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**PHASE II  
FIELD INVESTIGATION AND  
SITE ASSESSMENT REPORT**

FOR

**GALLAGHER BEACH  
BUFFALO, NEW YORK**

**AUGUST 2004**

**PREPARED FOR:**

**WENDEL DUCHSCHERER  
95 JOHN MUIR DRIVE  
SUITE 100  
BUFFALO, NEW YORK 14228-1163**

**FOR SUBMISSION TO:**

**NEW YORK STATE  
OFFICE OF PARKS, RECREATION AND HISTORIC PRESERVATION  
WESTERN DISTRICT - NIAGARA FRONTIER REGION  
PO BOX 1132  
NIAGARA FALLS, NEW YORK 14303-0132**



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**AUGUST 2004**

**PREPARED BY:**

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## **1.0 PROJECT PURPOSE AND SCOPE**

The Field Investigation was performed by Watts Engineering and Architecture, P.C., (Watts Engineers) at the request of Wendel-Duchscherer on behalf of the New York State Office of Parks, Recreation, and Historic Preservation (NYSOPRHP). This report covers a portion of Gallagher Beach scheduled for redevelopment as part of Phase III for Gallagher Beach State Park. The Phase III development calls for expansion of the public park including the addition of parking lots and access roadways, pedestrian and bike paths, benches, a playground, a splashground and public restroom facility.

The property is located in an area of historical fill activities and contains materials such as slag and cinder, brick and masonry, metal scrap, Buffalo River and Buffalo Harbor dredge spoils, and soil believed to have been excavated from across the City of Buffalo to facilitate construction/redevelopment at former industrial sites. This soil investigation was performed to determine if special material handling requirements, disposal, capping, and worker health and safety precautions are required for the materials found both near the surface, and at depth in a area where the playground and building structure are proposed.

## **2.0 SOIL/FILL IDENTIFICATION, CHARACTERIZATION, AND SAMPLE COLLECTION**

The field investigation was conducted on Thursday, July 15, 2004. The investigation involved excavation of four test pits, the screening and selection of six soil samples in the field, and subsequent laboratory analytical testing. Test pit locations were selected to represent the following conditions:

- One surface soil sample from approximately 0 to 6+- inches scraped from the intended playground area and placed into a staged pile [Sample - Comp. Pile].
- Two shallow subsurface soil samples collected from test pits at a depth of 6 to 42+- inches from within the intended playground area [Samples - Test Pit 3 and Test Pit 4].
- Three samples collected from Test Pit number 1 at the location of the proposed building structure. Samples were collected at depths representing surface, shallow subsurface, and deep subsurface soil conditions [Samples - Test Pit 1 0-2 ft, Test Pit 1 2-6 ft, and Test Pit 1 7-9 ft].

Excavation services were provided by SJB Contract Drilling and Testing Inc., as a subcontractor to NYSOPRHP. All work was observed and documented by Andrew Klimek and Matt Holquist, Watts Engineers on-site representatives.

Each sample was visually inspected. The soils were not screened for the presence of volatile organic compounds in the field because of the persistent rain that was occurring at the time of the investigation. Photographs were taken during the field investigation and are found in **Appendix A**.

### **2.1 Evaluation of Subsurface Soils**

It can be inferred from the field investigation that fill is present in all locations where test pits were excavated. The upper 6 to 8 feet of soil documents at least several episodes of fill placement. A very thin coating of topsoil/fill, generally less than a few inches is found at the surface and has been graded to allow for the establishment of grassy vegetation. Underlying soils are generally rich in lacustrine reddish-brown silty clay intermixed with brick, concrete, masonry block, steel, gravel, and wood. In Test Pits 3 and 4 the wood (some is dimensional lumber but most is natural tree debris) constitutes a significant percentage of the bulk material. A fairly continuous grayish-green sandy slag layer was present at a depth of between 2 and 3.5 feet across the site. Between 6 and 8 feet the fill transitions quickly to grayish-black organic rich dredge spoil. Soils from Test Pit 1 exhibited fairly strong organic odor.

## **2.2      Sample Collection Summary**

Soil samples were collected directly from the side walls of the test pit excavation or from material brought up by the backhoe and placed adjacent to the excavation. Samples were designated based on a combination of their origin and depth (when more than one sample was collected from the same location). All sampling equipment was pre-cleaned prior to use and dedicated to one location only. Pertinent information was recorded on a chain-of custody form. The samples were then packaged, placed on ice and hand-delivered Severn-Trent Laboratories (STL), Inc., located in Amherst, New York.

### **3.0 LABORATORY ANALYSIS AND RESULTS**

This section presents a summary of the analytical data for the soil/fill samples collected during the field investigation. Six (6) samples were analyzed for the following parameters:

- Target Compound List (TCL) Volatile Organics via EPA SW-846 Method 8260
- Target Compound List (TCL) Semi-Volatile Organics via EPA SW-846 Method 8270
- Target Compound List (TCL) Pesticides/PCBs via EPA SW-846 Method 8081/8082
- Target Compound List (TCL) Herbicides via EPA SW-846 Method 8151
- Target Analyte List (TAL) Inorganics plus Cyanide via EPA SW-846 Method 8463

A copy of the chain-of-custody form and laboratory analytical results received from Severn Trent Laboratories is found in **Appendix B**.

Watts Engineers has summarized the laboratory results in **Tables 3-1, 3-2, 3-3, 3-4, and 3-5**. These tables also contain New York State Department of Environmental Conservation (NYSDEC) recommended soil cleanup objectives so a comparison of the results can be made to applicable regulatory guidance values.

**Table 3-1** summarizes the TCL volatile organic analytical results for the six samples. Acetone, 2-butanone, chlorobenzene, and methylene chloride were detected in some of the samples. Where detected, the concentrations were found below NYSDEC recommended cleanup objectives. Methylene chloride is a common laboratory contaminant and is often detected at low concentrations as a residual from the cleaning process associated with the glassware and laboratory instrumentation. As a result of its presence in the laboratory blank (B), its identification has been qualified in this regard.

**Table 3-2** summaries the TCL semi-volatile organic analytical results for the six samples. While several semi-volatile compounds were detected, only those shaded in the table were detected at elevated concentrations when compared to NYSDEC recommended soil cleanup objectives. However, each of these compounds were estimated (J) since their concentrations were at or below the laboratory quantitation limit. The exceedences were limited to the soil sample collected from Test Pit 3. The semi-volatiles detected above recommended soil cleanup objectives include a class of compounds known as polynuclear aromatic hydrocarbons (PAHs). Specific compounds detected above the recommended cleanup objectives included benzo(a)anthracene and chrysene. These compounds have very low recommended soil cleanup objectives due to their carcinogenic nature, however, they are very commonly observed in samples collected during field investigations.

**Table 3-3** summarizes the TCL pesticide and herbicide results for the six soil samples collected for laboratory analysis. While a large number of pesticides were detected, none were identified in any of the samples at concentrations above the NYSDEC recommended soil cleanup objectives.

**Table 3-4** summarizes the TCL PCB results for the six soil samples collected for laboratory analysis. While some PCBs were detected, none were identified in any of the samples at concentrations above the NYSDEC recommended soil cleanup objectives. From the sample results it appears that the deeper soil/fill layers have greater concentrations of PCBs.

**Table 3-5** summarizes the TAL inorganic (metal) and cyanide results for the six samples. Several inorganic compounds were detected at concentrations either above normal soil background levels or NYSDEC recommended soil cleanup objectives. Inorganics detected at elevated levels included antimony, arsenic, beryllium, cadmium, calcium, chromium, copper, cyanide, iron, magnesium, mercury, nickel, and zinc. In addition, while not tested for directly, the concentrations of lead detected in the soil from Test Pit 1 at a depth of 2 to 6 feet and 7 to 9 feet; and, chromium detected in the soil from Test Pit 1 at a depth of 7 to 9 feet may potentially fail the Resource Conservation and Recovery Act (RCRA) disposal test for a hazardous waste known as the Toxicity Characteristic Leaching Procedure (TCLP). If the samples failed TCLP testing for either one of these two compounds (lead or chromium), the soil would be characterized as a hazardous waste based on the characteristic of toxicity.

**TABLE 3-1**  
**VOLATILE ORGANIC COMPOUNDS IN SOIL/FILL SAMPLES**  
**GALLAGHER BEACH - ANALYTICAL DATA SUMMARY**

Compound	Soil Concentration ( $\mu\text{g}/\text{kg}$ - ppb)						NYSDEC Recommended Soil Cleanup Objectives <sup>1</sup> ( $\mu\text{g}/\text{kg}$ - ppb)
	Sample TP-1 (0-2)	Sample TP-1 (2-6)	Sample TP-1 (7-9)	Sample TP-3	Sample TP-4	Sample PILE COMP	
Sample Date	7/15/04	7/15/04	7/15/04	7/15/04	7/15/04	7/15/04	
Sample Depths (ft)	0-2	2-6	7-9	0-3	0-3	NA	
Acetone	ND	69	66	ND	ND	ND	200
Benzene	ND	ND	ND	ND	ND	ND	60
Bromo-dichloromethane	ND	ND	ND	ND	ND	ND	N/A
Bromoform	ND	ND	ND	ND	ND	ND	N/A
Bromomethane	ND	ND	ND	ND	ND	ND	N/A
2-Butanone	ND	ND	12 J	ND	ND	ND	300
Carbon Disulfide	ND	ND	ND	ND	ND	ND	2700
Carbon Tetrachloride	ND	ND	ND	ND	ND	ND	600
Chlorobenzene	ND	ND	16	ND	ND	ND	1700
Chloromethane	ND	ND	ND	ND	ND	ND	N/A
Chloroethane	ND	ND	ND	ND	ND	ND	1900
Chloroform	ND	ND	ND	ND	ND	ND	300
Dibromochloromethane	ND	ND	ND	ND	ND	ND	N/A
1,1-Dichloroethane	ND	ND	ND	ND	ND	ND	200
1,2-Dichloroethane	ND	ND	ND	ND	ND	ND	100
1,1-Dichloroethene	ND	ND	ND	ND	ND	ND	400
1,2-Dichloroethene (cis)	ND	ND	ND	ND	ND	ND	250
1,2-Dichloroethene (trans)	ND	ND	ND	ND	ND	ND	300
1,2-Dichloropropane	ND	ND	ND	ND	ND	ND	300
1,3-Dichloropropene (cis)	ND	ND	ND	ND	ND	ND	300
1,3-Dichloropropene (trans)	ND	ND	ND	ND	ND	ND	300
Ethylbenzene	ND	ND	ND	ND	ND	ND	5500
2-Hexanone	ND	ND	ND	ND	ND	ND	N/A
Methylene Chloride	9	13 B	15	13 B	15	10 B	100

**TABLE 3-1**  
**VOLATILE ORGANIC COMPOUNDS IN SOIL/FILL SAMPLES**  
**GALLAGHER BEACH - ANALYTICAL DATA SUMMARY**

Compound	Soil Concentration ( $\mu\text{g}/\text{kg}$ - ppb)						NYSDEC Recommended Soil Cleanup Objectives <sup>1</sup> ( $\mu\text{g}/\text{kg}$ - ppb)
	Sample TP-1 (0-2)	Sample TP-1 (2-6)	Sample TP-1 (7-9)	Sample TP-3	Sample TP-4	Sample PILE COMP	
4-Methyl-2-Pentanone	ND	ND	ND	ND	ND	ND	1000
Tetrachloroethene	ND	ND	ND	ND	ND	ND	1400
1,1,1-Trichlorethane	ND	ND	ND	ND	ND	ND	800
1,1,2-Trichloroethane	ND	ND	ND	ND	ND	ND	N/A
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND	ND	ND	600
Styrene	ND	ND	ND	ND	ND	ND	N/A
Toluene	ND	ND	ND	ND	ND	ND	1500
Trichloroethene	ND	ND	ND	ND	ND	ND	700
Vinyl Chloride	ND	ND	ND	ND	ND	ND	200
Xylenes	ND	ND	ND	ND	ND	ND	1200

**NOTES:**

ND = Not Detected

N/A = Not Available

MDL = Method detection Limit

J = Estimated Value (below Laboratory Quantitation Limit)

B = Compound detected in associated blank as well as sample

<sup>1</sup> NYSDEC Technical and Administrative Guidance Memorandum HWR-94-4046, revised January 24, 1994. As per TAGM 4046; Total volatiles <10,000 ppb, total semi-volatiles <500,000 ppb, and individual semi-volatiles <50,000 ppb.

