities were set up and performed in accordance with all applicable laws, regulations and standards.

Sterling employees donned level D protection and minimized exposure to contaminants by following a site-specific health and safety program that included air monitoring. This was to ensure not only the respiratory safety of those involved in remedial activities, but also those employees of the plant who could possibly be exposed to contaminants. Monitoring, however, was deemed unnecessary after the second day due to a maximum exposure level of approximately 3ppm in the breathing zone.

Safe boundary lines were set up with yellow caution tape to keep unauthorized personnel out of the remedial area while work was in progress. This also ensured a safe observation area and adequate space for excavating equipment to operate without danger to human health.

2.2 Mobilization And Preparation

All equipment necessary for remedial activities was mobilized on the morning of Monday August 20th, 2001. The excavator used for remedial activities was provided by Kelleran Services Inc. LCA Development Inc. provided dump trucks and drivers for transporting excavated materials. Materials were direct loaded onto the trucks and transported to CID – Division of Waste Management in Chaffee, NY for proper disposal.

Sterling provided hand tools including; shovels, pick axes and brooms, along with sampling equipment and the PID (photo ionization detector) for air monitoring and soil screening. Sterling also provided pumping equipment and accessories in case any water was encountered during excavation. A portable tank was spotted on-site for temporary storage of any water encountered during excavation activities.

Excessive vegetation and some large obstructions were removed from the area north of the manufacturing facilities to create an access road for dump trucks and machinery. Some large obstructions were also removed from the excavation area prior to remedial activities.

2.3 Excavation of Soils

Excavation of contaminated soils began promptly at 6:30am on Monday August 20th in the yard area SB05. Using SB05-N30 as a starting point, excavation proceeded due east to the fence line at an initial depth of approximately six feet. A visual layer of black carbonaceous grit appeared along with a strong odor approximately two to three feet below the surface. The excavation depth was increased to ten feet based upon field screening of the bottom of the excavation. The excavation fanned out to the north and south, following visual and olfactory indicators, in the direction of the eastern fence line. Pockets of perched water were encountered at various depths and locations within the excavation. A visible sheen was noted on some of these water pockets. As the excavation continued in a north and south direction, the black carbonaceous grit layer and correlating odors gradually subsided. Once the excavation end points were established in the north, east and southerly directions, additional excavation was

performed in the westerly direction to finish the removal. The pattern of the spread of contamination in the soil created a triangular shaped excavation area 67'x82'x62' wide by 10' deep in dimension. Excavation of SB05 lasted approximately two days and resulted in the removal and disposal of 1227 tons of soil.

Excavation of contaminated soils in area SB22 began Tuesday August 21st at approximately 2:00pm. Although a significant discoloration of soil was not noticed upon excavation, a very strong odor was present. Because of its location interior to a railroad track intersection switch, the excavation started in the corner of the switch and proceeded westward along the edges of each set of tracks at a depth of about seven feet. The final excavation, finished the morning of Wednesday August 22nd, was a triangular shaped area 27'x35'x34' wide and 7' deep in dimension. A total of 220 tons of soil were removed and disposed of from the SB22 area.

The excavation of area SB18 was difficult. The area was located along a rail spur between two buildings with low hanging overhead power lines. Although strong petroleum odors were observed in the test pit in this location, significant odors were not observed during the removal operation. An old clay drain line was broken during excavation. The water contained in the pipe flooded the excavation. Approximately 125 gallons of water were pumped from the excavation to a storage tank. No sheen was observed on the water. The water was sampled and submitted to the lab for analysis along with the confirmation samples from the excavation. After dewatering the excavation was continued. The excavation was concluded after one truckload due to the lack of visual or olfactory indications of contamination. The resulting excavation was rectangular and measured 14' x 6' x 4' deep. 25 tons of soil were removed and disposed of from SB18.

3. Sampling and Analysis

All confirmation samples were taken the afternoon of Wednesday August 22nd. Multiple grab samples were taken from the three sidewalls of SB05 and composited in the field for analysis. The samples were taken approximately three to four feet from the bottom approximately ten feet from one another. Five points were sampled on the east wall, below the fence line. Two of these samples were from the black seam that ran the length of the wall at varying elevations. These five samples were combined to form composite, FSA-05-EW. Two composites were formed from the samples from both the northwest and southwest walls respectively. For the southwest wall the three eastern half samples were composited to form FSA-05-SWE and the two western half samples were composited to form FSA-05-SWW. For the northwest wall the four southern half samples were composited to form FSA-05-NWS and the three northern half samples were composited to form FSA-05-NWN. A five point

bottom composite sample, FSA-05-B, was also taken from the excavation. (see appendix for map and further details).

Grab samples were taken from the three sidewalls of SB22 and composited in the field for analysis. The samples were taken approximately two to three feet from the bottom approximately ten feet from one another. Two points were sampled on the north wall. These two samples were combined to form composite, FSA-22-N. For the east wall two samples were composited to form FSA-22-E. For the southwest wall three samples were composited to form FSA-22-SW. A five point bottom composite sample, FSA-22-B, was also taken from the excavation. (see appendix for map and further details).

SB18, because of its' relatively small size, was sampled differently. One sample was collected from the center point of each sidewall and composited to form FSA-18-SW for analysis. A two point bottom composite sample, FSA-18-B, was also collected for analysis.

All samples were submitted to Upstate Laboratories, Inc. under standard chain of custody procedures, for analysis for the NYSDEC STARS analyte list of VOC's by EPA method 8260 and SVOC's by EPA method 8270.

Analytical results for all analytes for all samples for all three excavations are below the TAGM 4046 Recommended Soil Cleanup Objectives or below the detection limit. The following pages contain summary tables of the analytical results for each sample and the TAGM 4046 Recommended Soil Cleanup Objectives. All concentrations are expressed in ppm for comparison purposes. Copies of the laboratory report and chain of custody are attached along with diagrams showing the sample locations.

Analytical Results
Summary Tables in PPM (mg/Kg)
Sample # FSA-05-B
EPA Method 8260

Constituent	Sample Results	TAGM4046 Rec. Soil Cleanup Objective
Benzene	<0.280	0.06
Ethylbenzene	<0.280	5.5
Toluene	<0.280	1.5
Total Xylene	<0.560	1.2
Isopropyl Benzene	<0.280	5.0
n-Propylbenzene	<0.280	14.0
p-Isopropyl Toluene	<0.280	11.0
1,2,4-TrimethylBenzene	<0.280	13.0
1,3,5-TrimethylBenzene	<0.280	33.0
n-Butyl Benzene	<0.280	18.0
sec-Butyl Benzene	<0.280	25.0
Naphthalene	<0.280	13.0
MTBE	<0.280	0.12
t-Butylbenzene	<0.280	10.0

EPA Method 8270

Constituent	Sample Results	TAGM4046 Rec. Soil Cleanup Objective
Anthracene	<0.370	50.0
Fluorene	<0.370	50.0
Phenanthrene	0.540	50.0
Pyrene	<0.370	50.0
Acenaphthene	<0.370	50.0
Benzo (a) anthracene	<0.370	0.224 or MDL
Fluoranthene	<0.370	50.0
Benzo (b) fluoranthene	<0.370	1.10
Benzo (k) fluoranthene	<0.370	1.10
Chrysene	<0.370	0.40
Benzo (a) pyrene	<0.370	0.061 or MDL
Benzo (ghi) perylene	<0.370	50.0
Indeno (1,2,3-cd) pyrene	<0.370	3.20
Dibenzo (a,h) anthracene	<0.370	0.014

Analytical Results
Summary Tables in PPM (mg/Kg)
Sample # FSA-05-EW
EPA Method 8260

Constituent	Sample Results	TAGM4046 Rec. Soil Cleanup Objective
Benzene	<0.320	0.06
Ethylbenzene	<0.320	5.5
Toluene	<0.320	1.5
Total Xylene	<0.640	1.2
Isopropyl Benzene	<0.320	5.0
n-Propylbenzene	<0.320	14.0
p-Isopropyl Toluene	<0.320	11.0
1,2,4-TrimethylBenzene	<0.320	13.0
1,3,5-TrimethylBenzene	<0.320	33.0
n-Butyl Benzene	<0.320	18.0
sec-Butyl Benzene	<0.320	25.0
Naphthalene	<0.320	13.0
MTBE	<0.320	0.12
t-Butylbenzene	<0.320	10.0

EPA Method 8270

Constituent	Sample Results	TAGM4046 Rec. Soil Cleanup Objective
Anthracene	<0.430	50.0
Fluorene	0.490	50.0
Phenanthrene	0.870	50.0
Pyrene	<0.430	50.0
Acenaphthene	<0.430	50.0
Benzo (a) anthracene	<0.430	0.224 or MDL
Fluoranthene	<0.430	50.0
Benzo (b) fluoranthene	<0.430	1.10
Benzo (k) fluoranthene	<0.430	1.10
Chrysene	<0.430	0.40
Benzo (a) pyrene	<0.430	0.061 or MDL
Benzo (ghi) perylene	<0.430	50.0
Indeno (1,2,3-cd) pyrene	<0.430	3.20
Dibenzo (a,h) anthracene	<0.430	0.014

Analytical Results

Summary Tables in PPM (mg/Kg)
Sample # FSA-05-SWE
EPA Method 8260

Constituent	Sample Results	TAGM4046 Rec. Soil Cleanup Objective
Benzene	<0.300	0.06
Ethylbenzene	<0.300	5.5
Toluene	<0.300	1.5
Total Xylene	<0.600	1.2
Isopropyl Benzene	<0.300	5.0
n-Propylbenzene	<0.300	14.0
p-Isopropyl Toluene	<0.300	11.0
1,2,4-TrimethylBenzene	<0.300	13.0
1,3,5-TrimethylBenzene	<0.300	33.0
n-Butyl Benzene	0.690	18.0
sec-Butyl Benzene	<0.300	25.0
Naphthalene	<0.300	13.0
MTBE	<0.300	0.12
t-Butylbenzene	<0.300	10.0

EPA Method 8270

Constituent	Sample Results	TAGM4046 Rec. Soil Cleanup Objective
Anthracene	0.450	50.0
Fluorene	0.810	50.0
Phenanthrene	1.900	50.0
Pyrene	<0.400	50.0
Acenaphthene	0.580	50.0
Benzo (a) anthracene	<0.400	0.224 or MDL
Fluoranthene	<0.400	50.0
Benzo (b) fluoranthene	<0.400	1.10
Benzo (k) fluoranthene	<0.400	1.10
Chrysene	<0.400	0.40
Benzo (a) pyrene	<0.400	0.061 or MDL
Benzo (ghi) perylene	<0.400	50.0
Indeno (1,2,3-cd) pyrene	<0.400	3.20
Dibenzo (a,h) anthracene	<0.400	0.014

Analytical Results
Summary Tables in PPM (mg/Kg)
Sample # FSA-05-SWW
EPA Method 8260

Constituent	Sample Results	TAGM4046 Rec. Soil Cleanup Objective
Benzene	<0.590	0.06
Ethylbenzene	<0.590	5.5
Toluene	<0.590	1.5
Total Xylene	<1.180	1.2
Isopropyl Benzene	<0.590	5.0
n-Propylbenzene	<0.590	14.0
p-Isopropyl Toluene	<0.590	11.0
1,2,4-TrimethylBenzene	<0.590	13.0
1,3,5-TrimethylBenzene	<0.590	33.0
n-Butyl Benzene	<0.590	18.0
sec-Butyl Benzene	<0.590	25.0
Naphthalene	<0.590	13.0
MTBE	<0.590	0.12
t-Butylbenzene	<0.590	10.0

EPA Method 8270

Constituent	Sample Results	TAGM4046 Rec. Soil Cleanup Objective
Anthracene	0.680	50.0
Fluorene	1.200	50.0
Phenanthrene	2.700	50.0
Pyrene	0.400	50.0
Acenaphthene	0.630	50.0
Benzo (a) anthracene	<0.390	0.224 or MDL
Fluoranthene	<0.390	50.0
Benzo (b) fluoranthene	<0.390	1.10
Benzo (k) fluoranthene	<0.390	1.10
Chrysene	<0.390	0.40
Benzo (a) pyrene	<0.390	0.061 or MDL
Benzo (ghi) perylene	<0.390	50.0
Indeno (1,2,3-cd) pyrene	<0.390	3.20
Dibenzo (a,h) anthracene	<0.390	0.014

Analytical Results
Summary Tables in PPM (mg/Kg)
Sample # FSA-05-NWS
EPA Method 8260

Constituent	Sample Results	TAGM4046 Rec. Soil Cleanup Objective
Benzene	<0.590	0.06
Ethylbenzene	<0.590	5.5
Toluene	<0.590	1.5
Total Xylene	<1.180	1.2
Isopropyl Benzene	<0.590	5.0
n-Propylbenzene	<0.590	14.0
p-Isopropyl Toluene	<0.590	11.0
1,2,4-TrimethylBenzene	<0.590	13.0
1,3,5-TrimethylBenzene	<0.590	33.0
n-Butyl Benzene	<0.590	18.0
sec-Butyl Benzene	<0.590	25.0
Naphthalene	<0.590	13.0
MTBE	<0.590	0.12
t-Butylbenzene	<0.590	10.0

EPA Method 8270

Constituent	Sample Results	TAGM4046 Rec. Soil Cleanup Objective
Anthracene	<0.390	50.0
Fluorene	0.390	50.0
Phenanthrene	0.930	50.0
Pyrene	<0.390	50.0
Acenaphthene	<0.390	50.0
Benzo (a) anthracene	<0.390	0.224 or MDL
Fluoranthene	<0.390	50.0
Benzo (b) fluoranthene	<0.390	1.10
Benzo (k) fluoranthene	<0.390	1.10
Chrysene	<0.390	0.40
Benzo (a) pyrene	<0.390	0.061 or MDL
Benzo (ghi) perylene	<0.390	50.0
Indeno (1,2,3-cd) pyrene	<0.390	3.20
Dibenzo (a,h) anthracene	<0.390	0.014

Analytical Results
Summary Tables in PPM (mg/Kg)
Sample # FSA-05-NWN
EPA Method 8260

Constituent	Sample Results	TAGM4046 Rec. Soil Cleanup Objective
Benzene	<0.280	0.06
Ethylbenzene	<0.280	5.5
Toluene	<0.280	1.5
Total Xylene	<0.560	1.2
Isopropyl Benzene	<0.280	5.0
n-Propylbenzene	<0.280	14.0
p-Isopropyl Toluene	<0.280	11.0
1,2,4-TrimethylBenzene	<0.280	13.0
1,3,5-TrimethylBenzene	<0.280	33.0
n-Butyl Benzene	<0.280	18.0
sec-Butyl Benzene	<0.280	25.0
Naphthalene	<0.280	13.0
MTBE	<0.280	0.12
t-Butylbenzene	<0.280	10.0

EPA Method 8270

Constituent	Sample Results	TAGM4046 Rec. Soil Cleanup Objective
Anthracene	<0.380	50.0
Fluorene	<0.380	50.0
Phenanthrene	0.590	50.0
Pyrene	<0.380	50.0
Acenaphthene	<0.380	50.0
Benzo (a) anthracene	<0.380	0.224 or MDL
Fluoranthene	<0.380	50.0
Benzo (b) fluoranthene	<0.380	1.10
Benzo (k) fluoranthene	<0.380	1.10
Chrysene	<0.380	0.40
Benzo (a) pyrene	<0.380	0.061 or MDL
Benzo (ghi) perylene	<0.380	50.0
Indeno (1,2,3-cd) pyrene	<0.380	3.20
Dibenzo (a,h) anthracene	<0.380	0.014

Analytical Results
Summary Tables in PPM (mg/Kg)
Sample # FSA-22-B
EPA Method 8260

Constituent	Sample Results	TAGM4046 Rec. Soil Cleanup Objective
Benzene	<0.630	0.06
Ethylbenzene	<0.630	5.5
Toluene	<0.630	1.5
Total Xylene	<1.260	1.2
Isopropyl Benzene	<0.630	5.0
n-Propylbenzene	<0.630	14.0
p-Isopropyl Toluene	<0.630	11.0
1,2,4-TrimethylBenzene	<0.630	13.0
1,3,5-TrimethylBenzene	<0.630	33.0
n-Butyl Benzene	<0.630	18.0
sec-Butyl Benzene	<0.630	25.0
Naphthalene	<0.630	13.0
MTBE	<0.630	0.12
t-Butylbenzene	<0.630	10.0

EPA Method 8270

Constituent	Sample Results	TAGM4046 Rec. Soil Cleanup Objective
Anthracene	<0.420	50.0
Fluorene	<0.420	50.0
Phenanthrene	<0.420	50.0
Pyrene	<0.420	50.0
Acenaphthene	<0.420	50.0
Benzo (a) anthracene	<0.420	0.224 or MDL
Fluoranthene	<0.420	50.0
Benzo (b) fluoranthene	<0.420	1.10
Benzo (k) fluoranthene	<0.420	1.10
Chrysene	<0.420	0.40
Benzo (a) pyrene	<0.420	0.061 or MDL
Benzo (ghi) perylene	<0.420	50.0
Indeno (1,2,3-cd) pyrene	<0.420	3.20
Dibenzo (a,h) anthracene	<0.420	0.014

Analytical Results
Summary Tables in PPM (mg/Kg)
Sample # FSA-22-N
EPA Method 8260

Constituent	Sample Results	TAGM4046 Rec. Soil Cleanup Objective
Benzene	<0.320	0.06
Ethylbenzene	<0.320	5.5
Toluene	<0.320	1.5
Total Xylene	<0.640	1.2
Isopropyl Benzene	<0.320	5.0
n-Propylbenzene	<0.320	14.0
p-Isopropyl Toluene	<0.320	11.0
1,2,4-TrimethylBenzene	<0.320	13.0
1,3,5-TrimethylBenzene	<0.320	33.0
n-Butyl Benzene	<0.320	18.0
sec-Butyl Benzene	<0.320	25.0
Naphthalene	<0.320	13.0
MTBE	<0.320	0.12
t-Butylbenzene	<0.320	10.0

EPA Method 8270

Constituent	Sample Results	TAGM4046 Rec. Soil Cleanup Objective
Anthracene	0.540	50.0
Fluorene	<0.430	50.0
Phenanthrene	1.200	50.0
Pyrene	0.790	50.0
Acenaphthene	<0.430	50.0
Benzo (a) anthracene	<0.430	0.224 or MDL
Fluoranthene	<0.430	50.0
Benzo (b) fluoranthene	<0.430	1.10
Benzo (k) fluoranthene	<0.430	1.10
Chrysene	<0.430	0.40
Benzo (a) pyrene	<0.430	0.061 or MDL
Benzo (ghi) perylene	<0.430	50.0
Indeno (1,2,3-cd) pyrene	<0.430	3.20
Dibenzo (a,h) anthracene	<0.430	0.014

Analytical Results
Summary Tables in PPM (mg/Kg)
Sample # FSA-22-E
EPA Method 8260

Constituent	Sample Results	TAGM4046 Rec. Soil Cleanup Objective
Benzene	<0.570	0.06
Ethylbenzene	<0.570	5.5
Toluene	<0.570	1.5
Total Xylene	<1.140	1.2
Isopropyl Benzene	<0.570	5.0
n-Propylbenzene	<0.570	14.0
p-Isopropyl Toluene	<0.570	11.0
1,2,4-TrimethylBenzene	<0.570	13.0
1,3,5-TrimethylBenzene	<0.570	33.0
n-Butyl Benzene	<0.570	18.0
sec-Butyl Benzene	<0.570	25.0
Naphthalene	<0.570	13.0
MTBE	<0.570	0.12
t-Butylbenzene	<0.570	10.0

EPA Method 8270

Constituent	Sample Results	TAGM4046 Rec. Soil Cleanup Objective
Anthracene	0.640	50.0
Fluorene	0.520	50.0
Phenanthrene	1.300	50.0
Pyrene	0.740	50.0
Acenaphthene	<0.380	50.0
Benzo (a) anthracene	<0.380	0.224 or MDL
Fluoranthene	<0.380	50.0
Benzo (b) fluoranthene	<0.380	1.10
Benzo (k) fluoranthene	<0.380	1.10
Chrysene	<0.380	0.40
Benzo (a) pyrene	<0.380	0.061 or MDL
Benzo (ghi) perylene	<0.380	50.0
Indeno (1,2,3-cd) pyrene	<0.380	3.20
Dibenzo (a,h) anthracene	<0.380	0.014

Analytical Results
Summary Tables in PPM (mg/Kg)
Sample # FSA-22-SW
EPA Method 8260

Constituent	Sample Results	TAGM4046 Rec. Soil Cleanup Objective
Benzene	<0.310	0.06
Ethylbenzene	<0.310	5.5
Toluene	<0.310	1.5
Total Xylene	<0.620	1.2
Isopropyl Benzene	<0.310	5.0
n-Propylbenzene	<0.310	14.0
p-Isopropyl Toluene	<0.310	11.0
1,2,4-TrimethylBenzene	<0.310	13.0
1,3,5-TrimethylBenzene	<0.310	33.0
n-Butyl Benzene	<0.310	18.0
sec-Butyl Benzene	<0.310	25.0
Naphthalene	<0.310	13.0
MTBE	<0.310	0.12
t-Butylbenzene	<0.310	10.0

EPA Method 8270

Constituent	Sample Results	TAGM4046 Rec. Soil Cleanup Objective
Anthracene	0.410	50.0
Fluorene	<0.410	50.0
Phenanthrene	0.810	50.0
Pyrene	0.680	50.0
Acenaphthene	<0.410	50.0
Benzo (a) anthracene	<0.410	0.224 or MDL
Fluoranthene	<0.410	50.0
Benzo (b) fluoranthene	<0.410	1.10
Benzo (k) fluoranthene	<0.410	1.10
Chrysene	<0.410	0.40
Benzo (a) pyrene	<0.410	0.061 or MDL
Benzo (ghi) perylene	<0.410	50.0
Indeno (1,2,3-cd) pyrene	<0.410	3.20
Dibenzo (a,h) anthracene	<0.410	0.014

Analytical Results
Summary Tables in PPM (mg/Kg)
Sample # FSA-18-B
EPA Method 8260

Constituent	Sample Results	TAGM4046 Rec. Soil Cleanup Objective
Benzene	<0.209	0.06
Ethylbenzene	<0.209	5.5
Toluene	<0.209	1.5
Total Xylene	<0.418	1.2
Isopropyl Benzene	<0.209	5.0
n-Propylbenzene	<0.209	14.0
p-Isopropyl Toluene	<0.209	11.0
1,2,4-TrimethylBenzene	<0.209	13.0
1,3,5-TrimethylBenzene	<0.209	33.0
n-Butyl Benzene	<0.209	18.0
sec-Butyl Benzene	<0.209	25.0
Naphthalene	<0.209	13.0
MTBE	<0.209	0.12
t-Butylbenzene	<0.209	10.0

EPA Method 8270

Constituent	Sample Results	TAGM4046 Rec. Soil Cleanup Objective
Anthracene	<0.390	50.0
Fluorene	<0.390	50.0
Phenanthrene	0.400	50.0
Pyrene	<0.390	50.0
Acenaphthene	<0.390	50.0
Benzo (a) anthracene	<0.390	0.224 or MDL
Fluoranthene	<0.390	50.0
Benzo (b) fluoranthene	<0.390	1.10
Benzo (k) fluoranthene	<0.390	1.10
Chrysene	<0.390	0.40
Benzo (a) pyrene	<0.390	0.061 or MDL
Benzo (ghi) perylene	<0.390	50.0
Indeno (1,2,3-cd) pyrene	<0.390	3.20
Dibenzo (a,h) anthracene	<0.390	0.014

Analytical Results
Summary Tables in PPM (mg/Kg)
Sample # FSA-18-SW
EPA Method 8260

Constituent	Sample Results	TAGM4046 Rec. Soil Cleanup Objective
Benzene	<0.300	0.06
Ethylbenzene	<0.300	5.5
Toluene	<0.300	1.5
Total Xylene	<0.600	1.2
Isopropyl Benzene	<0.300	5.0
n-Propylbenzene	0.520	14.0
p-Isopropyl Toluene	<0.300	11.0
1,2,4-TrimethylBenzene	<0.300	13.0
1,3,5-TrimethylBenzene	<0.300	33.0
n-Butyl Benzene	0.720	18.0
sec-Butyl Benzene	0.370	25.0
Naphthalene	<0.300	13.0
MTBE	<0.300	0.12
t-Butylbenzene	<0.300	10.0

EPA Method 8270

Constituent	Sample Results	TAGM4046 Rec. Soil Cleanup Objective
Anthracene	1.000	50.0
Fluorene	0.970	50.0
Phenanthrene	3.100	50.0
Pyrene	0.900	50.0
Acenaphthene	0.630	50.0
Benzo (a) anthracene	<0.400	0.224 or MDL
Fluoranthene	<0.400	50.0
Benzo (b) fluoranthene	<0.400	1.10
Benzo (k) fluoranthene	<0.400	1.10
Chrysene	<0.400	0.40
Benzo (a) pyrene	<0.400	0.061 or MDL
Benzo (ghi) perylene	<0.400	50.0
Indeno (1,2,3-cd) pyrene	<0.400	3.20
Dibenzo (a,h) anthracene	<0.400	0.014

Analytical Results
Summary Tables in PPM (mg/Kg)
Sample # FSA-18-WATER
EPA Method 8021

Constituent	Sample Results	TAGM4046 Rec. Soil Cleanup Objective
Benzene		
Ethylbenzene		
Toluene		
Total Xylene		
Isopropyl Benzene		
n-Propylbenzene		
p-Isopropyl Toluene		
1,2,4-TrimethylBenzene		
1,3,5-TrimethylBenzene		
n-Butyl Benzene		
sec-Butyl Benzene		
Naphthalene		
MTBE		
t-Butylbenzene		

EPA Method 8270

Constituent	Sample Results	TAGM4046 Rec. Soil Cleanup Objective
Anthracene		50.0
Fluorene		50.0
Phenanthrene		50.0
Pyrene		50.0
Acenaphthene		50.0
Benzo (a) anthracene		0.224 or MDL
Fluoranthene		50.0
Benzo (b) fluoranthene		1.10
Benzo (k) fluoranthene		1.10
Chrysene		0.40
Benzo (a) pyrene		0.061 or MDL
Benzo (ghi) perylene		50.0
Indeno (1,2,3-cd) pyrene		3.20
Dibenzo (a,h) anthracene		0.014

4. Conclusion

A total of 1522 tons of fuel oil contaminated soil were removed from three locations and disposed of at CID – Division of Waste Management as part of this remedial action. Lab analysis of confirmation samples collected from the bottom and the sidewalls of each excavation showed concentrations for all analytes to be below the Recommended Soil Cleanup Objectives of TAGM 4046.

Remediation of this spill is considered complete and the excavation has been backfilled.

Upstate Laboratories inc.

Shipping: 6034 Corporate Dr. • E. Syracuse, NY 13057-1017 • (315) 437-0255 • Fax (315) 437-1209
Mailing: Box 289 • Syracuse, NY 13206
Albany (518) 459-3134
Binghamton (607) 724-0478
Buffalo (716) 649-2533
Rochester (716) 436-9070
New Jersey (201) 703-1324

September 6, 2001

Mr. Wayne K. Cameron
Project Manager
Sterling Env. Services, Inc.
1372 Clinton St.
Buffalo, NY 14206

Re: Analysis Report #23601131 - Buffalo Brake Beam/Fuel Spill Area

Dear Mr. Cameron:

Please find enclosed the results for your samples which were picked up by ULI personnel on August 23, 2001.

We have included the Chain of Custody Record as part of your report. You may need to reference this form for a more detailed explanation of your sample. Samples will be disposed of approximately one month from final report date.

Should you have any questions, please feel free to give us a call.

Thank you for your patronage.

Sincerely,

UPSTATE LABORATORIES, INC.

Anthony J. Scala

Anthony J. Scala
Director

AJS/jd

Enclosures: report, invoice

cc/encs: N. Scala, ULI
file

Note: Faxed results were given to your office on 9/4/01. AJS

Disclaimer: The test results and procedures utilized, and laboratory interpretations of data obtained by ULI as contained in this report are believed by ULI to be accurate and reliable for sample(s) tested. In accepting this report, the customer agrees that the full extent of any and all liability for actual and consequential damages of ULI for the services performed shall be equal to the fee charged to the customer for the services as liquidated damages.

03408

ATE: 09/06/01

Upstate Laboratories, Inc.
Analysis Results
Report Number: 23601131
Client I.D.: STERLING ENV. SERVICES, INC.
Sampled by: Client

APPROVAL: CJS
QC: PS
Lab I.D.: 10170

BUFFALO BRAKE BEAM/
FUEL SPILL AREA FSA-05-B 1200H 08/22/01 C

ULI I.D.: 23601131 Matrix: Soil

PARAMETERS	RESULTS	DATE ANAL.	KEY	FILE#
Percent Solids	90%	08/28/01		WD6050
EPA 8260 Petroleum, NYSDEC STARS List				
Benzene	<280ug/kg dw	08/27/01	01	VM3590
Ethylbenzene	<280ug/kg dw	08/27/01	01	VM3590
Toluene	<280ug/kg dw	08/27/01	01	VM3590
o-Xylene	<280ug/kg dw	08/27/01	01	VM3590
m,p-xylene	<280ug/kg dw	08/27/01	01	VM3590
IsopropylBenzene	<280ug/kg dw	08/27/01	01	VM3590
n-Propylbenzene	<280ug/kg dw	08/27/01	01	VM3590
4-IsopropylToluene	<280ug/kg dw	08/27/01	01	VM3590
1,2,4-Trimethylbenzene	<280ug/kg dw	08/27/01	01	VM3590
1,3,5-Trimethylbenzene	<280ug/kg dw	08/27/01	01	VM3590
n-ButylBenzene	<280ug/kg dw	08/27/01	01	VM3590
sec-ButylBenzene	<280ug/kg dw	08/27/01	01	VM3590
Naphthalene	<280ug/kg dw	08/27/01	01	VM3590
MTBE	<280ug/kg dw	08/27/01	01	VM3590
tert-Butylbenzene	<280ug/kg dw	08/27/01	01	VM3590
Petroleum, EPA Method 8270				
Anthracene	<370ug/kg dw	09/04/01		SA2980
Fluorene	<370ug/kg dw	09/04/01		SA2980
Phenanthrene	540ug/kg dw	09/04/01		SA2980
Pyrene	<370ug/kg dw	09/04/01		SA2980
Acenaphthene	<370ug/kg dw	09/04/01		SA2980
Benzo[a]anthracene	<370ug/kg dw	09/04/01		SA2980
Fluoranthene	<370ug/kg dw	09/04/01		SA2980
Benzo[b]fluoranthene	<370ug/kg dw	09/04/01		SA2980
Benzo[k]fluoranthene	<370ug/kg dw	09/04/01		SA2980
Chrysene	<370ug/kg dw	09/04/01		SA2980
Benzo[a]pyrene	<370ug/kg dw	09/04/01		SA2980
Benzo[ghi]perylene	<370ug/kg dw	09/04/01		SA2980
Indeno[1,2,3-cd]pyrene	<370ug/kg dw	09/04/01		SA2980
Dibenz[a,h]anthracene	<370ug/kg dw	09/04/01		SA2980

dw = Dry weight

DATE: 09/06/01

Upstate Laboratories, Inc.
Analysis Results
Report Number: 23601131
Client I.D.: STERLING ENV. SERVICES, INC.
Sampled by: Client

APPROVAL:
QC: PS CJS
Lab I.D.: 10170

BUFFALO BRAKE BEAM/
FUEL SPILL AREA FSA-05-EW 1320H 08/22/01 C

ULI I.D.: 23601132 Matrix: Soil

PARAMETERS	RESULTS	DATE ANAL.	KEY	FILE#
Percent Solids	77%	08/28/01		WD6050
EPA 8260 Petroleum, NYSDEC STARS List				
Benzene	<320ug/kg dw	08/24/01		VM3587
Ethylbenzene	<320ug/kg dw	08/24/01		VM3587
Toluene	<320ug/kg dw	08/24/01		VM3587
o-Xylene	<320ug/kg dw	08/24/01		VM3587
m-Xylene & p-Xylene	<320ug/kg dw	08/24/01		VM3587
IsopropylBenzene	<320ug/kg dw	08/24/01		VM3587
n-Propylbenzene	<320ug/kg dw	08/24/01		VM3587
p-IsopropylToluene	<320ug/kg dw	08/24/01		VM3587
1,2,4-Trimethylbenzene	<320ug/kg dw	08/24/01		VM3587
1,3,5-Trimethylbenzene	<320ug/kg dw	08/24/01		VM3587
n-ButylBenzene	<320ug/kg dw	08/24/01		VM3587
sec-ButylBenzene	<320ug/kg dw	08/24/01		VM3587
Naphthalene	<320ug/kg dw	08/24/01		VM3587
MTBE	<320ug/kg dw	08/24/01		VM3587
t-Butylbenzene	<320ug/kg dw	08/24/01		VM3587
Petroleum, EPA Method 8270				
Anthracene	<430ug/kg dw	09/04/01		SA2980
Fluorene	490ug/kg dw	09/04/01		SA2980
Phenanthrene	870ug/kg dw	09/04/01		SA2980
Pyrene	<430ug/kg dw	09/04/01		SA2980
Acenaphthene	<430ug/kg dw	09/04/01		SA2980
Benzo[a]anthracene	<430ug/kg dw	09/04/01		SA2980
Fluoranthene	<430ug/kg dw	09/04/01		SA2980
Benzo[b]fluoranthene	<430ug/kg dw	09/04/01		SA2980
Benzo[k]fluoranthene	<430ug/kg dw	09/04/01		SA2980
Chrysene	<430ug/kg dw	09/04/01		SA2980
Benzo[a]pyrene	<430ug/kg dw	09/04/01		SA2980
Benzo[ghi]perylene	<430ug/kg dw	09/04/01		SA2980
Indeno[1,2,3-cd]pyrene	<430ug/kg dw	09/04/01		SA2980
Dibenz[a,h]anthracene	<430ug/kg dw	09/04/01		SA2980

dw = Dry weight

ATE: 09/06/01

Upstate Laboratories, Inc.
Analysis Results
Report Number: 23601131
Client I.D.: STERLING ENV. SERVICES, INC.
Sampled by: Client

APPROVAL: CJS
QC: PS
Lab I.D.: 10170

BUFFALO BRAKE BEAM/
FUEL SPILL AREA FSA-05-SWE 1220H 08/22/01 C

ULI I.D.: 23601133

Matrix: Soil

PARAMETERS	RESULTS	DATE ANAL.	KEY	FILE#
Percent Solids	83%	08/28/01		WD6050
EPA 8260 Petroleum, NYSDEC STARS List				
Benzene	<300ug/kg dw	08/24/01	01	VM3587
Ethylbenzene	<300ug/kg dw	08/24/01	01	VM3587
Toluene	<300ug/kg dw	08/24/01	01	VM3587
o-Xylene	<300ug/kg dw	08/24/01	01	VM3587
m-Xylene & p-Xylene	<300ug/kg dw	08/24/01	01	VM3587
IsopropylBenzene	<300ug/kg dw	08/24/01	01	VM3587
n-Propylbenzene	<300ug/kg dw	08/24/01	01	VM3587
p-IsopropylToluene	<300ug/kg dw	08/24/01	01	VM3587
1,2,4-Trimethylbenzene	<300ug/kg dw	08/24/01	01	VM3587
1,3,5-Trimethylbenzene	690ug/kg dw	08/24/01		VM3587
n-ButylBenzene	<300ug/kg dw	08/24/01	01	VM3587
sec-ButylBenzene	<300ug/kg dw	08/24/01	01	VM3587
Naphthalene	<300ug/kg dw	08/24/01	01	VM3587
MTBE	<300ug/kg dw	08/24/01	01	VM3587
t-Butylbenzene				
Petroleum, EPA Method 8270				
Anthracene	450ug/kg dw	09/04/01		SA2980
Fluorene	810ug/kg dw	09/04/01		SA2980
Phenanthrene	1900ug/kg dw	09/04/01		SA2980
Pyrene	<400ug/kg dw	09/04/01		SA2980
Acenaphthene	580ug/kg dw	09/04/01		SA2980
Benzo[a]anthracene	<400ug/kg dw	09/04/01		SA2980
Fluoranthene	<400ug/kg dw	09/04/01		SA2980
Benzo[b]fluoranthene	<400ug/kg dw	09/04/01		SA2980
Benzo[k]fluoranthene	<400ug/kg dw	09/04/01		SA2980
Chrysene	<400ug/kg dw	09/04/01		SA2980
Benzo[a]pyrene	<400ug/kg dw	09/04/01		SA2980
Benzo[ghi]perylene	<400ug/kg dw	09/04/01		SA2980
Indeno[1,2,3-cd]pyrene	<400ug/kg dw	09/04/01		SA2980
Dibenz[a,h]anthracene				

dw = Dry weight

ATE: 09/06/01

APPROVAL: QS
QC: RS
Lab I.D.: 10170

Upstate Laboratories, Inc.
Analysis Results
Report Number: 23601131
Client I.D.: STERLING ENV. SERVICES, INC.
Sampled by: Client

BUFFALO BRAKE BEAM/
FUEL SPILL AREA FSA-05-SWW 1235H 08/22/01 C

ULI I.D.: 23601134

Matrix: Soil

PARAMETERS	RESULTS	DATE ANAL.	KEY	FILE#
Percent Solids	85%	08/28/01		WD6050
EPA 8260 Petroleum, NYSDEC STARS List				
Benzene	<590ug/kg dw	08/27/01	01	VM3590
Ethylbenzene	<590ug/kg dw	08/27/01	01	VM3590
Toluene	<590ug/kg dw	08/27/01	01	VM3590
o-Xylene	<590ug/kg dw	08/27/01	01	VM3590
m-Xylene & p-Xylene	<590ug/kg dw	08/27/01	01	VM3590
IsopropylBenzene	<590ug/kg dw	08/27/01	01	VM3590
n-Propylbenzene	<590ug/kg dw	08/27/01	01	VM3590
p-IsopropylToluene	<590ug/kg dw	08/27/01	01	VM3590
1,2,4-Trimethylbenzene	<590ug/kg dw	08/27/01	01	VM3590
1,3,5-Trimethylbenzene	<590ug/kg dw	08/27/01	01	VM3590
n-ButylBenzene	<590ug/kg dw	08/27/01	01	VM3590
sec-ButylBenzene	<590ug/kg dw	08/27/01	01	VM3590
Naphthalene	<590ug/kg dw	08/27/01	01	VM3590
MTBE	<590ug/kg dw	08/27/01	01	VM3590
t-Butylbenzene				
Petroleum, EPA Method 8270				
Anthracene	680ug/kg dw	09/04/01		SA2980
Fluorene	1200ug/kg dw	09/04/01		SA2980
Phenanthrene	2700ug/kg dw	09/04/01		SA2980
Pyrene	400ug/kg dw	09/04/01		SA2980
Acenaphthene	630ug/kg dw	09/04/01		SA2980
Benzo[a]anthracene	<390ug/kg dw	09/04/01		SA2980
Fluoranthene	<390ug/kg dw	09/04/01		SA2980
Benzo[b]fluoranthene	<390ug/kg dw	09/04/01		SA2980
Benzo[k]fluoranthene	<390ug/kg dw	09/04/01		SA2980
Chrysene	<390ug/kg dw	09/04/01		SA2980
Benzo[a]pyrene	<390ug/kg dw	09/04/01		SA2980
Benzo[ghi]perylene	<390ug/kg dw	09/04/01		SA2980
Indeno[1,2,3-cd]pyrene	<390ug/kg dw	09/04/01		SA2980
Dibenz[a,h]anthracene				

dw = Dry weight

ATE: 09/06/01

APPROVAL: CJS
QC: PS

Upstate Laboratories, Inc.
Analysis Results
Report Number: 23601131
Client I.D.: STERLING ENV. SERVICES, INC.
Sampled by: Client
Lab I.D.: 10170
BUFFALO BRAKE BEAM/
FUEL SPILL AREA FSA-05-NWS 1250H 08/22/01 C

ULI I.D.: 23601135
Matrix: Soil

PARAMETERS	RESULTS	DATE ANAL.	KEY	FILE#
Percent Solids	85%	08/28/01		WD6050
EPA 8260 Petroleum, NYSDEC STARS List				
Benzene	<590ug/kg dw	08/27/01	01	VM3590
Ethylbenzene	<590ug/kg dw	08/27/01	01	VM3590
Toluene	<590ug/kg dw	08/27/01	01	VM3590
o-Xylene	<590ug/kg dw	08/27/01	01	VM3590
m-Xylene & p-Xylene	<590ug/kg dw	08/27/01	01	VM3590
IsopropylBenzene	<590ug/kg dw	08/27/01	01	VM3590
n-Propylbenzene	<590ug/kg dw	08/27/01	01	VM3590
p-IsopropylToluene	<590ug/kg dw	08/27/01	01	VM3590
1,2,4-Trimethylbenzene	<590ug/kg dw	08/27/01	01	VM3590
1,3,5-Trimethylbenzene	<590ug/kg dw	08/27/01	01	VM3590
n-ButylBenzene	<590ug/kg dw	08/27/01	01	VM3590
sec-ButylBenzene	<590ug/kg dw	08/27/01	01	VM3590
Naphthalene	<590ug/kg dw	08/27/01	01	VM3590
MTBE	<590ug/kg dw	08/27/01	01	VM3590
t-Butylbenzene	<590ug/kg dw	08/27/01	01	VM3590
Petroleum, EPA Method 8270				
Anthracene	<390ug/kg dw	09/04/01		SA2980
Fluorene	390ug/kg dw	09/04/01		SA2980
Phenanthrene	930ug/kg dw	09/04/01		SA2980
Pyrene	<390ug/kg dw	09/04/01		SA2980
Acenaphthene	<390ug/kg dw	09/04/01		SA2980
Benzo[a]anthracene	<390ug/kg dw	09/04/01		SA2980
Fluoranthene	<390ug/kg dw	09/04/01		SA2980
Benzo[b]fluoranthene	<390ug/kg dw	09/04/01		SA2980
Benzo[k]fluoranthene	<390ug/kg dw	09/04/01		SA2980
Chrysene	<390ug/kg dw	09/04/01		SA2980
Benzo[a]pyrene	<390ug/kg dw	09/04/01		SA2980
Benzo[ghi]perylene	<390ug/kg dw	09/04/01		SA2980
Indeno[1,2,3-cd]pyrene	<390ug/kg dw	09/04/01		SA2980
Dibenz[a,h]anthracene	<390ug/kg dw	09/04/01		SA2980

dw = Dry weight

ATE: 09/06/01

APPROVAL: CJS
QC: PS

Upstate Laboratories, Inc.
Analysis Results
Report Number: 23601131
Client I.D.: STERLING ENV. SERVICES, INC.
Sampled by: Client
Lab I.D.: 10170

BUFFALO BRAKE BEAM/
FUEL SPILL AREA FSA-05-NWN 1310H 08/22/01 C

ULI I.D.: 23601136

Matrix: Soil

PARAMETERS	RESULTS	DATE ANAL.	KEY	FILE#
Percent Solids	88%	08/28/01		WD6050
EPA 8260 Petroleum, NYSDEC STARS List				
Benzene	<280ug/kg dw	08/27/01	01	VM3590
Ethylbenzene	<280ug/kg dw	08/27/01	01	VM3590
Toluene	<280ug/kg dw	08/27/01	01	VM3590
o-Xylene	<280ug/kg dw	08/27/01	01	VM3590
m-Xylene & p-Xylene	<280ug/kg dw	08/27/01	01	VM3590
IsopropylBenzene	<280ug/kg dw	08/27/01	01	VM3590
n-Propylbenzene	<280ug/kg dw	08/27/01	01	VM3590
p-IsopropylToluene	<280ug/kg dw	08/27/01	01	VM3590
1,2,4-Trimethylbenzene	<280ug/kg dw	08/27/01	01	VM3590
1,3,5-Trimethylbenzene	<280ug/kg dw	08/27/01	01	VM3590
n-ButylBenzene	<280ug/kg dw	08/27/01	01	VM3590
sec-ButylBenzene	<280ug/kg dw	08/27/01	01	VM3590
Naphthalene	<280ug/kg dw	08/27/01	01	VM3590
MTBE	<280ug/kg dw	08/27/01	01	VM3590
t-Butylbenzene				
Petroleum, EPA Method 8270				
Anthracene	<380ug/kg dw	09/04/01		SA2980
Fluorene	<380ug/kg dw	09/04/01		SA2980
Phenanthrene	590ug/kg dw	09/04/01		SA2980
Pyrene	<380ug/kg dw	09/04/01		SA2980
Acenaphthene	<380ug/kg dw	09/04/01		SA2980
Benzo[a]anthracene	<380ug/kg dw	09/04/01		SA2980
Fluoranthene	<380ug/kg dw	09/04/01		SA2980
Benzo[b]fluoranthene	<380ug/kg dw	09/04/01		SA2980
Benzo[k]fluoranthene	<380ug/kg dw	09/04/01		SA2980
Chrysene	<380ug/kg dw	09/04/01		SA2980
Benzo[a]pyrene	<380ug/kg dw	09/04/01		SA2980
Benzo[ghi]perylene	<380ug/kg dw	09/04/01		SA2980
Indeno[1,2,3-cd]pyrene	<380ug/kg dw	09/04/01		SA2980
Dibenz[a,h]anthracene				

dw = Dry weight

DATE: 09/06/01

Upstate Laboratories, Inc.
Analysis Results
Report Number: 23601131
Client I.D.: STERLING ENV. SERVICES, INC.
Sampled by: Client

APPROVAL: CJS
QC: PS
Lab I.D.: 10170

BUFFALO BRAKE BEAM/
FUEL SPILL AREA FSA-22-B 1400H 08/22/01 C

ULI I.D.: 23601137

Matrix: Soil

PARAMETERS	RESULTS	DATE ANAL.	KEY	FILE#
Percent Solids	80%	08/28/01		WD6050
EPA 8260 Petroleum, NYSDEC STARS List				
Benzene	<630ug/kg dw	08/27/01	01	VM3590
Ethylbenzene	<630ug/kg dw	08/27/01	01	VM3590
Toluene	<630ug/kg dw	08/27/01	01	VM3590
o-Xylene	<630ug/kg dw	08/27/01	01	VM3590
m-Xylene & p-Xylene	<630ug/kg dw	08/27/01	01	VM3590
IsopropylBenzene	<630ug/kg dw	08/27/01	01	VM3590
n-Propylbenzene	<630ug/kg dw	08/27/01	01	VM3590
p-IsopropylToluene	<630ug/kg dw	08/27/01	01	VM3590
1,2,4-Trimethylbenzene	<630ug/kg dw	08/27/01	01	VM3590
1,3,5-Trimethylbenzene	<630ug/kg dw	08/27/01	01	VM3590
n-ButylBenzene	<630ug/kg dw	08/27/01	01	VM3590
sec-ButylBenzene	<630ug/kg dw	08/27/01	01	VM3590
Naphthalene	<630ug/kg dw	08/27/01	01	VM3590
MTBE	<630ug/kg dw	08/27/01	01	VM3590
t-Butylbenzene	<630ug/kg dw	08/27/01	01	VM3590
Petroleum, EPA Method 8270				
Anthracene	<420ug/kg dw	09/04/01		SA2980
Fluorene	<420ug/kg dw	09/04/01		SA2980
Phenanthrene	<420ug/kg dw	09/04/01		SA2980
Pyrene	<420ug/kg dw	09/04/01		SA2980
Acenaphthene	<420ug/kg dw	09/04/01		SA2980
Benzo[a]anthracene	<420ug/kg dw	09/04/01		SA2980
Fluoranthene	<420ug/kg dw	09/04/01		SA2980
Benzo[b]fluoranthene	<420ug/kg dw	09/04/01		SA2980
Benzo[k]fluoranthene	<420ug/kg dw	09/04/01		SA2980
Chrysene	<420ug/kg dw	09/04/01		SA2980
Benzo[a]pyrene	<420ug/kg dw	09/04/01		SA2980
Benzo[ghi]perylene	<420ug/kg dw	09/04/01		SA2980
Indeno[1,2,3-cd]pyrene	<420ug/kg dw	09/04/01		SA2980
Dibenz[a,h]anthracene	<420ug/kg dw	09/04/01		SA2980

dw = Dry weight

DATE: 09/06/01

Upstate Laboratories, Inc.
Analysis Results
Report Number: 23601131
Client I.D.: STERLING ENV. SERVICES, INC.
Sampled by: Client

APPROVAL: GJS
QC: PS
Lab I.D.: 10170

BUFFALO BRAKE BEAM/
FUEL SPILL AREA FSA-22-N 1405H 08/22/01 C

ULI I.D.: 23601138

Matrix: Soil

PARAMETERS	RESULTS	DATE ANAL.	KEY	FILE#
Percent Solids	77%	08/28/01		WD6050
EPA 8260 Petroleum, NYSDEC STARS List				
Benzene	<320ug/kg dw	08/27/01	01	VM3590
Ethylbenzene	<320ug/kg dw	08/27/01	01	VM3590
Toluene	<320ug/kg dw	08/27/01	01	VM3590
o-Xylene	<320ug/kg dw	08/27/01	01	VM3590
m-Xylene & p-Xylene	<320ug/kg dw	08/27/01	01	VM3590
IsopropylBenzene	<320ug/kg dw	08/27/01	01	VM3590
n-Propylbenzene	<320ug/kg dw	08/27/01	01	VM3590
p-IsopropylToluene	<320ug/kg dw	08/27/01	01	VM3590
1,2,4-Trimethylbenzene	<320ug/kg dw	08/27/01	01	VM3590
1,3,5-Trimethylbenzene	<320ug/kg dw	08/27/01	01	VM3590
n-ButylBenzene	<320ug/kg dw	08/27/01	01	VM3590
sec-ButylBenzene	<320ug/kg dw	08/27/01	01	VM3590
Naphthalene	<320ug/kg dw	08/27/01	01	VM3590
MTBE	<320ug/kg dw	08/27/01	01	VM3590
t-Butylbenzene	<320ug/kg dw	08/27/01	01	VM3590
Petroleum, EPA Method 8270				
Anthracene	540ug/kg dw	09/04/01		SA2980
Fluorene	<430ug/kg dw	09/04/01		SA2980
Phenanthrene	1200ug/kg dw	09/04/01		SA2980
Pyrene	790ug/kg dw	09/04/01		SA2980
Acenaphthene	<430ug/kg dw	09/04/01		SA2980
Benzo[a]anthracene	<430ug/kg dw	09/04/01		SA2980
Fluoranthene	<430ug/kg dw	09/04/01		SA2980
Benzo[b]fluoranthene	<430ug/kg dw	09/04/01		SA2980
Benzo[k]fluoranthene	<430ug/kg dw	09/04/01		SA2980
Chrysene	<430ug/kg dw	09/04/01		SA2980
Benzo[a]pyrene	<430ug/kg dw	09/04/01		SA2980
Benzo[ghi]perylene	<430ug/kg dw	09/04/01		SA2980
Indeno[1,2,3-cd]pyrene	<430ug/kg dw	09/04/01		SA2980
Dibenz[a,h]anthracene	<430ug/kg dw	09/04/01		SA2980

dw = Dry weight

ATE: 09/06/01

Upstate Laboratories, Inc.
Analysis Results
Report Number: 23601131
Client I.D.: STERLING ENV. SERVICES, INC.
Sampled by: Client

APPROVAL: CJS
QC: PS
Lab I.D.: 10170

BUFFALO BRAKE BEAM/
FUEL SPILL AREA FSA-22-E 1415H 08/22/01 C

ULI I.D.: 23601139 Matrix: Soil

PARAMETERS	RESULTS	DATE ANAL.	KEY	FILE#
Percent Solids	88%	08/28/01		WD6050
EPA 8260 Petroleum, NYSDEC STARS List				
Benzene	<570ug/kg dw	08/27/01	01	VM3590
Ethylbenzene	<570ug/kg dw	08/27/01	01	VM3590
Toluene	<570ug/kg dw	08/27/01	01	VM3590
o-Xylene	<570ug/kg dw	08/27/01	01	VM3590
m-Xylene & p-Xylene	<570ug/kg dw	08/27/01	01	VM3590
IsopropylBenzene	<570ug/kg dw	08/27/01	01	VM3590
n-Propylbenzene	<570ug/kg dw	08/27/01	01	VM3590
p-IsopropylToluene	<570ug/kg dw	08/27/01	01	VM3590
1,2,4-Trimethylbenzene	<570ug/kg dw	08/27/01	01	VM3590
1,3,5-Trimethylbenzene	<570ug/kg dw	08/27/01	01	VM3590
n-ButylBenzene	<570ug/kg dw	08/27/01	01	VM3590
sec-ButylBenzene	<570ug/kg dw	08/27/01	01	VM3590
Naphthalene	<570ug/kg dw	08/27/01	01	VM3590
MTBE	<570ug/kg dw	08/27/01	01	VM3590
t-Butylbenzene	<570ug/kg dw	08/27/01	01	VM3590
Petroleum, EPA Method 8270				
Anthracene	640ug/kg dw	09/04/01		SA2980
Fluorene	520ug/kg dw	09/04/01		SA2980
Phenanthrene	1300ug/kg dw	09/04/01		SA2980
Pyrene	740ug/kg dw	09/04/01		SA2980
Acenaphthene	<380ug/kg dw	09/04/01		SA2980
Benzo[a]anthracene	<380ug/kg dw	09/04/01		SA2980
Fluoranthene	<380ug/kg dw	09/04/01		SA2980
Benzo[b]fluoranthene	<380ug/kg dw	09/04/01		SA2980
Benzo[k]fluoranthene	<380ug/kg dw	09/04/01		SA2980
Chrysene	<380ug/kg dw	09/04/01		SA2980
Benzo[a]pyrene	<380ug/kg dw	09/04/01		SA2980
Benzo[ghi]perylene	<380ug/kg dw	09/04/01		SA2980
Indeno[1,2,3-cd]pyrene	<380ug/kg dw	09/04/01		SA2980
Dibenz[a,h]anthracene	<380ug/kg dw	09/04/01		SA2980

dw = Dry weight

ATE: 09/06/01

Upstate Laboratories, Inc.
Analysis Results
Report Number: 23601131
Client I.D.: STERLING ENV. SERVICES, INC.
Sampled by: Client

APPROVAL: CJS
QC: PS
Lab I.D.: 10170

BUFFALO BRAKE BEAM/
FUEL SPILL AREA FSA-22-SW 1430H 08/22/01 C

ULI I.D.: 23601140

Matrix: Soil

PARAMETERS	RESULTS	DATE ANAL.	KEY	FILE#
Percent Solids	81%	08/28/01		WD6050
EPA 8260 Petroleum, NYSDEC STARS List				
Benzene	<310ug/kg dw	08/24/01	01	VM3587
Ethylbenzene	<310ug/kg dw	08/24/01	01	VM3587
Toluene	<310ug/kg dw	08/24/01	01	VM3587
o-Xylene	<310ug/kg dw	08/24/01	01	VM3587
m-Xylene & p-Xylene	<310ug/kg dw	08/24/01	01	VM3587
IsopropylBenzene	<310ug/kg dw	08/24/01	01	VM3587
n-Propylbenzene	<310ug/kg dw	08/24/01	01	VM3587
p-IsopropylToluene	<310ug/kg dw	08/24/01	01	VM3587
1,2,4-Trimethylbenzene	<310ug/kg dw	08/24/01	01	VM3587
1,3,5-Trimethylbenzene	<310ug/kg dw	08/24/01	01	VM3587
n-ButylBenzene	<310ug/kg dw	08/24/01	01	VM3587
sec-ButylBenzene	<310ug/kg dw	08/24/01	01	VM3587
Naphthalene	<310ug/kg dw	08/24/01	01	VM3587
MTBE	<310ug/kg dw	08/24/01	01	VM3587
t-Butylbenzene				
Petroleum, EPA Method 8270				
Anthracene	410ug/kg dw	09/04/01		SA2980
Fluorene	<410ug/kg dw	09/04/01		SA2980
Phenanthrene	810ug/kg dw	09/04/01		SA2980
Pyrene	680ug/kg dw	09/04/01		SA2980
Acenaphthene	<410ug/kg dw	09/04/01		SA2980
Benzo[a]anthracene	<410ug/kg dw	09/04/01		SA2980
Fluoranthene	<410ug/kg dw	09/04/01		SA2980
Benzo[b]fluoranthene	<410ug/kg dw	09/04/01		SA2980
Benzo[k]fluoranthene	<410ug/kg dw	09/04/01		SA2980
Chrysene	<410ug/kg dw	09/04/01		SA2980
Benzo[a]pyrene	<410ug/kg dw	09/04/01		SA2980
Benzo[ghi]perylene	<410ug/kg dw	09/04/01		SA2980
Indeno[1,2,3-cd]pyrene	<410ug/kg dw	09/04/01		SA2980
Dibenz[a,h]anthracene				

dw = Dry weight

DATE: 09/06/01

Upstate Laboratories, Inc.
Analysis Results
Report Number: 23601131
Client I.D.: STERLING ENV. SERVICES, INC.
Sampled by: Client

APPROVAL: CJS
QC: PS
Lab I.D.: 10170

BUFFALO BRAKE BEAM/
FUEL SPILL AREA FSA-18-B 1455H 08/22/01 C

ULI I.D.: 23601141

Matrix: Soil

PARAMETERS	RESULTS	DATE ANAL.	KEY	FILE#
Percent Solids	85%	08/28/01		WD6050
EPA 8260 Petroleum, NYSDEC STARS List				
Benzene	<209ug/kg dw	08/24/01	01	VM3587
Ethylbenzene	<209ug/kg dw	08/24/01	01	VM3587
Toluene	<209ug/kg dw	08/24/01	01	VM3587
o-Xylene	<209ug/kg dw	08/24/01	01	VM3587
m-Xylene & p-Xylene	<209ug/kg dw	08/24/01	01	VM3587
IsopropylBenzene	<209ug/kg dw	08/24/01	01	VM3587
n-Propylbenzene	<209ug/kg dw	08/24/01	01	VM3587
p-IsopropylToluene	<209ug/kg dw	08/24/01	01	VM3587
1,2,4-Trimethylbenzene	<209ug/kg dw	08/24/01	01	VM3587
1,3,5-Trimethylbenzene	<209ug/kg dw	08/24/01	01	VM3587
n-ButylBenzene	<209ug/kg dw	08/24/01	01	VM3587
sec-ButylBenzene	<209ug/kg dw	08/24/01	01	VM3587
Naphthalene	<209ug/kg dw	08/24/01	01	VM3587
MTBE	<209ug/kg dw	08/24/01	01	VM3587
t-Butylbenzene	<209ug/kg dw	08/24/01	01	VM3587
Petroleum, EPA Method 8270				
Anthracene	<390ug/kg dw	09/04/01		SA2980
Fluorene	<390ug/kg dw	09/04/01		SA2980
Phenanthrene	400ug/kg dw	09/04/01		SA2980
Pyrene	<390ug/kg dw	09/04/01		SA2980
Acenaphthene	<390ug/kg dw	09/04/01		SA2980
Benzo[a]anthracene	<390ug/kg dw	09/04/01		SA2980
Fluoranthene	<390ug/kg dw	09/04/01		SA2980
Benzo[b]fluoranthene	<390ug/kg dw	09/04/01		SA2980
Benzo[k]fluoranthene	<390ug/kg dw	09/04/01		SA2980
Chrysene	<390ug/kg dw	09/04/01		SA2980
Benzo[a]pyrene	<390ug/kg dw	09/04/01		SA2980
Benzo[ghi]perylene	<390ug/kg dw	09/04/01		SA2980
Indeno[1,2,3-cd]pyrene	<390ug/kg dw	09/04/01		SA2980
Dibenz[a,h]anthracene	<390ug/kg dw	09/04/01		SA2980

dw = Dry weight

DATE: 09/06/01

Upstate Laboratories, Inc.
Analysis Results
Report Number: 23601131
Client I.D.: STERLING ENV. SERVICES, INC.
Sampled by: Client

APPROVAL: GFS
QC: RS
Lab I.D.: 10170

BUFFALO BRAKE BEAM/
FUEL SPILL AREA FSA-18-SW 1500H 08/22/01 C

ULI I.D.: 23601142

Matrix: Soil

PARAMETERS	RESULTS	DATE ANAL.	KEY	FILE#
Percent Solids	83%	08/28/01		WD6050
EPA 8260 Petroleum, NYSDEC STARS List				
Benzene	<300ug/kg dw	08/24/01	01	VM3587
Ethylbenzene	<300ug/kg dw	08/24/01	01	VM3587
Toluene	<300ug/kg dw	08/24/01	01	VM3587
o-Xylene	<300ug/kg dw	08/24/01	01	VM3587
m-Xylene & p-Xylene	<300ug/kg dw	08/24/01	01	VM3587
IsopropylBenzene	<300ug/kg dw	08/24/01	01	VM3587
n-Propylbenzene	520ug/kg dw	08/24/01		VM3587
p-IsopropylToluene	<300ug/kg dw	08/24/01	01	VM3587
1,2,4-Trimethylbenzene	<300ug/kg dw	08/24/01	01	VM3587
1,3,5-Trimethylbenzene	<300ug/kg dw	08/24/01	01	VM3587
n-ButylBenzene	720ug/kg dw	08/24/01		VM3587
sec-ButylBenzene	370ug/kg dw	08/24/01		VM3587
Naphthalene	<300ug/kg dw	08/24/01	01	VM3587
MTBE	<300ug/kg dw	08/24/01	01	VM3587
t-Butylbenzene	<300ug/kg dw	08/24/01	01	VM3587
Petroleum, EPA Method 8270				
Anthracene	1000ug/kg dw	09/04/01		SA2980
Fluorene	970ug/kg dw	09/04/01		SA2980
Phenanthrene	3100ug/kg dw	09/04/01		SA2980
Pyrene	900ug/kg dw	09/04/01		SA2980
Acenaphthene	630ug/kg dw	09/04/01		SA2980
Benzo[a]anthracene	<400ug/kg dw	09/04/01		SA2980
Fluoranthene	<400ug/kg dw	09/04/01		SA2980
Benzo[b]fluoranthene	<400ug/kg dw	09/04/01		SA2980
Benzo[k]fluoranthene	<400ug/kg dw	09/04/01		SA2980
Chrysene	<400ug/kg dw	09/04/01		SA2980
Benzo[a]pyrene	<400ug/kg dw	09/04/01		SA2980
Benzo[ghi]perylene	<400ug/kg dw	09/04/01		SA2980
Indeno[1,2,3-cd]pyrene	<400ug/kg dw	09/04/01		SA2980
Dibenz[a,h]anthracene	<400ug/kg dw	09/04/01		SA2980

dw = Dry weight

ATE: 09/06/01

Upstate Laboratories, Inc.
Analysis Results
Report Number: 23601131
Client I.D.: STERLING ENV. SERVICES, INC.
Sampled by: Client

APPROVAL: CJS
QC: PS
Lab I.D.: 10170

BUFFALO BRAKE BEAM/
FUEL SPILL AREA FSA-18-WATER 0810H 08/22/01 G

ULI I.D.: 23601143

Matrix: Water

PARAMETERS	RESULTS	DATE ANAL.	KEY	FILE#
Petroleum, EPA Method 8021				
Benzene	<3ug/l	08/31/01	01	VA5902
Ethylbenzene	<3ug/l	08/31/01	01	VA5902
Toluene	<3ug/l	08/31/01	01	VA5902
m,p-xylene	<3ug/l	08/31/01	01	VA5902
o-Xylene	<3ug/l	08/31/01	01	VA5902
Isopropylbenzene	<3ug/l	08/31/01	01	VA5902
n-Propylbenzene	<3ug/l	08/31/01	01	VA5902
p-Isopropyltoluene	<3ug/l	08/31/01	01	VA5902
1,2,4-Trimethylbenzene	<3ug/l	08/31/01	01	VA5902
1,3,5-Trimethylbenzene	<3ug/l	08/31/01	01	VA5902
n-Butylbenzene	<3ug/l	08/31/01	01	VA5902
sec-Butylbenzene	<3ug/l	08/31/01	01	VA5902
t-Butylbenzene	<3ug/l	08/31/01	01	VA5902
Naphthalene	<50ug/l	08/31/01	01	VA5902
MTBE				
Petroleum, EPA Method 8270				
Anthracene	<5ug/l	09/03/01		SA2981
Fluorene	<5ug/l	09/03/01		SA2981
Phenanthrene	<5ug/l	09/03/01		SA2981
Pyrene	<5ug/l	09/03/01		SA2981
Acenaphthene	<5ug/l	09/03/01		SA2981
Benzo[a]anthracene	<5ug/l	09/03/01		SA2981
Fluoranthene	<5ug/l	09/03/01		SA2981
Benzo[b]fluoranthene	<5ug/l	09/03/01		SA2981
Benzo[k]fluoranthene	<5ug/l	09/03/01		SA2981
Chrysene	<5ug/l	09/03/01		SA2981
Benzo[a]pyrene	<5ug/l	09/03/01		SA2981
Benzo[ghi]perylene	<5ug/l	09/03/01		SA2981
Indeno[1,2,3-cd]pyrene	<5ug/l	09/03/01		SA2981
Dibenz[a,h]anthracene				

KEY PAGE

1 MATRIX INTERFERENCE PRECLUDES LOWER DETECTION LIMITS
2 MATRIX INTERFERENCE
3 PRESENT IN BLANK
4 ANALYSIS NOT PERFORMED BECAUSE OF INSUFFICIENT SAMPLE
5 THE PRESENCE OF OTHER TARGET ANALYTE(S) PRECLUDES LOWER DETECTION LIMITS
6 BLANK CORRECTED
7 HEAD SPACE PRESENT IN SAMPLE
8 QUANTITATION LIMIT IS GREATER THAN THE CALCULATED REGULATORY LEVEL. THE QUANTITATION LIMIT THEREFORE BECOMES THE REGULATORY LEVEL.
9 THE OIL WAS TREATED AS A SOLID AND LEACHED WITH EXTRACTION FLUID
10 ADL(AVERAGE DETECTION LIMITS)
11 PQL(PRACTICAL QUANTITATION LIMITS)
12 SAMPLE ANALYZED OVER HOLDING TIME
13 DISSOLVED VALUE MAY BE HIGHER THAN TOTAL DUE TO CONTAMINATION FROM THE FILTERING PROCEDURE
14 SAMPLED BY ULI
15 DISSOLVED VALUE MAY BE HIGHER THAN TOTAL; HOWEVER, THE VALUES ARE WITHIN EXPERIMENTAL ERROR
16 AN INHIBITORY FACTOR WAS OBSERVED IN THIS ANALYSIS
17 PARAMETER NOT ANALYZED WITHIN 15 MINUTES OF SAMPLING
18 THE SERIAL DILUTION OF THIS SAMPLE SUGGESTS A POSSIBLE PHYSICAL AND/OR CHEMICAL INTERFERENT IN THIS DETERMINATION. THE DATA MAY BE BIASED EITHER HIGH OR LOW.
19 CALCULATION BASED ON DRY WEIGHT
20 INDICATES AN ESTIMATED VALUE, DETECTED BUT BELOW THE PRACTICAL QUANTITATION LIMITS
21 UG/KG AS REC.D / UG/KG DRY WT
22 MG/KG AS REC.D / MG/KG DRY WT
23 INSUFFICIENT SAMPLE PRECLUDES LOWER DETECTION LIMITS
24 SAMPLE DILUTED/BLANK CORRECTED
25 ND(NON-DETECTED)
26 MATRIX INTERFERENCE PRECLUDES LOWER DETECTION LIMITS/BLANK CORRECTED
27 SPIKE RECOVERY ABNORMALLY HIGH/LOW DUE TO MATRIX INTERFERENCE
28 POST-DIGESTION SPIKE FOR FURNACE AA ANALYSIS IS OUTSIDE OF THE CONTROL LIMITS (85-115%); HOWEVER, THE SAMPLE CONCENTRATION IS BELOW THE PQL
29 ANALYZED BY METHOD OF STANDARD ADDITIONS
30 METHOD PERFORMANCE STUDY HAS NOT BEEN COMPLETED/ND(NON-DETECTED)
31 FIELD MEASURED PARAMETER TAKEN BY CLIENT
32 TARGET ANALYTE IS BIODEGRADED AND/OR ENVIRONMENTALLY WEATHERED
33 NON-POTABLE WATER SOURCE
34 VOLATILE ASP CODES

(B)POSSIBLE/PROBABLE BLANK CONTAMINATION (D)ALL COMPOUNDS IDENTIFIED AT A SECONDARY DILUTION FACTOR (J)DETECTED BELOW THE CRQL
35 THE HYDROCARBONS DETECTED IN THE SAMPLE DID NOT CROSS-MATCH WITH COMMON PETROLEUM DISTILLATES
36 MATRIX INTERFERENCE CAUSING SPIKES TO RESULT IN LESS THAN 50.0% RECOVERY
37 MILLIGRAMS PER LITER (MG/L) / POUNDS (LBS) PER DAY
38 MILLIGRAMS PER LITER (MG/L) OF RESIDUAL CHLORINE (CL2) / POUNDS (LBS) PER DAY OF CL2
39 MICROGRAMS PER LITER (UG/L) / POUNDS (LBS) PER DAY
40 MILLIGRAMS PER LITER (MG/L) LINEAR ALKYL SULFONATE (LAS) / POUNDS (LBS) PER DAY LAS
41 RESULTS ARE REPORTED ON AN AS REC.D BASIS
42 THE SAMPLE WAS ANALYZED ON A TOTAL BASIS; THE TEST RESULT CAN BE COMPARED TO THE TCLP REGULATORY CRITERIA BY DIVIDING THE TEST RESULT BY 20, CREATING A THEORETICAL TCLP VALUE
43 METAL BY CONCENTRATION PROCEDURE
44 POSSIBLE CONTAMINATION FROM FIELD/LABORATORY

Upstate Laboratories, Inc.