Exceeds NYSDEC recommended soil cleanup objective.

**TABLE 3-2**  
**SEMI-VOLATILE ORGANIC COMPOUNDS IN SOIL/FILL SAMPLES**  
**GALLAGHER BEACH - ANALYTICAL DATA SUMMARY**

Compound	Soil Concentration ( $\mu\text{g}/\text{kg}$ - ppb)						NYSDEC Recommended Soil Cleanup Objectives <sup>2</sup> ( $\mu\text{g}/\text{kg}$ - ppb)
	Sample TP-1 (0-2)	Sample TP-1 (2-6)	Sample TP-1 (7-9)	Sample TP-3	Sample TP-4	Sample PILE COMP	
Sample Date	7/15/04	7/15/04	7/15/04	7/15/04	7/15/04	7/15/04	
Sample Depths (ft)	0-2	2-6	7-9	0-3	0-3	NA	
Phenol	ND	ND	ND	ND	ND	ND	30 or MDL
Bis(2-Chloroethyl) ether	ND	ND	ND	ND	ND	ND	N/A
2-Chlorophenol	ND	ND	ND	ND	ND	ND	800
1,3-Dichlorobenzene	ND	ND	ND	ND	ND	ND	1,600
1,4-Dichlorobenzene	ND	ND	ND	ND	ND	ND	8,500
1,2-Dichlorobenzene	ND	ND	ND	ND	ND	ND	7,900
2-Methylphenol	ND	ND	ND	ND	ND	ND	100 or MDL
2,2'-Oxybis (1-chloropropane)	ND	ND	ND	ND	ND	ND	N/A
4-Methylphenol	ND	ND	ND	ND	ND	ND	900
n-Nitrosodi-n-propylamine	ND	ND	ND	ND	ND	ND	N/A
Hexachloroethane	ND	ND	ND	ND	ND	ND	N/A
Nitrobenzene	ND	ND	ND	ND	ND	ND	200 or MDL
Isophorone	ND	ND	ND	ND	ND	ND	4,400
2-Nitrophenol	ND	ND	ND	ND	ND	ND	330 or MDL
2,4-Dimethylphenol	ND	ND	ND	ND	ND	ND	N/A
bis (2-Chloroethoxy) methane	ND	ND	ND	ND	ND	ND	N/A
2,4-Dichlorophenol	ND	ND	ND	ND	ND	ND	400
1,2,4-Trichlorobenzene	ND	ND	ND	ND	ND	ND	3,400
Naphthalene	ND	ND	ND	ND	ND	ND	13,000
4-Chloroaniline	ND	ND	ND	ND	ND	ND	220 or MDL
Hexachlorobutadiene	ND	ND	ND	ND	ND	ND	N/A
4-Chloro-3-methylphenol	ND	ND	ND	ND	ND	ND	240 or MDL
2-Methylnaphthalene	ND	ND	ND	ND	ND	ND	36,400
Hexachlorocyclopentadiene	ND	ND	ND	ND	ND	ND	N/A
2,4,6-Trichlorophenol	ND	ND	ND	ND	ND	ND	N/A
2,4,5-Trichlorophenol	ND	ND	ND	ND	ND	ND	100
2-Choronaphthalene	ND	ND	ND	ND	ND	ND	N/A

**TABLE 3-2**  
**SEMI-VOLATILE ORGANIC COMPOUNDS IN SOIL/FILL SAMPLES**  
**GALLAGHER BEACH - ANALYTICAL DATA SUMMARY**

Compound	Soil Concentration ( $\mu\text{g}/\text{kg}$ - ppb)						NYSDEC Recommended Soil Cleanup Objectives <sup>2</sup> ( $\mu\text{g}/\text{kg}$ - ppb)
	Sample TP-1 (0-2)	Sample TP-1 (2-6)	Sample TP-1 (7-9)	Sample TP-3	Sample TP-4	Sample PILE COMP	
2-Nitroaniline	ND	ND	ND	ND	ND	ND	430 or MDL
Dimethylphthalate	ND	ND	ND	ND	ND	ND	2,000
Acenaphthylene	ND	ND	ND	ND	ND	ND	41,000
2,6-Dinitrotoluene	ND	ND	ND	ND	ND	ND	1,000
3-Nitroaniline	ND	ND	ND	ND	ND	ND	500 or MDL
Acenaphthene	ND	ND	ND	ND	ND	ND	50.000
2,4-Dinitrophenol	ND	ND	ND	ND	ND	ND	200 or MDL
4-Nitrophenol	ND	ND	ND	ND	ND	ND	100 or MDL
Dibenzofuran	ND	ND	ND	ND	ND	ND	6.200
2,4-Dinitrotoluene	ND	ND	ND	ND	ND	ND	N/A
Diethylphthalate	ND	ND	ND	ND	ND	ND	7,100
4-Chlorophenylphenylether	ND	ND	ND	ND	ND	ND	N/A
Fluorene	ND	ND	ND	ND	ND	ND	50,000
4-Nitroaniline	ND	ND	ND	ND	ND	ND	N/A
2-Methyl-4,6-dinitrophenol	ND	ND	ND	ND	ND	ND	N/A
n-Nitrosodiphenylamine	ND	ND	ND	ND	ND	ND	N/A
4-Bromophenylphenylether	ND	ND	ND	ND	ND	ND	N/A
Hexachlorobenzene	ND	ND	ND	ND	ND	ND	410
Pentachlorophenol	ND	ND	ND	ND	ND	ND	1,000 or MDL
Phenanthrene	ND	2,800 J	ND	2,200	ND	ND	50,000
Anthracene	ND	ND	ND	ND	ND	ND	50,000
Carbazole	ND	ND	ND	ND	ND	ND	N/A
Di-n-butyl phthalate	ND	ND	ND	ND	ND	ND	8,100
Fluoranthene	ND	3700 J	ND	2,600	ND	ND	50,000
Pyrene	ND	3700 J	ND	2,400	ND	ND	50,000
Butylbenzylphthalate	ND	ND	ND	ND	ND	ND	50,000
3,3'-Dichlorobenzidine	ND	ND	ND	ND	ND	ND	N/A
Benzo(a)Anthracene	ND	ND	ND	1200 J	ND	ND	224 or MDL
Chrysene	ND	ND	ND	1200 J	ND	ND	400
bis (2-Ethylhexyl) phthalate	ND	ND	ND	ND	ND	ND	50,000

**TABLE 3-2**  
**SEMI-VOLATILE ORGANIC COMPOUNDS IN SOIL/FILL SAMPLES**  
**GALLAGHER BEACH - ANALYTICAL DATA SUMMARY**

Compound	Soil Concentration ( $\mu\text{g}/\text{kg}$ - ppb)						NYSDEC Recommended Soil Cleanup Objectives <sup>2</sup> ( $\mu\text{g}/\text{kg}$ - ppb)
	Sample TP-1 (0-2)	Sample TP-1 (2-6)	Sample TP-1 (7-9)	Sample TP-3	Sample TP-4	Sample PILE COMP	
Di-n-octyl phthalate	ND	ND	ND	ND	ND	ND	8,100
Benzo(b) fluoranthene	ND	ND	ND	ND	ND	ND	1,100
Benzo(k) fluoranthene	ND	ND	ND	940 J	ND	ND	1,100
Benzo(a) pyrene	ND	ND	ND	ND	ND	ND	61 or MDL
Indeno(1,2,3-cd) pyrene	ND	ND	ND	ND	ND	ND	3,200
Dibenzo(a,h) anthracene	ND	ND	ND	ND	ND	ND	14 or MDL
Benzo(ghi) perylene	ND	ND	ND	ND	ND	ND	50,000

**NOTES**

ND = Not Detected

N/A = Not Available

MDL = Method Detection Limit

J = Estimated Value (below Laboratory Quantitation Limit)

na = Not Applicable

<sup>1</sup> NYSDEC Technical and Administrative Guidance Memorandum HWR-94-4046, revised January 24, 1994. As per TAGM 4046; total volatiles <10,000 ppb, total semi-volatiles <500,000 ppb, and individual semi-volatiles <50,000 ppb.

Exceeds NYSDEC recommended soil cleanup objective.

**TABLE 3-3**  
**PESTICIDE/HERBICIDES COMPOUNDS IN SOIL/FILL SAMPLES**  
**GALLAGHER BEACH - ANALYTICAL DATA SUMMARY**

Compound	Soil Concentration ( $\mu\text{g}/\text{kg}$ - dry (ppb))						NYSDEC Recommended Soil Cleanup Objectives <sup>2</sup> ( $\mu\text{g}/\text{kg}$ - ppb)
	Sample TP-1 (0-2)	Sample TP-1 (2-6)	Sample TP-1 (7-9)	Sample TP-3	Sample TP-4	Sample PILE COMP	
Sample Date	7/15/04	7/15/04	7/15/04	7/15/04	7/15/04	7/15/04	
Sample Depths (ft)	0-2	2-6	7-9	0-3	0-3	NA	
<b>Pesticides</b>							
4,4-DDT	3.6	12	19	8.8	2.4	3.7	2100
4,4 - DDD	ND	ND	ND	2.9	ND	ND	2900
4,4 - DDE	ND	4.8	11	ND	ND	ND	2100
Aldrin	ND	ND	ND	0.46 J	ND	ND	41
Dieldrin	4.3	2.9 J	ND	0.69 J	0.65 J	1.4 J	44
beta-BHC	ND	ND	ND	6.5	0.52 J	1.3 J	200
delta-BHC	ND	ND	ND	2.5	ND	ND	300
Endrin	1.0 J	1.2 J	3.3 J	ND	ND	ND	100
Endosulfan Sulfate	ND	ND	ND	12	ND	ND	1000
Endosulfan II	ND	ND	ND	ND	2.3	ND	900
Heptachlor	ND	0.93 J	3.1 J	0.50 J	ND	ND	100
Methoxychlor	ND	ND	ND	2.5	ND	ND	N/A
<b>Herbicides</b>							
2,4,-D	ND	ND	ND	ND	ND	ND	500
2,4,5 -TP (Silvex)	ND	ND	ND	ND	ND	ND	700
2,4,5 - T	ND	ND	ND	ND	ND	ND	1900

**NOTES:**

ND = Not Detected

N/A = Not Available

MDL = Method Detection Limit

J = Estimated Value (below Laboratory Quantitation Limit)

na = Not Applicable

<sup>1</sup> NYSDEC Technical and Administrative Guidance Memorandum HWR-94-4046, revised April, 1995. As per TAGM 4046: total pesticides <10,000 ppb.