5034 Corporate Drive • E. Syracuse, NY 13057-1017
(315) 437 0255 Fax 437 1209

Chain Of Custody Record

8/30 HHO
HOD 8/30/01

Client: STERLING ENVIRONMENTAL SERV.

Client Project # / Project Name: BUFFALO BRAKE BEAM / FUEL SPILL AREA

Client Contact: WAYNE CAMERON

Phone # (716) 824 2407

Site Location (city/state): LACKAWANNA NY

Special Turnaround Time: SOAY (Lab Notification required) RUSH

Remarks

Sample Location:	Date	Time	Matrix	Grab or Comp.	ULI Internal Use Only	No. of Containers	1) STARS 8260	2) STARS 8270	3)	4)	5)	6)	7)	8)	9)	10)
FSA-05-B	8/22/01	12:00	SOIL	COMP	23601131	2	X	X	X							
FSA-05-EW	8/22/01	1:20	SOIL	COMP	1328	2	X	X	X							
FSA-05-SWE	8/22/01	12:20	SOIL	COMP	133	2	X	X	X							
FSA-05-SWW	8/22/01	12:35	SOIL	COMP	134	2	X	X	X							
FSA-05-NWS	8/22/01	12:50	SOIL	COMP	135	2	X	X	X							
FSA-05 NWN	8/22/01	1:10	SOIL	COMP	136	2	X	X	X							
FSA-22-B	8/22/01	2:00	SOIL	COMP	137	2	X	X	X							
FSA-22-N	8/22/01	2:05	SOIL	COMP	138	2	X	X	X							
FSA-22-E	8/22/01	2:15	SOIL	COMP	139	2	X	X	X							
FSA-22-SW	8/22/01	2:30	SOIL	COMP	140	2	X	X	X							

03423

Parameter and method	sample bottle:	type	size	pres.
1) (% Solids) EC				
2)				
3)				
4)				
5)				
6)				
7)				
8)				
9)				
10)				

Note: The numbered columns above cross-reference with the numbered columns in the upper right-hand corner.

Sampled by: (Please Print) WAYNE K CAMERON

Company: STERLING ENVIRONMENTAL SERVICES INC.

ULI Internal Use Only

Delivery (check one):
☐ ULI Sampled
☑ Pickup ☐ Dropoff
☑ CC CDL

Relinquished by: (Signature)	Date	Time	Received by: (Signature)
[signature]	8/25/01	9:20	[signature]
[signature]	8/23/01	1:20	
	8/24/01	0750	[signature]

Upstate Laboratories, Inc.

6034 Corporate Drive • E. Syracuse, NY 13057-1017
(315) 437 0255 Fax 437 1209

Chain Of Custody Record

8/30 EMD
HDD 8/30/01

Client: STERLING ENVIRONMENTAL SERV.

Client Project # / Project Name: BUFFALO BRAKEBEAM / FUEL SPILL AREA

Client Contact: WAYNE CAMERON

Phone # (716) 824 2407

Site Location (city/state): LACKAWANNA NY

Special Turnaround Time: 5 DAY (Lab Notification required) PUSH

Sample Location:	Date	Time	Matrix	Grab or Comp.	ULI Internal Use Only	No. of Containers	1) STARS 8260	2) STARS 8270	3) STARS 8021 + 8270	4)	5)	6)	7)	8)	9)	10)	Remarks
FSA-18-B	8/22/01	2:55	SOIL	COMP	23601141	(2)	X	X		(X)							
FSA-18-SW	8/22/01	3:50	SOIL	COMP	142	(2)	X	X		(X)							
FSA-18-Water	8/22/01	3:10	Water	Grab	143	(1)			X								

03424

parameter and method	sample bottle: type	size	pres.
1)			
2)			
3)			
4) (% Solids) ea			
5)			
6)			
7)			
8)			
9)			
10)			

Note: The numbered columns above cross-reference with the numbered columns in the upper right-hand corner.

Sampled by: (Please Print) WAYNE K CAMERON

Company: STERLING ENVIRONMENTAL SERVICES INC.

ULI Internal Use Only

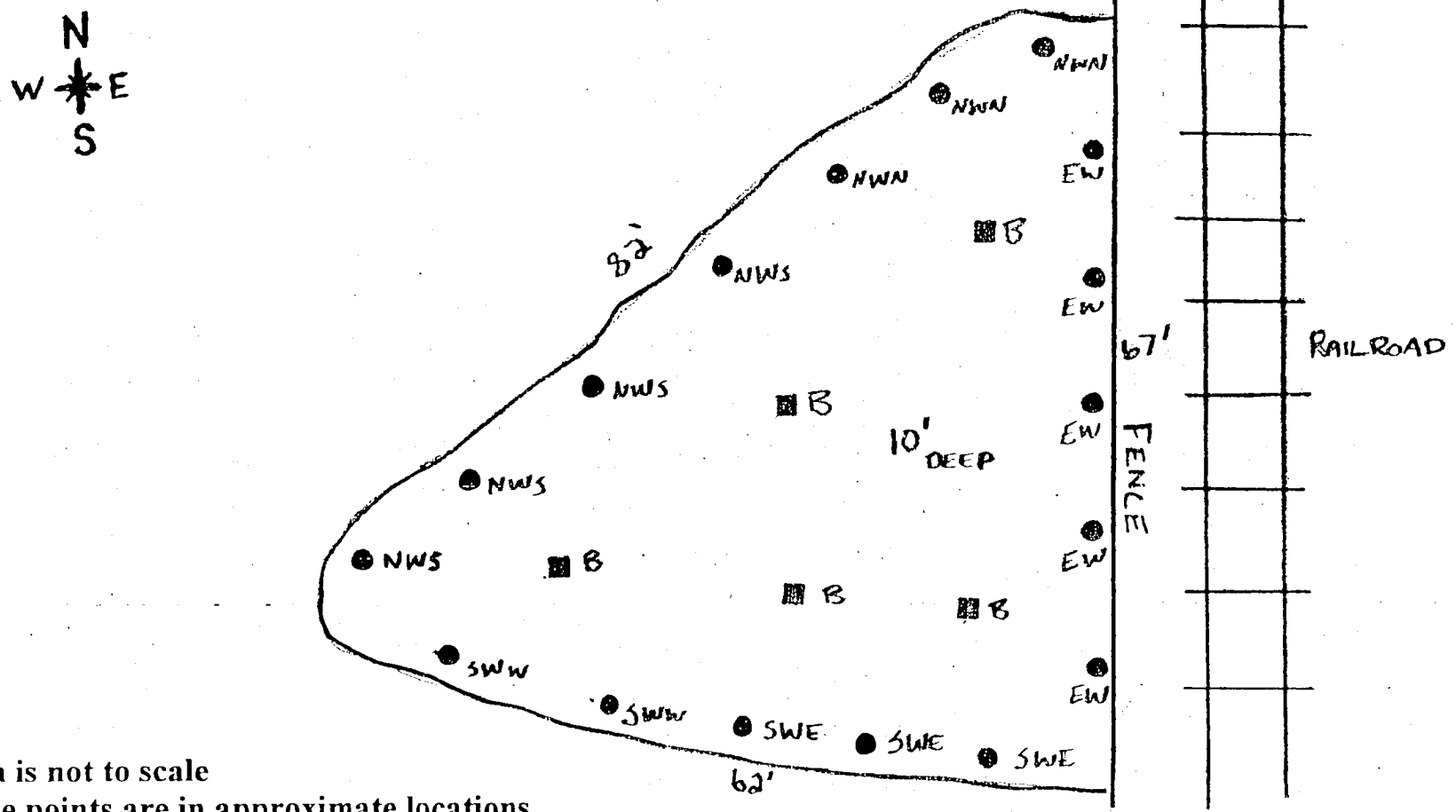
Delivery (check one):
☐ ULI Sampled
☑ Pickup ☐ Dropoff

CC

Relinquished by: (Signature)	Date	Time	Received by: (Signature)
[signature]	8/23/01	9:20	[signature]
[signature]	8/23/01	1:20	
Relinquished by: (Signature)	Date	Time	Received by: (Signature)
Relinquished by: (Signature)	Date	Time	Rec'd for Lab by: (Signature)
	8/24/01	1130	K Camp

[redacted] Syra[redacted] Roc[redacted]er [redacted] B[redacted]o [redacted] A[redacted] [redacted] B[redacted]amto[redacted] [redacted] Fair[redacted] (N[redacted]

Map of Sample Points for SB05



Sketch is not to scale

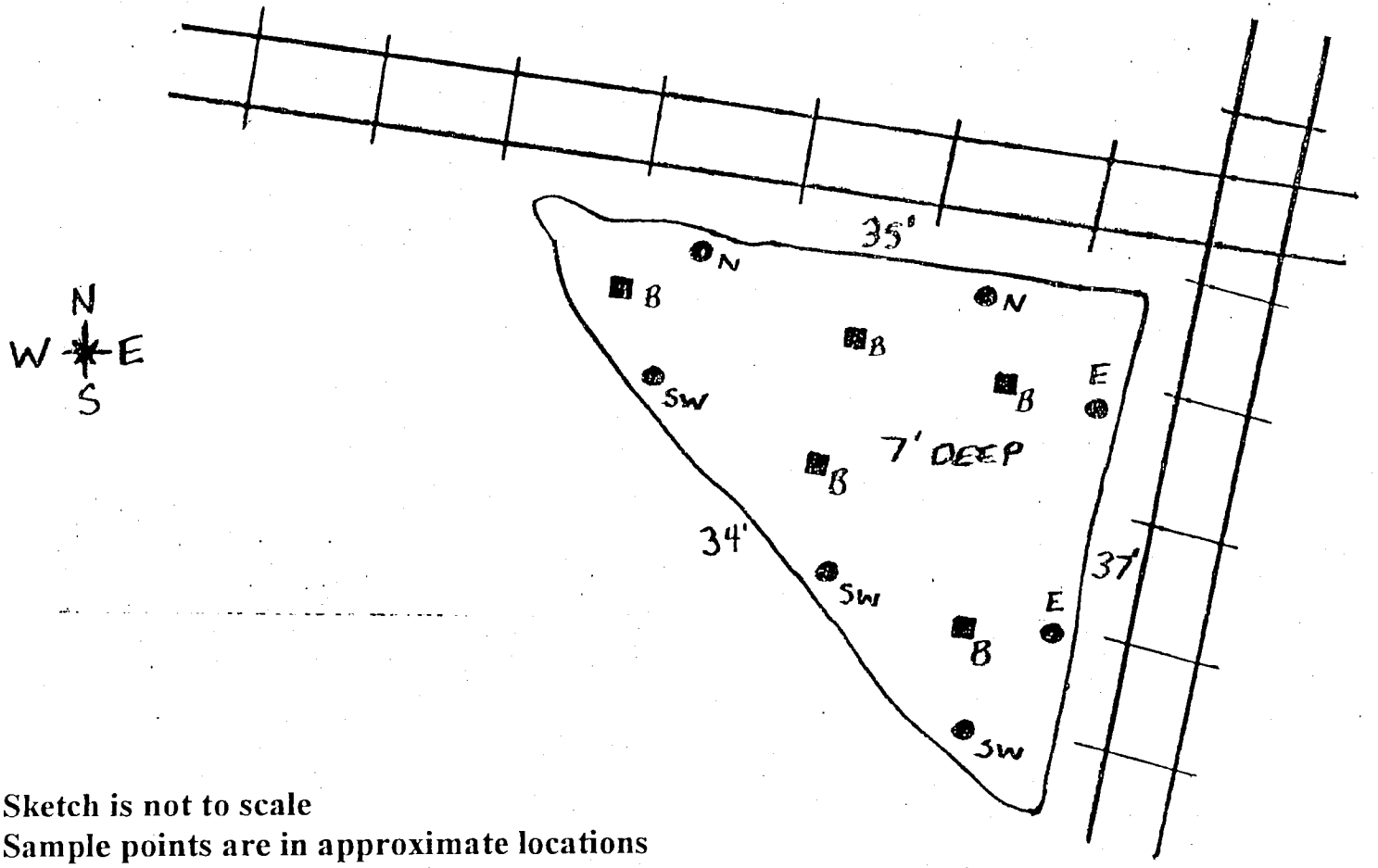
Sample points are in approximate locations

Side- wall samples are approximately 10' apart/3' to 4' from the bottom

- ● =side-wall sample point
- ■ =bottom sample point

03425

Map of Sample Points for SB22



Sketch is not to scale

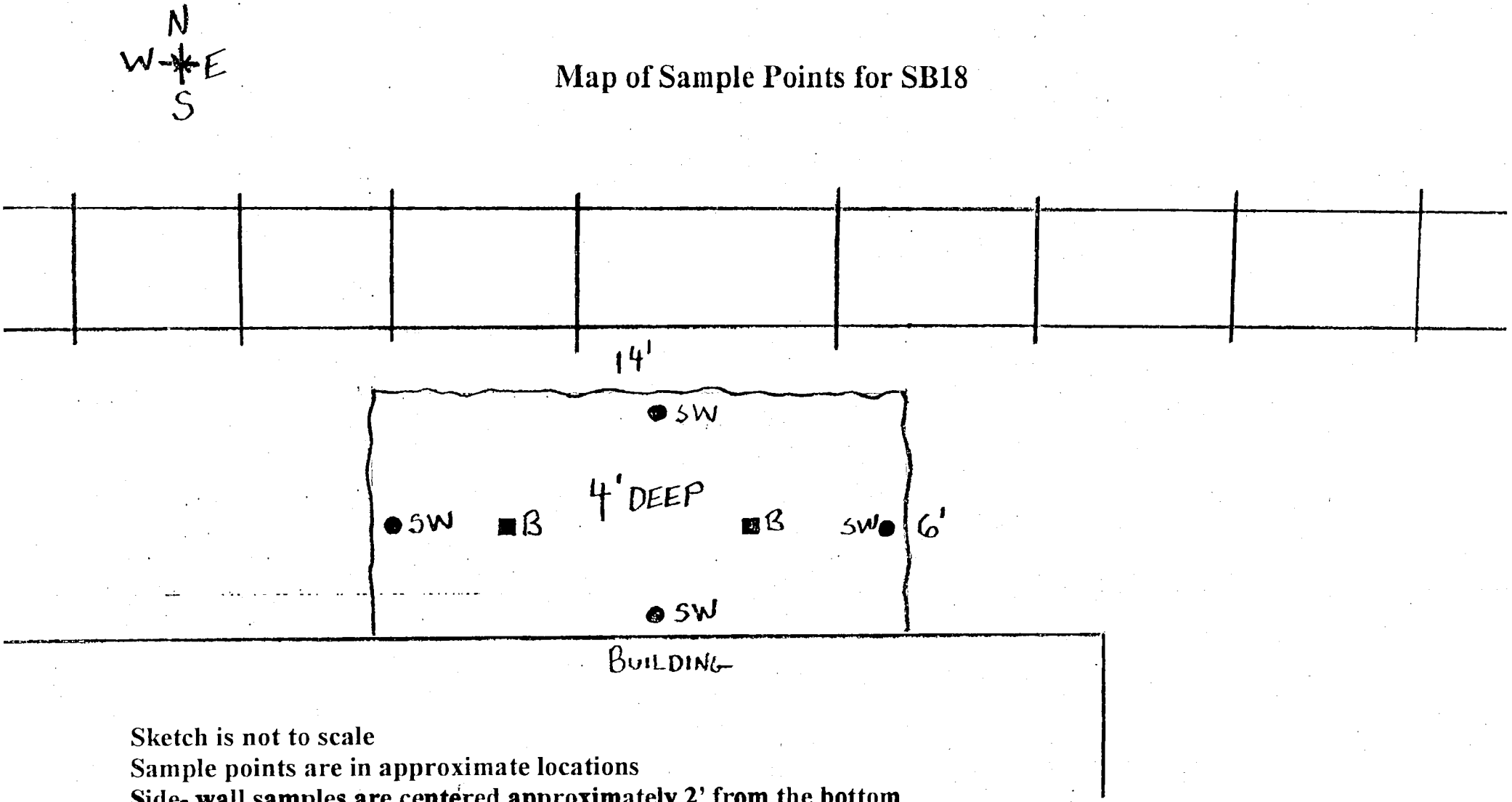
Sample points are in approximate locations

Side- wall samples are approximately 10' apart/2' to 3' from the bottom

● =side-wall sample point

■ =bottom sample point

Map of Sample Points for SB18

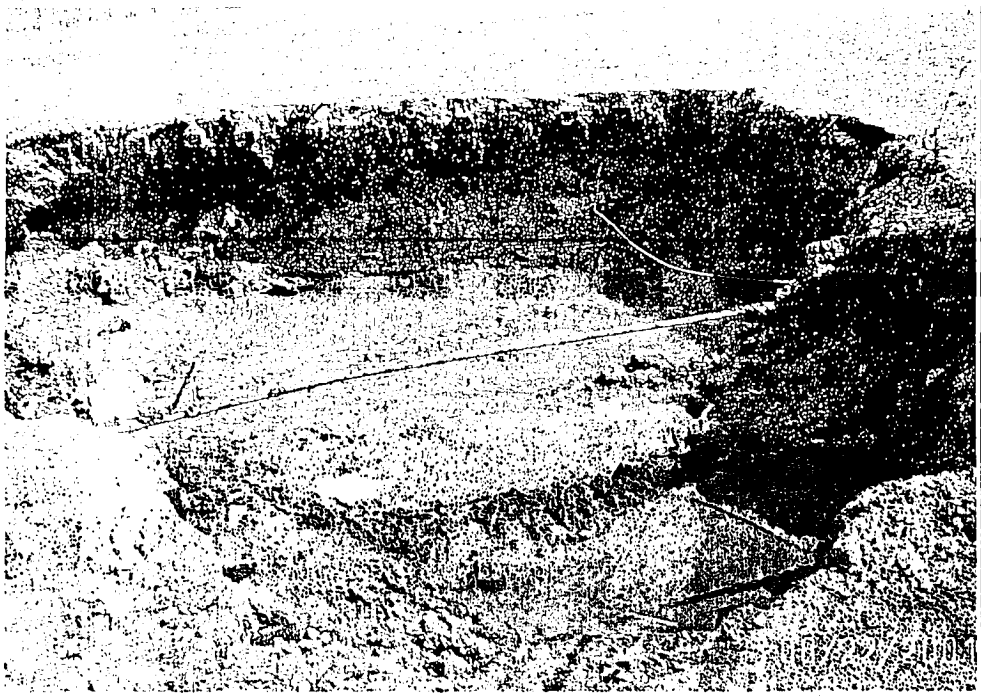


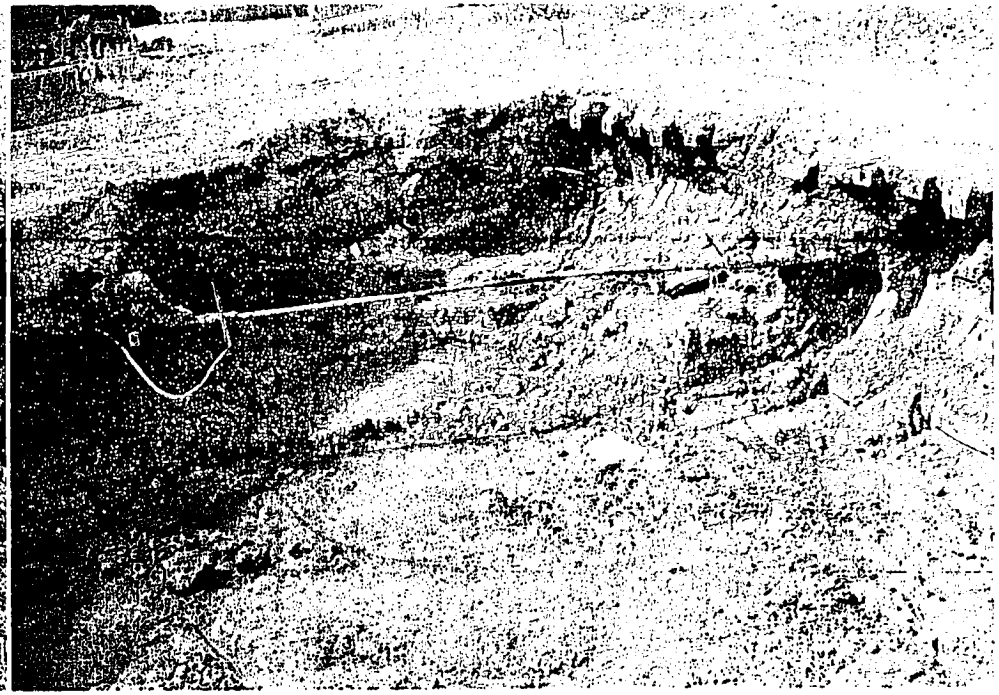
Sketch is not to scale
Sample points are in approximate locations
Side- wall samples are centered approximately 2' from the bottom

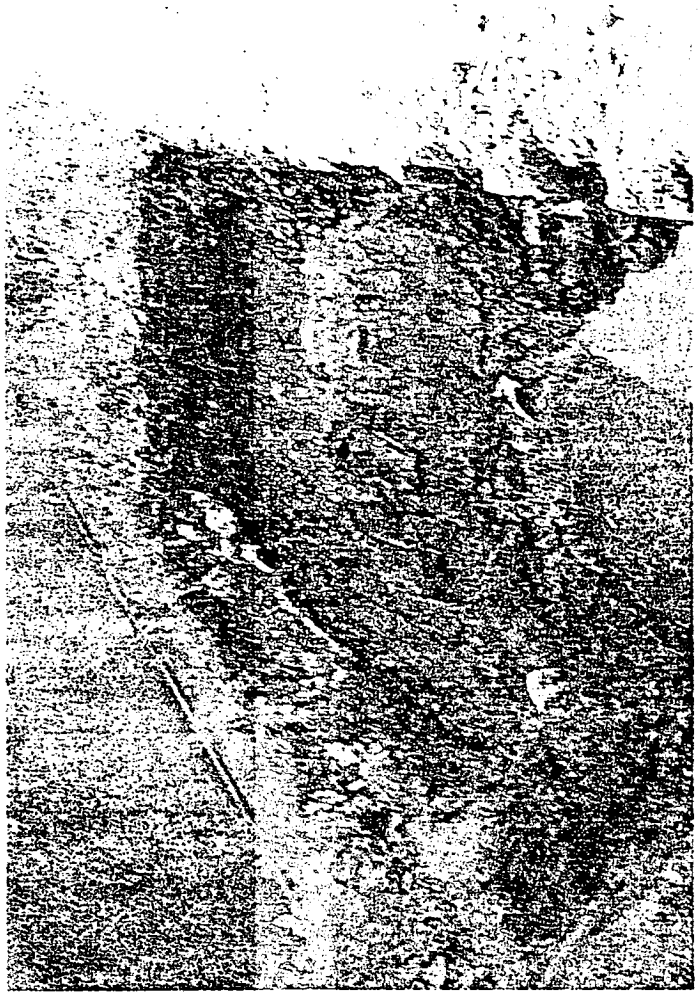
- ● =side-wall sample point
- ■ =bottom sample point

03427

03428







Dump Truck Activity
Fuel Oil Spill Area

DATE	TRUCK #	TIME IN	TIME OUT	WEIGHT/TONS
8/20/01	A 48	6:30	6:45	21.33
8/20/01	A 46	7:00	7:10	25.02
8/20/01	A 18	7:10	7:20	21.84
8/20/01	A 25	7:20	7:30	23.30
8/20/01	L 38	7:30	7:35	24.62
8/20/01	A 15	7:35	7:45	21.85
8/20/01	A 27	7:45	7:55	25.66
8/20/01	A 17	8:00	8:05	21.27
8/20/01	A 48	8:25	8:40	23.84
8/20/01	A 46	8:55	9:05	21.64
8/20/01	A 18	9:40	9:50	24.71
8/20/01	A 15	9:55	10:05	24.06
8/20/01	A 48	10:15	10:35	21.05
8/20/01	A 17	10:35	10:45	16.38**
8/20/01	A 46	10:45	10:55	24.48
8/20/01	A 48	12:10	12:15	20.72
8/20/01	A 18	12:15	12:22	21.24
8/20/01	A 15	12:22	12:30	22.43
8/20/01	A 46	12:37	12:44	25.52
8/20/01	A 17	12:45	12:52	16.30**
8/20/01	A 48	2:00	2:05	23.44
8/20/01	A 15	2:32	2:41	24.51
8/20/01	A 18	2:41	2:48	23.68
8/20/01	A 46	2:48	3:00	22.94
8/20/01	A 17	3:00	3:09	18.11**
8/20/01	L 47	3:10	3:25	31.10

Total Weight of Contaminated Soils Removed 8/20/01= 591.04 tons

Dump Truck Activity
Fuel Oil Spill Area

DATE	TRUCK #	TIME IN	TIME OUT	WEIGHT/TONS
8/21/01	A 46	6:10	6:20	23.73
8/21/01	A 48	6:20	6:30	25.82
8/21/01	A 30	6:34	6:45	21.69
8/21/01	A 15	6:45	6:55	26.80
8/21/01	A 18	6:55	7:03	22.10
8/21/01	A 28	7:05	7:15	21.87
8/21/01	A 17	7:15	7:22	19.60
8/21/01	L 38	7:25	7:30	24.61
8/21/01	A 46	8:18	8:26	23.03
8/21/01	A 48	8:28	8:34	25.46
8/21/01	A 30	8:45	8:53	19.26
8/21/01	A 15	9:00	9:07	25.93
8/21/01	A 18	9:11	9:20	23.99
8/21/01	A 17	9:35	9:47	23.33
8/21/01	A 46	10:10	10:20	23.03
8/21/01	A 48	10:20	10:26	23.74
8/21/01	A 27	10:28	10:34	22.38
8/21/01	A 30	10:50	11:00	22.56
8/21/01	A 15	11:04	11:20	24.59
8/21/01	A 18	11:20	11:28	22.83
8/21/01	A 17	11:50	12:00	23.32
8/21/01	A 46	12:10	12:15	24.91
8/21/01	A 48	12:15	12:23	24.69
8/21/01	A 21	12:47	12:55	28.03
8/21/01	A 27	12:57	1:09	24.56
8/21/01	A 30	1:15	1:25	24.53
8/21/01	A 15	1:26	1:38	23.93
8/21/01	A 18	1:38	1:43	23.19
8/21/01	A 17	2:00	2:15	22.65
8/21/01	A 46	2:20	2:27	22.67
8/21/01	A 48	2:29	2:37	25.68
8/21/01	A 27	3:03	3:13	22.76
8/21/01	A 21	3:13	3:20	21.18
8/21/01	A 30	3:20	3:38	21.29
8/21/01	A 15	3:30	3:48	20.38

Total Weight of Contaminated Soils Removed 8/21/01= 820.12 tons

Dump Truck Activity
Fuel Oil Spill Area

DATE	TRUCK #	TIME IN	TIME OUT	WEIGHT/TONS
8/22/01	A 46	6:10	6:28	22.96
8/22/01	A 48	6:39	7:15	21.52
8/22/01	L 38	8:00	8:30	18.40
8/22/01	A 48	8:42	9:30	23.42
8/22/01	L 38	10:20	11:03	24.27

Total Weight of Contaminated Soils Removed 8/22/01= 110.57 tons

Supplemental Environmental Field Investigation Report

Quenchant Pit

Buffalo Brake Beam Site
400 Ingham Avenue
Lackawanna, NY

Prepared: March 2002

By: Sterling Environmental Services, Inc.
50 Lake Avenue
Blasdell, NY 14219

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INTRODUCTION

Sterling Environmental was retained by Rigel Enterprises for the purpose of investigating further the Quenchant Pit as an area of environmental concern relating to the former Buffalo Brake Beam property. The Quenchant Pit was originally identified as an area of environmental concern in the Baseline Environmental Site Assessment prepared by Earth Tech, Inc. in December 2000. The following report will discuss sampling efforts and correlating analytical data from recent investigations along with recommendations for further action based upon the findings.

The Quenchant Pit was used to quench hot steel coming out of the heat treat furnace. UCON Quenchant RL, a solution of polyalkylene glycol was reportedly used in the quenchant bath. This product contained sodium nitrate and aminates including cyanoaminate. An MSDS for this product has been inserted as an appendix to this report.

The Quenchant Pit consisted of an open top rectangular steel tank set in a poured rectangular concrete pit approximately 16.5'x 12'x 6.5' in depth. The tank occupied most of the space of the pit with spacing of four inches to three feet between the steel and the concrete walls with the top of the tank being approximately four inches below the floor surface as to allow overflow to collect in the pit.

A visual inspection of the concrete pit after removal of the steel floor plates showed breaches in the concrete. The corners of the pit in particular, where the concrete had either broken out or the pour was incomplete, underlying soils were visible. The major concern was that of possible contamination of adjacent soils due to activities and usages of the Quenchant Pit.

An agreed upon work plan called for a minimum of four soil samples to be collected from below the floor near the quenchant pit area and submitted for lab analysis. Continuous split spoon soil cores obtained via Geoprobe were to be collected from the surface to either refusal or the water table, whichever came first. Sample intervals displaying the highest level of impact based upon visual, olfactory and headspace screening or the interval immediately above the water table were to be collected for analysis.

Sampling activities were scheduled to take place on January 21, 2002. Present for sampling activities were Wayne Cameron and Jeremy Wells of Sterling Environmental, Steve Choiniere of Earth Tech (observing representative for Miner), and 2 Geoprobe operators from Zebra Environmental.

SUMMARY OF FIELD ACTIVITIES & OBSERVATIONS

Visual inspection of the pit after removal of the sludge and steel tank revealed that the pit had been rectangular originally. The concrete sidewalls showed the pattern of wood plank forms. The majority of the north and south walls had been removed at some point and the pit was widened using plywood forms on the inside. It appeared that the soil had subsided in all four corners of this expansion once the forms were set but before the concrete was poured. This resulted in the exposed soils noted in the original inspection.

A total of four strategic Geoprobe borings were done on the south side of the Quenchant Pit. The split spoon borings were taken at 4' intervals from surface to refusal or the water table. Each soil interval was screened immediately with a PID. Samples were obtained from intervals deemed most impacted through headspace PID screening, olfactory, and visual observations. Obtained samples were labeled and handled accordingly and submitted to Upstate Laboratories for analysis under standard chain of custody procedures. A concrete wall on the north side and obstructions to the east and west of the pit made it impossible to pursue borings in those areas. The borings were named QTB1, QTB2, QTB3, and QTB4 respectively. A diagram of the pit and the boring locations follows.

QTB1 was advanced approximately 2' south and 14" west of the southwest corner of the pit at 11:25am. Two samples were obtained; QTB1-01 at the interval of 8'-12' and QTB1-02 at the refusal interval of 16'-17'. Each depth interval and its findings are listed below:

Depth	PID	Observations
0'-4'	1 ppm	granular backfill
4'-8'	2 ppm	granular backfill
8'-12'	10 ppm	granular backfill to 9.5'/ gray clay-like with sand/ moisture @ 10'/ sample QTB1-01 taken.
12'-16'	5 ppm	gray clay with wet sand
16'-17'	19 ppm	refusal/ gray clay with wet sand sample QTB1-02 taken

QTB2 was advanced approximately 2' east and 33" south from the southeast corner of the pit at 12:20pm. No samples were obtained due to the fact that it hit refusal at 5' below the surface and the PID reading for the 0'-4' interval was only 2 ppm.

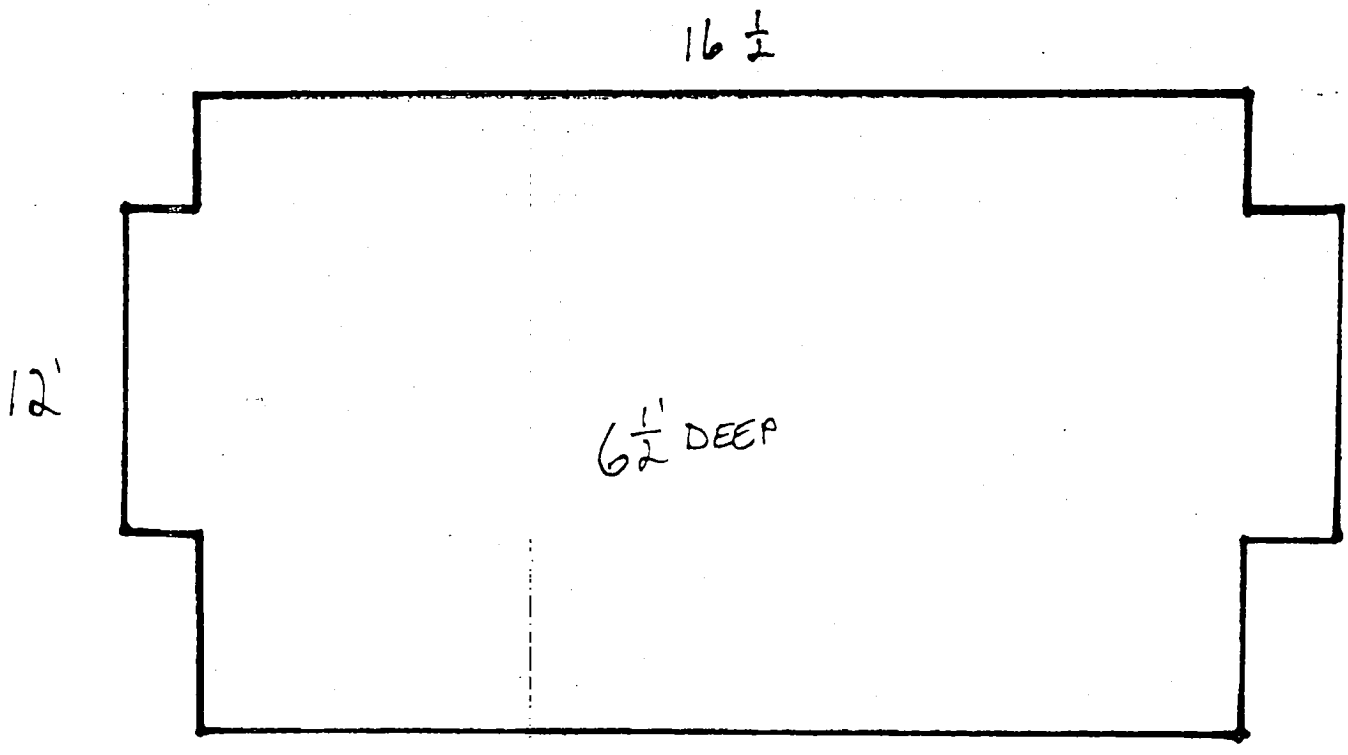
QTB3 was advanced approximately 5.5' south and 6" west of the southeast corner of the pit at 12:35 pm. One sample, QTB3-01, was taken at the 8'-12' interval due to a significant odor although there was not a significant PID reading for that interval.

Depth	PID	Observations
0'-4'	1 ppm	granular backfill
4'-8'	2 ppm	granular backfill/ clay/ odor around 7'
8'-12'	2 ppm	gray clay and sand/ strong odor sample QTB3-01 taken
14.5'	no recovery	refusal

QTB4 was advanced approximately 14' south from the center of the southern wall of the pit at 1:20pm. One sample QTB4-01, was taken at the 12'-14.5' refusal interval due to a high PID reading. The PID readings were relatively high on most of the intervals at this boring, however it is possible that they are unrelated to the quenchant pit due to the distance of the location of the boring from the pit.

Depth	PID	Observations
0'-4'	5 ppm	granular backfill
4'-8'	25 ppm	granular backfill
8'-12'	15 ppm	clay and some backfill
12'-14.5'	25 ppm	clay and some backfill refusal at 14.5'/sample QTB4-01 taken

DIAGRAM OF SAMPLE POINT LOCATIONS



QTB1 (2' SOUTH AND 14" WEST OF CORNER) (SAMPLES TAKEN QTB1-01 @ 8'-12' INTERVAL QTB1-02 @ 16'-17' INTERVAL)

(NO SAMPLES) QTB2 (53" SOUTH AND 2' EAST OF CORNER)

QTB3 (SAMPLE TAKEN QTB3-01 @ 8'-12' INTERVAL) (5 1/2' SOUTH AND 6" WEST OF CORNER)

NOTE: DRAWING IS NOT TO SCALE. POINTS AND DIMENSIONS ARE APPROXIMATE MEASUREMENTS

QTB4 (SAMPLE TAKEN QTB4-01 @ 12'-14 1/2' INTERVAL) (14' SOUTH CENTER)

SUMMARY OF ANALYTICAL RESULTS

All four samples were analyzed for TCL Metals, SVOC's, PCB's and Cyanides. Metals were analyzed for due to the potential for alloy metals to have leached from the steel that was being quenched. Historically, oils were sometimes used as quenching agents in heat-treating processes. This raised the concern that there may have been Semi-volatiles and or PCB's introduced into the soil via overspill and leaching. Label information collected during the baseline site assessment from a drum of UCON Quenchant RL, the most recently used quenchant product, revealed cyanoaminates as a constituent. However the MSDS obtained for this product does not list cyanoaminates as a constituent. The possibility of cyanoaminates breaking down to form cyanide compounds was the basis for analyzing the samples for cyanides. Although sampling for VOC's was not part of the work plan, a field decision was made to analyze two samples, QTB1-02 and QTB4-01 for VOC's due to the high PID readings.

Analytical results are presented in the following tables with comparison to the recommended soil cleanup objective from TAGM 4046. A copy of the lab analytical report is attached.

Cyanide was below the detection limit in all four samples. For heavy metals, in general, the cleanup objective is the site background level. A site background study was not included as part of the scope of this investigation. TAGM 4046 lists Eastern USA or New York State background level ranges for many of the metals. Exceedences of the TAGM listed background levels are hightighted in bold. Nickel and Zinc were above the TAGM listed background levels in sample QTB1-01 but are well within US background levels as reported by the US Geological Survey. Likewise, Calcium and Magnesium were above the TAGM listed background levels in samples QTB1-02, QTB3-01 and QTB4-01 but within the US background levels reported by the USGS. Silver was detected in sample QTB4-01 at 6.6 ppm. No background levels are listed for Silver in TAGM 4046 or the USGS report. The generic soil screening level for Silver under the USEPA Soil Screening Guidance Technical Background Document for migration to groundwater with a 20 DAF is 34 ppm. In the other three samples Cadmium, at 1.3 to 1.8 ppm, exceeds the background levels listed. These levels are still below the EPA generic soil screening level for a 20 DAF of 8 ppm. Selenium exceeds site background levels by two to four times in three of the samples, QTB1-02, QTB3-01 and QTB4-01. Antimony was detected in two of the samples, QTB1-01 and QTB4-01 at 39 and 94 ppm respectively, above the USGS background levels of <8.8 ppm.

The semi-volatile analysis showed no specific exceedences of the TAGM 4046 recommended soil cleanup objectives. However, the detection limits for QTB1-01 were extremely high due to a high dilution level to protect the lab instrumentation.

The resulting detection limits are too high to make any determination from this sample.

PCB's were not detected in any of the four samples.

The volatile analysis showed no exceedences of the TAGM 4046 recommended soil cleanup objectives.

Analytical Results

Summary Table in PPM (mg/Kg)
Sample # QTB1-01
Matrix: Soil
Heavy Metals

Constituent	Sample Results	TAGM 4046 Rec. Soil Cleanup Objective	*Eastern USA Background	**USGS Background Levels
Aluminum	7,800	SB	33,000	
Antimony	39	SB	N/A	<1-8.8
Arsenic	6.9	7.5 or SB	3-12	
Barium	42	300 or SB	15-600	
Beryllium	<0.55	0.16 or SB	0-1.75	
Cadmium	1.8	1 or SB	0.1-1	
Calcium	1,500	SB	130-35,000	<150-320,00
Chromium	15	10 or SB	1.5-40	
Cobalt	57	30 or SB	2.5-60	
Copper	23	25 or SB	1-50	
Cyanide	<1.1		N/A	
Iron	18,000	2,000 or SB	2,000-550,000	
Lead	<11	SB	200-500	
Magnesium	3,800	SB	100-5,000	.005->100,00
Manganese	180	SB	50-5,000	
Mercury	<0.17	0.1	0.001-0.2	
Nickel	28***	13 or SB	0.5-25	<5-700
Potassium	2,300	SB	8,500-43,000	
Selenium	1.8	2 or SB	0.1-3.9	
Silver	<5.5	SB	N/A	
Sodium	1,600	SB	6,000-8,000	
Thallium	<0.33	SB	N/A	
Vanadium	<33	150 or SB	1-300	
Zinc	59***	20 or SB	9-50	<5-2,900

SB site background
N/A not available
* From TAGM 4046
** "Chemical Analysis of Soils and Other Surficial Materials of the Conterminous United States" by Josephine G. Boerngen and Mansford T. Shacklette, US Geological Survey
*** Level exceeds Eastern USA background as reported in TAGM4046 but is within range of US background levels as reported by USGS.

Analytical Results

Summary Table in PPM (mg/Kg)
Sample # QTB1-02
Matrix: Soil
Heavy Metals

Constituent	Sample Results	TAGM 4046 Rec. Soil Cleanup Objective	*Eastern USA Background	**USGS Background Level
Aluminum	3,700	SB	33,000	
Antimony	<32	SB	N/A	<1-8.8
Arsenic	4.1	7.5 or SB	3-12	
Barium	<32	300 or SB	15-600	
Beryllium	<0.53	0.16 or SB	0-1.75	
Cadmium	1.3	1 or SB	0.1-1	
Calcium	99,000***	SB	130-35,000	<150-320,00
Chromium	8.4	10 or SB	1.5-40	
Cobalt	18	30 or SB	2.5-60	
Copper	16	25 or SB	1-50	
Cyanide	<1.1		N/A	
Iron	6,500	2,000 or SB	2,000-550,000	
Lead	<11	SB	200-500	
Magnesium	15,000***	SB	100-5,000	.005->100,00
Manganese	170	SB	50-5,000	
Mercury	<0.16	0.1	0.001-0.2	
Nickel	17	13 or SB	0.5-25	<5-700
Potassium	1,200	SB	8,500-43,000	
Selenium	17	2 or SB	0.1-3.9	
Silver	<5.3	SB	N/A	
Sodium	720	SB	6,000-8,000	
Thallium	<0.32	SB	N/A	
Vanadium	<32	150 or SB	1-300	
Zinc	33	20 or SB	9-50	<5-2,900

SB site background
N/A not available
* From TAGM 4046
** "Chemical Analysis of Soils and Other Surficial Materials of the Conterminous United States" by Josephine G. Boerngen and Mansford T. Shacklette, US Geological Survey
*** Level exceeds Eastern USA background as reported in TAGM4046 but is within range of US background levels as reported by USGS.

Analytical Results

Summary Table in PPM (mg/Kg)
Sample # QTB3-01
Matrix: Soil
Heavy Metals

Constituent	Sample Results	TAGM 4046 Rec. Soil Cleanup Objective	*Eastern USA Background	**USGS Background Level
Aluminum	4,400	SB	33,000	
Antimony	<33	SB	N/A	<1-8.8
Arsenic	4.4	7.5 or SB	3-12	
Barium	<33	300 or SB	15-600	
Beryllium	<0.55	0.16 or SB	0-1.75	
Cadmium	**1.5**	1 or SB	0.1-1	
Calcium	**110,000*** **	SB	130-35,000	<150-320,00
Chromium	9.6	10 or SB	1.5-40	
Cobalt	26	30 or SB	2.5-60	
Copper	18	25 or SB	1-50	
Cyanide	<1.1		N/A	
Iron	8,500	2,000 or SB	2,000-550.000	
Lead	<11	SB	200-500	
Magnesium	**9,900*** **	SB	100-5,000	.005->100,00
Manganese	200	SB	50-5,000	
Mercury	<0.17	0.1	0.001-0.2	
Nickel	21	13 or SB	0.5-25	<5-700
Potassium	1,500	SB	8,500-43,000	
Selenium	**15**	2 or SB	0.1-3.9	
Silver	<5.5	SB	N/A	
Sodium	600	SB	6,000-8,000	
Thallium	<0.33	SB	N/A	
Vanadium	<33	150 or SB	1-300	
Zinc	40	20 or SB	9-50	<5-2,900

SB site background
N/A not available
* From TAGM 4046
** "Chemical Analysis of Soils and Other Surficial Materials of the Conterminous United States" by Josephine G. Boerngen and Mansford T. Shacklette, US Geological Survey
*** Level exceeds Eastern USA background as reported in TAGM4046 but is within range of US background levels as reported by USGS.

Analytical Results

Summary Table in PPM (mg/Kg)
Sample # QTB4-01
Matrix: Soil
Heavy Metals

Constituent	Sample Results	TAGM 4046 Rec. Soil Cleanup Objective	*Eastern USA Background	**USGS Background Level
Aluminum	3,100	SB	33,000	
Antimony	94	SB	N/A	<1-8.8
Arsenic	4.6	7.5 or SB	3-12	
Barium	34	300 or SB	15-600	
Beryllium	<0.55	0.16 or SB	0-1.75	
Cadmium	1.1	1 or SB	0.1-1	
Calcium	180,000***	SB	130-35,000	<150-320,00
Chromium	8.1	10 or SB	1.5-40	
Cobalt	22	30 or SB	2.5-60	
Copper	12	25 or SB	1-50	
Cyanide	<1.1		N/A	
Iron	6,900	2,000 or SB	2,000-550,000	
Lead	<11	SB	200-500	
Magnesium	7,600***	SB	100-5,000	.005->100,00
Manganese	250	SB	50-5,000	
Mercury	<0.16	0.1	0.001-0.2	
Nickel	15	13 or SB	0.5-25	<5-700
Potassium	1,100	SB	8,500-43,000	
Selenium	8.5	2 or SB	0.1-3.9	
Silver	6.6	SB	N/A	
Sodium	450	SB	6,000-8,000	
Thallium	<0.33	SB	N/A	
Vanadium	<33	150 or SB	1-300	
Zinc	28	20 or SB	9-50	<5-2,900

SB site background
N/A not available
* From TAGM 4046
** "Chemical Analysis of Soils and Other Surficial Materials of the Conterminous United States" by Josephine G. Boerngen and Mansford T. Shacklette, US Geological Survey
*** Level exceeds Eastern USA background as reported in TAGM4046 but is within range of US background levels as reported by USGS.

Analytical Results

Summary Table in PPM (mg/Kg)
Sample # QTB1-01
Matrix: Soil
SVOC's EPA method 8270

Constituent	Sample Results	TAGM 4046 Rec. Soil Cleanup Objective
Phenol	<37	0.03 or MDL
Bis (2-Chloroethyl) ether	<37	
2-Chlorophenol	<37	0.8
1,3-Dichlorobenzene	<37	1.6
1,4-Dichlorobenzene	<37	8.5
1,2-Dichlorobenzene	<37	7.9
2-Methylphenol	<37	0.100 or MDL
2,2'-Oxybis (1-Chloropropane)	<37	
4-Methylphenol	<37	0.9
n-Nitrosodinpropylamine	<37	
Hexachloroethane	<37	
Nitrobenzene	<37	0.200 or MDL
Isophorone	<37	4.40
2-Nitrophenol	<37	0.330 or MDL
2,4-Dimethylphenol	<37	
Bis (2-Chloroethoxy) methane	<37	
2,4-Dichlorophenol	<37	0.4
1,2,4-Trichlorobenzene	<37	3.4
Naphthalene	<37	13.0
4-Chloroaniline	<37	0.220 or MDL
Hexachlorobutadiene	<37	
4-Chloro-3-methylphenol	<37	0.240 or MDL
2-Methylnaphthalene	<37	36.4
Hexaclorocyclopentadiene	<37	
2,4,6-Trichlorophenol	<37	
2,4,5-Trichlorophenol	<37	0.1
2-Chloronaphthalene	<37	
2-Nitroanaline	<370	0.430 or MDL
Dimethylphthalate	<37	2.0
Acenaphthylene	<37	41.0
2,6-Dinitrotoluene	<37	1.0
3-Nitroaniline	<370	0.500 or MDL
Acenaphthene	<37	50.0
2,4-Dinitrophenol	<37	0.200 or MDL

4-Nitrophenol	<370	0.100 or MDL
Dibenzofuran	<37	6.2
2,4-Dinitrotoluene	<37	
Diethylphthalate	<37	7.1
4-Chlorophenylphenylether	<37	
Fluorene	<37	50.0
4-Nitroanaline	<370	
2-Methyl-4,6-dinitrophenol	<37	
n-Nitrosodiphenylamine	<37	
4-Bromophenylphenylether	<37	
Hexachlorobenzene	<37	0.41
Pentachlorophenol	<74	1.0 or MDL
Phenanthrene	<37	50.0
Anthracene	<37	50.0
Carbazole	<37	
di-n-butylphthalate	<37	8.1
Fluoranthene	<37	50.0
Pyrene	<37	50.0
Butylbenzylphthalate	<37	50.0
3,3-Dichlorobenzidine	<37	N/A
Benzo (a) anthracene	<37	0.224 or MDL
Chrysene	<37	0.4
Bis (2-Ethylhexyl)phthalate	<37	50.0
Di-n-octylphthalate	<37	50.0
Benzo (b) fluoranthene	<37	1.1
Benzo (k) fluoranthene	<37	1.1
Benzo (a) pyrene	<37	0.061 or MDL
Indeno (1,2,3-cd)pyrene	<37	3.2
Dibenzo (a,h) anthracene	<37	0.014 or MDL
Benzo (ghi) perylene	<37	50.0

TAGM 4046 requires Individual SVOC's to be < 50 ppm and Total SVOC's to be < 500 ppm.

Analytical Results

Summary Table in PPM (mg/Kg)
Sample # QTB1-02
Matrix: Soil
SVOC's EPA method 8270

Constituent	Sample Results	TAGM 4046 Rec. Soil Cleanup Objective
Phenol	<0.360	0.03 or MDL
Bis (2-Chloroethyl) ether	<0.360	
2-Chlorophenol	<0.360	0.8
1,3-Dichlorobenzene	<0.360	1.6
1,4-Dichlorobenzene	<0.360	8.5
1,2-Dichlorobenzene	<0.360	7.9
2-Methylphenol	<0.360	0.100 or MDL
2,2'-Oxybis (1-Chloropropane)	<0.360	
4-Methylphenol	<0.360	0.9
n-Nitrosodinpropylamine	<0.360	
Hexachloroethane	<0.360	
Nitrobenzene	<0.360	0.200 or MDL
Isophorone	<0.360	4.40
2-Nitrophenol	<0.360	0.330 or MDL
2,4-Dimethylphenol	<0.360	
Bis (2-Chloroethoxy) methane	<0.360	
2,4-Dichlorophenol	<0.360	0.4
1,2,4-Trichlorobenzene	<0.360	3.4
Naphthalene	<0.360	13.0
4-Chloroaniline	<0.360	0.220 or MDL
Hexachlorobutadiene	<0.360	
4-Chloro-3-methylphenol	<0.360	0.240 or MDL
2-Methylnaphthalene	<0.360	36.4
Hexaclorocyclopentadiene	<0.360	
2,4,6-Trichlorophenol	<0.360	
2,4,5-Trichlorophenol	<0.360	0.1
2-Chloronaphthalene	<0.360	
2-Nitroanaline	<3.600	0.430 or MDL
Dimethylphthalate	<0.360	2.0
Acenaphthylene	<0.360	41.0
2,6-Dinitrotoluene	<0.360	1.0
3-Nitroaniline	<3.600	0.500 or MDL
Acenaphthene	<0.360	50.0
2,4-Dinitrophenol	<3.600	0.200 or MDL

4-Nitrophenol	<3.600	0.100 or MDL
Dibenzofuran	<0.360	6.2
2,4-Dinitrotoluene	<0.360	
Diethylphthalate	<0.360	7.1
4-Chlorophenylphenylether	<0.360	
Fluorene	<0.360	50.0
4-Nitroanaline	<3.600	
2-Methyl-4,6-dinitrophenol	<3.600	
n-Nitrosodiphenylamine	<0.360	
4-Bromophenylphenylether	<0.360	
Hexachlorobenzene	<0.360	0.41
Pentachlorophenol	<0.720	1.0 or MDL
Phenanthrene	0.380	50.0
Anthracene	<0.360	50.0
Carbazole	<0.360	
di-n-butylphthalate	<0.360	8.1
Fluoranthene	<0.360	50.0
Pyrene	<0.360	50.0
Butylbenzylphthalate	<0.360	50.0
3,3-Dichlorobenzidine	<0.360	N/A
Benzo (a) anthracene	<0.360	0.224 or MDL
Chrysene	<0.360	0.4
Bis (2-Ethylhexyl)phthalate	1.600	50.0
Di-n-octylphthalate	<0.360	50.0
Benzo (b) fluoranthene	<0.360	1.1
Benzo (k) fluoranthene	<0.360	1.1
Benzo (a) pyrene	<0.360	0.061 or MDL
Indeno (1,2,3-cd)pyrene	<0.360	3.2
Dibenzo (a,h) anthracene	<0.360	0.014 or MDL
Benzo (ghi) perylene	<0.360	50.0

TAGM 4046 requires Individual SVOC's to be < 50 ppm and Total SVOC's to be < 500 ppm.

Analytical Results

Summary Table in PPM (mg/Kg)
Sample # QTB3-01
Matrix: Soil
SVOC's EPA method 8270

Constituent	Sample Results	TAGM 4046 Rec. Soil Cleanup Objective
Phenol	<0.740	0.03 or MDL
Bis (2-Chloroethyl) ether	<0.740	
2-Chlorophenol	<0.740	0.8
1,3-Dichlorobenzene	<0.740	1.6
1,4-Dichlorobenzene	<0.740	8.5
1,2-Dichlorobenzene	<0.740	7.9
2-Methylphenol	<0.740	0.100 or MDL
2,2'-Oxybis (1-Chloropropane)	<0.740	
4-Methylphenol	<0.740	0.9
n-Nitrosodinpropylamine	<0.740	
Hexachloroethane	<0.740	
Nitrobenzene	<0.740	0.200 or MDL
Isophorone	<0.740	4.40
2-Nitrophenol	<0.740	0.330 or MDL
2,4-Dimethylphenol	<0.740	
Bis (2-Chloroethoxy) methane	<0.740	
2,4-Dichlorophenol	<0.740	0.4
1,2,4-Trichlorobenzene	<0.740	3.4
Naphthalene	<0.740	13.0
4-Chloroaniline	<0.740	0.220 or MDL
Hexachlorobutadiene	<0.740	
4-Chloro-3-methylphenol	<0.740	0.240 or MDL
2-Methylnaphthalene	<0.740	36.4
Hexaclorocyclopentadiene	<0.740	
2,4,6-Trichlorophenol	<0.740	
2,4,5-Trichlorophenol	<0.740	0.1
2-Chloronaphthalene	<0.740	
2-Nitroanaline	<7.400	0.430 or MDL
Dimethylphthalate	<0.740	2.0
Acenaphthylene	<0.740	41.0
2,6-Dinitrotoluene	<0.740	1.0
3-Nitroaniline	<7.400	0.500 or MDL
Acenaphthene	<0.740	50.0
2,4-Dinitrophenol	<7.400	0.200 or MDL

4-Nitrophenol	<7.400	0.100 or MDL
Dibenzofuran	<0.740	6.2
2,4-Dinitrotoluene	<0.740	
Diethylphthalate	<0.740	7.1
4-Chlorophenylphenylether	<0.740	
Fluorene	<0.740	50.0
4-Nitroanaline	<7.400	
2-Methyl-4,6-dinitrophenol	<7.400	
n-Nitrosodiphenylamine	<0.740	
4-Bromophenylphenylether	<0.740	
Hexachlorobenzene	<0.740	0.41
Pentachlorophenol	<1.500	1.0 or MDL
Phenanthrene	<0.740	50.0
Anthracene	<0.740	50.0
Carbazole	<0.740	
di-n-butylphthalate	<0.740	8.1
Fluoranthene	<0.740	50.0
Pyrene	<0.740	50.0
Butylbenzylphthalate	<0.740	50.0
3,3-Dichlorobenzidine	<0.740	N/A
Benzo (a) anthracene	<0.740	0.224 or MDL
Chrysene	<0.740	0.4
Bis (2-Ethylhexyl)phthalate	3.600	50.0
Di-n-octylphthalate	<0.740	50.0
Benzo (b) fluoranthene	<0.740	1.1
Benzo (k) fluoranthene	<0.740	1.1
Benzo (a) pyrene	<0.740	0.061 or MDL
Indeno (1,2,3-cd)pyrene	<0.740	3.2
Dibenzo (a,h) anthracene	<0.740	0.014 or MDL
Benzo (ghi) perylene	<0.740	50.0

TAGM 4046 requires Individual SVOC's to be < 50 ppm and Total SVOC's to be < 500 ppm.

Analytical Results

Summary Table in PPM (mg/Kg)
Sample # QTB4-01
Matrix: Soil
SVOC's EPA method 8270

Constituent	Sample Results	TAGM 4046 Rec. Soil Cleanup Objective
Phenol	<0.370	0.03 or MDL
Bis (2-Chloroethyl) ether	<0.370	
2-Chlorophenol	<0.370	0.8
1,3-Dichlorobenzene	<0.370	1.6
1,4-Dichlorobenzene	<0.370	8.5
1,2-Dichlorobenzene	<0.370	7.9
2-Methylphenol	<0.370	0.100 or MDL
2,2'-Oxybis (1-Chloropropane)	<0.370	
4-Methylphenol	<0.370	0.9
n-Nitrosodinpropylamine	<0.370	
Hexachloroethane	<0.370	
Nitrobenzene	<0.370	0.200 or MDL
Isophorone	<0.370	4.40
2-Nitrophenol	<0.370	0.330 or MDL
2,4-Dimethylphenol	<0.370	
Bis (2-Chloroethoxy) methane	<0.370	
2,4-Dichlorophenol	<0.370	0.4
1,2,4-Trichlorobenzene	<0.370	3.4
Naphthalene	<0.370	13.0
4-Chloroaniline	<0.370	0.220 or MDL
Hexachlorobutadiene	<0.370	
4-Chloro-3-methylphenol	<0.370	0.240 or MDL
2-Methylnaphthalene	<0.370	36.4
Hexaclorocyclopentadiene	<0.370	
2,4.6-Trichlorophenol	<0.370	
2,4,5-Trichlorophenol	<0.370	0.1
2-Chloronaphthalene	<0.370	
2-Nitroanaline	<3.700	0.430 or MDL
Dimethylphthalate	<0.370	2.0
Acenaphthylene	<0.370	41.0
2,6-Dinitrotoluene	<0.370	1.0
3-Nitroaniline	<3.700	0.500 or MDL
Acenaphthene	<0.370	50.0
2,4-Dinitrophenol	<3.700	0.200 or MDL

4-Nitrophenol	<3.700	0.100 or MDL
Dibenzofuran	<0.370	6.2
2,4-Dinitrotoluene	<0.370	
Diethylphthalate	<0.370	7.1
4-Chlorophenylphenylether	<0.370	
Fluorene	<0.370	50.0
4-Nitroanaline	<3.700	
2-Methyl-4,6-dinitrophenol	<3.700	
n-Nitrosodiphenylamine	<0.370	
4-Bromophenylphenylether	<0.370	
Hexachlorobenzene	<0.370	0.41
Pentachlorophenol	<0.730	1.0 or MDL
Phenanthrene	<0.370	50.0
Anthracene	<0.370	50.0
Carbazole	<0.370	
di-n-butylphthalate	<0.370	8.1
Fluoranthene	<0.370	50.0
Pyrene	<0.370	50.0
Butylbenzylphthalate	<0.370	50.0
3,3-Dichlorobenzidine	<0.370	N/A
Benzo (a) anthracene	<0.370	0.224 or MDL
Chrysene	<0.370	0.4
Bis (2-Ethylhexyl)phthalate	2.100	50.0
Di-n-octylphthalate	<0.370	50.0
Benzo (b) fluoranthene	<0.370	1.1
Benzo (k) fluoranthene	<0.370	1.1
Benzo (a) pyrene	<0.370	0.061 or MDL
Indeno (1,2,3-cd)pyrene	<0.370	3.2
Dibenzo (a,h) anthracene	<0.370	0.014 or MDL
Benzo (ghi) perylene	<0.370	50.0

TAGM 4046 requires Individual SVOC's to be < 50 ppm and Total SVOC's to be < 500 ppm.

Analytical Results
Summary Table in PPM (mg/Kg)
Sample # QTB1-01
Matrix: Soil
PCB's (Aroclors) EPA method 8082

Constituent	Sample Results	TAGM 4046 Rec. Soil Cleanup Objective
Aroclor 1016	<0.09	1.0 surface/ 10.0 subsurface
Aroclor 1221	<0.09	1.0 surface/ 10.0 subsurface
Aroclor 1232	<0.09	1.0 surface/ 10.0 subsurface
Aroclor 1242	<0.09	1.0 surface/ 10.0 subsurface
Aroclor 1248	<0.09	1.0 surface/ 10.0 subsurface
Aroclor 1254	<0.09	1.0 surface/ 10.0 subsurface
Aroclor 1260	<0.09	1.0 surface/ 10.0 subsurface

Sample # QTB1-02
Matrix: Soil

Aroclor 1016	<0.09	1.0 surface/ 10.0 subsurface
Aroclor 1221	<0.09	1.0 surface/ 10.0 subsurface
Aroclor 1232	<0.09	1.0 surface/ 10.0 subsurface
Aroclor 1242	<0.09	1.0 surface/ 10.0 subsurface
Aroclor 1248	<0.09	1.0 surface/ 10.0 subsurface
Aroclor 1254	<0.09	1.0 surface/ 10.0 subsurface
Aroclor 1260	<0.09	1.0 surface/ 10.0 subsurface

Sample # QTB3-01
Matrix: Soil

Aroclor 1016	<0.08	1.0 surface/ 10.0 subsurface
Aroclor 1221	<0.08	1.0 surface/ 10.0 subsurface
Aroclor 1232	<0.08	1.0 surface/ 10.0 subsurface
Aroclor 1242	<0.08	1.0 surface/ 10.0 subsurface
Aroclor 1248	<0.08	1.0 surface/ 10.0 subsurface
Aroclor 1254	<0.08	1.0 surface/ 10.0 subsurface
Aroclor 1260	<0.08	1.0 surface/ 10.0 subsurface

Sample # QTB4-01
Matrix: Soil

Aroclor 1016	<0.08	1.0 surface/ 10.0 subsurface
Aroclor 1221	<0.08	1.0 surface/ 10.0 subsurface
Aroclor 1232	<0.08	1.0 surface/ 10.0 subsurface
Aroclor 1242	<0.08	1.0 surface/ 10.0 subsurface
Aroclor 1248	<0.08	1.0 surface/ 10.0 subsurface
Aroclor 1254	<0.08	1.0 surface/ 10.0 subsurface
Aroclor 1260	<0.08	1.0 surface/ 10.0 subsurface

Analytical Results

Summary Table in PPM (mg/Kg)
Sample # QTB1-02
Matrix: Soil
VOC's EPA method 8260

Constituent	Sample Results	TAGM 4046 Rec. Soil Cleanup Objective
Chloromethane	<0.003	
Bromomethane	<0.003	
Vinyl Chloride	<0.002	0.2
Chloroethane	<0.003	1.9
Methylene Chloride	<0.003	0.1
Acetone	0.110	0.2
Carbon Disulfide	<0.003	2.7
1,1-Dichloroethene	<0.003	0.4
1,1-Dichloroethane	<0.003	0.2
Trans-1,2-Dichloroethene	<0.003	0.3
Cis-1,2-Dichloroethene	<0.003	
Chloroform	<0.003	0.3
1,2-Dichloroethane	<0.003	0.1
2-Butanone	<0.011	0.3
1,1,1-Trichloroethane	<0.003	0.8
Carbon Tetrachloride	<0.003	0.6
Bromodichloromethane	<0.003	
1,2-Dichloropropane	<0.003	
Cis-1,3-Dichloropropene	<0.003	
Trichloroethene	<0.003	
Dibromochloromethane	<0.003	N/A
1,1,2-Trichloroethane	<0.003	
Benzene	<0.003	0.06
Trans-1,3-Dichloropropene	<0.003	
Bromoform	<0.003	
4-Methyl-2-pentanone	<0.011	1.0
2-Hexanone	<0.011	
Tetrachloroethene	<0.003	1.4
1,1,2,2-Tetrachloroethane	<0.003	0.6
Toluene	<0.003	1.5
Chlorobenzene	<0.003	1.7
Ethylbenzene	<0.003	5.5
Styrene	<0.003	
Total Xylene	<0.006	1.2

TAGM 4046 requires Total VOC's to be < 10 ppm.