Exceeds NYSDEC recommended soil cleanup objective.

**TABLE 3-4**  
**PCB COMPOUNDS IN SOIL/FILL SAMPLES**  
**GALLAGHER BEACH - ANALYTICAL DATA SUMMARY**

Compound	Soil Concentration (µg/kg - dry (ppb))						NYSDEC Recommended Soil Cleanup Objectives <sup>2</sup> (µg/kg - ppb)
	Sample TP-1 (0-2)	Sample TP-1 (2-6)	Sample TP-1 (7-9)	Sample TP-3	Sample TP-4	Sample PILE COMP	
Sample Date	7/15/04	7/15/04	7/15/04	7/15/04	7/15/04	7/15/04	
Sample Depths (ft)	0-2	2-6	7-9	0-3	0-3	NA	
PCBs							
Aroclor 1260	22	ND	170	ND	ND	20 J	1000 (surface) 10,000 (subsurface)
Aroclor 1254	40	94 J	320	ND	ND	37	1000 (surface) 10,000 (subsurface)
Aroclor 1221	ND	ND	ND	ND	ND	ND	1000 (surface) 10,000 (subsurface)
Aroclor 1232	ND	ND	ND	ND	ND	ND	1000 (surface) 10,000 (subsurface)
Aroclor 1248	18 J	240	360	ND	ND	ND	1000 (surface) 10,000 (subsurface)
Aroclor 1016	ND	ND	ND	ND	ND	ND	1000 (surface) 10,000 (subsurface)
Aroclor 1242	ND	ND	ND	ND	ND	ND	1000 (surface) 10,000 (subsurface)

**NOTES:**

ND = Not Detected

N/A = Not Available

MDL = Method Detection Limit

J = Estimated Value (below Laboratory Quantitation Limit)

na = Not Applicable

<sup>1</sup> NYSDEC Technical and Administrative Guidance Memorandum HWR-94-4046, revised April, 1995. As per TAGM 4046.

Exceeds NYSDEC recommended soil cleanup objective.

**TABLE 3-5**  
**TARGET ANALYTE LIST INORGANICS (METALS) IN SOIL/FILL SAMPLES**  
**GALLAGHER BEACH - ANALYTICAL DATA SUMMARY**

Parameter	Soil Concentration (mg/kg - dry [ppm])						NYSDEC Guidance Values (ppm)	
	Sample TP-1 (0-2)	Sample TP-1 (2-6)	Sample TP-1 (7-9)	Sample TP-3	Sample TP-4	Sample PILE COMP	Eastern USA/NYS Background <sup>1</sup>	Recommended Soil Cleanup Objectives <sup>1</sup> (mg/kg - ppm)
Sample Date	7/15/04	7/15/04	7/15/04	7/15/04	7/15/04	7/15/04		
Sample Depths (ft)	0-2	2-6	7-9	0-3	0-3	NA		
Aluminum	16.800	9.300	15,400	11,100	11,300	16,400	33,000	SB
Antimony	ND	ND	36.1	ND	ND	ND	N/A	SB
Arsenic	7.0	7.5	36.1	3.0	4.2	8.4	3-12	7.5 or SB
Barium	82.2	107	146	67.4	104	115	15-600	300 or SB
Beryllium	0.9	0.7	0.82	1.4	1.2	1.1	0-1.75	0.16 or SB
Cadmium	1.0	1.1	7.4	0.45	0.68	1.2	0.1-1	1 or SB
Calcium	14,200	60,500	23,600	82,300	70,400	32,400	130-35,000	SB
Chromium	25.4	23	165	6.8	11.5	24	1.5-40	10
Cobalt	13.0	4.8	15.7	2.8	4.6	9.4	2.5-60	30 or SB
Copper	22.2	36.7	158	31.9	20.1	86.4	1-50	25 or SB
Cyanide (total)	ND	ND	ND	1.4	2.1	1.2	N/A	SB
Iron	29,400	14,500	46,100	7,650	12,800	23,300	2000-550,000	2000 or SB
Lead	24.2	223	248	64.5	80.4	61.3	200-500 <sup>2</sup>	SB
Magnesium	4,670	21,800	9,420	27,600	23,200	9,240	100-5000	SB
Manganese	568	456	545	462	602	752	50-5000	SB
Mercury	0.06	0.56	2.4	0.14	0.14	0.11	0.001-0.2	0.1
Nickel	33.9	13.1	50.4	6.7	11.5	25.4	0.5-25	13 or SB
Potassium	1,960	1,800	2,340	1,210	1,690	2,650	8500-43000	SB
Selenium	ND	ND	ND	ND	ND	ND	0.1-3.9	2 or SB
Silver	ND	ND	0.82	ND	ND	ND	N/A	SB
Sodium	ND	277	266	307	248	230	6000-8000	SB
Thallium	ND	ND	ND	ND	ND	ND	N/A	SB
Vanadium	27.8	17.8	28.4	10.1	17.0	28.2	1-300	150 or SB
Zinc	103	165	555	96.8	97.2	154	9-50	20 or SB

**NOTES**

N/A = Not Available

SB = Site Background

na = Not Applicable

<sup>1</sup> NYSDEC Technical and Administrative Guidance Memorandum HDW-94-4046, Revised April, 1995.

<sup>2</sup> Background levels for lead vary widely. Average levels in undeveloped, rural areas may range from 4-61 ppm. Average background levels in metropolitan or suburban areas or near highways are much higher and typically range from 200-500 ppm. Source is NYSDEC TAGM HWR 94-4046.

Exceeds NYSDEC recommended soil cleanup objective.

## **4.0 ASSESSMENT OF ENVIRONMENTAL SITE CONDITIONS**

Several contaminants were detected in the samples collected for laboratory analysis. Compounds detected above NYSDEC recommended cleanup objectives included a few semi-volatile organics (PAHs) at low concentrations in Test Pit 3, and a wide variety of inorganics found in all six samples. All other compounds were detected at concentrations below NYSDEC recommended soil cleanup objectives.

PAHs are often the result of any hydrocarbon combustion process and are commonly found at many industrial and commercial locations with a long history of occupation. PAHs are a group of chemicals that are formed during the incomplete burning of coal, oil and gas, garbage, or other organic substances and the emissions that result from these sources. They can also be found in substances such as crude oil, coal, coal tar pitch, creosote, and road and roofing tar. Typical routes of exposure to PAHs include inhalation of vapors and particulates, or from skin contact. The PAHs that were detected were all identified at low concentrations and simple engineering controls such as certified clean soil barrier should prevent any possible exposure to these compounds.

The various inorganics (metals) detected in the samples may be attributed to the slag found across the site likely generated from local steel manufacturing plants. Iron is alloyed with carbon to produce steel. The addition of other elements (e.g., aluminum, manganese, chromium, copper, cobalt, and nickel) impart special characteristics to the steel. This may explain the elevated concentrations of several of these compounds found in analyzed soil/fill samples. The typical routes of exposure for these compounds include inhalation, ingestion, and dermal contact. The presence of slag could also account for the elevated PAH concentrations.

## **5.0 RECOMMENDATIONS**

The inorganic and PAH contamination found at this site are commonly associated with fill from former manufacturing sites that have had a long history of industrial use (i.e., brownfield sites). The NYSDEC will probably determine that the contaminant concentrations detected at this site are a potential concern for the intended use of the property as a playground and splashground for children.

Areas intended for active recreational use such as a playground area should have a layer of clean soil brought in from off-site to prevent exposure to the underlying fill materials. The NYSDEC and New York State Department of Health (NYSDOH) should be consulted with regards to the thickness of any soil barrier. Most recommendations call for a two-foot layer as the desirable thickness. Other active areas such as the proposed splashground should prevent exposure by design, since the concrete slab would effectively function as a cap or barrier to the underlying fill materials. Across the rest of the site, the current proposal calls for passive recreational use, primarily walking trails and benches. Passive recreational users are unlikely to have any exposure to the identified compounds at concentrations that would pose a threat to human health.

Any workers involved with subsurface excavation, trenching, and future utility installation, should take precautions if their work involves handling these fill materials. Precautions would include wearing gloves to prevent direct dermal contact, keeping the fill moist or wet to minimize the generation of dust and particulates, and abstaining from any activities that would increase the likelihood of hand to mouth transfer (i.e., eating, drinking, smoking) while working within these fill materials. Any excess materials should be staged for sampling and characterization with regards to disposal. Analysis is recommended to include both the total concentrations of TAL and TCL analytes examined in this investigation as well as TCLP testing to confirm that the materials are not considered hazardous waste under RCRA. The surficial fill materials should be able to be re-used on-site but not as clean soils in active recreational areas. Fill from depths greater than 6 feet and characterized by their dark gray-black color appear to represent more contaminated dredge spoils. If excavated, these materials will likely require disposal in an off-site landfill.

## **APPENDIX A PHOTOGRAPHS**



IMG\_3314.JPG



IMG\_3315.JPG



IMG\_3316.JPG



IMG\_3317.JPG



IMG\_3318.JPG



IMG\_3319.JPG



IMG\_3320.JPG



IMG\_3321.JPG



IMG\_3322.JPG



IMG\_3323.JPG



IMG\_3324.JPG



IMG\_3325.JPG



IMG\_3326.JPG



IMG\_3327.JPG



IMG\_3328.JPG

**APPENDIX B**  
**LABORATORY ANALYTICAL REPORT**

**STL Buffalo**  
10 Hazelwood Drive, Suite 106  
Amherst, NY 14228

Tel: 716 691 2600 Fax: 716 691 7991  
[www.stl-inc.com](http://www.stl-inc.com)

**ANALYTICAL REPORT**

**Job#: A04-6713**

STL Project#: NY2A893617  
Site Name: Gallagher Beach  
Task: Gallagher Beach

Mr. Andrew Klimek  
Watts Engineers  
3826 Main St.  
Buffalo, NY 14226

STL Buffalo

  
\_\_\_\_\_  
JEFF R. Yohe  
Project Manager

07/27/2004

## STL Buffalo Current Certifications

<b>STATE</b>	<b>Program</b>	<b>Cert # / Lab ID</b>
<b>A2LA (ISO 17025)</b>	SDWA, CWA, RCRA	0732-01
<b>Arkansas</b>	SDWA, CWA, RCRA, SOIL	03-054-D/88-0686
<b>California</b>	NELAP SDWA, CWA, RCRA	01169CA
<b>Canada</b>	GENERAL	SCC 1007-15/10B
<b>Connecticut</b>	SDWA, CWA, RCRA, SOIL	PH-0568
<b>Florida</b>	NELAP RCRA	E87672
<b>Georgia</b>	SDWA	956
<b>Illinois</b>	NELAP SDWA, CWA, RCRA	200003
<b>Iowa</b>	SW/CS	374
<b>Kansas</b>	NELAP SDWA, CWA, RCRA	E-10187
<b>Kentucky</b>	SDWA	90029
<b>Kentucky UST</b>	UST	30
<b>Louisiana</b>	NELAP CWA, RCRA	2031
<b>Maine</b>	SDWA, CWA	NY044
<b>Maryland</b>	SDWA	294
<b>Massachusetts</b>	SDWA, CWA	M-NY044
<b>Michigan</b>	SDWA	9937
<b>Minnesota</b>	CWA, RCRA	036-999-337
<b>New Hampshire</b>	NELAP SDWA, CWA	233701
<b>New Jersey</b>	SDWA, CWA, RCRA, CLP	NY455
<b>New York</b>	NELAP, AIR, SDWA, CWA, RCRA	10026
<b>North Carolina</b>	CWA	411
<b>North Dakota</b>	SDWA, CWA, RCRA	R-176
<b>Oklahoma</b>	CWA, RCRA	9421
<b>Pennsylvania</b>	Env. Lab Reg.	68-281
<b>South Carolina</b>	RCRA	91013
<b>USDA</b>	FOREIGN SOIL PERMIT	S-4650
<b>Virginia</b>	SDWA	278
<b>Washington</b>	CWA	C254
<b>West Virginia</b>	CWA	252
<b>Wisconsin</b>	CWA	998310390
<b>Wyoming UST</b>	UST	NA

## SAMPLE SUMMARY

<u>LAB SAMPLE ID</u>	<u>CLIENT SAMPLE ID</u>	<u>SAMPLED</u>		<u>RECEIVED</u>	
		<u>DATE</u>	<u>TIME</u>	<u>DATE</u>	<u>TIME</u>
A4671303	Y2133.08-PILE COMP	07/15/2004	15:55	07/16/2004	11:53
A4671301	Y2133.08-TP3-0'-3'	07/15/2004	15:45	07/16/2004	11:53
A4671302	Y2133.08-TP4-0'-3'	07/15/2004	15:50	07/16/2004	11:53

## METHODS SUMMARY

Job#: A04-6713STL Project#: NY2A893617  
Site Name: Gallagher Beach

PARAMETER	ANALYTICAL METHOD
METHOD 8260 - TCL VOLATILE ORGANICS	SW8463 8260
METHOD 8270 - TCL SEMI-VOLATILE ORGANICS	SW8463 8270
METHOD 8081 - TCL PESTICIDES	SW8463 8081
METHOD 8082 - POLYCHLORINATED BIPHENYLS	SW8463 8082
METHOD 8151 - TCL HERBICIDES	SW8463 8151
Aluminum - Total	SW8463 6010
Antimony - Total	SW8463 6010
Arsenic - Total	SW8463 6010
Barium - Total	SW8463 6010
Beryllium - Total	SW8463 6010
Cadmium - Total	SW8463 6010
Calcium - Total	SW8463 6010
Chromium - Total	SW8463 6010
Cobalt - Total	SW8463 6010
Copper - Total	SW8463 6010
Iron - Total	SW8463 6010
Lead - Total	SW8463 6010
Magnesium - Total	SW8463 6010
Manganese - Total	SW8463 6010
Mercury - Total	SW8463 7471
Nickel - Total	SW8463 6010
Potassium - Total	SW8463 6010
Selenium - Total	SW8463 6010
Silver - Total	SW8463 6010
Sodium - Total	SW8463 6010
Thallium - Total	SW8463 6010
Vanadium - Total	SW8463 6010
Zinc - Total	SW8463 6010
Cyanide - Total	SW8463 9012A

References:

- SW8463 "Test Methods for Evaluating Solid Waste Physical/Chemical Methods (SW846), Third Edition, 9/86; Update I, 7/92; Update IIA, 8/93; Update II, 9/94; Update IIB, 1/95; Update III, 12/96.

## NON-CONFORMANCE SUMMARY

Job#: A04-6713STL Project#: NY2A893617  
Site Name: Gallagher BeachGeneral Comments

The enclosed data have been reported utilizing data qualifiers (Q) as defined on the Data Comment Page.

Soil, sediment and sludge sample results are reported on "dry weight" basis unless otherwise noted in this data package.

According to 40CFR Part 136.3, pH, Chlorine Residual and Dissolved Oxygen analyses are to be performed immediately after aqueous sample collection. When these parameters are not indicated as field (e.g. pH-Field), they were not analyzed immediately, but as soon as possible after laboratory receipt.

Sample dilutions were performed as indicated on the attached Dilution Log. The rationale for dilution is specified by the 3-digit code and definition.

Sample Receipt Comments

A04-6713

Sample Cooler(s) were received at the following temperature(s); 6.0 °C  
All samples were received in good condition.

GC/MS Volatile Data

The analyte Methylene Chloride was detected in the Method Blank A4B1321202 (VBLK88) at a level below the project established reporting limit. No corrective action is necessary for any values in Method Blanks that are below the requested reporting limits.

The analyte Bromomethane was detected in the Method Blank A4B1321204 (VBLK89) at a level below the project established reporting limit. No corrective action is necessary for any values in Method Blanks that are below the requested reporting limits.

GC/MS Semivolatile Data

The spike recovery of 4-Nitrophenol was below laboratory derived quality control limits in the Matrix Spike Y2133.08-TP4-0'-3' and Matrix Spike Duplicate Y2133.08-TP4-0'-3'. The Matrix Spike Blank A4B13030 was compliant for all compounds. No corrective action was required.

The relative percent difference between the Matrix Spike Y2133.08-TP4-0'-3' and the Matrix Spike Duplicate Y2133.08-TP4-0'-3' exceed quality control criteria for Pentachlorophenol, though all individual recoveries are compliant. No action required.

GC Extractable Data

For method 8081, the recovery of surrogate Decachlorobiphenyl in sample Y2133.08-PILE COMP is outside of established quality control limits due to the sample matrix. The recovery of surrogate Tetrachloro-m-xylene is within quality control limits; no corrective action is required.

For method 8081, the recoveries of several in sample Y2133.08-TP3-0'-3' Matrix Spike and Matrix Spike Duplicate exceeded QC limits due to matrix effects. The Matrix Spike Blank recoveries are compliant, no action required.

All sample extract required treatment with Copper prior to analysis due to the presence of elemental Sulfur, and were florisil treated to minimize matrix interferences.

Metals Data

The LCS recovery for Antimony fell outside of the quality control limits, however, the LCS value was within the manufacturer's recommended acceptance limits. No corrective action was taken.

Wet Chemistry Data

No deviations from protocol were encountered during the analytical procedures.

\*\*\*\*\*

The results presented in this report relate only to the analytical testing and condition of the sample at receipt. This report pertains to only those samples actually tested. All pages of this report are integral parts of the analytical data. Therefore, this report should be reproduced only in its entirety.

Date: 07/27/2004  
Time: 11:21:18

Dilution Log w/Code Information  
For Job A04-6713

7/72 Page: 1  
Rept: AN1266R

Client Sample ID	Lab Sample ID	Parameter (Inorganic)/Method (Organic)	Dilution	Code
Y2133.08-TP3-0'-3'	A4671301	8270	5.00	012
Y2133.08-TP3-0'-3'	A4671301	Calcium - Total	5.00	008
Y2133.08-TP4-0'-3'	A4671302	8270	5.00	012
Y2133.08-TP4-0'-3'	A4671302	Calcium - Total	5.00	008
Y2133.08-TP4-0'-3'	A4671302MS	8270	5.00	012
Y2133.08-TP4-0'-3'	A4671302SD	8270	5.00	012
Y2133.08-PILE COMP	A4671303	8270	5.00	012

Dilution Code Definition:

- 002 - sample matrix effects
- 003 - excessive foaming
- 004 - high levels of non-target compounds
- 005 - sample matrix resulted in method non-compliance for an Internal Standard
- 006 - sample matrix resulted in method non-compliance for Surrogate
- 007 - nature of the TCLP matrix
- 008 - high concentration of target analyte(s)
- 009 - sample turbidity
- 010 - sample color
- 011 - insufficient volume for lower dilution
- 012 - sample viscosity
- 013 - other

## DATA COMMENT PAGE

### ORGANIC DATA QUALIFIERS

- ND or U Indicates compound was analyzed for, but not detected at or above the reporting limit.
- J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed, or when the data indicates the presence of a compound that meets the identification criteria but the result is less than the sample quantitation limit but greater than zero.
- C This flag applies to pesticide results where the identification has been confirmed by GC/MS.
- B This flag is used when the analyte is found in the associated blank, as well as in the sample.
- E This flag identifies compounds whose concentrations exceed the calibration range of the instrument for that specific analysis.
- D This flag identifies all compounds identified in an analysis at the secondary dilution factor.
- N Indicates presumptive evidence of a compound. This flag is used only for tentatively identified compounds, where the identification is based on the Mass Spectral library search. It is applied to all TIC results.
- P This flag is used for a pesticide/Aroclor target analyte when there is greater than 25% difference for detected concentrations between the two GC columns. The lower of the two values is reported on the data page and flagged with a "P".
- A This flag indicates that a TIC is a suspected aldol-condensation product.
- 1 Indicates coelution.
- \* Indicates analysis is not within the quality control limits.

### INORGANIC DATA QUALIFIERS

- ND or U Indicates element was analyzed for, but not detected at or above the reporting limit.
- J or B Indicates a value greater than or equal to the instrument detection limit, but less than the quantitation limit.
- N Indicates spike sample recovery is not within the quality control limits.
- K Indicates the post digestion spike recovery is not within the quality control limits.
- S Indicates value determined by the Method of Standard Addition.
- M Indicates duplicate injection results exceeded quality control limits.
- W Post digestion spike for Furnace AA analysis is out of quality control limits (85-115%) while sample absorbance is less than 50% of spike absorbance.
- E Indicates a value estimated or not reported due to the presence of interferences.
- H Indicates analytical holding time exceedance. The value obtained should be considered an estimate.
- \* Indicates analysis is not within the quality control limits.
- + Indicates the correlation coefficient for the Method of Standard Addition is less than 0.995.