Upstate Laboratories inc.

Shipping: 6034 Corporate Dr. • E. Syracuse, NY 13057-1017 • (315) 437-0255 • Fax (315) 437-1209
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February 11, 2002

Mr. Wayne K. Cameron
Project Manager
Sterling Env. Services, Inc.
50 Lake Ave.
Blasdell, NY 14219

Re: Analysis Report #02302010 - Buffalo Brake Beam

Dear Mr. Cameron:

Please find enclosed the results for your samples which were picked up by ULI personnel on January 22, 2002.

We have included the Chain of Custody Record as part of your report. You may need to reference this form for a more detailed explanation of your sample. Samples will be disposed of approximately one month from final report date.

Should you have any questions, please feel free to give us a call.

Thank you for your patronage.

Sincerely,

UPSTATE LABORATORIES, INC.

Anthony J. Scala
Director

AJS/rd

Enclosures: report, invoice

cc/encs: N. Scala, ULI
file

Note: Faxed results were given to your office on 2/08/02. AJS

Disclaimer: The test results and procedures utilized, and laboratory interpretations of data obtained by ULI as contained in this report are believed by ULI to be accurate and reliable for sample(s) tested. In accepting this report, the customer agrees that the full extent of any and all liability for actual and consequential damages of ULI for the services performed shall be equal to the fee charged to the customer for the services as liquidated damages.

DATE: 02/11/02

Upstate Laboratories, Inc.
Analysis Results
Report Number: 02302010
Client I.D.: STERLING ENV. SERVICES, INC.
Sampled by: Client

APPROVAL:
QC:
Lab I.D.: 10170
BUFFALO BRAKE BEAM
QTB1-01 1155H 01/21/02 G

ULI I.D.: 02302010 Matrix: Soil

PARAMETERS	RESULTS	TIME	DATE ANAL.	KEY	KEY	FILE#
Percent Solids	90%		01/24/02			WD7926
Total Cyanide	<1.1mg/kg dw		01/29/02			WD7937
Total Aluminum	7800mg/kg dw		01/30/02			MB4234
Total Antimony	39mg/kg dw		01/30/02			MB4234
Total Arsenic by Low Level	6.9mg/kg dw		01/30/02			MB4237
Total Barium	42mg/kg dw		01/30/02			MB4234
Total Beryllium	<0.55mg/kg dw		01/30/02			MB4234
Total Cadmium	1.8mg/kg dw		01/30/02			MB4234
Total Calcium	15000mg/kg dw		01/30/02			MB4234
Total Chromium	15mg/kg dw		01/30/02			MB4234
Total Cobalt	57mg/kg dw		01/30/02			MB4234
Total Copper	23mg/kg dw		01/30/02			MB4234
Total Iron	18000mg/kg dw		01/30/02			MB4234
Total Lead	<11mg/kg dw		01/30/02			MB4234
Total Magnesium	3800mg/kg dw		01/30/02			MB4234
Total Manganese	180mg/kg dw		01/30/02			MB4234
Total Mercury	<0.17mg/kg dw		01/30/02			MB4235
Total Nickel	28mg/kg dw		01/30/02			MB4234
Total Potassium	2300mg/kg dw		01/30/02			MB4236
Total Selenium by Low Level	1.8mg/kg dw		01/30/02			MB4237
Total Silver	<5.5mg/kg dw		01/30/02			MB4234
Total Sodium	1600mg/kg dw		01/30/02			MB4236
Total Thallium by Low Level	<0.33mg/kg dw		01/30/02			MB4237
Total Vanadium	<33mg/kg dw		01/30/02			MB4234
Total Zinc	59mg/kg dw		01/30/02			MB4234
TCL Semivolatiles by EPA Method 8270						
Phenol	<37,000ug/kg dw		01/26/02	01		SA3242
bis(2-Chloroethyl)ether	<37,000ug/kg dw		01/26/02	01		SA3242
2-Chlorophenol	<37,000ug/kg dw		01/26/02	01		SA3242
1,3-Dichlorobenzene	<37,000ug/kg dw		01/26/02	01		SA3242
1,4-Dichlorobenzene	<37,000ug/kg dw		01/26/02	01		SA3242
1,2-Dichlorobenzene	<37,000ug/kg dw		01/26/02	01		SA3242
2-Methylphenol	<37,000ug/kg dw		01/26/02	01		SA3242
2,2'-Oxybis(1-Chloropropane)	<37,000ug/kg dw		01/26/02	01		SA3242
4-Methylphenol	<37,000ug/kg dw		01/26/02	01		SA3242
n-Nitrosodinpropylamine	<37,000ug/kg dw		01/26/02	01		SA3242
Hexachloroethane	<37,000ug/kg dw		01/26/02	01		SA3242
Nitrobenzene	<37,000ug/kg dw		01/26/02	01		SA3242
Isophorone	<37,000ug/kg dw		01/26/02	01		SA3242

dw = Dry weight

DATE: 02/11/02

Upstate Laboratories, Inc.
Analysis Results
Report Number: 02302010
Client I.D.: STERLING ENV. SERVICES, INC.
Sampled by: Client

APPROVAL:
QC:
Lab I.D.: 10170
BUFFALO BRAKE BEAM
QTB1-01 1155H 01/21/02 G

ULI I.D.: 02302010 Matrix: Soil

PARAMETERS	RESULTS	TIME	DATE ANAL.	KEY	KEY	FILE#
2-Nitrophenol	<37,000ug/kg dw		01/26/02		01	SA3242
2,4-Dimethylphenol	<37,000ug/kg dw		01/26/02		01	SA3242
bis(2-Chloroethoxy)methane	<37,000ug/kg dw		01/26/02		01	SA3242
2,4-Dichlorophenol	<37,000ug/kg dw		01/26/02		01	SA3242
1,2,4-Trichlorobenzene	<37,000ug/kg dw		01/26/02		01	SA3242
Naphthalene	<37,000ug/kg dw		01/26/02		01	SA3242
4-Chloroaniline	<37,000ug/kg dw		01/26/02		01	SA3242
Hexachlorobutadiene	<37,000ug/kg dw		01/26/02		01	SA3242
4-Chloro-3-methylphenol	<37,000ug/kg dw		01/26/02		01	SA3242
2-Methylnaphthalene	<37,000ug/kg dw		01/26/02		01	SA3242
Hexachlorocyclopentadiene	<37,000ug/kg dw		01/26/02		01	SA3242
2,4,6-Trichlorophenol	<37,000ug/kg dw		01/26/02		01	SA3242
2,4,5-Trichlorophenol	<37,000ug/kg dw		01/26/02		01	SA3242
2-Chloronaphthalene	<37,000ug/kg dw		01/26/02		01	SA3242
2-Nitroaniline	<370,000ug/kgdw		01/26/02		01	SA3242
Dimethylphthalate	<37,000ug/kg dw		01/26/02		01	SA3242
Acenaphthylene	<37,000ug/kg dw		01/26/02		01	SA3242
2,6-Dinitrotoluene	<37,000ug/kg dw		01/26/02		01	SA3242
3-Nitroaniline	<370,000ug/kgdw		01/26/02		01	SA3242
Acenaphthene	<37,000ug/kg dw		01/26/02		01	SA3242
2,4-Dinitrophenol	<37,000ug/kg dw		01/26/02		01	SA3242
4-Nitrophenol	<370,000ug/kgdw		01/26/02		01	SA3242
Dibenzofuran	<37,000ug/kg dw		01/26/02		01	SA3242
2,4-Dinitrotoluene	<37,000ug/kg dw		01/26/02		01	SA3242
Diethylphthalate	<37,000ug/kg dw		01/26/02		01	SA3242
4-Chlorophenylphenylether	<37,000ug/kg dw		01/26/02		01	SA3242
Fluorene	<37,000ug/kg dw		01/26/02		01	SA3242
4-Nitroaniline	<370,000ug/kgdw		01/26/02		01	SA3242
2-Methyl-4,6-dinitrophenol	<37,000ug/kg dw		01/26/02		01	SA3242
n-Nitrosodiphenylamine	<37,000ug/kg dw		01/26/02		01	SA3242
4-Bromophenylphenylether	<37,000ug/kg dw		01/26/02		01	SA3242
Hexachlorobenzene	<37,000ug/kg dw		01/26/02		01	SA3242
Pentachlorophenol	<74,000ug/kg dw		01/26/02		01	SA3242
Phenanthrene	<37,000ug/kg dw		01/26/02		01	SA3242
Anthracene	<37,000ug/kg dw		01/26/02		01	SA3242
Carbazole	<37,000ug/kg dw		01/26/02		01	SA3242
di-n-butylphthalate	<37,000ug/kg dw		01/26/02		01	SA3242
Fluoranthene	<37,000ug/kg dw		01/26/02		01	SA3242
Pyrene	<37,000ug/kg dw		01/26/02		01	SA3242
Butylbenzylphthalate	<37,000ug/kg dw		01/26/02		01	SA3242

dw = Dry weight

DATE: 02/11/02

Upstate Laboratories, Inc.
Analysis Results
Report Number: 02302010
Client I.D.: STERLING ENV. SERVICES, INC.
Sampled by: Client

APPROVAL:
QC:
Lab I.D.: 10170
BUFFALO BRAKE BEAM
QTB1-01 1155H 01/21/02 G

ULI I.D.: 02302010 Matrix: Soil

PARAMETERS	RESULTS	TIME	DATE ANAL.	KEY	KEY	FILE#
3,3'-Dichlorobenzidine	<37,000ug/kg dw		01/26/02		01	SA3242
Benzo(a)anthracene	<37,000ug/kg dw		01/26/02		01	SA3242
Chrysene	<37,000ug/kg dw		01/26/02		01	SA3242
bis(2-Ethylhexyl)phthalate	<37,000ug/kg dw		01/26/02		01	SA3242
Di-n-octylphthalate	<37,000ug/kg dw		01/26/02		01	SA3242
Benzo(b)fluoranthene	<37,000ug/kg dw		01/26/02		01	SA3242
Benzo(k)fluoranthene	<37,000ug/kg dw		01/26/02		01	SA3242
Benzo(a)pyrene	<37,000ug/kg dw		01/26/02		01	SA3242
Indeno(1,2,3-cd)pyrene	<37,000ug/kg dw		01/26/02		01	SA3242
Dibenzo(a,h)anthracene	<37,000ug/kg dw		01/26/02		01	SA3242
Benzo(ghi)perylene	<37,000ug/kg dw		01/26/02		01	SA3242
PCB (Aroclors) by EPA Method 8082						
Aroclor 1016	<0.09mg/kg dw		01/29/02			GA1228
Aroclor 1221	<0.09mg/kg dw		01/29/02			GA1228
Aroclor 1232	<0.09mg/kg dw		01/29/02			GA1228
Aroclor 1242	<0.09mg/kg dw		01/29/02			GA1228
Aroclor 1248	<0.09mg/kg dw		01/29/02			GA1228
Aroclor 1254	<0.09mg/kg dw		01/29/02			GA1228
Aroclor 1260	<0.09mg/kg dw		01/29/02			GA1228
Total PCB	<0.09mg/kg dw		01/29/02			GA1228

dw = Dry weight

DATE: 02/11/02

Upstate Laboratories, Inc.
Analysis Results
Report Number: 02302010
Client I.D.: STERLING ENV. SERVICES, INC.
Sampled by: Client

APPROVAL: _____
QC: _____
Lab I.D.: 10170

BUFFALO BRAKE BEAM
QTB1-02 1215H 01/21/02 G

ULI I.D.: 02302011

Matrix: Soil

PARAMETERS	RESULTS	TIME	DATE ANAL.	KEY	KEY	FILE#
Percent Solids	93%		01/24/02			WD7926
Total Cyanide	<1.1mg/kg dw		01/29/02			WD7937
Total Aluminum	3700mg/kg dw		01/30/02			MB4234
Total Antimony	<32mg/kg dw		01/30/02			MB4234
Total Arsenic by Low Level	4.1mg/kg dw		01/30/02			MB4237
Total Barium	<32mg/kg dw		01/30/02			MB4234
Total Beryllium	<0.53mg/kg dw		01/30/02			MB4234
Total Cadmium	1.3mg/kg dw		01/30/02			MB4234
Total Calcium	99000mg/kg dw		01/30/02			MB4234
Total Chromium	8.4mg/kg dw		01/30/02			MB4234
Total Cobalt	18mg/kg dw		01/30/02			MB4234
Total Copper	16mg/kg dw		01/30/02			MB4234
Total Iron	6500mg/kg dw		01/30/02			MB4234
Total Lead	<11mg/kg dw		01/30/02			MB4234
Total Magnesium	15000mg/kg dw		01/30/02			MB4234
Total Manganese	170mg/kg dw		01/30/02			MB4234
Total Mercury	<0.16mg/kg dw		01/30/02			MB4235
Total Nickel	17mg/kg dw		01/30/02			MB4234
Total Potassium	1200mg/kg dw		01/30/02			MB4236
Total Selenium by Low Level	17mg/kg dw		01/30/02			MB4237
Total Silver	<5.3mg/kg dw		01/30/02			MB4234
Total Sodium	720mg/kg dw		01/30/02			MB4236
Total Thallium by Low Level	<0.32mg/kg dw		01/30/02			MB4237
Total Vanadium	<32mg/kg dw		01/30/02			MB4234
Total Zinc	33mg/kg dw		01/30/02			MB4234
TCL Volatiles by EPA Method 8260						
Chloromethane	<3ug/kg dw		01/30/02			VM3812
Bromomethane	<3ug/kg dw		01/30/02			VM3812
Vinyl Chloride	<2ug/kg dw		01/30/02			VM3812
Chloroethane	<3ug/kg dw		01/30/02			VM3812
Methylene Chloride	<3ug/kg dw		01/30/02			VM3812
Acetone	110ug/kg dw		01/30/02		11	VM3812
Carbon Disulfide	<3ug/kg dw		01/30/02			VM3812
1,1-Dichloroethene	<3ug/kg dw		01/30/02			VM3812
1,1-Dichloroethane	<3ug/kg dw		01/30/02			VM3812
trans-1,2-Dichloroethene	<3ug/kg dw		01/30/02			VM3812
cis-1,2-Dichloroethene	<3ug/kg dw		01/30/02			VM3812
Chloroform	<3ug/kg dw		01/30/02			VM3812
1,2-Dichloroethane	<3ug/kg dw		01/30/02			VM3812

dw = Dry weight

DATE: 02/11/02

Upstate Laboratories, Inc.
Analysis Results
Report Number: 02302010
Client I.D.: STERLING ENV. SERVICES, INC.
Sampled by: Client

APPROVAL: _____
QC: _____
Lab I.D.: 10170

BUFFALO BRAKE BEAM
QTB1-02 1215H 01/21/02 G

ULI I.D.: 02302011

Matrix: Soil

PARAMETERS	RESULTS	TIME	DATE ANAL.	KEY	KEY	FILE#
2-Butanone	<11ug/kg dw		01/30/02			VM3812
1,1,1-Trichloroethane	<3ug/kg dw		01/30/02			VM3812
Carbon Tetrachloride	<3ug/kg dw		01/30/02			VM3812
Bromodichloromethane	<3ug/kg dw		01/30/02			VM3812
1,2-Dichloropropane	<3ug/kg dw		01/30/02			VM3812
cis-1,3-Dichloropropene	<3ug/kg dw		01/30/02			VM3812
Trichloroethene	<3ug/kg dw		01/30/02			VM3812
Dibromochloromethane	<3ug/kg dw		01/30/02			VM3812
1,1,2-Trichloroethane	<3ug/kg dw		01/30/02			VM3812
Benzene	<3ug/kg dw		01/30/02			VM3812
trans-1,3-Dichloropropene	<3ug/kg dw		01/30/02			VM3812
Bromoform	<3ug/kg dw		01/30/02			VM3812
4-Methyl-2-pentanone	<11ug/kg dw		01/30/02			VM3812
2-Hexanone	<11ug/kg dw		01/30/02			VM3812
Tetrachloroethene	<3ug/kg dw		01/30/02			VM3812
1,1,2,2-Tetrachloroethane	<3ug/kg dw		01/30/02			VM3812
Toluene	<3ug/kg dw		01/30/02			VM3812
Chlorobenzene	<3ug/kg dw		01/30/02			VM3812
Ethylbenzene	<3ug/kg dw		01/30/02			VM3812
Styrene	<3ug/kg dw		01/30/02			VM3812
m-Xylene and p-Xylene	<3ug/kg dw		01/30/02			VM3812
o-Xylene	<3ug/kg dw		01/30/02			VM3812
TCL Semivolatiles by EPA Method 8270						
Phenol	<360ug/kg dw		01/26/02			SA3242
bis(2-Chloroethyl)ether	<360ug/kg dw		01/26/02			SA3242
2-Chlorophenol	<360ug/kg dw		01/26/02			SA3242
1,3-Dichlorobenzene	<360ug/kg dw		01/26/02			SA3242
1,4-Dichlorobenzene	<360ug/kg dw		01/26/02			SA3242
1,2-Dichlorobenzene	<360ug/kg dw		01/26/02			SA3242
2-Methylphenol	<360ug/kg dw		01/26/02			SA3242
2,2'-Oxybis(1-Chloropropane)	<360ug/kg dw		01/26/02			SA3242
4-Methylphenol	<360ug/kg dw		01/26/02			SA3242
n-Nitrosodinpropylamine	<360ug/kg dw		01/26/02			SA3242
Hexachloroethane	<360ug/kg dw		01/26/02			SA3242
Nitrobenzene	<360ug/kg dw		01/26/02			SA3242
Isophorone	<360ug/kg dw		01/26/02			SA3242
2-Nitrophenol	<360ug/kg dw		01/26/02			SA3242
2,4-Dimethylphenol	<360ug/kg dw		01/26/02			SA3242
bis(2-Chloroethoxy)methane	<360ug/kg dw		01/26/02			SA3242

dw = Dry weight

DATE: 02/11/02

Upstate Laboratories, Inc.
Analysis Results
Report Number: 02302010
Client I.D.: STERLING ENV. SERVICES, INC.
Sampled by: Client

APPROVAL: _____
QC: _____
Lab I.D.: 10170

BUFFALO BRAKE BEAM
QTB1-02 1215H 01/21/02 G

ULI I.D.: 02302011

Matrix: Soil

PARAMETERS	RESULTS	TIME	DATE ANAL.	KEY	KEY	FILE#
2,4-Dichlorophenol	<360ug/kg dw		01/26/02			SA3242
1,2,4-Trichlorobenzene	<360ug/kg dw		01/26/02			SA3242
Naphthalene	<360ug/kg dw		01/26/02			SA3242
4-Chloroaniline	<360ug/kg dw		01/26/02			SA3242
Hexachlorobutadiene	<360ug/kg dw		01/26/02			SA3242
4-Chloro-3-methylphenol	<360ug/kg dw		01/26/02			SA3242
2-Methylnaphthalene	<360ug/kg dw		01/26/02			SA3242
Hexachlorocyclopentadiene	<360ug/kg dw		01/26/02			SA3242
2,4,6-Trichlorophenol	<360ug/kg dw		01/26/02			SA3242
2,4,5-Trichlorophenol	<360ug/kg dw		01/26/02			SA3242
2-Chloronaphthalene	<360ug/kg dw		01/26/02			SA3242
2-Nitroaniline	<3600ug/kg dw		01/26/02			SA3242
Dimethylphthalate	<360ug/kg dw		01/26/02			SA3242
Acenaphthylene	<360ug/kg dw		01/26/02			SA3242
2,6-Dinitrotoluene	<360ug/kg dw		01/26/02			SA3242
3-Nitroaniline	<3600ug/kg dw		01/26/02			SA3242
Acenaphthene	<360ug/kg dw		01/26/02			SA3242
2,4-Dinitrophenol	<3600ug/kg dw		01/26/02			SA3242
4-Nitrophenol	<3600ug/kg dw		01/26/02			SA3242
Dibenzofuran	<360ug/kg dw		01/26/02			SA3242
2,4-Dinitrotoluene	<360ug/kg dw		01/26/02			SA3242
Diethylphthalate	<360ug/kg dw		01/26/02			SA3242
4-Chlorophenylphenylether	<360ug/kg dw		01/26/02			SA3242
Fluorene	<360ug/kg dw		01/26/02			SA3242
4-Nitroaniline	<3600ug/kg dw		01/26/02			SA3242
2-Methyl-4,6-dinitrophenol	<3600ug/kg dw		01/26/02			SA3242
n-Nitrosodiphenylamine	<360ug/kg dw		01/26/02			SA3242
4-Bromophenylphenylether	<360ug/kg dw		01/26/02			SA3242
Hexachlorobenzene	<360ug/kg dw		01/26/02			SA3242
Pentachlorophenol	<720ug/kg dw		01/26/02			SA3242
Phenanthrene	380ug/kg dw		01/26/02			SA3242
Anthracene	<360ug/kg dw		01/26/02			SA3242
Carbazole	<360ug/kg dw		01/26/02			SA3242
di-n-butylphthalate	<360ug/kg dw		01/26/02			SA3242
Fluoranthene	<360ug/kg dw		01/26/02			SA3242
Pyrene	<360ug/kg dw		01/26/02			SA3242
Butylbenzylphthalate	<360ug/kg dw		01/26/02			SA3242
3,3'-Dichlorobenzidine	<360ug/kg dw		01/26/02			SA3242
Benzo(a)anthracene	<360ug/kg dw		01/26/02			SA3242
Chrysene	<360ug/kg dw		01/26/02			SA3242

dw = Dry weight

DATE: 02/11/02

Upstate Laboratories, Inc.
Analysis Results
Report Number: 02302010
Client I.D.: STERLING ENV. SERVICES, INC.
Sampled by: Client

APPROVAL:
QC:
Lab I.D.: 10170
BUFFALO BRAKE BEAM
QTB1-02 1215H 01/21/02 G

ULI I.D.: 02302011 Matrix: Soil

PARAMETERS	RESULTS	TIME	DATE ANAL.	KEY	KEY	FILE#
bis(2-Ethylhexyl)phthalate	1600ug/kg dw		01/26/02			SA3242
Di-n-octylphthalate	<360ug/kg dw		01/26/02			SA3242
Benzo(b)fluoranthene	<360ug/kg dw		01/26/02			SA3242
Benzo(k)fluoranthene	<360ug/kg dw		01/26/02			SA3242
Benzo(a)pyrene	<360ug/kg dw		01/26/02			SA3242
Indeno(1,2,3-cd)pyrene	<360ug/kg dw		01/26/02			SA3242
Dibenzo(a,h)anthracene	<360ug/kg dw		01/26/02			SA3242
Benzo(ghi)perylene	<360ug/kg dw		01/26/02			SA3242
PCB (Aroclors) by EPA Method 8082						
Aroclor 1016	<0.09mg/kg dw		01/29/02			GA1228
Aroclor 1221	<0.09mg/kg dw		01/29/02			GA1228
Aroclor 1232	<0.09mg/kg dw		01/29/02			GA1228
Aroclor 1242	<0.09mg/kg dw		01/29/02			GA1228
Aroclor 1248	<0.09mg/kg dw		01/29/02			GA1228
Aroclor 1254	<0.09mg/kg dw		01/29/02			GA1228
Aroclor 1260	<0.09mg/kg dw		01/29/02			GA1228
Total PCB	<0.09mg/kg dw		01/29/02			GA1228

dw = Dry weight

DATE: 02/11/02

Upstate Laboratories, Inc.
Analysis Results
Report Number: 02302010
Client I.D.: STERLING ENV. SERVICES, INC.
Sampled by: Client

APPROVAL:
QC:
Lab I.D.: 10170
BUFFALO BRAKE BEAM
QTB3-01 1305H 01/21/02 G

ULI I.D.: 02302012

Matrix: Soil

	PARAMETERS	RESULTS	TIME	DATE ANAL.	KEY	KEY	FILE#
	Percent Solids	90%		01/24/02			WD7926
	Total Cyanide	<1.1mg/kg dw		01/29/02			WD7937
Total	Aluminum	4400mg/kg dw		01/30/02			MB4234
Total	Antimony	<33mg/kg dw		01/30/02			MB4234
Total	Arsenic by Low Level	4.4mg/kg dw		01/30/02			MB4237
Total	Barium	<33mg/kg dw		01/30/02			MB4234
Total	Beryllium	<0.55mg/kg dw		01/30/02			MB4234
Total	Cadmium	1.5mg/kg dw		01/30/02			MB4234
Total	Calcium	110000mg/kg dw		01/30/02			MB4234
Total	Chromium	9.6mg/kg dw		01/30/02			MB4234
Total	Cobalt	26mg/kg dw		01/30/02			MB4234
Total	Copper	18mg/kg dw		01/30/02			MB4234
Total	Iron	8500mg/kg dw		01/30/02			MB4234
Total	Lead	<11mg/kg dw		01/30/02			MB4234
Total	Magnesium	9900mg/kg dw		01/30/02			MB4234
Total	Manganese	200mg/kg dw		01/30/02			MB4234
Total	Mercury	<0.17mg/kg dw		01/30/02			MB4235
Total	Nickel	21mg/kg dw		01/30/02			MB4234
Total	Potassium	1500mg/kg dw		01/30/02			MB4236
Total	Selenium by Low Level	15mg/kg dw		01/30/02			MB4237
Total	Silver	<5.5mg/kg dw		01/30/02			MB4234
Total	Sodium	600mg/kg dw		01/30/02			MB4236
Total	Thallium by Low Level	<0.33mg/kg dw		01/30/02			MB4237
Total	Vanadium	<33mg/kg dw		01/30/02			MB4234
Total	Zinc	40mg/kg dw		01/30/02			MB4234
	TCL Semivolatiles by EPA Method 8270						
	Phenol	<740ug/kg dw		01/28/02			SA3242
	bis(2-Chloroethyl)ether	<740ug/kg dw		01/28/02			SA3242
	2-Chlorophenol	<740ug/kg dw		01/28/02			SA3242
	1,3-Dichlorobenzene	<740ug/kg dw		01/28/02			SA3242
	1,4-Dichlorobenzene	<740ug/kg dw		01/28/02			SA3242
	1,2-Dichlorobenzene	<740ug/kg dw		01/28/02			SA3242
	2-Methylphenol	<740ug/kg dw		01/28/02			SA3242
	2,2'-Oxybis(1-Chloropropane)	<740ug/kg dw		01/28/02			SA3242
	4-Methylphenol	<740ug/kg dw		01/28/02			SA3242
	n-Nitrosodinpropylamine	<740ug/kg dw		01/28/02			SA3242
	Hexachloroethane	<740ug/kg dw		01/28/02			SA3242
	Nitrobenzene	<740ug/kg dw		01/28/02			SA3242
	Isophorone	<740ug/kg dw		01/28/02			SA3242

dw = Dry weight

DATE: 02/11/02

Upstate Laboratories, Inc.
Analysis Results
Report Number: 02302010
Client I.D.: STERLING ENV. SERVICES, INC.
Sampled by: Client

APPROVAL: _____
QC: _____
Lab I.D.: 10170

BUFFALO BRAKE BEAM
QTB3-01 1305H 01/21/02 G

ULI I.D.: 02302012

Matrix: Soil

PARAMETERS	RESULTS	TIME	DATE ANAL.	KEY	KEY	FILE#
2-Nitrophenol	<740ug/kg dw		01/28/02			SA3242
2,4-Dimethylphenol	<740ug/kg dw		01/28/02			SA3242
bis(2-Chloroethoxy)methane	<740ug/kg dw		01/28/02			SA3242
2,4-Dichlorophenol	<740ug/kg dw		01/28/02			SA3242
1,2,4-Trichlorobenzene	<740ug/kg dw		01/28/02			SA3242
Naphthalene	<740ug/kg dw		01/28/02			SA3242
4-Chloroaniline	<740ug/kg dw		01/28/02			SA3242
Hexachlorobutadiene	<740ug/kg dw		01/28/02			SA3242
4-Chloro-3-methylphenol	<740ug/kg dw		01/28/02			SA3242
2-Methylnaphthalene	<740ug/kg dw		01/28/02			SA3242
Hexachlorocyclopentadiene	<740ug/kg dw		01/28/02			SA3242
2,4,6-Trichlorophenol	<740ug/kg dw		01/28/02			SA3242
2,4,5-Trichlorophenol	<740ug/kg dw		01/28/02			SA3242
2-Chloronaphthalene	<740ug/kg dw		01/28/02			SA3242
2-Nitroaniline	<7400ug/kg dw		01/28/02			SA3242
Dimethylphthalate	<740ug/kg dw		01/28/02			SA3242
Acenaphthylene	<740ug/kg dw		01/28/02			SA3242
2,6-Dinitrotoluene	<740ug/kg dw		01/28/02			SA3242
3-Nitroaniline	<7400ug/kg dw		01/28/02			SA3242
Acenaphthene	<740ug/kg dw		01/28/02			SA3242
2,4-Dinitrophenol	<7400ug/kg dw		01/28/02			SA3242
4-Nitrophenol	<7400ug/kg dw		01/28/02			SA3242
Dibenzofuran	<740ug/kg dw		01/28/02			SA3242
2,4-Dinitrotoluene	<740ug/kg dw		01/28/02			SA3242
Diethylphthalate	<740ug/kg dw		01/28/02			SA3242
4-Chlorophenylphenylether	<740ug/kg dw		01/28/02			SA3242
Fluorene	<740ug/kg dw		01/28/02			SA3242
4-Nitroaniline	<7400ug/kg dw		01/28/02			SA3242
2-Methyl-4,6-dinitrophenol	<7400ug/kg dw		01/28/02			SA3242
n-Nitrosodiphenylamine	<740ug/kg dw		01/28/02			SA3242
4-Bromophenylphenylether	<740ug/kg dw		01/28/02			SA3242
Hexachlorobenzene	<740ug/kg dw		01/28/02			SA3242
Pentachlorophenol	<1500ug/kg dw		01/28/02			SA3242
Phenanthrene	<740ug/kg dw		01/28/02			SA3242
Anthracene	<740ug/kg dw		01/28/02			SA3242
Carbazole	<740ug/kg dw		01/28/02			SA3242
di-n-butylphthalate	<740ug/kg dw		01/28/02			SA3242
Fluoranthene	<740ug/kg dw		01/28/02			SA3242
Pyrene	<740ug/kg dw		01/28/02			SA3242
Butylbenzylphthalate	<740ug/kg dw		01/28/02			SA3242

dw = Dry weight

DATE: 02/11/02

Upstate Laboratories, Inc.
Analysis Results
Report Number: 02302010
Client I.D.: STERLING ENV. SERVICES, INC.
Sampled by: Client

APPROVAL:
QC:
Lab I.D.: 10170
BUFFALO BRAKE BEAM
QTB3-01 1305H 01/21/02 G

ULI I.D.: 02302012 Matrix: Soil

PARAMETERS	RESULTS	TIME	DATE ANAL.	KEY	KEY	FILE#
3,3'-Dichlorobenzidine	<740ug/kg dw		01/28/02			SA3242
Benzo(a)anthracene	<740ug/kg dw		01/28/02			SA3242
Chrysene	<740ug/kg dw		01/28/02			SA3242
bis(2-Ethylhexyl)phthalate	3600ug/kg dw		01/28/02			SA3242
Di-n-octylphthalate	<740ug/kg dw		01/28/02			SA3242
Benzo(b)fluoranthene	<740ug/kg dw		01/28/02			SA3242
Benzo(k)fluoranthene	<740ug/kg dw		01/28/02			SA3242
Benzo(a)pyrene	<740ug/kg dw		01/28/02			SA3242
Indeno(1,2,3-cd)pyrene	<740ug/kg dw		01/28/02			SA3242
Dibenzo(a,h)anthracene	<740ug/kg dw		01/28/02			SA3242
Benzo(ghi)perylene	<740ug/kg dw		01/28/02			SA3242
PCB (Aroclors) by EPA Method 8082						
Aroclor 1016	<0.08ug/kg dw		01/29/02			GA1228
Aroclor 1221	<0.08mg/kg dw		01/29/02			GA1228
Aroclor 1232	<0.08mg/kg dw		01/29/02			GA1228
Aroclor 1242	<0.08mg/kg dw		01/29/02			GA1228
Aroclor 1248	<0.08mg/kg dw		01/29/02			GA1228
Aroclor 1254	<0.08mg/kg dw		01/29/02			GA1228
Aroclor 1260	<0.08mg/kg dw		01/29/02			GA1228
Total PCB	<0.08mg/kg dw		01/29/02			GA1228

dw = Dry weight

DATE: 02/11/02

Upstate Laboratories, Inc.
Analysis Results
Report Number: 02302010
Client I.D.: STERLING ENV. SERVICES, INC.
Sampled by: Client