## Sample Data Package

Client ID Job No Sample Date	Lab ID	Y2133.08-PILE COMP A04-6713 07/15/2004	Y2133.08-TP3-0'-3' A04-6713 A4671301 07/15/2004	Y2133.08-TP4-0'-3' A04-6713 A4671302 07/15/2004			
Analyte	Units	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit
Acetone	UG/KG	ND	32	ND	28	ND	30
Benzene	UG/KG	ND	6	ND	6	ND	6
Bromodichloromethane	UG/KG	ND	6	ND	6	ND	6
Bromform	UG/KG	ND	6	ND	6	ND	6
Bromomethane	UG/KG	ND	6	ND	6	ND	NA
2-Butanone	UG/KG	ND	32	ND	28	ND	30
Carbon Disulfide	UG/KG	ND	6	ND	6	ND	6
Carbon Tetrachloride	UG/KG	ND	6	ND	6	ND	NA
Chlorobenzene	UG/KG	ND	6	ND	6	ND	NA
Chloroethane	UG/KG	ND	6	ND	6	ND	NA
Chloroform	UG/KG	ND	6	ND	6	ND	NA
Chloromethane	UG/KG	ND	6	ND	6	ND	NA
Cyclohexane	UG/KG	ND	6	ND	6	ND	6
1,2-Dibromoethane	UG/KG	ND	6	ND	6	ND	NA
Dibromochloromethane	UG/KG	ND	6	ND	6	ND	NA
1,2-Dibromo-3-chloropropane	UG/KG	ND	6	ND	6	ND	6
1,2-Dichlorobenzene	UG/KG	ND	6	ND	6	ND	NA
1,3-Dichlorobenzene	UG/KG	ND	6	ND	6	ND	NA
1,4-Dichlorobenzene	UG/KG	ND	6	ND	6	ND	NA
Dichlorodifluoromethane	UG/KG	ND	6	ND	6	ND	6
1,1-Dichloroethane	UG/KG	ND	6	ND	6	ND	NA
1,2-Dichloroethane	UG/KG	ND	6	ND	6	ND	NA
1,1-Dichloroethene	UG/KG	ND	6	ND	6	ND	NA
cis-1,2-Dichloroethene	UG/KG	ND	6	ND	6	ND	NA
trans-1,2-Dichloroethene	UG/KG	ND	6	ND	6	ND	NA
1,2-Dichloropropane	UG/KG	ND	6	ND	6	ND	NA
cis-1,3-Dichloropropane	UG/KG	ND	6	ND	6	ND	NA
trans-1,3-Dichloropropane	UG/KG	ND	6	ND	6	ND	NA
Ethylbenzene	UG/KG	ND	6	ND	6	ND	6
2-Hexanone	UG/KG	ND	32	ND	28	ND	30
Isopropylbenzene	UG/KG	ND	6	ND	6	ND	6
Methyl acetate	UG/KG	ND	6	ND	6	ND	6
Methylcyclohexane	UG/KG	ND	6	ND	6	ND	6
Methylene chloride	UG/KG	ND	10 B	ND	13 B	ND	15
4-Methyl-2-pentanone	UG/KG	ND	32	ND	28	ND	30
Methyl tert butyl ether	UG/KG	ND	6	ND	6	ND	6
Styrene	UG/KG	ND	6	ND	6	ND	6
1,1,2,2-Tetrachloroethane	UG/KG	ND	6	ND	6	ND	NA
Tetrachloroethene	UG/KG	ND	6	ND	6	ND	6
Toluene	UG/KG	ND	6	ND	6	ND	NA
1,2,4-Trichlorobenzene	UG/KG	ND	6	ND	6	ND	6
1,1,1-Trichloroethane	UG/KG	ND	6	ND	6	ND	NA
1,1,2-Trichloroethane	UG/KG	ND	6	ND	6	ND	6

Date: 07/27/2004  
Time: 11:21:25

Gallagher Beach  
Gallagher Beach  
METHOD 8260 - TCL VOLATILE ORGANIC

Rept #: AN0326

11/72

Client ID	Lab ID	Sample Date	Y2133-08-PILE COMP A04-6713 07/15/2004	Y2133-08-TP3-0'-3' A04-6713 07/15/2004	Y2133-08-TP4-0'-3' A4671302 07/15/2004
Analyte	Units		Sample Value	Sample Value	Sample Value
			Reporting Limit	Reporting Limit	Reporting Limit
1,1,2-Trichloro-1,2,2-trifluoromethane	UG/KG	ND	6	ND	ND
Trichlorofluoromethane	UG/KG	ND	6	ND	ND
Trichloroethene	UG/KG	ND	6	ND	ND
Vinyl acetate	UG/KG	ND	32	ND	ND
Vinyl chloride	UG/KG	ND	13	ND	ND
Total Xylenes	UG/KG	ND	19	ND	ND
IS/SURROGATE(S)	%	91	50-200	97	50-200
Chlorobenzene-D5	%	92	50-200	96	50-200
1,4-Difluorobenzene	%	66	50-200	73	50-200
1,4-Dichlorobenzene-D4	%	85	71-125	82	71-125
Toluene-D8	%	75	68-124	74	68-124
Bromofluorobenzene	%	84	61-136	83	61-136
1,2-Dichloroethane-D4	%				

NA = Not Applicable ND = Not Detected

Client ID Job No Sample Date	Lab ID	Y2133.08-PILE COMP A04-6713 07/15/2004	Y2133.08-TP3-0'-3' A04-6713 07/15/2004	Y2133.08-TP4-0'-3' A04-6713 07/15/2004,					
Analyte	Units	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit
Acenaphthene	UG/KG	ND	2100	ND	1900	ND	2000	ND	NA
Acenaphthylene	UG/KG	ND	2100	ND	1900	ND	2000	ND	NA
Acetophenone	UG/KG	ND	2100	ND	1900	ND	2000	ND	NA
Anthracene	UG/KG	ND	2100	ND	1900	ND	2000	ND	NA
Atrazine	UG/KG	ND	2100	ND	1900	ND	2000	ND	NA
Benzaldehyde	UG/KG	ND	2100	ND	1900	ND	2000	ND	NA
Benzo(a)anthracene	UG/KG	ND	2100	ND	1900	ND	2000	ND	NA
Benzo(b)fluoranthene	UG/KG	ND	2100	ND	1900	ND	2000	ND	NA
Benzo(k)fluoranthene	UG/KG	ND	2100	ND	1900	ND	2000	ND	NA
Benzo(ghi)perylene	UG/KG	ND	2100	ND	1900	ND	2000	ND	NA
Benzo(a)pyrene	UG/KG	ND	2100	ND	1900	ND	2000	ND	NA
Benzoic acid	UG/KG	ND	10000	ND	9000	ND	9600	ND	NA
Benzyl alcohol	UG/KG	ND	2100	ND	1900	ND	2000	ND	NA
Biphenyl	UG/KG	ND	2100	ND	1900	ND	2000	ND	NA
Bis(2-chloroethoxy) methane	UG/KG	ND	2100	ND	1900	ND	2000	ND	NA
Bis(2-chloroethyl) ether	UG/KG	ND	2100	ND	1900	ND	2000	ND	NA
2,2'-Oxybis(1-chloropropane)	UG/KG	ND	2100	ND	1900	ND	2000	ND	NA
Bis(2-ethylhexyl) phthalate	UG/KG	ND	2100	ND	1900	ND	2000	ND	NA
4-Bromophenyl phenyl ether	UG/KG	ND	2100	ND	1900	ND	2000	ND	NA
Butyl benzyl phthalate	UG/KG	ND	2100	ND	1900	ND	2000	ND	NA
Capro lactam	UG/KG	ND	2100	ND	1900	ND	2000	ND	NA
4-chloroaniline	UG/KG	ND	2100	ND	1900	ND	2000	ND	NA
4-chloro-3-methylphenol	UG/KG	ND	2100	ND	1900	ND	2000	ND	NA
2-chloronaphthalene	UG/KG	ND	2100	ND	1900	ND	2000	ND	NA
2-chlorophenol	UG/KG	ND	2100	ND	1900	ND	2000	ND	NA
4-chlorophenyl phenyl ether	UG/KG	ND	2100	ND	1900	ND	2000	ND	NA
Chrysene	UG/KG	ND	2100	ND	1900	ND	2000	ND	NA
Dibenz(a,h)anthracene	UG/KG	ND	2100	ND	1900	ND	2000	ND	NA
Dibenzoturan	UG/KG	ND	2100	ND	1900	ND	2000	ND	NA
Di-n-butyl phthalate	UG/KG	ND	2100	ND	1900	ND	2000	ND	NA
1,2-Dichlorobenzene	UG/KG	ND	2100	ND	1900	ND	2000	ND	NA
1,3-Dichlorobenzene	UG/KG	ND	2100	ND	1900	ND	2000	ND	NA
1,4-Dichlorobenzene	UG/KG	ND	2100	ND	1900	ND	2000	ND	NA
Dimethyl phthalate	UG/KG	ND	4100	ND	3700	ND	4000	ND	NA
3,3'-Dichlorobenzidine	UG/KG	ND	2100	ND	1900	ND	2000	ND	NA
2,4-Dichlorophenol	UG/KG	ND	2100	ND	1900	ND	2000	ND	NA
Diethyl phthalate	UG/KG	ND	2100	ND	1900	ND	2000	ND	NA
2,4-Dimethylphenol	UG/KG	ND	2100	ND	1900	ND	2000	ND	NA
4,6-Dinitro-2-methylphenol	UG/KG	ND	10000	ND	9000	ND	9600	ND	NA
2,4-Dinitrophenol	UG/KG	ND	10000	ND	9000	ND	9600	ND	NA
2,4-Dinitrotoluene	UG/KG	ND	2100	ND	1900	ND	2000	ND	NA
2,6-Dinitrotoluene	UG/KG	ND	2800	ND	2500	ND	2700	ND	NA
Di-n-octyl phthalate	UG/KG	ND							

Date: 07/27/2004  
Time: 11:21:36

Rept: AN0326

Gallagher Beach  
Gallagher Beach

METHOD 8270 - TCL SEMI-VOLATILE ORGANICS

Client ID Job No Sample Date	Lab ID	Y2133.08-PPLE COMP A04-6713 07/15/2004	Y2133.08-TP3-0'-3' A4671303 07/15/2004	Y2133.08-TP4-0'-3' A04-6713 07/15/2004	Y2133.08-TP4-0'-3' A4671302 07/15/2004
Analyte	units	Sample Value	Reporting Limit	Sample Value	Reporting Limit
Fluoranthene	ug/kg	ND	2100	2600	1900
Fluorene	ug/kg	ND	2100	ND	ND
Hexachlorobenzene	ug/kg	ND	2100	ND	ND
Hexachlorobutadiene	ug/kg	ND	2100	ND	ND
Hexachlorocyclopentadiene	ug/kg	ND	2100	ND	ND
Hexachloroethane	ug/kg	ND	2100	ND	ND
Indeno(1,2,3-cd)pyrene	ug/kg	ND	2100	ND	ND
Isophorone	ug/kg	ND	2100	ND	ND
2-Methylnaphthalene	ug/kg	ND	2100	ND	ND
2-Methylphenol	ug/kg	ND	2100	ND	ND
4-Methylphenol	ug/kg	ND	2100	ND	ND
Naphthalene	ug/kg	ND	2100	ND	ND
2-Nitroaniline	ug/kg	ND	10000	ND	ND
3-Nitroaniline	ug/kg	ND	10000	ND	ND
4-Nitroaniline	ug/kg	ND	10000	ND	ND
Nitrobenzene	ug/kg	ND	2100	ND	ND
2-Nitrophenol	ug/kg	ND	2100	ND	ND
4-Nitrophenol	ug/kg	ND	10000	ND	ND
N-nitrosodiphenylamine	ug/kg	ND	2100	ND	ND
N-Nitroso-Di-n-propylamine	ug/kg	ND	2100	ND	ND
Pentachlorophenol	ug/kg	ND	10000	ND	ND
Phenanthrene	ug/kg	ND	2100	ND	ND
Phenol	ug/kg	ND	2100	ND	ND
Pyrene	ug/kg	ND	2100	ND	ND
1,2,4-Trichlorobenzene	ug/kg	ND	2100	ND	ND
2,4,5-Trichlorophenol	ug/kg	ND	5000	ND	ND
2,4,6-Trichlorophenol	ug/kg	ND	2100	ND	ND
ISI/SURROGATE(S)	%	98	50-200	95	50-200
1,4-Dichlorobenzene-D4	%	96	50-200	93	50-200
Naphthalene-D8	%	93	50-200	88	50-200
Aceanaphthene-D10	%	86	50-200	84	50-200
Phenanthrene-D10	%	84	50-200	81	50-200
Chrysene-D12	%	110	50-200	104	50-200
Perylene-D12	%	61	30-127	63	30-127
Nitrobenzene-D5	%	74	36-138	78	36-138
2-Fluorobiphenyl	%	102	41-167	93	41-167
p-Terphenyl-d14	%	64	34-120	63	34-120
Phenol-D5	%	59	26-120	63	26-120
2-Fluorophenol	%	84	42-140	76	42-140

NA = Not Applicable

ND = Not Detected

STL Buffalo

Client ID Job No Sample Date	Lab ID	Y2133.08-PILE COMP A04-6713 07/15/2004	Y2133.08-TP3-0'-3' A4671303 07/15/2004	Y2133.08-TP4-0'-3' A04-6713 07/15/2004
Analyte	Units	Sample Value	Reporting Limit	Sample Value
Aldrin	UG/KG	ND	2.1	0.46 J
alpha-BHC	UG/KG	ND	ND	ND
beta-BHC	UG/KG	1.3 J	2.1	1.9
gamma-BHC (Lindane)	UG/KG	ND	2.1	1.9
delta-BHC	UG/KG	ND	ND	ND
Chlordane	UG/KG	ND	2.1	2.5
4,4'-DDD	UG/KG	ND	2.1	1.9
4,4'-DDE	UG/KG	ND	2.1	2.9
4,4'-DDT	UG/KG	ND	ND	ND
Dieldrin	UG/KG	3.7	2.1	8.8
Endosulfan I	UG/KG	1.4 J	2.1	0.69 J
Endosulfan II	UG/KG	ND	2.1	ND
Endosulfan Sulfate	UG/KG	ND	2.1	ND
Endrin	UG/KG	ND	2.1	1.9
Endrin aldehyde	UG/KG	ND	2.1	1.9
Heptachlor	UG/KG	ND	2.1	0.50 J
Heptachlor epoxide	UG/KG	ND	2.1	1.9
Methoxychlor	UG/KG	ND	2.1	ND
Toxaphene	UG/KG	ND	41	2.5
<u>SURROGATE(S)</u>		%	46 171,*	38-132 46-151
Tetrachloro-m-xylene	%	46	52	38-132 46-151
Decachlorobiphenyl	%	66	62	38-132 46-151

Date: 07/27/2004  
Time: 11:21:42

Rept: AN0326

Gallagher Beach  
Gallagher Beach

METHOD 8082 - POLYCHLORINATED BIPHENYLS

Client ID Job No Sample Date	Lab ID	Y2133.08-PILE COMP A04-6713 07/15/2004	Y2133.08-TP3-0'-3' A4671303 07/15/2004	Y2133.08-TP4-0'-3' A04-6713 07/15/2004					
Analyte	Units	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit
Aroclor 1016	UG/KG	ND	21	ND	19	ND	20	NA	NA
Aroclor 1221	UG/KG	ND	21	ND	19	ND	20	NA	NA
Aroclor 1232	UG/KG	ND	21	ND	19	ND	20	NA	NA
Aroclor 1242	UG/KG	ND	21	ND	19	ND	20	NA	NA
Aroclor 1248	UG/KG	ND	21	ND	19	ND	20	NA	NA
Aroclor 1254	UG/KG	37	21	ND	19	ND	20	NA	NA
Aroclor 1260	UG/KG	20 J	21	ND	19	ND	20	NA	NA
<u>SURROGATE(S)</u>									
Tetrachloro-m-xylene	%	88	32-148	79	32-148	90	32-148	NA	NA
Decachlorobiphenyl	%	86	36-153	86	36-153	74	36-153	NA	NA

NA = Not Applicable      ND = Not Detected

STL Buffalo

Date: 07/21/004  
Time: 11:21:42

Gallagher Beach  
Gallagher Beach  
METHOD 8151 - TCL HERBICIDES

Rept: AN0326

Client ID Job No Sample Date	Lab ID A4671303 07/15/2004	Y2133.08-PILE COMP A04-6713 07/15/2004	Y2133.08-TP3-0'-3' A04-6713 07/15/2004	Y2133.08-TP4-0'-3' A04-6713 07/15/2004
Analyte	Units	Sample Value	Reporting Limit	Sample Value
2,4-D	UG/KG	ND	ND	ND
2,4,5-TP (Silvex)	UG/KG	ND	ND	ND
2,4,5-T	UG/KG	ND	ND	ND
SURROGATE(S)	%	48	10-120	80
Dichlorophenyl Acetic Acid	%	48	10-120	70
				10-120
				NA

NA = Not Applicable      ND = Not Detected

STL Buffalo

Date: 07/27/2004  
Time: 11:21:47

Gallagher Beach  
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TOTAL TCL METALS

Rept: AN0326

Client ID Job No Sample Date	Lab ID	Y2133.08-PILE COMP A04-6713 07/15/2004	Y2133.08-PILE COMP A04-6713 07/15/2004	Y2133.08-TP3-0'-3' A4671301	Y2133.08-TP4-0'-3' A4671302 07/15/2004
Analyte	Units	Sample Value	Reporting Limit	Sample Value	Reporting Limit
Aluminum - Total	MG/KG	16400	12.9	11100	11.8
Antimony - Total	MG/KG	ND	19.4	ND	17.7
Arsenic - Total	MG/KG	8.4	2.6	3.0	2.4
Barium - Total	MG/KG	115	0.64	67.4	0.59
Beryllium - Total	MG/KG	1.1	0.26	1.4	0.24
Cadmium - Total	MG/KG	1.2	0.26	0.45	0.24
calcium - Total	MG/KG	32400	12.9	82300	59.1
Chromium - Total	MG/KG	24.0	0.64	6.8	0.59
Cobalt - Total	MG/KG	9.4	0.64	2.8	0.59
Copper - Total	MG/KG	86.4	1.3	31.9	1.2
Iron - Total	MG/KG	23300	12.9	7650	11.8
Lead - Total	MG/KG	61.3	1.3	64.5	1.2
Magnesium - Total	MG/KG	9240	25.8	27600	23.6
Manganese - Total	MG/KG	752	0.26	462	0.24
Mercury - Total	MG/KG	0.11	0.026	0.14	0.024
Nickel - Total	MG/KG	25.4	0.64	6.7	0.59
Potassium - Total	MG/KG	2650	38.7	1210	35.5
Selenium - Total	MG/KG	ND	5.2	ND	4.7
Silver - Total	MG/KG	ND	0.64	ND	0.59
Sodium - Total	MG/KG	230	181	307	166
Thallium - Total	MG/KG	ND	7.7	ND	7.1
Vanadium - Total	MG/KG	28.2	0.64	10.1	0.59
Zinc - Total	MG/KG	154	2.6	96.8	2.4

NA = Not Applicable

ND = Not Detected

STL Buffalo

Date: 07/11/2004  
Time: 11:21:49

Gallagher Beach  
Gallagher Beach  
WET CHEMISTRY ANALYSIS

Rept: AN0320

Client ID Job No Sample Date	Lab ID A04-6713 07/15/2004	Y2133.08-PILE COMP A4671303 07/15/2004	Y2133.08-TP3-0'-3' A04-6713 07/15/2004	Y2133.08-TP4-0'-3' A04-6713 07/15/2004
Analyte	Units	Sample Value	Reporting Limit	Sample Value
Cyanide - Total	ug/g	1.2	1.0	1.4
			1.0	2.1
			1.0	NA

NA = Not Applicable      ND = Not Detected

STL Buffalo

## Batch Quality Control Data

Date: 11/27/2007, 11:34:41

Batch No: A4B13212

MS/MSD Batch QC Results

Rept: AN1124C

Lab Sample ID: A4654901

A4654901MS

A4654901MS

Analyte	Units of Measure	Sample	Concentration		MS	Spike Amount	MSD	MS	MSD	Avg	% RPD	% Recovery	QC LIMITS
			Matrix Spike	Spike Duplicate									
METHOD 8260 - VOLATILE ORGANIC Methylene chloride	UG/KG	15.7	64.0	64.3	75.1	76.7	64	63	64	2	20.0	49-127	

\* Indicates Result is outside QC Limits  
 NC = Not Calculated ND = Not Detected

Date: 07/27/2004 11:34:10  
Batch No: A4613034

MS/MSD Batch QC Results

Rept: AN1392

Lab Sample ID: A4652504

A4652504MS

A4652504SD

Analyte	Units of Measure	Sample	Concentration		MS	Spike Amount	MSD	% Recovery		MS	MSD	Avg	% RPD	QC LIMITS RPD	REC.
			Matrix	Spike				MS	MSD						
LAN - METHOD 8082/POLYCHLORINATED BIPHENYL	UG/KG	0	216	201	197	201	110	100	105	10	30.0	52-153			
Aroclor 1254	UG/KG	0	216	201	197	201	110	100	105	10	30.0	52-153			
Total Polychlorinated Biphenyls (8082)															

Lab Sample ID: A4671301

A4671301MS

A4671301SD

Analyte	Units of Measure	Sample	Concentration		Spike Amount		% Recovery		QC LIMITS RPD REC.
			Matrix Spike	Spike Duplicate	MS	MSD	MS	MSD	
<b>METHOD 8081 - TCL PESTICIDES</b>									
Aldrin	UG/KG	0.461	9.21	11.2	19.1	18.8	46 *	57	52
alpha-BHC	UG/KG	0	9.25	9.97	19.1	18.8	48	53	51
beta-BHC	UG/KG	6.54	17.5	19.3	19.1	18.8	58	68	63
delta-BHC	UG/KG	2.50	11.8	14.9	19.1	18.8	49	66	58
gamma-BHC (Lindane)	UG/KG	0	13.1	13.7	19.1	18.8	69	73	71
4,4'-DDD	UG/KG	2.88	12.8	14.2	19.1	18.8	52	60	56
4,4'-DDE	UG/KG	0	14.7	16.5	19.1	18.8	77	88	83
4,4'-DDT	UG/KG	8.81	18.4	20.5	19.1	18.8	50	62	56
Dieldrin	UG/KG	0.692	13.5	14.6	19.1	18.8	67	74	71
Endosulfan 1	UG/KG	0	11.0	12.8	19.1	18.8	58	68	63
Endosulfan 11	UG/KG	0	8.18	9.45	19.1	18.8	43 *	50	47
Endosulfan Sulfate	UG/KG	11.9	6.12	7.94	19.1	18.8	-30 *	-21 *	-26
Endrin aldehyde	UG/KG	0	4.28	7.00	19.1	18.8	22 *	37	30
Endrin	UG/KG	0	15.5	17.9	19.1	18.8	81	96	89
Heptachlor	UG/KG	0.500	11.8	13.8	19.1	18.8	59	71	65
Heptachlor epoxide	UG/KG	0	9.79	11.9	19.1	18.8	51	63	57
Methoxychlor	UG/KG	2.46	17.7	11.9	19.1	18.8	80	65	46 *