APPROVAL:
QC:
Lab I.D.: 10170

BUFFALO BRAKE BEAM
QTB4-01 1415H 01/21/02 G

ULI I.D.: 02302013

Matrix: Soil

PARAMETERS	RESULTS	TIME	DATE ANAL.	KEY	KEY	FILE#
Percent Solids	91%		01/24/02			WD7926
Total Cyanide	<1.1mg/kg dw		01/29/02			WD7937
Total Aluminum	3100mg/kg dw		01/30/02			MB4234
Total Antimony	94mg/kg dw		01/30/02			MB4234
Total Arsenic by Low Level	4.6mg/kg dw		01/30/02			MB4237
Total Barium	34mg/kg dw		01/30/02			MB4234
Total Beryllium	<0.55mg/kg dw		01/30/02			MB4234
Total Cadmium	1.1mg/kg dw		01/30/02			MB4234
Total Calcium	180000mg/kg dw		01/30/02			MB4234
Total Chromium	8.1mg/kg dw		01/30/02			MB4234
Total Cobalt	22mg/kg dw		01/30/02			MB4234
Total Copper	12mg/kg dw		01/30/02			MB4234
Total Iron	6900mg/kg dw		01/30/02			MB4234
Total Lead	<11mg/kg dw		01/30/02			MB4234
Total Magnesium	7600mg/kg dw		01/30/02			MB4234
Total Manganese	250mg/kg dw		01/30/02			MB4234
Total Mercury	<0.16mg/kg dw		01/30/02			MB4235
Total Nickel	15mg/kg dw		01/30/02			MB4234
Total Potassium	1100mg/kg dw		01/30/02			MB4236
Total Selenium by Low Level	8.5mg/kg dw		01/30/02			MB4237
Total Silver	6.6mg/kg dw		01/30/02			MB4234
Total Sodium	450mg/kg dw		01/30/02			MB4236
Total Thallium by Low Level	<0.33mg/kg dw		01/30/02			MB4237
Total Vanadium	<33mg/kg dw		01/30/02			MB4234
Total Zinc	28mg/kg dw		01/30/02			MB4234
TCL Volatiles by EPA Method 8260						
Chloromethane	<3ug/kg dw		01/30/02			VM3812
Bromomethane	<3ug/kg dw		01/30/02			VM3812
Vinyl Chloride	<2ug/kg dw		01/30/02			VM3812
Chloroethane	<3ug/kg dw		01/30/02			VM3812
Methylene Chloride	4ug/kg dw		01/30/02		11	VM3812
Acetone	<11ug/kg dw		01/30/02			VM3812
Carbon Disulfide	<3ug/kg dw		01/30/02			VM3812
1,1-Dichloroethene	<3ug/kg dw		01/30/02			VM3812
1,1-Dichloroethane	<3ug/kg dw		01/30/02			VM3812
trans-1,2-Dichloroethene	<3ug/kg dw		01/30/02			VM3812
cis-1,2-Dichloroethene	<3ug/kg dw		01/30/02			VM3812
Chloroform	<3ug/kg dw		01/30/02			VM3812
1,2-Dichloroethane	<3ug/kg dw		01/30/02			VM3812

dw = Dry weight

DATE: 02/11/02

Upstate Laboratories, Inc.
Analysis Results
Report Number: 02302010
Client I.D.: STERLING ENV. SERVICES, INC.
Sampled by: Client

APPROVAL:
QC:
Lab I.D.: 10170
BUFFALO BRAKE BEAM
QTB4-01 1415H 01/21/02 G

ULI I.D.: 02302013
Matrix: Soil

PARAMETERS	RESULTS	TIME	DATE ANAL.	KEY	KEY	FILE#
2-Butanone	<11ug/kg dw		01/30/02			VM3812
1,1,1-Trichloroethane	<3ug/kg dw		01/30/02			VM3812
Carbon Tetrachloride	<3ug/kg dw		01/30/02			VM3812
Bromodichloromethane	<3ug/kg dw		01/30/02			VM3812
1,2-Dichloropropane	<3ug/kg dw		01/30/02			VM3812
cis-1,3-Dichloropropene	<3ug/kg dw		01/30/02			VM3812
Trichloroethene	<3ug/kg dw		01/30/02			VM3812
Dibromochloromethane	<3ug/kg dw		01/30/02			VM3812
1,1,2-Trichloroethane	<3ug/kg dw		01/30/02			VM3812
Benzene	<3ug/kg dw		01/30/02			VM3812
trans-1,3-Dichloropropene	<3ug/kg dw		01/30/02			VM3812
Bromoform	<3ug/kg dw		01/30/02			VM3812
4-Methyl-2-pentanone	<11ug/kg dw		01/30/02			VM3812
2-Hexanone	<11ug/kg dw		01/30/02			VM3812
Tetrachloroethene	<3ug/kg dw		01/30/02			VM3812
1,1,2,2-Tetrachloroethane	<3ug/kg dw		01/30/02			VM3812
Toluene	<3ug/kg dw		01/30/02			VM3812
Chlorobenzene	<3ug/kg dw		01/30/02			VM3812
Ethylbenzene	<3ug/kg dw		01/30/02			VM3812
Styrene	<3ug/kg dw		01/30/02			VM3812
m-Xylene and p-Xylene	<3ug/kg dw		01/30/02			VM3812
o-Xylene	<3ug/kg dw		01/30/02			VM3812
TCL Semivolatiles by EPA Method 8270						
Phenol	<370ug/kg dw		01/26/02			SA2919
bis(2-Chloroethyl)ether	<370ug/kg dw		01/26/02			SA2919
2-Chlorophenol	<370ug/kg dw		01/26/02			SA2919
1,3-Dichlorobenzene	<370ug/kg dw		01/26/02			SA2919
1,4-Dichlorobenzene	<370ug/kg dw		01/26/02			SA2919
1,2-Dichlorobenzene	<370ug/kg dw		01/26/02			SA2919
2-Methylphenol	<370ug/kg dw		01/26/02			SA2919
2,2'-Oxybis(1-Chloropropane)	<370ug/kg dw		01/26/02			SA2919
4-Methylphenol	<370ug/kg dw		01/26/02			SA2919
n-Nitrosodinpropylamine	<370ug/kg dw		01/26/02			SA2919
Hexachloroethane	<370ug/kg dw		01/26/02			SA2919
Nitrobenzene	<370ug/kg dw		01/26/02			SA2919
Isophorone	<370ug/kg dw		01/26/02			SA2919
2-Nitrophenol	<370ug/kg dw		01/26/02			SA2919
2,4-Dimethylphenol	<370ug/kg dw		01/26/02			SA2919
bis(2-Chloroethoxy)methane	<370ug/kg dw		01/26/02			SA2919

dw = Dry weight

DATE: 02/11/02

Upstate Laboratories, Inc.
Analysis Results
Report Number: 02302010
Client I.D.: STERLING ENV. SERVICES, INC.
Sampled by: Client

APPROVAL: _____
QC: _____
Lab I.D.: 10170
BUFFALO BRAKE BEAM
QTB4-01 1415H 01/21/02 G

ULI I.D.: 02302013
Matrix: Soil

PARAMETERS	RESULTS	TIME	DATE ANAL.	KEY	KEY	FILE#
2,4-Dichlorophenol	<370ug/kg dw		01/26/02			SA2919
1,2,4-Trichlorobenzene	<370ug/kg dw		01/26/02			SA2919
Naphthalene	<370ug/kg dw		01/26/02			SA2919
4-Chloroaniline	<370ug/kg dw		01/26/02			SA2919
Hexachlorobutadiene	<370ug/kg dw		01/26/02			SA2919
4-Chloro-3-methylphenol	<370ug/kg dw		01/26/02			SA2919
2-Methylnaphthalene	<370ug/kg dw		01/26/02			SA2919
Hexachlorocyclopentadiene	<370ug/kg dw		01/26/02			SA2919
2,4,6-Trichlorophenol	<370ug/kg dw		01/26/02			SA2919
2,4,5-Trichlorophenol	<370ug/kg dw		01/26/02			SA2919
2-Chloronaphthalene	<370ug/kg dw		01/26/02			SA2919
2-Nitroaniline	<3700ug/kg dw		01/26/02			SA2919
Dimethylphthalate	<370ug/kg dw		01/26/02			SA2919
Acenaphthylene	<370ug/kg dw		01/26/02			SA2919
2,6-Dinitrotoluene	<370ug/kg dw		01/26/02			SA2919
3-Nitroaniline	<3700ug/kg dw		01/26/02			SA2919
Acenaphthene	<370ug/kg dw		01/26/02			SA2919
2,4-Dinitrophenol	<3700ug/kg dw		01/26/02			SA2919
4-Nitrophenol	<3700ug/kg dw		01/26/02			SA2919
Dibenzofuran	<370ug/kg dw		01/26/02			SA2919
2,4-Dinitrotoluene	<370ug/kg dw		01/26/02			SA2919
Diethylphthalate	<370ug/kg dw		01/26/02			SA2919
4-Chlorophenylphenylether	<370ug/kg dw		01/26/02			SA2919
Fluorene	<370ug/kg dw		01/26/02			SA2919
4-Nitroaniline	<3700ug/kg dw		01/26/02			SA2919
2-Methyl-4,6-dinitrophenol	<3700ug/kg dw		01/26/02			SA2919
n-Nitrosodiphenylamine	<370ug/kg dw		01/26/02			SA2919
4-Bromophenylphenylether	<370ug/kg dw		01/26/02			SA2919
Hexachlorobenzene	<370ug/kg dw		01/26/02			SA2919
Pentachlorophenol	<730ug/kg dw		01/26/02			SA2919
Phenanthrene	<370ug/kg dw		01/26/02			SA2919
Anthracene	<370ug/kg dw		01/26/02			SA2919
Carbazole	<370ug/kg dw		01/26/02			SA2919
di-n-butylphthalate	<370ug/kg dw		01/26/02			SA2919
Fluoranthene	<370ug/kg dw		01/26/02			SA2919
Pyrene	<370ug/kg dw		01/26/02			SA2919
Butylbenzylphthalate	<370ug/kg dw		01/26/02			SA2919
3,3'-Dichlorobenzidine	<370ug/kg dw		01/26/02			SA2919
Benzo(a)anthracene	<370ug/kg dw		01/26/02			SA2919
Chrysene	<370ug/kg dw		01/26/02			SA2919

dw = Dry weight

DATE: 02/11/02

Upstate Laboratories, Inc.
Analysis Results
Report Number: 02302010
Client I.D.: STERLING ENV. SERVICES, INC.
Sampled by: Client

APPROVAL: _____
QC: _____
Lab I.D.: 10170

BUFFALO BRAKE BEAM
QTB4-01 1415H 01/21/02 G

ULI I.D.: 02302013

Matrix: Soil

PARAMETERS	RESULTS	TIME	DATE ANAL.	KEY	KEY	FILE#
bis(2-Ethylhexyl)phthalate	2100ug/kg dw		01/26/02			SA2919
Di-n-octylphthalate	<370ug/kg dw		01/26/02			SA2919
Benzo(b)fluoranthene	<370ug/kg dw		01/26/02			SA2919
Benzo(k)fluoranthene	<370ug/kg dw		01/26/02			SA2919
Benzo(a)pyrene	<370ug/kg dw		01/26/02			SA2919
Indeno(1,2,3-cd)pyrene	<370ug/kg dw		01/26/02			SA2919
Dibenzo(a,h)anthracene	<370ug/kg dw		01/26/02			SA2919
Benzo(ghi)perylene	<370ug/kg dw		01/26/02			SA2919
PCB (Aroclors) by EPA Method 8082						
Aroclor 1016	<0.08mg/kg dw		01/29/02			GA1228
Aroclor 1221	<0.08mg/kg dw		01/29/02			GA1228
Aroclor 1232	<0.08mg/kg dw		01/29/02			GA1228
Aroclor 1242	<0.08mg/kg dw		01/29/02			GA1228
Aroclor 1248	<0.08mg/kg dw		01/29/02			GA1228
Aroclor 1254	<0.08mg/kg dw		01/29/02			GA1228
Aroclor 1260	<0.08mg/kg dw		01/29/02			GA1228
Total PCB	<0.08mg/kg dw		01/29/02			GA1228

dw = Dry weight

KEY PAGE

1 MATRIX INTERFERENCE PRECLUDES LOWER DETECTION LIMITS
2 REFERENCE SAMPLE/CCV RECOVERY WAS OUTSIDE OF CONTROL LIMITS
3 METHOD BLANK RESULT WAS ABOVE THE CONTROL LIMITS
4 ANALYSIS NOT PERFORMED BECAUSE OF INSUFFICIENT SAMPLE
5 THE PRESENCE OF OTHER TARGET ANALYTE(S) PRECLUDES LOWER DETECTION LIMITS
6 BLANK CORRECTED
7 HEAD SPACE PRESENT IN SAMPLE
8 QUANTITATION LIMIT IS GREATER THAN THE CALCULATED REGULATORY LEVEL. THE QUANTITATION LIMIT THEREFORE BECOMES THE REGULATORY LEVEL.
9 THE OIL WAS TREATED AS A SOLID AND LEACHED WITH EXTRACTION FLUID
10 RESULTS ARE REPORTED ON AN AS REC.D BASIS
11 POSSIBLE CONTAMINATION FROM FIELD/LABORATORY
12 SAMPLE ANALYZED OVER HOLDING TIME
13 DISSOLVED VALUE MAY BE HIGHER THAN TOTAL DUE TO CONTAMINATION FROM THE FILTERING PROCEDURE
14 SAMPLED BY ULI
15 DISSOLVED VALUE MAY BE HIGHER THAN TOTAL; HOWEVER, THE VALUES ARE WITHIN EXPERIMENTAL ERROR
16 AN INHIBITORY FACTOR WAS OBSERVED IN THIS ANALYSIS
17 PARAMETER NOT ANALYZED WITHIN 15 MINUTES OF SAMPLING
18 THE SERIAL DILUTION OF THIS SAMPLE SUGGESTS A POSSIBLE PHYSICAL AND/OR CHEMICAL INTERFERENT IN THIS DETERMINATION. THE DATA MAY BE BIASED EITHER HIGH OR LOW.
19 CALCULATION BASED ON DRY WEIGHT
20 INDICATES AN ESTIMATED VALUE, DETECTED BUT BELOW THE PRACTICAL QUANTITATION LIMITS
21 UG/KG AS REC.D / UG/KG DRY WT
22 MG/KG AS REC.D / MG/KG DRY WT
23 INSUFFICIENT SAMPLE PRECLUDES LOWER DETECTION LIMITS
24 SAMPLE DILUTED/BLANK CORRECTED
25 ND(NON-DETECTED)
26 DUPLICATE SAMPLE OUTSIDE QC CRITERIA
27 SPIKE RECOVERY ABNORMALLY HIGH/LOW DUE TO MATRIX INTERFERENCE
28 POST-DIGESTION SPIKE FOR FURNACE AA ANALYSIS IS OUTSIDE OF THE CONTROL LIMITS (85-115%); HOWEVER, THE SAMPLE CONCENTRATION IS BELOW THE PQL
29 ANALYZED BY METHOD OF STANDARD ADDITIONS
30
31 FIELD MEASURED PARAMETER TAKEN BY CLIENT
32 TARGET ANALYTE IS BIODEGRADED AND/OR ENVIRONMENTALLY WEATHERED
33 MILLIGRAMS PER LITER (MG/L) LINEAR ALKYL SULFONATE (LAS) / POUNDS (LBS) PER DAY LAS
34 THE SAMPLE WAS ANALYZED ON A TOTAL BASIS; THE TEST RESULT CAN BE COMPARED TO THE TCLP REGULATORY CRITERIA BY DIVIDING THE TEST RESULT BY 20, CREATING A THEORETICAL TCLP VALUE
35 THE HYDROCARBONS DETECTED IN THE SAMPLE DID NOT CROSS-MATCH WITH COMMON PETROLEUM DISTILLATES
36 MATRIX INTERFERENCE CAUSING SPIKES TO RESULT IN LESS THAN 50.0% RECOVERY
37 MILLIGRAMS PER LITER (MG/L) / POUNDS (LBS) PER DAY
38 MILLIGRAMS PER LITER (MG/L) OF RESIDUAL CHLORINE (CL2) / POUNDS (LBS) PER DAY OF CL2
39 MICROGRAMS PER LITER (UG/L) / POUNDS (LBS) PER DAY
(B) DETECTED IN BLANK
(D) ALL COMPOUNDS IDENTIFIED IN AN ANALYSIS AT A SECONDARY DILUTION FACTOR
(E) COMPOUNDS WHOSE CONCENTRATIONS EXCEED THE CALIBRATION RANGE OF THE GC/MS INSTRUMENT FOR THAT SPECIFIC ANALYSIS
(J) DETECTED BELOW THE CRQL
(a) SAMPLE(S) RECEIVED AT THE IMPROPER TEMPERATURE
(b) HEADSPACE IN VOA VIAL(S)
(c) HEADSPACE IN ALKALINITY BOTTLE(S)
(d) SAMPLE CONTAINER(S) RECEIVED BROKEN

Chlorinated Solvents
Monitoring Well Activities Report

Buffalo Brake Beam
400 Ingham Ave.
Lackawanna, NY

Prepared by: Sterling Environmental Services Inc.
50 Lake Ave.
Blasdell, NY
April 2002

Table of Contents

INTRODUCTION

In November of 2000, Earth Tech installed three monitoring wells on the Buffalo Brake Beam property as a part of their Baseline Environmental Site Assessment. One of the wells, MW10, exhibited concentrations of two chlorinated solvents, Tetrachloroethene and
cis-2-dichloroethene, in excess of ambient water quality standards.

In an effort to delineate the extent of contamination and investigate a possible source, four new groundwater monitoring wells were strategically installed, two presumed up gradient (MW101 and MW102) and two presumed down gradient (MW103 and MW104) from MW10. This was based upon the anticipation of groundwater flow in a southwest direction from the north side of the property towards Lake Erie. Following installation, the wells were developed in accordance with the agreed upon Supplemental Environmental Field Investigation Work Plan/ Quenchant Pit & Chlorinated Solvent Projects prepared January 2002, by Sterling. After development, the wells were sampled by Sterling. The samples were then picked up by Upstate Laboratories, following standard chain of custody procedures, and analyzed for VOC's using EPA method 8260. The following report gives a complete description of well installation, development, sampling procedures, and findings based upon analytical results.

WELL INSTALLATION

Installation activities began on the morning of January 22, 2002 and concluded on the evening of January 23, 2002. Present for monitoring well installation activities were Wayne Cameron and Jeremy Wells from Sterling, Steve Choiniere of Earth Tech (Observing representative for Miner) and two drill operators/installers from Parratt Wolff Inc. Sterling was responsible for overseeing the installation activities and choosing the final locations for wells along with screening the split spoon samples with a PID to determine possible source contamination. The contracted drill team from Parratt Wolff Inc. was responsible for all drilling and installation activities along with the tools and materials needed to construct the groundwater monitoring wells. They also kept a Test Boring Log of soil descriptions at individual subsurface intervals for each well. The Test Boring Log has been added as an appendix to this report.

The first well, MW104, was installed due south of MW10 in the parking lot of the loading area on the south side of the new building. It is approximately 16' east of the corner of the building and 45'8" south (please see diagram on p.16). Refusal for the split spoon was reached at 11.8' and refusal for the auger was reached at 12.0'. The flush mount well was installed successfully at the 12.0' depth in accordance with the work plan. A list of the split spoon intervals and correlating PID readings follows:

Depth Interval	PID Reading
0'-2'	0-1 ppm
2'-4'	0-1 ppm
4'-4.9'	0-17 ppm
6'-6.1'	No Recovery
8'-10'	0-3 ppm
10'-11.8'	0-4 ppm

The second well, MW103, was installed due west of the new building addition at a 45-degree radial angle (approximately) from the MW10 - MW104 line. It is located approximately 55'8" west from the right corner of the overhead door (please see diagram on p.16). Refusal for the split spoon was reached at 14.7' and refusal for the auger was reached at 14.0'. The flush mount well was installed successfully at the 14.0' depth in accordance with the work plan.

Depth Interval	PID Reading
0'-2'	0-1 ppm
2'-4'	0-1 ppm
4'-6'	0-1 ppm
6'-8'	0-1 ppm
8'-10'	0-1 ppm
10'-12'	0-2 ppm
12'-14'	0-1 ppm
14'-14.7'	0-1 ppm

The third well, MW101, was installed approximately 106' due north of MW10, just inside the fence line of the yard area north of the new building (please see diagram on p.16). Split spoon refusal was reached at 12.9' and auger refusal was reached at 13.0'. The well was successfully installed at 13.0' in accordance with the work plan.

Depth Interval	PID Reading
0'-2'	0-1 ppm
2'-4'	0-1 ppm
4'-6'	0-1 ppm
6'-8'	0-1 ppm
8'-10'	0-1 ppm
10'-12'	0-2 ppm
12'-12.9'	0-17 ppm

The fourth well, MW102, was installed at a 45 degree radial angle to the south and east of MW101 and approximately 106' from MW10 in the yard area north of the new building (please see diagram on p.16). Split spoon refusal and auger refusal both, were reached at 14.1'. Due to very wet sands and a vacuum condition created when pulling the plug from the auger, two to two and a half feet of sands had to be flushed out of the boring hole with potable water before the

well could be installed. The flush mount well was successfully installed at 14.0' in accordance with the work plan.

Depth Interval	PID Reading
0'-2'	0-2 ppm
2'-4'	0-1 ppm
4'-6'	0-2 ppm
6'-8'	0-2 ppm
8'-10'	0-3 ppm
10'-12'	0-1 ppm
12'-14.1'	0-3 ppm

WELL DEVELOPMENT

The standard procedure for developing the groundwater monitoring wells was discussed in detail in the work plan. The wells were developed in accordance with that plan before any samples were taken. All four wells were completely developed within a period of two weeks between January 25,2002 and February 8, 2002. Three wells, MW101, MW102, and MW103 were able to reach the turbidity requirement of 50 NTU's or less after the required purging volume had been pumped out of the wells. MW104 was a low volume well with slow recharge and was unable to reach the turbidity requirement and thus was purged dry five times, allowing at least ninety percent volume recovery between purges.

During well development, a datum point was established on the casing of each well to establish a reference point from which depth and static water levels could be measured. These measurements were crucial to development as they were the basis for well volume calculations. The tables below show the depths, water levels, calculated volumes, and total volumes removed for each well:

MW101
Depth: 178"
Initial H2O Level: 126"
Calculated Well Volume: 2.8 gallons
Total Volume removed: 64 gallons (final turbidity: 21.0 NTU)

MW102
Depth: 162.5"
Initial H2O Level: 107.5"
Calculated Well Volume: 3 gallons
Total Volume removed: 39 gallons (final turbidity: 49.2 NTU)

MW103
Depth: 167"
Initial H2O Level: 105.5"
Calculated Well Volume: 3.3 gallons

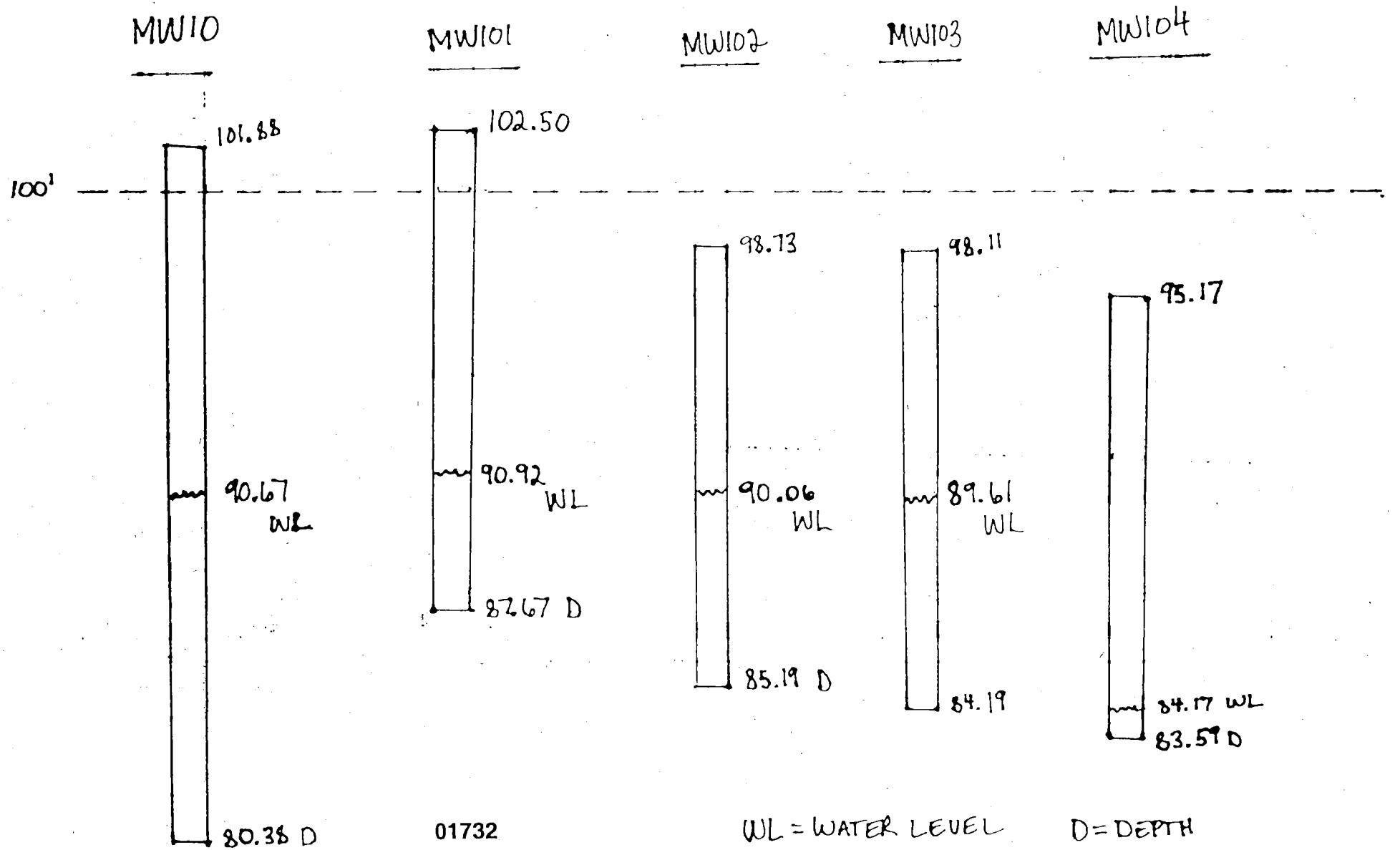
Total Volume removed: 30 gallons (final turbidity: 14.7 NTU) .

MW104
Depth: 139"
Initial H2O Level: 132"
Calculated Well Volume: 0.38 gallons
Total Volume removed: 1.83 gallons (purged well dry 5 times)

RELATIVE WELL ELEVATIONS

All well depth measurements shown to this point are from the top of the individual well casing. Two of the well casings, MW10 and MW101, extend above grade while the other three are flush mounts. There are also variations in the ground surface elevations between the various well points. To account for these variations, the relative elevations of the well datum points were determined using a laser level. The floor of the new building addition was used as an arbitrary base reference elevation. The relative well datum point elevations were determined from this reference. The following figure shows the well depths and water levels adjusted for the datum point elevations.

Diagram of Monitoring Well Depths and Water Levels
relative to an Arbitrary Elevation Level of 100'



MONITORING WELL SAMPLING

Five monitoring wells, MW10, MW101, MW102, MW103 and MW104 were sampled on Wednesday 2/20/02. Due to the low volume and slow recovery of MW104 observed during development, this well was purged on 2/19/02, by pumping until all water was removed. The other four wells were purged on 2/20/02 by removing three well volumes with a peristaltic pump. MW104 showed full recovery in the 24 hour period. The other four wells showed full recovery within 2.5 hours. One sample was collected from each of the five wells using a dedicated disposable bailer. Each sample was transferred to a labeled, precleaned VOA vial using a VOC bottom emptying device. The samples were packed in ice and sent to Upstate Laboratories under standard chain of custody procedures for analysis of VOC's by SW-846 Method 8260.

SUMMARY OF ANALYTICAL RESULTS

Analytical results are presented in the following tables with comparison to the Ambient Water Quality Standards and Guidance Values, NYSDEC TOGS 1.1.1.

Tetrachloroethene was detected in four of the five wells sampled. These were MW10, MW101, MW102 and MW103. The concentration of Tetrachloroethene in MW101 was below the groundwater standard. The concentration in the other three wells, MW10 @ 22 ppb, MW102 @ 43 ppb and MW103 @ 94 ppb exceeded the groundwater standard of 5 ppb. Trichloroethene was detected in two of the wells, MW102 and MW103, but concentrations were at or below the groundwater standard. No chlorinated solvents were detected in MW104, however BTEX compounds were detected at significant levels. Concentrations of Benzene, Toluene, Ethyl Benzene and Xylene exceeded the groundwater standard in this sample. Benzene @ 24 ppb exceeded the standard of 0.7 ppb. Toluene @ 65 ppb, Ethyl Benzene @ 10 ppb and total Xylenes @ 318 ppb exceeded the standard of 5 ppb for each compound.

Analytical Results
Summary Table in PPB (ug/l)
Matrix: Water
Sample: MW10-01
Analysis: VOC's (EPA Method 8260)

Constituent	Sample Results	TOGS 1.1.1 Groundwater Standards/Guidance Values
Chloromethane	<3	5
Bromomethane	<3	5
Vinyl Chloride	<2	2
Chloroethane	<3	50
Methylene Chloride	<3	5
Acetone	<10	50
Carbon Disulfide	<3	50
1,1-Dichloroethene	<3	5
1,1-Dichloroethane	<3	5
Trans-1,2-Dichloroethene	<3	5
Cis-1,2-Dichloroethene	<3	5
Chloroform	<3	7
1,2-Dichloroethane	<3	5
2-Butanone	<10	50
1,1,1-Trichloroethane	<3	5
Carbon Tetrachloride	<3	5
Bromodichloromethane	<3	50
1,2-Dichloropropane	<3	5
Cis-1,3-Dichloropropene	<3	5
Trichloroethene	<3	5
Dibromochloromethane	<3	50
1,1,2-Trichloroethane	<3	5
Benzene	<3	0.7
Trans-1,3-Dichloropropene	<3	5
Bromoform	<3	50
4-Methyl-2-pentanone	<10	50
2-Hexanone	<10	50
Tetrachloroethene	22	5
1,1,2,2-Tetrachloroethane	<3	5
Toluene	<3	5
Chlorobenzene	<3	5
Ethylbenzene	<3	5
Styrene	<3	5
Total Xylene	<6	5

Analytical Results
Summary Table in PPB (ug/l)
Matrix: Water
Sample: MW101-01
Analysis: VOC's (EPA Method 8260)

Constituent	Sample Results	TOGS 1.1.1 Groundwater Standards/Guidance Values
Chloromethane	<3	5
Bromomethane	<3	5
Vinyl Chloride	<2	2
Chloroethane	<3	50
Methylene Chloride	<3	5
Acetone	<10	50
Carbon Disulfide	<3	50
1,1-Dichloroethene	<3	5
1,1-Dichloroethane	<3	5
Trans-1,2-Dichloroethene	<3	5
Cis-1,2-Dichloroethene	<3	5
Chloroform	<3	7
1,2-Dichloroethane	<3	5
2-Butanone	<10	50
1,1,1-Trichloroethane	<3	5
Carbon Tetrachloride	<3	5
Bromodichloromethane	<3	50
1,2-Dichloropropane	<3	5
Cis-1,3-Dichloropropene	<3	5
Trichloroethene	<3	5
Dibromochloromethane	<3	50
1,1,2-Trichloroethane	<3	5
Benzene	<3	0.7
Trans-1,3-Dichloropropene	<3	5
Bromoform	<3	50
4-Methyl-2-pentanone	<10	50
2-Hexanone	<10	50
Tetrachloroethene	3	5
1,1,2,2-Tetrachloroethane	<3	5
Toluene	<3	5
Chlorobenzene	<3	5
Ethylbenzene	<3	5
Styrene	<3	5
Total Xylene	<6	5

Analytical Results
Summary Table in PPB (ug/l)
Matrix: Water
Sample: MW102-01
Analysis: VOC's (EPA Method 8260)

Constituent	Sample Results	TOGS 1.1.1 Groundwater Standards/Guidance Values
Chloromethane	<3	5
Bromomethane	<3	5
Vinyl Chloride	<2	2
Chloroethane	<3	50
Methylene Chloride	<3	5
Acetone	<10	50
Carbon Disulfide	<3	50
1,1-Dichloroethene	<3	5
1,1-Dichloroethane	<3	5
Trans-1,2-Dichloroethene	<3	5
Cis-1,2-Dichloroethene	<3	5
Chloroform	<3	7
1,2-Dichloroethane	<3	5
2-Butanone	<10	50
1,1,1-Trichloroethane	<3	5
Carbon Tetrachloride	<3	5
Bromodichloromethane	<3	50
1,2-Dichloropropane	<3	5
Cis-1,3-Dichloropropene	<3	5
Trichloroethene	4	5
Dibromochloromethane	<3	50
1,1,2-Trichloroethane	<3	5
Benzene	<3	0.7
Trans-1,3-Dichloropropene	<3	5
Bromoform	<3	50
4-Methyl-2-pentanone	<10	50
2-Hexanone	<10	50
Tetrachloroethene	**43**	5
1,1,2,2-Tetrachloroethane	<3	5
Toluene	<3	5
Chlorobenzene	<3	5
Ethylbenzene	<3	5
Styrene	<3	5
Total Xylene	<6	5

Analytical Results
Summary Table in PPB (ug/l)
Matrix: Water
Sample: MW103-01
Analysis: VOC's (EPA Method 8260)

Constituent	Sample Results	TOGS 1.1.1 Groundwater Standards/Guidance Values
Chloromethane	<3	5
Bromomethane	<3	5
Vinyl Chloride	<2	2
Chloroethane	<3	50
Methylene Chloride	<3	5
Acetone	<10	50
Carbon Disulfide	<3	50
1,1-Dichloroethene	<3	5
1,1-Dichloroethane	<3	5
Trans-1,2-Dichloroethene	<3	5
Cis-1,2-Dichloroethene	<3	5
Chloroform	<3	7
1,2-Dichloroethane	<3	5
2-Butanone	<10	50
1,1,1-Trichloroethane	<3	5
Carbon Tetrachloride	<3	5
Bromodichloromethane	<3	50
1,2-Dichloropropane	<3	5
Cis-1,3-Dichloropropene	<3	5
Trichloroethene	5	5
Dibromochloromethane	<3	50
1,1,2-Trichloroethane	<3	5
Benzene	<3	0.7
Trans-1,3-Dichloropropene	<3	5
Bromoform	<3	50
4-Methyl-2-pentanone	<10	50
2-Hexanone	<10	50
Tetrachloroethene	94	5
1,1,2,2-Tetrachloroethane	<3	5
Toluene	<3	5
Chlorobenzene	<3	5
Ethylbenzene	<3	5
Styrene	<3	5
Total Xylene	<6	5

Analytical Results
Summary Table in PPB (ug/l)
Matrix: Water
Sample: MW104-01
Analysis: VOC's (EPA Method 8260)

Constituent	Sample Results	TOGS 1.1.1 Groundwater Standards/Guidance Values
Chloromethane	<6	5
Bromomethane	<6	5
Vinyl Chloride	<4	2
Chloroethane	<6	50
Methylene Chloride	<6	5
Acetone	<20	50
Carbon Disulfide	<6	50
1,1-Dichloroethene	<6	5
1,1-Dichloroethane	<6	5
Trans-1,2-Dichloroethene	<6	5
Cis-1,2-Dichloroethene	<6	5
Chloroform	<6	7
1,2-Dichloroethane	<6	5
2-Butanone	<20	50
1,1,1-Trichloroethane	<6	5
Carbon Tetrachloride	<6	5
Bromodichloromethane	<6	50
1,2-Dichloropropane	<6	5
Cis-1,3-Dichloropropene	<6	5
Trichloroethene	<6	5
Dibromochloromethane	<6	50
1,1,2-Trichloroethane	<6	5
Benzene	**24**	0.7
Trans-1,3-Dichloropropene	<6	5
Bromoform	<6	50
4-Methyl-2-pentanone	<20	50
2-Hexanone	<20	50
Tetrachloroethene	<6	5
1,1,2,2-Tetrachloroethane	<6	5
Toluene	**65**	5
Chlorobenzene	<6	5
Ethylbenzene	**10**	5
Styrene	<6	5
Total Xylene	**318**	5

CONCLUSIONS AND RECOMMENDATIONS

In general, it is impossible to draw firm conclusions from the information available at this time. What can be concluded is that MW104 is unrelated to the other four wells, "the chlorinated solvents project". It is also apparent that Tetrachloroethene is present above the ambient groundwater standard, in shallow groundwater below the site. The levels of Tetrachloroethene in each of the wells sampled in this round were less than the level found in the initial sampling of MW10 a year ago which appears to indicate that the situation is not getting worse. It should also be noted that a review of the record of decision for the Lehigh Industrial Park inactive hazardous waste site, the adjacent property to the north, shows a chlorinated solvent, cis 1,2 Dichloroethene was found in the groundwater below the site at concentration above the groundwater standard. This site is located in the presumed upgradiant direction of the wells sampled in this project. The conclusions of the ROD were that the contamination did not pose a threat to the public health or the environment and no source was identified on the site. Therefore no groundwater remediation was performed.