Date: 07/27/2004 11:34:10  
Batch No: A4B12991

## MS/MSD Batch QC Results

Rept: AN1392

Lab Sample ID: A4670701

A4670701MS

Analyte	Units of Measure	Sample	Concentration		Spike Amount	MS	% Recovery		QC LIMITS RPD	REC.
			Matrix spike	Spike Duplicate			MS	MSD		
MERCURY ANALYSIS TOTAL MERCURY	MG/KG	0.0656	0.515	0.464	0.418	0.434	108	92	100	16
									20.0	80-120

\* Indicates Result is outside QC Limits  
 NC = Not Calculated ND = Not Detected

Date: 11/7/2004 11:34:00  
Batch No: A4B12991

## MS/MSD Batch QC Results

Rept: AN1392

Lab Sample ID: A4671901

A4671901MS

A4671901SD

Analyte	Units of Measure	Concentration		Spike Amount	MS	MSD	% Recovery	% RPD	QC LIMITS
		Sample	Matrix Spike	Spike Duplicate					
MERCURY ANALYSIS	MG/KG	1.24	2.00	1.43	0.344	0.351	223 *	56 *	140 120 *
TOTAL MERCURY									80-120

\* Indicates Result is outside QC Limits  
NC = Not Calculated ND = Not Detected

Date: 07/27/2004 11:34:10  
Batch No: A4B13012

MS/MSD Batch QC Results

Rept: AN1392

Lab Sample ID: A4657812

A4657812MS

		Concentration				% Recovery MS	QC LIMITS
Analyte	Units of Measure	Sample	Matrix Spike	Spike Amount			
CYANIDE ANALYSIS	MG/L	0	0.0938	0.100	94	85-115	
ALLIED METHOD 335.4 - TOTAL CYANIDE							

## Chronology and QC Summary Package

Date: 07/27/2004  
Time: 11:21:57

Rept: AN0326

Gallagher Beach  
Gallagher Beach

METHOD 8260 - TCL VOLATILE ORGANICS

27/72

Client ID Job No Sample Date	Lab ID	VBLK88 A04-6713	A4B1321202	VBLK89 A04-6713	A4B1321204	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit
Analyte	Units	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit
Acetone	UG/KG	ND	25	ND	25	NA	NA	NA	NA	NA	NA
Benzene	UG/KG	ND	5	ND	5	NA	NA	NA	NA	NA	NA
Bromodichloromethane	UG/KG	ND	5	ND	5	NA	NA	NA	NA	NA	NA
Bromoform	UG/KG	ND	5	ND	5	NA	NA	NA	NA	NA	NA
Bromomethane	UG/KG	ND	5	ND	5	NA	NA	NA	NA	NA	NA
2-Butanone	UG/KG	ND	25	ND	25	NA	NA	NA	NA	NA	NA
Carbon Disulfide	UG/KG	ND	5	ND	5	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	UG/KG	ND	5	ND	5	NA	NA	NA	NA	NA	NA
Chlorobenzene	UG/KG	ND	5	ND	5	NA	NA	NA	NA	NA	NA
Chloroethane	UG/KG	ND	5	ND	5	NA	NA	NA	NA	NA	NA
Chloroform	UG/KG	ND	5	ND	5	NA	NA	NA	NA	NA	NA
Chloroethylene	UG/KG	ND	5	ND	5	NA	NA	NA	NA	NA	NA
Cyclohexane	UG/KG	ND	5	ND	5	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	UG/KG	ND	5	ND	5	NA	NA	NA	NA	NA	NA
Dibromochloromethane	UG/KG	ND	5	ND	5	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	UG/KG	ND	5	ND	5	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	UG/KG	ND	5	ND	5	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	UG/KG	ND	5	ND	5	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	UG/KG	ND	5	ND	5	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	UG/KG	ND	5	ND	5	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	UG/KG	ND	5	ND	5	NA	NA	NA	NA	NA	NA
1,1,2-Dichloroethane	UG/KG	ND	5	ND	5	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	UG/KG	ND	5	ND	5	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	UG/KG	ND	5	ND	5	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	UG/KG	ND	5	ND	5	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	UG/KG	ND	5	ND	5	NA	NA	NA	NA	NA	NA
trans-1,3-Dichloropropene	UG/KG	ND	5	ND	5	NA	NA	NA	NA	NA	NA
Ethylenbenzene	UG/KG	ND	25	ND	25	NA	NA	NA	NA	NA	NA
2-Hexanone	UG/KG	ND	5	ND	5	NA	NA	NA	NA	NA	NA
Isopropylbenzene	UG/KG	ND	5	ND	5	NA	NA	NA	NA	NA	NA
Methyl acetate	UG/KG	ND	5	ND	5	NA	NA	NA	NA	NA	NA
Methyl cyclohexane	UG/KG	ND	5	ND	5	NA	NA	NA	NA	NA	NA
Methylene chloride	UG/KG	ND	4	J	5	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	UG/KG	ND	25	ND	25	NA	NA	NA	NA	NA	NA
Methyl tert butyl ether	UG/KG	ND	5	ND	5	NA	NA	NA	NA	NA	NA
Styrene	UG/KG	ND	5	ND	5	NA	NA	NA	NA	NA	NA
1,1,2-Tetrachloroethene	UG/KG	ND	5	ND	5	NA	NA	NA	NA	NA	NA
Toluene	UG/KG	ND	5	ND	5	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	UG/KG	ND	5	ND	5	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	UG/KG	ND	5	ND	5	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	UG/KG	ND	5	ND	5	NA	NA	NA	NA	NA	NA

NA = Not Applicable      ND = Not Detected

STL Buffalo

Date: 07/21/2004  
Time: 11:21:57

Gallagher Beach  
Gallagher Beach

METHOD 8260 - TCL VOLATILE ORGANICS

Rept: ANOZC0

Client ID Job No Sample Date	Lab ID	VBLK88 A04-6713	A4B1321202	VBLK89 A04-6713	A4B1321204
Analyte	Units	Sample Value	Reporting Limit	Sample Value	Reporting Limit
1,1,2-Trichloro-1,2,2-trifluoromethane	UG/KG	ND	5	ND	5
Trichlorofluoromethane	UG/KG	ND	5	ND	5
Trichloroethene	UG/KG	ND	25	ND	25
Vinyl acetate	UG/KG	ND	10	ND	10
Vinyl chloride	UG/KG	ND	15	ND	15
Total xylenes	UG/KG	ND			
IS/SURROGATE(S)	%				
Chlorobenzene-D5	%	79	50-200	81	50-200
1,4-Difluorobenzene	%	80	50-200	81	50-200
1,4-Dichlorobenzene-D4	%	58	50-200	80	50-200
Toluene-D8	%	90	71-125	81	71-125
p-Bromofluorobenzene	%	79	68-124	82	68-124
1,2-Dichloroethane-D4	%	92	61-136	87	61-136

NA = Not Applicable      ND = Not Detected

STL Buffalo

Client ID Job No Sample Date	Lab ID	MSB 88 A04-6713	A4B1321201	MSB 89 A04-6713	A4B1321203	Sample Value	Reporting Limit	Reporting Limit
Analyte	Units	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value
Acetone	UG/KG	210	25	200	25	NA	NA	NA
Benzene	UG/KG	50	5	47	5	NA	NA	NA
Bromodichloromethane	UG/KG	50	5	46	5	NA	NA	NA
Bromoform	UG/KG	46	5	42	5	NA	NA	NA
Bromomethane	UG/KG	39	5	38 B	5	NA	NA	NA
2-Butanone	UG/KG	230	25	230	25	NA	NA	NA
Carbon Disulfide	UG/KG	38	5	35	5	NA	NA	NA
Carbon Tetrachloride	UG/KG	53	5	38	5	NA	NA	NA
Chlorobenzene	UG/KG	48	5	45	5	NA	NA	NA
Chloroethane	UG/KG	48	5	41	5	NA	NA	NA
Chlorotorm	UG/KG	51	5	48	5	NA	NA	NA
Chloroone thane	UG/KG	50	5	44	5	NA	NA	NA
Cyclohexane	UG/KG	49	5	45	5	NA	NA	NA
1,2-Dibromoethane	UG/KG	46	5	46	5	NA	NA	NA
Dibromochloromethane	UG/KG	48	5	44	5	NA	NA	NA
1,2-Dibromo-3-chloropropane	UG/KG	42	5	45	5	NA	NA	NA
1,2-Dichlorobenzene	UG/KG	48	5	45	5	NA	NA	NA
1,3-Dichlorobenzene	UG/KG	49	5	45	5	NA	NA	NA
1,4-Dichlorobenzene	UG/KG	48	5	46	5	NA	NA	NA
Dichlorodifluoromethane	UG/KG	42	5	39	5	NA	NA	NA
1,1-Dichloroethane	UG/KG	48	5	46	5	NA	NA	NA
1,2-Dichloroethane	UG/KG	50	5	48	5	NA	NA	NA
1,1-Dichloroethene	UG/KG	37	5	35	5	NA	NA	NA
cis-1,2-Dichloroethene	UG/KG	48	5	45	5	NA	NA	NA
trans-1,2-Dichloroethene	UG/KG	49	5	46	5	NA	NA	NA
1,2-Dichloropropane	UG/KG	49	5	47	5	NA	NA	NA
cis-1,2-Dichloropropene	UG/KG	49	5	47	5	NA	NA	NA
trans-1,3-Dichloropropene	UG/KG	46	5	45	5	NA	NA	NA
Ethy benzene	UG/KG	50	5	46	5	NA	NA	NA
2-Hexanone	UG/KG	220	25	220	25	NA	NA	NA
Isopropy lbenzene	UG/KG	50	5	44	5	NA	NA	NA
Methyl acetate	UG/KG	30	5	34	5	NA	NA	NA
Methyl cyclohexane	UG/KG	50	5	45	5	NA	NA	NA
Methylene chloride	UG/KG	43 B	5	41	5	NA	NA	NA
4-Methyl-2-pentanone	UG/KG	230	25	230	25	NA	NA	NA
Methyl tert butyl ether	UG/KG	50	5	48	5	NA	NA	NA
Styrene	UG/KG	47	5	45	5	NA	NA	NA
1,1,2,2-Tetrachloroethane	UG/KG	49	5	47	5	NA	NA	NA
Tetrachloroethene	UG/KG	48	5	44	5	NA	NA	NA
Toluene	UG/KG	48	5	45	5	NA	NA	NA
1,2,4-Trichlorobenzene	UG/KG	39	5	48	5	NA	NA	NA
1,1,1-Trichloroethane	UG/KG	50	5	46	5	NA	NA	NA
1,1,2-Trichloroethane	UG/KG	47	5	46	5	NA	NA	NA