CHLORINATED SOLVENT WELLS

MW10, MW101, MW102 and MW103 all showed the presence of Tetrachloroethene. Cis-1,2-dichloroethene, the solvent identified in the ROD for the Lehigh site, was noted in the original sampling of MW10 as part of the baseline assessment. It was not detected in this round of sampling in MW10 or any of the other three wells. The levels of Tetrachloroethene in this sampling exercise were also lower than in the initial sampling. The initial sampling showed concentrations of 140 ppb. In this round of sampling MW10 was 22 ppb. Higher levels were observed in MW102 and MW103 at 43 and 94 ppb respectively, which are both below the level of the initial sample.

Many factors are at work in a groundwater situation which may influence the results. We are looking at concentrations of less than 100 parts per billion. Minor variations in these numbers are not necessarily statistically significant. The difference between the concentration in MW10 and MW102 and 103 may be that MW10 was installed a year ago and MW102 and 103 have been recently disturbed by the installation process. MW104 is 2.5 feet shallower than any of the other wells. This may indicate a slope to the bedrock or it may be located on an elevated anomaly that may create a flow pattern around it. If it is an elevated anomaly this could contribute to the lower concentrations in this well. Seasonal groundwater level fluctuation can also influence the results. Processes such as flushing and natural attenuation are also at work.

I would recommend that these wells continue to be sampled on a quarterly basis to develop more reliable data and to confirm that concentrations are not increasing. I would also recommend that we pursue obtaining the groundwater

sampling information and analytical results for the RI conducted on the Lehigh site. This information may help provide evidence of an off-site source.

MW104, BTEX WELL

The findings for MW104 indicate that this well is unrelated to the other four. The relative water level, hydogeological conditions of the low well volume and slow recharge as well as the distinctly different chemical fingerprint indicate that this well is geologically isolated from the aquifer of the other wells. This well is being discussed separately.

MW104 showed concentrations of Benzene, Toluene, Ethyl Benzene and Xylene in excess of the groundwater standards. These compounds are indicative of gasoline or fuel contamination. The source of this contamination has not been identified. The area in which the well is located was identified as an area of buried concrete debris in the baseline assessment. There are also drain lines in this area. During the drilling for the well installation elevated PID readings were observed at the 4 to 4.9 foot depth interval. The next recoverable interval was not until the 8 foot depth. It is possible that we drilled through something such as an old drain bed during the well installation and this may be the source of the contamination. It is also possible that the groundwater has been impacted by the gasoline spill area identified inside the building. I would recommend another round of sampling of this well and MW13. If a sample can be obtained from MW13 and it does not show the BTEX contamination, the gasoline spill area could be ruled out as the source based upon MW13s closer proximity to the spill area. I would then recommend a series of test borings and field screening to better identify and delineate the contamination source area.

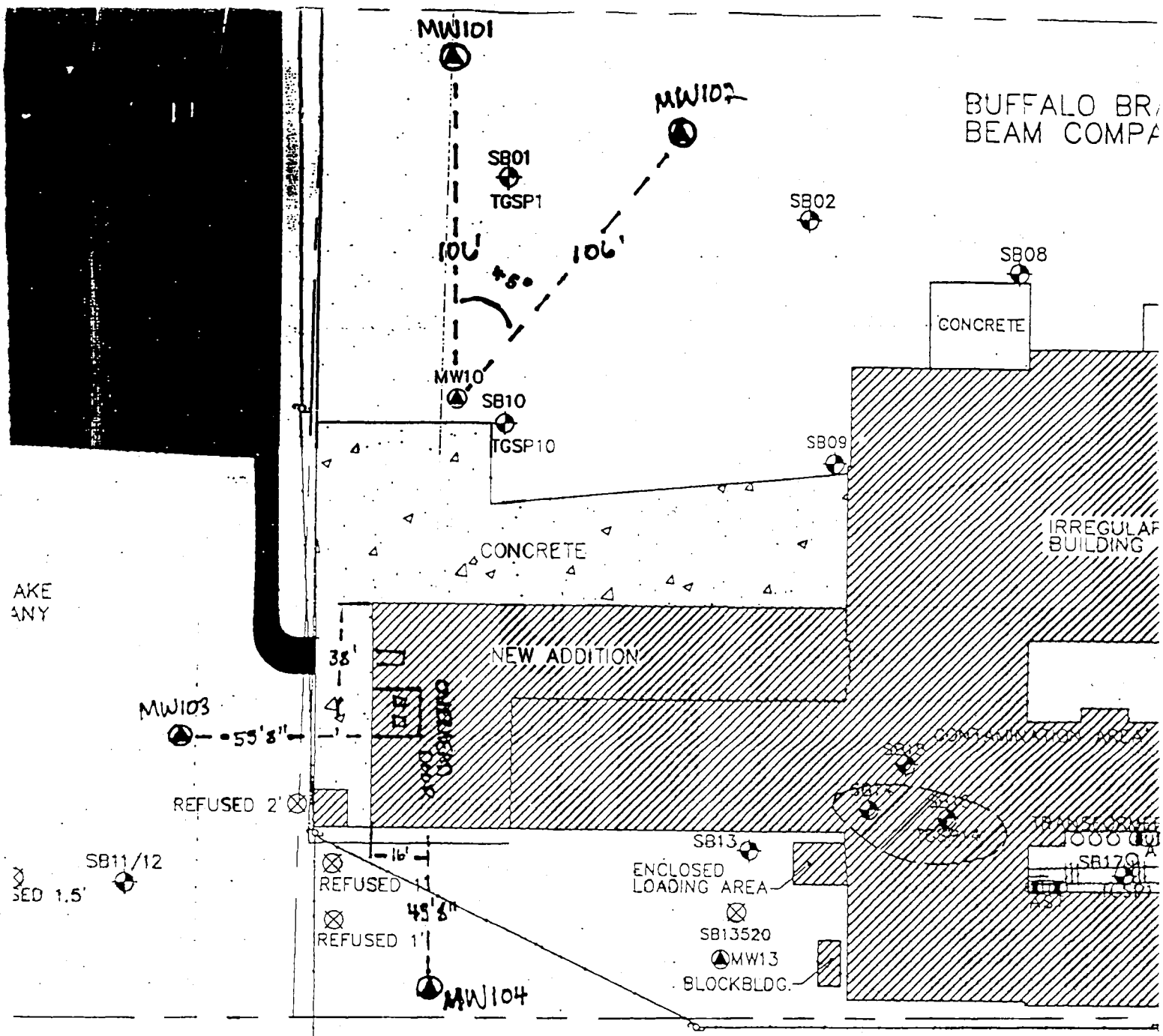


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DIAGRAM OF MONITORING WELLS AND APPROXIMATE LOCATIONS

NOTE: DRAWING IS NOT TO SCALE

▲ INDICATES MONITORING WELL

MW101, MW102, MW103, AND MW104 INSTALLED BY STERLING

GROUNDWATER
NT (INSTALLED IN
MPLE COLLECTED

01741

parratt wolff inc

TEST BORING LOG

5879 FISHER ROAD
EAST SYRACUSE, N.Y. 13057

PROJECT Buffalo Brake Beam

LOCATION Lackawanna, N.Y.

DATE STARTED 1-23-02 DATE COMPLETED 1-23-02

HOLE NO. mw-102

SURF. EL.

JOB NO. 02018

GROUND WATER DEPTH
WHILE DRILLING 8.0'
BEFORE CASING REMOVED 11.0'
AFTER CASING REMOVED Installed 2" PVC well

N — NO. OF BLOWS TO DRIVE SAMPLER 12" W/140# HAMMER FALLING 30" — ASTM D-1586, STANDARD PENETRATION TEST

C — NO. OF BLOWS TO DRIVE CASING 12" W/ 140 # HAMMER FALLING
"/OR — % CORE RECOVERY

Joe Penrod

CASING TYPE 4 1/4 H.S.A. 2" PVC well

SHEET 1 OF 1

DFL

DEPTH	SAMPLE DEPTH	SAMPLE NUMBER	C	SAMPLE DRIVE RECORD PER 6"	N	DESCRIPTION OF MATERIAL	STRATA CHANGE DEPTH
	0'-2.0'	1		8-9	37	Road Stone	1.3
				28-11		Brown, moist, Dense F/m sand, little silt, little F/m gravel	
	2.0'-4.0'	2		16-20	36		
5'				16-20			
	4.0'-6.0'	3		10-24	48		
				24-21			7.4
	6.0'-8.0'	4		23-23	50	Tan, moist, Dense, F/m sand	8.0
				27-21			
	8.0'-10.0'	5		16-10	33	Tan, wet, m/d F/m sand	
10'				13-16			
	10.0'-12.0'	6		32-52	38		
				6-7			
	12.0'-14.0'	7		19-16	52		13.0'
				36-21		Grey, wet, Dense F/m sand, little silt, trace of limestone Rock Fragments	14.1'
15'							
						Auger Refusal at 14.1'	B.O.B
						Screened 14.0'-9.0'	
						Riser 9.0'-.5' below grade	
						Sandpack - 14.0'-7.0' = 4 Bags #0 sand	
						Seal 7.0'-1.5' = 2 Bags Holeplug	
						Backfill 1.5'-grade = 2 Bags	
						8" F/m	
						18" Sonatube pad	
						4'	

01742

parratt wolff inc

TEST BORING LOG

5879 FISHER ROAD
EAST SYRACUSE, N.Y. 13057

PROJECT Buffalo Brake Beam

HOLE NO. mw - 101

LOCATION Lackawanna, N.Y.

SURF. EL.

DATE STARTED 1-23-02

DATE COMPLETED 1-23-02

JOB NO. 02018

GROUND WATER DEPTH WHILE DRILLING 8.0'

BEFORE CASING REMOVED 11.0'

AFTER CASING REMOVED Installed 2" PVC well

N — NO. OF BLOWS TO DRIVE SAMPLER 12" W/140# HAMMER FALLING 30" — ASTM D-1586, STANDARD PENETRATION TEST

C — NO. OF BLOWS TO DRIVE CASING 12" W/ 140 # HAMMER FALLING "/OR — % CORE RECOVERY

Jim Pennock

CASING TYPE 4¼ H.S.A.
2" PVC well
4" free-casing

SHEET 1 OF 1

DFL

DEPTH	SAMPLE DEPTH	SAMPLE NUMBER	C	SAMPLE DRIVE RECORD PER 6"	N	DESCRIPTION OF MATERIAL	STRATA CHANGE DEPTH
	0'-2.0'	1		4-4	8	Brown, moist, loose to m/d F/m sand trace silt, trace fine gravel	
				4-5			
	2.0'-4.0'	2		6-8	15		
				7-5			4.0'
5'	4.0'-6.0'	3		2-2	7	Tan, moist, loose to m/d F/m sand, trace silt, trace fine gravel	
				5-11			
	6.0'-8.0'	4		10-12	29		
				17-22			8.0'
	8.0'-10.0'	5		4-14	37	Tan, wet, dense F/m sand, little fine gravel trace silt	9.7'
10'				23-27		Grey, moist, dense F/m sand, some fine gravel	10.0'
	10.0'-12.0'	6		14-14	33	Grey, wet, dense to very dense F/m sand and F/m-gravel	12.5
				19-23		Grey, wet, very dense F/m sand, some F/m gravel little silt	13.0
	12.0'-12.9	7		48-5"/4"			
15'							B.O.B.

Spoon refusal at 12.9'
Auger refusal at 13.0'
Screened 13.0' - 8.0'
Riser 8.0' - 2.0' above grade
Sandpack 13.0' - 6.0' = 4 Bags #0 sand
Seal 6.0' - 2.0' = 2½ Bags Hole plug
Backfill 2.0' - grade = 2 bags
1 4" Prot. casing w/Lock
1 18" Conc Tube Pad

01743

parratt wolff inc

TEST BORING LOG

5879 FISHER ROAD
EAST SYRACUSE, N.Y. 13057

PROJECT Buffalo Brake Beam

HOLE NO. MW-103

LOCATION Lackawanna, N.Y.

SURF. EL.

DATE STARTED 1-22-02

DATE COMPLETED 1-22-02

JOB NO. 02018

GROUND WATER DEPTH WHILE DRILLING 5.0'

N — NO. OF BLOWS TO DRIVE SAMPLER 12" W/140# HAMMER FALLING 30" — ASTM D-1586, STANDARD PENETRATION TEST

C — NO. OF BLOWS TO DRIVE CASING 12" W/ 140# HAMMER FALLING "/OR — % CORE RECOVERY

BEFORE CASING REMOVED 11.0'

AFTER CASING REMOVED Installed 2" PVC well

CASING TYPE 4¼" H.S.A.
2" PVC well
24" cookie cutter

SHEET 1 OF 1

DEPTH	SAMPLE DEPTH	SAMPLE NUMBER	C	SAMPLE DRIVE, RECORD PER 6"	N	DESCRIPTION OF MATERIAL	STRATA CHANGE DEPTH
	0'-2.0'	1		20-12	22	BROWN, MOIST, medium dense FINE SAND, some SILT, little F/m gravel	
				10-8			
	2.0'-4.0'	2		7-9	18		3.5
				9-8		TAN, moist, medium dense F/m sand, some SILT	
5'	4.0'-6.0'	3		2-2	9		5.0'
				7-9		TAN, moist to WET, Loose to medium dense F/m sand	7.0'
	6.0'-8.0'	4		10-11	22	little SILT	
				11-10		TAN, moist, m/D F/m sand, trace SILT	8.0'
	8.0'-10.0'	5		6-9	18	TAN, WET, m/D F/m SAND	
10'				11-9			
	10.0'-12.0'	6		7-12	29		
				17-21			
	12.0'-14.0'	7		12-15	36	TAN, WET, Dense F/m SAND	
				21-27			14.5'
15'	14.0'-14.7'	8		9-50/2		GREY, WET, Highly WEATHERED limestone	14.7'
							B.O.B.

Spooned to 14.7'
Auger to 14.0'
Screened 14.0' - 9.0'
Riser 9.0' - .5' below grade
Sandpack 14.0' - 7.0' = 4 Bags #0 Sand
Seal 7.0' - 2.0' = 2 Bags hole plug
Backfill 2.0' - grade = 2 Bags
8" FMC

01744

parratt wolff inc

TEST BORING LOG

5879 FISHER ROAD
EAST SYRACUSE, N.Y. 13057

PROJECT Buffalo Brake Beam

LOCATION Lackawanna, N.Y.

DATE STARTED 1-22-02

DATE COMPLETED 1-22-02

HOLE NO. MW-104

SURF. EL.

JOB NO. 02018

GROUND WATER DEPTH WHILE DRILLING Dry

BEFORE CASING REMOVED Dry

AFTER CASING REMOVED Installed 2" PVC well

N — NO. OF BLOWS TO DRIVE SAMPLER 12" W/140# HAMMER FALLING 30" — ASTM D-1586, STANDARD PENETRATION TEST

C — NO. OF BLOWS TO DRIVE CASING 12" W/ 140 # HAMMER FALLING "/OR — % CORE RECOVERY

Joe Renard

CASING TYPE 4 1/4 H.S.A
2" PVC well
24" cookie cutter

SHEET 1 OF 1

DFL

DEPTH	SAMPLE DEPTH	SAMPLE NUMBER	C	SAMPLE DRIVE RECORD PER 6"	N	DESCRIPTION OF MATERIAL	STRATA CHANGE DEPTH
	1.0'-2.0'	1		18-18		Brown, Dry, Dense F/m Sand and F/m gravel	3.0'
	2.0'-4.0'	2		40-25	50	Grey, Dry, Dense, F/m GRAVEL, Trace silt, Trace Fine sand	4.0'
5'				25-25			
	4.0'-4.9'	3		8-30/3		Grey, Dry, Very Dense Fine sand, some silt, little F/m gravel	
	6.0'-6.1'	4		50/.1	→	NO RECOVERY	
	8.0'-10.0'	5		14-14	30	SAA w/ TRACE of Highly Fractured Shale & Limestone	
10'				16-22			11.3'
	10.0'-11.8'	6		10-25		Grey, Dry, Highly Fractured Limestone	12.0'
				83-100/.3			
	12.0'-	7				Spoon refusal at 11.8'	B.O.B.
15'						Auger refusal at 12.0'	
						Screened 2.0'-7.0' 10 slot PVC	
						Riser 7.0'-.5' below grade 2" PVC	
						Sandpack 12.0'-9.8' = 4 Bags # 0 Sand	
						Seal 9.8'-2.0' = 1 Bag Hole plug	
						Backfill 2.0'-grade = 2 Bags	
						8" FMC inside cookie cutter Hole	

Upstate Laboratories inc.

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March 13, 2002

Mr. Wayne K. Cameron
Project Manager
Sterling Env. Services, Inc.
50 Lake Ave.
Blasdell, NY 14219

Re: Analysis Report #05302036 - Monitoring Wells/Chlor Solvents

Dear Mr. Cameron:

Please find enclosed the results for your samples which were picked up by ULI personnel on February 21, 2002.

We have included the Chain of Custody Record as part of your report. You may need to reference this form for a more detailed explanation of your sample. Samples will be disposed of approximately one month from final report date.

Should you have any questions, please feel free to give us a call.

Thank you for your patronage.

Sincerely,

UPSTATE LABORATORIES, INC.

Anthony J. Scala
Director

AJS/rd

Enclosures: report, invoice

cc/encs: N. Scala, ULI
file

Note: Faxed results were given to your office on 3/13/02. AJS

Disclaimer: The test results and procedures utilized, and laboratory interpretations of data obtained by ULI as contained in this report are believed by ULI to be accurate and reliable for sample(s) tested. In accepting this report, the customer agrees that the full extent of any and all liability for actual and consequential damages of ULI for the services performed shall be equal to the fee charged to the customer for the services as liquidated damages.

DATE: 03/13/02

Upstate Laboratories, Inc.
Analysis Results
Report Number: 05302036
Client I.D.: STERLING ENV. SERVICES, INC.
Sampled by: Client

APPROVAL
QC:
Lab I.D.: 10170

MONITORING WELLS/
CHLOR. SOLVENTS MW10-01 1240H 02/20/02 G

ULI I.D.: 05302039

Matrix: Water

PARAMETERS	RESULTS	TIME	DATE ANAL.	KEY	KEY	FILE#
TCL Volatiles by EPA Method 8260						
Chloromethane	<3ug/l		03/04/02			VM3854
Bromomethane	<3ug/l		03/04/02			VM3854
Vinyl Chloride	<2ug/l		03/04/02			VM3854
Chloroethane	<3ug/l		03/04/02			VM3854
Methylene Chloride	<3ug/l		03/04/02			VM3854
Acetone	<10ug/l		03/04/02			VM3854
Carbon Disulfide	<3ug/l		03/04/02			VM3854
1,1-Dichloroethene	<3ug/l		03/04/02			VM3854
1,1-Dichloroethane	<3ug/l		03/04/02			VM3854
trans-1,2-Dichloroethene	<3ug/l		03/04/02			VM3854
cis-1,2-Dichloroethene	<3ug/l		03/04/02			VM3854
Chloroform	<3ug/l		03/04/02			VM3854
1,2-Dichloroethane	<3ug/l		03/04/02			VM3854
2-Butanone	<10ug/l		03/04/02			VM3854
1,1,1-Trichloroethane	<3ug/l		03/04/02			VM3854
Carbon Tetrachloride	<3ug/l		03/04/02			VM3854
Bromodichloromethane	<3ug/l		03/04/02			VM3854
1,2-Dichloropropane	<3ug/l		03/04/02			VM3854
cis-1,3-Dichloropropene	<3ug/l		03/04/02			VM3854
Trichloroethene	<3ug/l		03/04/02			VM3854
Dibromochloromethane	<3ug/l		03/04/02			VM3854
1,1,2-Trichloroethane	<3ug/l		03/04/02			VM3854
Benzene	<3ug/l		03/04/02			VM3854
trans-1,3-Dichloropropene	<3ug/l		03/04/02			VM3854
Bromoform	<3ug/l		03/04/02			VM3854
4-Methyl-2-pentanone	<10ug/l		03/04/02			VM3854
2-Hexanone	<10ug/l		03/04/02			VM3854
Tetrachloroethene	22ug/l		03/04/02			VM3854
1,1,2,2-Tetrachloroethane	<3ug/l		03/04/02			VM3854
Toluene	<3ug/l		03/04/02			VM3854
Chlorobenzene	<3ug/l		03/04/02			VM3854
Ethylbenzene	<3ug/l		03/04/02			VM3854
Styrene	<3ug/l		03/04/02			VM3854
m-Xylene and p-Xylene	<3ug/l		03/04/02			VM3854
o-Xylene	<3ug/l		03/04/02			VM3854

DATE: 03/13/02

Upstate Laboratories, Inc.
Analysis Results
Report Number: 05302036
Client I.D.: STERLING ENV. SERVICES, INC.
Sampled by: Client

APPROVAL:
QC:
Lab I.D.: 10170

MONITORING WELLS/
CHLOR. SOLVENTS MW101-01 1210H 02/20/02 G

ULI I.D.: 05302037

Matrix: Water

PARAMETERS	RESULTS	TIME	DATE ANAL.	KEY	KEY	FILE#
TCL Volatiles by EPA Method 8260						
Chloromethane	<3ug/l		02/28/02			VM3851
Bromomethane	<3ug/l		02/28/02			VM3851
Vinyl Chloride	<2ug/l		02/28/02			VM3851
Chloroethane	<3ug/l		02/28/02			VM3851
Methylene Chloride	<3ug/l		02/28/02			VM3851
Acetone	<10ug/l		02/28/02			VM3851
Carbon Disulfide	<3ug/l		02/28/02			VM3851
1,1-Dichloroethene	<3ug/l		02/28/02			VM3851
1,1-Dichloroethane	<3ug/l		02/28/02			VM3851
trans-1,2-Dichloroethene	<3ug/l		02/28/02			VM3851
cis-1,2-Dichloroethene	<3ug/l		02/28/02			VM3851
Chloroform	<3ug/l		02/28/02			VM3851
1,2-Dichloroethane	<3ug/l		02/28/02			VM3851
2-Butanone	<10ug/l		02/28/02			VM3851
1,1,1-Trichloroethane	<3ug/l		02/28/02			VM3851
Carbon Tetrachloride	<3ug/l		02/28/02			VM3851
Bromodichloromethane	<3ug/l		02/28/02			VM3851
1,2-Dichloropropane	<3ug/l		02/28/02			VM3851
cis-1,3-Dichloropropene	<3ug/l		02/28/02			VM3851
Trichloroethene	<3ug/l		02/28/02			VM3851
Dibromochloromethane	<3ug/l		02/28/02			VM3851
1,1,2-Trichloroethane	<3ug/l		02/28/02			VM3851
Benzene	<3ug/l		02/28/02			VM3851
trans-1,3-Dichloropropene	<3ug/l		02/28/02			VM3851
Bromoform	<3ug/l		02/28/02			VM3851
4-Methyl-2-pentanone	<10ug/l		02/28/02			VM3851
2-Hexanone	<10ug/l		02/28/02			VM3851
Tetrachloroethene	3ug/l		02/28/02			VM3851
1,1,2,2-Tetrachloroethane	<3ug/l		02/28/02			VM3851
Toluene	<3ug/l		02/28/02			VM3851
Chlorobenzene	<3ug/l		02/28/02			VM3851
Ethylbenzene	<3ug/l		02/28/02			VM3851
Styrene	<3ug/l		02/28/02			VM3851
m-Xylene and p-Xylene	<3ug/l		02/28/02			VM3851
o-Xylene	<3ug/l		02/28/02			VM3851

DATE: 03/13/02

Upstate Laboratories, Inc.
Analysis Results
Report Number: 05302036
Client I.D.: STERLING ENV. SERVICES, INC.
Sampled by: Client

APPROVAL: _____
QC: _____
Lab I.D.: 10170

MONITORING WELLS/
CHLOR. SOLVENTS MW102-01 1225H 02/20/02 G

ULI I.D.: 05302038

Matrix: Water

PARAMETERS	RESULTS	TIME	DATE ANAL.	KEY	KEY	FILE#
TCL Volatiles by EPA Method 8260						
Chloromethane	<3ug/l		02/28/02			VM3851
Bromomethane	<3ug/l		02/28/02			VM3851
Vinyl Chloride	<2ug/l		02/28/02			VM3851
Chloroethane	<3ug/l		02/28/02			VM3851
Methylene Chloride	<3ug/l		02/28/02			VM3851
Acetone	<10ug/l		02/28/02			VM3851
Carbon Disulfide	<3ug/l		02/28/02			VM3851
1,1-Dichloroethene	<3ug/l		02/28/02			VM3851
1,1-Dichloroethane	<3ug/l		02/28/02			VM3851
trans-1,2-Dichloroethene	<3ug/l		02/28/02			VM3851
cis-1,2-Dichloroethene	<3ug/l		02/28/02			VM3851
Chloroform	<3ug/l		02/28/02			VM3851
1,2-Dichloroethane	<3ug/l		02/28/02			VM3851
2-Butanone	<10ug/l		02/28/02			VM3851
1,1,1-Trichloroethane	<3ug/l		02/28/02			VM3851
Carbon Tetrachloride	<3ug/l		02/28/02			VM3851
Bromodichloromethane	<3ug/l		02/28/02			VM3851
1,2-Dichloropropane	<3ug/l		02/28/02			VM3851
cis-1,3-Dichloropropene	<3ug/l		02/28/02			VM3851
Trichloroethene	4ug/l		02/28/02			VM3851
Dibromochloromethane	<3ug/l		02/28/02			VM3851
1,1,2-Trichloroethane	<3ug/l		02/28/02			VM3851
Benzene	<3ug/l		02/28/02			VM3851
trans-1,3-Dichloropropene	<3ug/l		02/28/02			VM3851
Bromoform	<3ug/l		02/28/02			VM3851
4-Methyl-2-pentanone	<10ug/l		02/28/02			VM3851
2-Hexanone	<10ug/l		02/28/02			VM3851
Tetrachloroethene	43ug/l		02/28/02			VM3851
1,1,2,2-Tetrachloroethane	<3ug/l		02/28/02			VM3851
Toluene	<3ug/l		02/28/02			VM3851
Chlorobenzene	<3ug/l		02/28/02			VM3851
Ethylbenzene	<3ug/l		02/28/02			VM3851
Styrene	<3ug/l		02/28/02			VM3851
m-Xylene and p-Xylene	<3ug/l		02/28/02			VM3851
o-Xylene	<3ug/l		02/28/02			VM3851

DATE: 03/13/02

Upstate Laboratories, Inc.
Analysis Results
Report Number: 05302036
Client I.D.: STERLING ENV. SERVICES, INC.
Sampled by: Client

APPROVAL:
QC:
Lab I.D.: 10170

MONITORING WELLS/
CHLOR. SOLVENTS MW103-01 1255H 02/20/02 G

ULI I.D.: 05302040

Matrix: Water

PARAMETERS	RESULTS	TIME	DATE ANAL.	KEY	KEY	FILE#
TCL Volatiles by EPA Method 8260						
Chloromethane	<3ug/l		03/04/02			VM3854
Bromomethane	<3ug/l		03/04/02			VM3854
Vinyl Chloride	<2ug/l		03/04/02			VM3854
Chloroethane	<3ug/l		03/04/02			VM3854
Methylene Chloride	<3ug/l		03/04/02			VM3854
Acetone	<10ug/l		03/04/02			VM3854
Carbon Disulfide	<3ug/l		03/04/02			VM3854
1,1-Dichloroethene	<3ug/l		03/04/02			VM3854
1,1-Dichloroethane	<3ug/l		03/04/02			VM3854
trans-1,2-Dichloroethene	<3ug/l		03/04/02			VM3854
cis-1,2-Dichloroethene	<3ug/l		03/04/02			VM3854
Chloroform	<3ug/l		03/04/02			VM3854
1,2-Dichloroethane	<3ug/l		03/04/02			VM3854
2-Butanone	<10ug/l		03/04/02			VM3854
1,1,1-Trichloroethane	<3ug/l		03/04/02			VM3854
Carbon Tetrachloride	<3ug/l		03/04/02			VM3854
Bromodichloromethane	<3ug/l		03/04/02			VM3854
1,2-Dichloropropane	<3ug/l		03/04/02			VM3854
cis-1,3-Dichloropropene	<3ug/l		03/04/02			VM3854
Trichloroethene	5ug/l		03/04/02			VM3854
Dibromochloromethane	<3ug/l		03/04/02			VM3854
1,1,2-Trichloroethane	<3ug/l		03/04/02			VM3854
Benzene	<3ug/l		03/04/02			VM3854
trans-1,3-Dichloropropene	<3ug/l		03/04/02			VM3854
Bromoform	<3ug/l		03/04/02			VM3854
4-Methyl-2-pentanone	<10ug/l		03/04/02			VM3854
2-Hexanone	<10ug/l		03/04/02			VM3854
Tetrachloroethene	94ug/l		03/04/02			VM3854
1,1,2,2-Tetrachloroethane	<3ug/l		03/04/02			VM3854
Toluene	<3ug/l		03/04/02			VM3854
Chlorobenzene	<3ug/l		03/04/02			VM3854
Ethylbenzene	<3ug/l		03/04/02			VM3854
Styrene	<3ug/l		03/04/02			VM3854
m-Xylene and p-Xylene	<3ug/l		03/04/02			VM3854
o-Xylene	<3ug/l		03/04/02			VM3854

DATE: 03/13/02

Upstate Laboratories, Inc.
Analysis Results
Report Number: 05302036
Client I.D.: STERLING ENV. SERVICES, INC.
Sampled by: Client

APPROVAL:
QC:
Lab I.D.: 10170

MONITORING WELLS/
CHLOR. SOLVENTS MW104-01 1150H 02/20/02 G

ULI I.D.: 05302036

Matrix: Water

PARAMETERS	RESULTS	TIME	DATE ANAL.	KEY	KEY	FILE#
TCL Volatiles by EPA Method 8260						
Chloromethane	<6ug/l		02/28/02	5		VM3851
Bromomethane	<6ug/l		02/28/02	5		VM3851
Vinyl Chloride	<4ug/l		02/28/02	5		VM3851
Chloroethane	<6ug/l		02/28/02	5		VM3851
Methylene Chloride	<6ug/l		02/28/02	5		VM3851
Acetone	<20ug/l		02/28/02	5		VM3851
Carbon Disulfide	<6ug/l		02/28/02	5		VM3851
1,1-Dichloroethene	<6ug/l		02/28/02	5		VM3851
1,1-Dichloroethane	<6ug/l		02/28/02	5		VM3851
trans-1,2-Dichloroethene	<6ug/l		02/28/02	5		VM3851
cis-1,2-Dichloroethene	<6ug/l		02/28/02	5		VM3851
Chloroform	<6ug/l		02/28/02	5		VM3851
1,2-Dichloroethane	<6ug/l		02/28/02	5		VM3851
2-Butanone	<20ug/l		02/28/02	5		VM3851
1,1,1-Trichloroethane	<6ug/l		02/28/02	5		VM3851
Carbon Tetrachloride	<6ug/l		02/28/02	5		VM3851
Bromodichloromethane	<6ug/l		02/28/02	5		VM3851
1,2-Dichloropropane	<6ug/l		02/28/02	5		VM3851
cis-1,3-Dichloropropene	<6ug/l		02/28/02	5		VM3851
Trichloroethene	<6ug/l		02/28/02	5		VM3851
Dibromochloromethane	<6ug/l		02/28/02	5		VM3851
1,1,2-Trichloroethane	<6ug/l		02/28/02	5		VM3851
Benzene	24ug/l		02/28/02			VM3851
trans-1,3-Dichloropropene	<6ug/l		02/28/02	5		VM3851
Bromoform	<6ug/l		02/28/02	5		VM3851
4-Methyl-2-pentanone	<20ug/l		02/28/02	5		VM3851
2-Hexanone	<20ug/l		02/28/02	5		VM3851
Tetrachloroethene	<6ug/l		02/28/02	5		VM3851
1,1,2,2-Tetrachloroethane	<6ug/l		02/28/02	5		VM3851
Toluene	65ug/l		02/28/02			VM3851
Chlorobenzene	<6ug/l		02/28/02	5		VM3851
Ethylbenzene	10ug/l		02/28/02			VM3851
Styrene	<6ug/l		02/28/02	5		VM3851
m-Xylene and p-Xylene	240ug/l		02/28/02			VM3851
o-Xylene	78ug/l		02/28/02			VM3851

KEY PAGE

1 MATRIX INTERFERENCE PRECLUDES LOWER DETECTION LIMITS
2 REFERENCE SAMPLE/CCV RECOVERY WAS OUTSIDE OF CONTROL LIMITS
3 METHOD BLANK RESULT WAS ABOVE THE CONTROL LIMITS
4 ANALYSIS NOT PERFORMED BECAUSE OF INSUFFICIENT SAMPLE
5 THE PRESENCE OF OTHER TARGET ANALYTE(S) PRECLUDES LOWER DETECTION LIMITS
6 BLANK CORRECTED
7 HEAD SPACE PRESENT IN SAMPLE
8 QUANTITATION LIMIT IS GREATER THAN THE CALCULATED REGULATORY LEVEL. THE QUANTITATION LIMIT THEREFORE BECOMES THE REGULATORY LEVEL.
9 THE OIL WAS TREATED AS A SOLID AND LEACHED WITH EXTRACTION FLUID
10 RESULTS ARE REPORTED ON AN AS REC.D BASIS
11 POSSIBLE CONTAMINATION FROM FIELD/LABORATORY
12 SAMPLE ANALYZED OVER HOLDING TIME
13 DISSOLVED VALUE MAY BE HIGHER THAN TOTAL DUE TO CONTAMINATION FROM THE FILTERING PROCEDURE
14 SAMPLED BY ULI
15 DISSOLVED VALUE MAY BE HIGHER THAN TOTAL; HOWEVER, THE VALUES ARE WITHIN EXPERIMENTAL ERROR
16 AN INHIBITORY FACTOR WAS OBSERVED IN THIS ANALYSIS
17 PARAMETER NOT ANALYZED WITHIN 15 MINUTES OF SAMPLING
18 THE SERIAL DILUTION OF THIS SAMPLE SUGGESTS A POSSIBLE PHYSICAL AND/OR CHEMICAL INTERFERENT IN THIS DETERMINATION. THE DATA MAY BE BIASED EITHER HIGH OR LOW.
19 CALCULATION BASED ON DRY WEIGHT
20 INDICATES AN ESTIMATED VALUE, DETECTED BUT BELOW THE PRACTICAL QUANTITATION LIMITS
21 UG/KG AS REC.D / UG/KG DRY WT
22 MG/KG AS REC.D / MG/KG DRY WT
23 INSUFFICIENT SAMPLE PRECLUDES LOWER DETECTION LIMITS
24 SAMPLE DILUTED/BLANK CORRECTED
25 ND(NON-DETECTED)
26 DUPLICATE SAMPLE OUTSIDE QC CRITERIA
27 SPIKE RECOVERY ABNORMALLY HIGH/LOW DUE TO MATRIX INTERFERENCE
28 POST-DIGESTION SPIKE FOR FURNACE AA ANALYSIS IS OUTSIDE OF THE CONTROL LIMITS (85-115%); HOWEVER, THE SAMPLE CONCENTRATION IS BELOW THE PQL
29 ANALYZED BY METHOD OF STANDARD ADDITIONS
30
31 FIELD MEASURED PARAMETER TAKEN BY CLIENT
32 TARGET ANALYTE IS BIODEGRADED AND/OR ENVIRONMENTALLY WEATHERED
33 MILLIGRAMS PER LITER (MG/L) LINEAR ALKYL SULFONATE (LAS) / POUNDS (LBS) PER DAY LAS
34 THE SAMPLE WAS ANALYZED ON A TOTAL BASIS; THE TEST RESULT CAN BE COMPARED TO THE TCLP REGULATORY CRITERIA BY DIVIDING THE TEST RESULT BY 20, CREATING A THEORETICAL TCLP VALUE
35 THE HYDROCARBONS DETECTED IN THE SAMPLE DID NOT CROSS-MATCH WITH COMMON PETROLEUM DISTILLATES
36 MATRIX INTERFERENCE CAUSING SPIKES TO RESULT IN LESS THAN 50.0% RECOVERY
37 MILLIGRAMS PER LITER (MG/L) / POUNDS (LBS) PER DAY
38 MILLIGRAMS PER LITER (MG/L) OF RESIDUAL CHLORINE (CL2) / POUNDS (LBS) PER DAY OF CL2
39 MICROGRAMS PER LITER (UG/L) / POUNDS (LBS) PER DAY
(B) DETECTED IN BLANK
(D) ALL COMPOUNDS IDENTIFIED IN AN ANALYSIS AT A SECONDARY DILUTION FACTOR
(E) COMPOUNDS WHOSE CONCENTRATIONS EXCEED THE CALIBRATION RANGE OF THE GC/MS INSTRUMENT FOR THAT SPECIFIC ANALYSIS
(J) DETECTED BELOW THE CRQL
(a) SAMPLE(S) RECEIVED AT THE IMPROPER TEMPERATURE
(b) HEADSPACE IN VOA VIAL(S)
(c) HEADSPACE IN ALKALINITY BOTTLE(S)
(d) SAMPLE CONTAINER(S) RECEIVED BROKEN

Upstate Laboratories, Inc.

6034 Corporate Drive • E. Syracuse, NY 13057-1017
(315) 437 0255 Fax 437 1209

Chain Of Custody Record

3/8

Client: STERLING ENVIRONMENTAL

Client Project # / Project Name: MONITORING WELLS / CHLOR. SOLVENTS

Client Contact: WAYNE K. CAMERON

Phone #: 716 824 2407

Site Location (city/state): Buffalo Brake Beam Lackawanna NY

Sample Location:	Date	Time	Matrix	Grab or Comp.	ULI Internal Use Only	No. of Containers	VOC's (8260) 1)	2)	3)	4)	5)	6)	7)	8)	9)	10)	Remarks
MW104-01	2/20/02	11:50 AM	H_2O	GRAB	05302036	1	X										
MW101-01	2/20/02	12:10 pm	H_2O	GRAB	37	1	X										
MW102-01	2/20/02	12:25 pm	H_2O	GRAB	38	1	X										
MW10-01	2/20/02	12:40 pm	H_2O	GRAB	39	1	X										
MW103-01	2/20/02	12:55 pm	H_2O	GRAB	40	1	X										

Special Turnaround Time _____ (Lab Notification required)

parameter and method	sample bottle:	type	size	pres.
1)				
2)				
3)				
4)				
5)				
6)				
7)				
8)				
9) 01753				
10)				

Note: The numbered columns above cross-reference with the numbered columns in the upper right-hand corner.

Sampled by: (Please Print) WAYNE K. CAMERON

Company: STERLING ENVIRONMENTAL

ULI Internal Use Only

Delivery (check one):
☐ ULI Sampled
☒ Pickup ☐ Dropoff
☒ CC CDL

Relinquished by: (Signature)	Date	Time	Received by: (Signature)
WKW STERLING	2/21/02	9:00	Dawn Ellis
Relinquished by: (Signature)	Date	Time	Received by: (Signature)
Dawn Ellis	2/21/02	1730	
Relinquished by: (Signature)	Date	Time	Received by: (Signature)
Relinquished by: (Signature)	Date	Time	Rec'd for Lab by: (Signature)
	2.22.02	0749	BCamp

Syracuse Rochester Buffalo Albany Binghamton Fair Lawn (NJ)

Remedial Activities Report
BTEX Area/MW104

Buffalo Brake Beam
400 Ingham Ave
Lackawanna, NY

Prepared By: Sterling Environmental Services Inc.
50 Lake Ave.
Blasdell, NY
August 2002

01817

9102

Table of Contents

INTRODUCTION

The following is a report summarizing the findings from the remedial activities conducted July 31st to address BTEX contamination found in monitoring well MW104. Attached, as a supplement, is a brief discussion of the findings from two additional unrelated test pits that were excavated on the same day.

Monitoring well MW104 was originally installed, developed, and sampled by Sterling Environmental Services Inc. in January 2002 as part of an investigation to delineate the extent and possibly find the source of chlorinated solvent groundwater contamination found in MW10 (installed by Earth Tech 2000). No chlorinated solvents were found in MW104, however, BTEX compounds, Benzene, Toluene, Ethylbenzene and Xylene were present in excess of TOGS 1.1.1 Groundwater Standards and Guidance Values indicating the possibility of gasoline related products in the groundwater and/or soil. A second sample taken in June again confirmed the presence of BTEX compounds.

Because of the slow recharge and low water levels encountered in MW104 in comparison to the other wells and the fact that the BTEX compounds were not found in any of the other monitoring wells, it was assumed that the contamination was most likely isolated to a pocket of perched water. Remedial activities proved this assumption to be untrue.

REMEDIAL ACTIVITIES

Remedial activities took place on July 31, 2002 at approximately 7:30 am EST. Present for the excavation were Wayne Cameron and Jeremy Wells of Sterling Environmental, Jim Kelleran (equipment operator/contractor), and Tamara M. Hauptfleisch as an observer for Earth Tech. The excavation commenced at 7:45 am EST.

Remedial activities began with the excavation of an area approximately 20' x 20' in size East of the manhole. Soils were excavated in lifts of approximately 6" to 1' in depth at a time. Lifts were observed and screened using a PID and then subsequently stockpiled adjacent to the excavated area. The excavated area was also continuously screened every foot in depth down to about 4'. The soils removed up to this point were mostly a mix of dry bank run gravel, soil and shot rock with some sand and silt present. There were no significant readings on the PID, nor were there any olfactory or visual indications of contamination. All PID readings were < 4 ppm with the highest readings in the top 6 inches to 1 foot. No evidence of tanks, demolition debris, drain lines or other utility conduits were found.

At this point (approximately 9:30-9:45am EST), a trench was dug to the full depth of the well due north adjacent to the well. Soils were removed in 1 foot lifts with each lift being observed and screened with the PID. Shale was encountered at a

depth of 10.5' and bedrock was encountered at 11.5'(depth of the well). The shale was slightly moist, but the bedrock was dry and no flow of groundwater or perched water was encountered. There were no significant readings on the PID and no olfactory or visual signs of contamination. There was also no sign of any water leaching back into the excavated area over the 5 hour period that the excavation stood open.

The total well depth for MW104 is 139 inches. The water level as measured in the well that morning was at a depth of 132 inches indicating 7 inches of water in the well.

A trench was then excavated on the south side of the well, adjacent to the well on the street side, similar to that north of the well. Again, there were no indications of contamination through PID screening or visual and olfactory observations. Shale was encountered at 10.5' and bedrock was encountered at 12'. The shale was not very moist and the bedrock was dry. The south trench excavation was deeper than the bottom depth of the well and there was still no sign of water leaching into the excavation.

No evidence of soil contamination was found in the excavation process. Also no source of water was found, neither perched water nor ground water. The well was left in place and the excavation was backfilled with the excavated soil.

Photographs of the excavation have been added to this report as an appendix.

SAMPLING AND ANALYTICAL RESULTS

Two soil samples were collected, BTEX-N1 from the north trench and BTEX-S1 from the south trench. Both samples were grab samples collected from just above the shale at the bottom of the respective trenches. The samples were submitted to Upstate Laboratories under standard chain of custody procedures for analysis of the STARS list of constituents of concern for gasoline by USEPA Method 8260. All constituents in both samples were below the detection limit of 3 ug/kg.

Analytical results are presented in the following tables with comparison to the Recommended Soil Cleanup Objectives of NYSDEC TAGM 4046. A copy of the lab report is attached as an appendix.

Analytical Results
Summary Tables in PPM (mg/Kg)
Sample # BTEX-N1
EPA Method 8260

Constituent	Sample Results	TAGM4046 Rec. Soil Cleanup Objective
Benzene	<0.003	0.06
Ethylbenzene	<0.003	5.5
Toluene	<0.003	1.5
Total Xylene	<0.003	1.2
Isopropyl Benzene	<0.003	5.0
n-Propylbenzene	<0.003	14.0
p-Isopropyl Toluene	<0.003	11.0
1,2,4-TrimethylBenzene	<0.003	13.0
1,3,5-TrimethylBenzene	<0.003	33.0
n-Butyl Benzene	<0.003	18.0
sec-Butyl Benzene	<0.003	25.0
Naphthalene	<0.003	13.0
MTBE	<0.003	0.12
t-Butylbenzene	<0.003	10.0

Analytical Results
Summary Tables in PPM (mg/Kg)
Sample # BTEX-S1
EPA Method 8260

Constituent	Sample Results	TAGM4046 Rec. Soil Cleanup Objective
Benzene	<0.003	0.06
Ethylbenzene	<0.003	5.5
Toluene	<0.003	1.5
Total Xylene	<0.003	1.2
Isopropyl Benzene	<0.003	5.0
n-Propylbenzene	<0.003	14.0
p-Isopropyl Toluene	<0.003	11.0
1,2,4-TrimethylBenzene	<0.003	13.0
1,3,5-TrimethylBenzene	<0.003	33.0
n-Butyl Benzene	<0.003	18.0
sec-Butyl Benzene	<0.003	25.0
Naphthalene	<0.003	13.0
MTBE	<0.003	0.12
t-Butylbenzene	<0.003	10.0

CONCLUSIONS

This remedial effort failed to find any contaminated soil in the vicinity of MW104. It also failed to find any source of perched water or groundwater in this area. No soil was removed from the site.

MW104 contained 7 inches of water at the time of the excavation. Excavations on the north and south side of the well within two to three feet of the well casing to the full depth of the well failed to find any water. The soil was visibly dry with the exception of the shale in the bottom foot of the north side excavation, which was moist. This excavation sat open for five hours and no water was observed entering the excavation. The soil samples taken from directly above the shale showed no evidence of contamination.

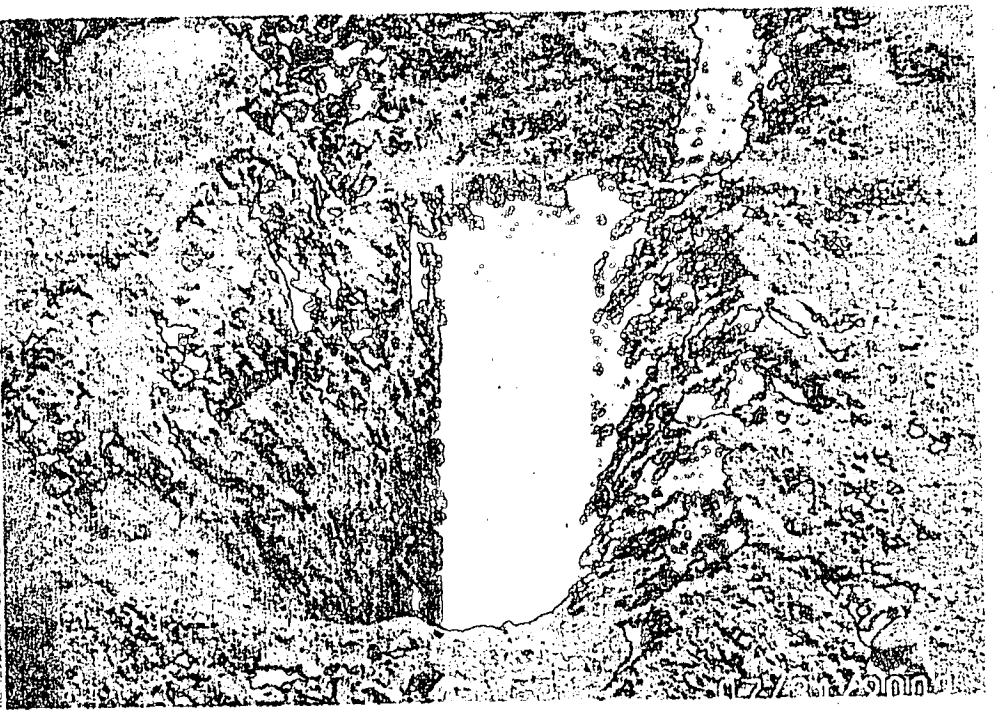
No water was observed in the auger hole at the time this well was installed. The sand pack for this well extends to a height of 4.8 feet below the surface. A bentonite seal was installed from 4.8 to 2 feet below grade with sackrete to grade. A copy of the boring and well installation log is attached as an appendix. From the initial well development this well has shown a limited volume of water, averaging 5 inches, and slow recharge.

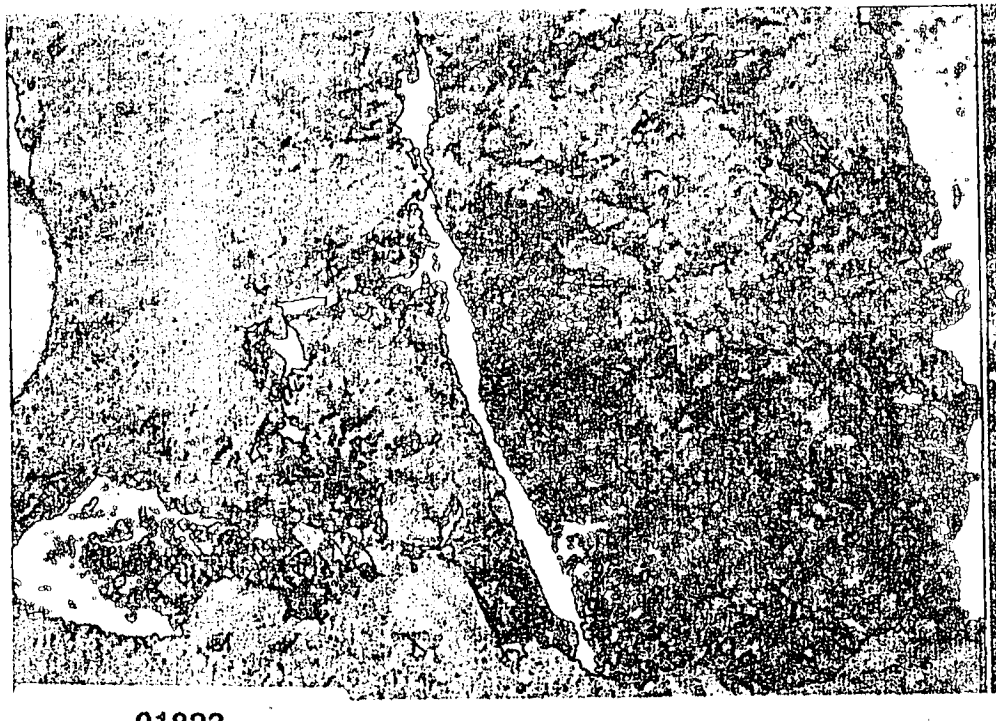
MW13 installed by Earth Tech as part of the baseline site assessment is located 104 feet east of MW104 in the same parking area. This well has failed to produce any water since its installation.

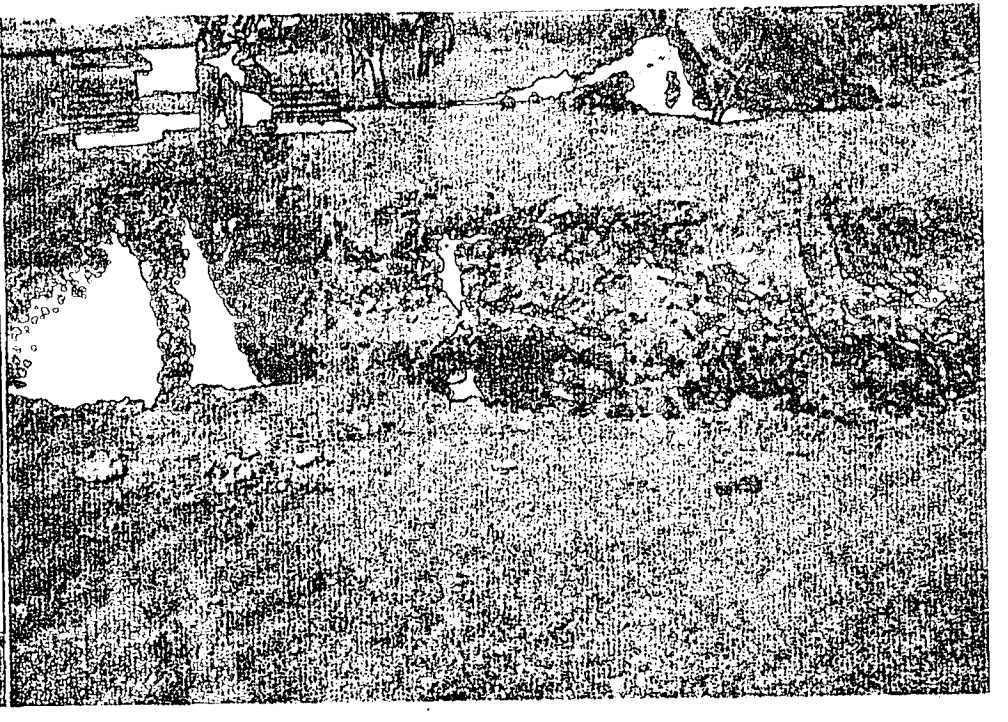
The area received below normal rainfall in the month preceding the excavation. However, there were a couple of significant rain events associated with thunderstorms the week prior to the excavation.

Based upon the findings, I speculate that surface water runoff from the parking lot is entering the well. Large chunks of shot rock were observed throughout the upper 4 to 5 feet of the excavation. During well installation the auger met resistance but was able to advance. It is possible that chunks of shot rock were displaced by the auger creating voids around them that were not sealed by the bentonite plug and thus allowing surface water infiltration.

In summary, no evidence of groundwater or soil contamination was found surrounding MW104. The findings from the well sampling are considered an anomaly. No further remedial action is recommended for the BTEX Area.







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Upstate Laboratories inc.

Shipping: 6034 Corporate Dr. • E. Syracuse, NY 13057-1017 • (315) 437-0255 • Fax (315) 437-1209
Mailing: Box 289 • Syracuse, NY 13206
Albany (518) 459-3134
Binghamton (607) 724-0478
Buffalo (716) 649-2533
Rochester (585) 436-9070
New Jersey (201) 343-5353

August 15, 2002

Mr. Wayne K. Cameron
Project Manager
Sterling Env. Services, Inc.
50 Lake Ave.
Blasdell, NY 14219

Re: Analysis Report #21302006 - Buffalo Brake Beam

Dear Mr. Cameron:

Please find enclosed the results for your samples which were received on July 31, 2002.

We have included the Chain of Custody Record as part of your report. You may need to reference this form for a more detailed explanation of your sample. Samples will be disposed of approximately one month from final report date.

Should you have any questions, please feel free to give us a call.

Thank you for your patronage.

Sincerely,

UPSTATE LABORATORIES, INC.

Anthony J. Scala
Director

AJS/rd

Enclosures: report, invoice

cc/encs: N. Scala, ULI
file

Note: Faxed results were given to your office on 8/14/02. AJS

Disclaimer: The test results and procedures utilized, and laboratory interpretations of data obtained by ULI as contained in this report are believed by ULI to be accurate and reliable for sample(s) tested. In accepting this report, the customer agrees that the full extent of any and all liability for actual and consequential damages of ULI for the services performed shall be equal to the fee charged to the customer for the services as liquidated damages.

DATE: 08/15/02

Upstate Laboratories, Inc.
Analysis Results
Report Number: 21302006
Client I.D.: STERLING ENV. SERVICES, INC.

APPROVAL: CJS
QC: KS
Lab P.D.: 10170
Sampled by: Client

ID:21302006 Mat:Soil BUFFALO BRAKE BEAM BTEX-N1 1157H 07/31/02 G

PARAMETERS	RESULTS	TIME	DATE ANAL.	KEY	KEY	FILE#
Percent Solids	94%		08/08/02			WE0338
EPA 8260 Petroleum, NYSDEC STARS List						
Benzene	<3ug/kg dw		08/07/02			VM4121
Ethylbenzene	<3ug/kg dw		08/07/02			VM4121
Toluene	<3ug/kg dw		08/07/02			VM4121
o-Xylene	<3ug/kg dw		08/07/02			VM4121
m-Xylene & p-Xylene	<3ug/kg dw		08/07/02			VM4121
IsopropylBenzene	<3ug/kg dw		08/07/02			VM4121
n-Propylbenzene	<3ug/kg dw		08/07/02			VM4121
p-isopropyltoluene	<3ug/kg dw		08/07/02			VM4121
1,2,4-Trimethylbenzene	<3ug/kg dw		08/07/02			VM4121
1,3,5-Trimethylbenzene	<3ug/kg dw		08/07/02			VM4121
n-ButylBenzene	<3ug/kg dw		08/07/02			VM4121
sec-ButylBenzene	<3ug/kg dw		08/07/02			VM4121
Naphthalene	<3ug/kg dw		08/07/02			VM4121
MTBE	<3ug/kg dw		08/07/02			VM4121
t-butylbenzene	<3ug/kg dw		08/07/02			VM4121

ID:21302007 Mat:Soil BUFFALO BRAKE BEAM BTEX-S1 1154H 07/31/02 G

PARAMETERS	RESULTS	TIME	DATE ANAL.	KEY	KEY	FILE#
Percent Solids	92%		08/08/02			WE0338
EPA 8260 Petroleum, NYSDEC STARS List						
Benzene	<3ug/kg dw		08/07/02			VM4121
Ethylbenzene	<3ug/kg dw		08/07/02			VM4121
Toluene	<3ug/kg dw		08/07/02			VM4121
o-Xylene	<3ug/kg dw		08/07/02			VM4121
m-Xylene & p-Xylene	<3ug/kg dw		08/07/02			VM4121
IsopropylBenzene	<3ug/kg dw		08/07/02			VM4121
n-Propylbenzene	<3ug/kg dw		08/07/02			VM4121
p-isopropyltoluene	<3ug/kg dw		08/07/02			VM4121
1,2,4-Trimethylbenzene	<3ug/kg dw		08/07/02			VM4121
1,3,5-Trimethylbenzene	<3ug/kg dw		08/07/02			VM4121
n-ButylBenzene	<3ug/kg dw		08/07/02			VM4121
sec-ButylBenzene	<3ug/kg dw		08/07/02			VM4121
Naphthalene	<3ug/kg dw		08/07/02			VM4121
MTBE	<3ug/kg dw		08/07/02			VM4121
t-butylbenzene	<3ug/kg dw		08/07/02			VM4121

dw = Dry weight

Upstate Laboratories, Inc.
6034 Corporate Drive • E. Syracuse, NY 13057-1017
(315) 437 0255 Fax 437 1209

Chain Of Custody Record

8/15

Client:	Client Project # / Project Name					No. of Containers	1)	2)	3)	4)	5)	6)	7)	8)	9)	10)	Special Turnaround Time (Lab Notification required) / Remarks
STERLING ENVIRONMENTAL	BUFFALO BRAKE BEAM																10 DAY
Client Contact: WAYNE CAMERON	Phone # 716 824 2407	Site Location (city/state): LACKAWANNA, NY															
Sample Location:	Date	Time	Matrix	Grab or Comp.	ULI Internal Use Only												
BTEX-N1	7/31/02	11:57	Soil	GRAB	21302000	1	X	(X)									
BTEX-S1	7/31/02	11:54	Soil	GRAB	7	1	X	(X)									

STARS 8260 (column 1)

parameter and method	sample bottle: type	size	pres.
1)			
2) (% Solids) KC 8.1.02			
3)			
4)			
5)			
6)			
7)			
8)			
9) 01826			
10)			

Note: The numbered columns above cross-reference with the numbered columns in the upper right-hand corner.

Sampled by: (Please Print) WAYNE K. CAMERON
Company:

ULI Internal Use Only
Delivery (check one):
☐ ULI Sampled
☐ Pickup ☐ Dropoff
☐ CC

Relinquished by: (Signature)	Date	Time	Received by: (Signature)
[signature]	7/31/02	3:00 pm	[signature]
[signature]	7/31/02	1700	
	8.1.02	0801	Rec'd for Lab by: (Signature) K Crump

Syracuse Rochester **(Buffalo)** Albany Binghamton Fair Lawn (NJ)

parratt wolff inc

TEST BORING LOG

5879 FISHER ROAD
EAST SYRACUSE, N.Y. 13057

PROJECT Buffalo Blake Beam

LOCATION Lackawanna, N.Y.

DATE STARTED 1-22-02 DATE COMPLETED 1-22-02

HOLE NO. MW-104

SURF. EL.

JOB NO. 02018

GROUND WATER DEPTH WHILE DRILLING Dry

BEFORE CASING REMOVED Dry

AFTER CASING REMOVED Installed 2" PVC well

N — NO. OF BLOWS TO DRIVE SAMPLER 12" W/140# HAMMER FALLING 30" — ASTM D-1586, STANDARD PENETRATION TEST

C — NO. OF BLOWS TO DRIVE CASING 12" W/ 140 # HAMMER FALLING "/OR — % CORE RECOVERY

Jim Pennock

SHEET 1 OF 1

CASING TYPE 4 1/4 H.S.A
2" PVC well
24" cookie cutter

DFL

DEPTH	SAMPLE DEPTH	SAMPLE NUMBER	C	SAMPLE DRIVE RECORD PER 6"	N	DESCRIPTION OF MATERIAL	STRATA CHANGE DEPTH
	1.0'-2.0'	1		18-18		Brown, Dry, Dense F/m Sand and F/m gravel	3.0'
	2.0'-4.0'	2		40-35	50	Grey, Dry, Dense, F/m gravel, Trace silt, Trace Fine sand	4.0'
5'				35-35			
	4.0'-4.9'	3		8-50/3		Grey, Dry, Very Dense Fine sand, some silt, little F/m gravel	
	6.0'-6.1'	4		50/.1		→ No Recovery	
	8.0'-10.0'	5		14-14	30	SAA w/ Trace of Highly Fractured Shale & Limestone	
10'				16-22			11.3'
	10.0'-11.8'	6		10-25		Grey, Dry, Highly Fractured Limestone	12.0'
				83-100/.3			
	12.0'-	7				Spoon refusal at 11.8'	B.O.B.
15'						Auger refusal at 12.0'	
						Screened 12.0'-7.0' 10 slot PVC	
						Riser 7.0'-.5' below grade 2" PVC	
						Sandpack 12.0'-4.8' = 4 Bags #0 Sand	
						Seal 4.8'-2.0' = 1 Bag Hole plug	
						Backfill 2.0'-grade = 2 Bags	
						8" FMC inside cookie cutter Hole	

01827

SUPPLEMENTAL TEST PITS REPORT

As requested by Earth Tech, two test pits were dug in the lawn area South of the parking lot between the office building and the new manufacturing building addition. As part of the baseline site assessment Earth Tech had attempted to install Geoprobe soil borings in this area but met shallow refusal on multiple attempts. This lawn area is slightly elevated from the surrounding areas. It was assumed that the refusal was from buried concrete of old building foundations and/or demolition debris. There were concerns that other waste materials may have been buried in this area as well. Since no samples had been obtained from this area it had not been ruled out as a possible source area for the chlorinated solvent contamination found in groundwater onsite.

Two test pits were installed 47 feet apart in an east-west line straddling the center point of the lawn area. The test pits were 14 feet long north to south, 2 feet wide and to a depth of 3.5' and 6' respectively. Material was removed in one foot lifts, observed and screened with the PID. The material removed was natural soil mixed with large shot rock. No PID readings were observed in either test pit. The depth of the test pits where limited when large limestone boulders were encountered which the excavator could not remove. There was no evidence of the burial of any demolition debris or other disposal activity in this area. No samples were collected and the excavations were backfilled.

Photographs of the test pits are attached.


07/31/2002