Date: 07/12/004  
Time: 11:21:37

Gallagher Beach  
Gallagher Beach  
METHOD 8260 - TCL VOLATILE ORGANICS

Report: ANO<sub>20</sub>

Client ID Job No Sample Date	Lab ID	MSB 88 A04-6713	A4B1321201	MSB 89 A04-6713	A4B1321203
Analyte	Units	Sample Value	Reporting Limit	Sample Value	Reporting Limit
1,1,2-Trichloro-1,2,2-trifluor	UG/KG	37	5	34	5
Trichlorofluoromethane	UG/KG	52	5	44	5
Trichloroethene	UG/KG	51	5	47	5
Vinyl acetate	UG/KG	230	25	280	25
Vinyl chloride	UG/KG	49	10	47	10
Total Xylenes	UG/KG	140	15	130	15
IS/SURROGATE(S)					
Chlorobenzene-DS	%	94	50-200	101	50-200
1,4-Difluorobenzene	%	90	50-200	98	50-200
1,4-Dichlorobenzene-D4	%	93	50-200	106	50-200
Toluene-D8	%	81	71-125	80	71-125
p-Bromofluorobenzene	%	81	68-124	81	68-124
1,2-Dichloroethane-D4	%	81	61-136	81	61-136

NA = Not Applicable      ND = Not Detected

STL Buffalo

Date: 07/27/2004  
Time: 11:22:08

Rept: AN0326

Gallagher Beach  
Gallagher Beach

METHOD 8270 - TCL SEMI-VOLATILE ORGANICS

Client ID Job No Sample Date	Lab ID	\$ Blank A04-6713	A4B1303002	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit
Analyte	Units								
Acenaphthene	UG/KG	ND	350	NA	NA	NA	NA	NA	NA
Acenaphthylene	UG/KG	ND	330	NA	NA	NA	NA	NA	NA
Acetophenone	UG/KG	ND	330	NA	NA	NA	NA	NA	NA
Anthracene	UG/KG	ND	350	NA	NA	NA	NA	NA	NA
Atrazine	UG/KG	ND	330	NA	NA	NA	NA	NA	NA
Benzaldehyde	UG/KG	ND	330	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	UG/KG	ND	330	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	UG/KG	ND	330	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	UG/KG	ND	330	NA	NA	NA	NA	NA	NA
Benzo(ghi)perylene	UG/KG	ND	330	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	UG/KG	ND	330	NA	NA	NA	NA	NA	NA
Benzoic acid	UG/KG	ND	1600	NA	NA	NA	NA	NA	NA
Benzyl alcohol	UG/KG	ND	330	NA	NA	NA	NA	NA	NA
Biphenyl	UG/KG	ND	330	NA	NA	NA	NA	NA	NA
Bis(2-chloroethoxy) methane	UG/KG	ND	330	NA	NA	NA	NA	NA	NA
Bis(2-chloroethyl) ether	UG/KG	ND	330	NA	NA	NA	NA	NA	NA
2,2'-Oxybis(1-chloropropane)	UG/KG	ND	330	NA	NA	NA	NA	NA	NA
Bis(2-ethyl hexyl) phthalate	UG/KG	ND	330	NA	NA	NA	NA	NA	NA
4-Bromophenyl phenyl ether	UG/KG	ND	330	NA	NA	NA	NA	NA	NA
Buyl benzyl phthalate	UG/KG	ND	330	NA	NA	NA	NA	NA	NA
Caprolactam	UG/KG	ND	330	NA	NA	NA	NA	NA	NA
4-chloroaniline	UG/KG	ND	330	NA	NA	NA	NA	NA	NA
4-chloro-3-methylphenol	UG/KG	ND	330	NA	NA	NA	NA	NA	NA
2-chloronaphthalene	UG/KG	ND	330	NA	NA	NA	NA	NA	NA
2-chlorophenol	UG/KG	ND	330	NA	NA	NA	NA	NA	NA
4-chlorophenyl phenyl ether	UG/KG	ND	330	NA	NA	NA	NA	NA	NA
Chrysene	UG/KG	ND	330	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene	UG/KG	ND	330	NA	NA	NA	NA	NA	NA
Dibenzofuran	UG/KG	ND	330	NA	NA	NA	NA	NA	NA
Dim-butyl phthalate	UG/KG	ND	330	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	UG/KG	ND	330	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	UG/KG	ND	330	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	UG/KG	ND	330	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	UG/KG	ND	650	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	UG/KG	ND	330	NA	NA	NA	NA	NA	NA
Diethyl phthalate	UG/KG	ND	330	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	UG/KG	ND	330	NA	NA	NA	NA	NA	NA
Dimethyl phthalate	UG/KG	ND	1600	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	UG/KG	ND	330	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	UG/KG	ND	330	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	UG/KG	ND	440	NA	NA	NA	NA	NA	NA
Di-n-octyl phthalate	UG/KG	ND							

NA = Not Applicable

ND = Not Detected

STL Buffalo

31/72

Client ID Job No Sample Date	Lab ID	S Blank A04-6713	A4B1303002	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit
Analyte	Units								
Fluoranthene	UG/KG	ND	330	NA	NA	NA	NA	NA	NA
Fluorene	UG/KG	ND	330	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	UG/KG	ND	330	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	UG/KG	ND	330	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	UG/KG	ND	330	NA	NA	NA	NA	NA	NA
Hexachloroethane	UG/KG	ND	330	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	UG/KG	ND	330	NA	NA	NA	NA	NA	NA
Isophorone	UG/KG	ND	330	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	UG/KG	ND	330	NA	NA	NA	NA	NA	NA
2-Methylphenol	UG/KG	ND	330	NA	NA	NA	NA	NA	NA
4-Methylphenol	UG/KG	ND	330	NA	NA	NA	NA	NA	NA
Naphthalene	UG/KG	ND	330	NA	NA	NA	NA	NA	NA
2-Nitroaniline	UG/KG	ND	1600	NA	NA	NA	NA	NA	NA
3-Nitroaniline	UG/KG	ND	1600	NA	NA	NA	NA	NA	NA
4-Nitroaniline	UG/KG	ND	330	NA	NA	NA	NA	NA	NA
Nitrobenzene	UG/KG	ND	330	NA	NA	NA	NA	NA	NA
2-Nitrophenol	UG/KG	ND	330	NA	NA	NA	NA	NA	NA
4-Nitrophenol	UG/KG	ND	1600	NA	NA	NA	NA	NA	NA
N-nitrosodiphenylamine	UG/KG	ND	330	NA	NA	NA	NA	NA	NA
N-Nitroso-Di-n-propylamine	UG/KG	ND	330	NA	NA	NA	NA	NA	NA
Pentachlorophenol	UG/KG	ND	1600	NA	NA	NA	NA	NA	NA
Phenanthrene	UG/KG	ND	330	NA	NA	NA	NA	NA	NA
Phenol	UG/KG	ND	330	NA	NA	NA	NA	NA	NA
Pyrene	UG/KG	ND	330	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	UG/KG	ND	330	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	UG/KG	ND	790	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	UG/KG	ND	330	NA	NA	NA	NA	NA	NA
IS/SURROGATE(S)	%	107	50-200	NA	NA	NA	NA	NA	NA
Naphthalene-D8	%	110	50-200	NA	NA	NA	NA	NA	NA
Acenaphthene-D10	%	106	50-200	NA	NA	NA	NA	NA	NA
Phenanthrene-D10	%	97	50-200	NA	NA	NA	NA	NA	NA
Chrysene-D12	%	94	50-200	NA	NA	NA	NA	NA	NA
Perylene-D12	%	130	50-200	NA	NA	NA	NA	NA	NA
Nitrobenzene-D5	%	54	30-127	NA	NA	NA	NA	NA	NA
2-Fluorobiphenyl	%	65	36-138	NA	NA	NA	NA	NA	NA
p-Terphenyl-d14	%	101	41-167	NA	NA	NA	NA	NA	NA
Phenol-D5	%	53	34-120	NA	NA	NA	NA	NA	NA
2,4,6-Tribromophenol	%	50	26-120	NA	NA	NA	NA	NA	NA
2,4,6-Tribromophenol	%	89	42-140	NA	NA	NA	NA	NA	NA

NA = Not Applicable ND = Not Detected

Date: 07/27/2004  
Time: 11:22:08

Rept: AN0326

Gallagher Beach  
Gallagher Beach

METHOD 8270 - TCL SEMI-VOLATILE ORGANICS

Client ID Job No Sample Date	Lab ID	Matrix Spike Blank A04-6713	A4B1303001	Y2133.08-TP4-0'-3' A04-6713 07/15/2004	Y2133.08-TP4-0'-3' A4671302MS 07/15/2004	Y2133.08-TP4-0'-3' A4671302SD 07/15/2004	
Analyte	Units	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit
Acenaphthene	UG/KG	2700	330	3100	2000	3200	2000
Acenaphthylene	UG/KG	ND	330	ND	2000	ND	NA
Acetophenone	UG/KG	ND	330	ND	2000	ND	NA
Anthracene	UG/KG	ND	330	ND	2000	ND	NA
Atrazine	UG/KG	ND	330	ND	2000	ND	NA
Benzaldehyde	UG/KG	ND	330	ND	2000	ND	NA
Benzo(a)anthracene	UG/KG	ND	330	ND	2000	ND	NA
Benzo(b)fluoranthene	UG/KG	ND	330	ND	2000	ND	NA
Benzo(k) fluoranthene	UG/KG	ND	330	ND	2000	ND	NA
Benzo(ghi)perylene	UG/KG	ND	330	ND	2000	ND	NA
Benzo(a)pyrene	UG/KG	ND	330	ND	2000	ND	NA
Benzoinic acid	UG/KG	ND	1600	ND	9500	ND	NA
Benzyl alcohol	UG/KG	ND	330	ND	2000	ND	NA
Biphenyl	UG/KG	ND	330	ND	2000	ND	NA
Bis(2-chloroethoxy) methane	UG/KG	ND	330	ND	2000	ND	NA
Bis(2-chloroethyl) ether	UG/KG	ND	330	ND	2000	ND	NA
2,2'-Oxybis(1-Chloropropane)	UG/KG	ND	330	ND	2000	ND	NA
Bis(2-ethylhexyl) phthalate	UG/KG	ND	330	ND	2000	ND	NA
4-Bromophenyl phenyl ether	UG/KG	ND	330	ND	2000	ND	NA
Butyl benzyl phthalate	UG/KG	ND	330	ND	2000	ND	NA
Caprolactam	UG/KG	ND	330	ND	2000	ND	NA
4-Chloroaniline	UG/KG	ND	330	ND	2000	ND	NA
4-Chloro-3-methylphenol	UG/KG	2600	330	3000	2000	2800	2000
2-Chloronaphthalene	UG/KG	ND	330	ND	2000	ND	NA
2-Chlorophenol	UG/KG	2000	330	2700	2000	2400	2000
4-Chlorophenyl phenyl ether	UG/KG	ND	330	ND	2000	ND	NA
Chrysene	UG/KG	ND	330	ND	2000	ND	NA
Dibenz(a,h)anthracene	UG/KG	ND	330	ND	2000	ND	NA
Dibenzofuran	UG/KG	ND	330	ND	2000	ND	NA
Di-n-butyl phthalate	UG/KG	ND	330	ND	2000	ND	NA
1,2-Dichlorobenzene	UG/KG	ND	330	ND	2000	ND	NA
1,3-Dichlorobenzene	UG/KG	ND	330	ND	2000	ND	NA
1,4-Dichlorobenzene	UG/KG	1900	330	2600	2000	2400	2000
3,3'-Dichlorobidine	UG/KG	ND	650	ND	3900	ND	NA
2,4-Dichlorophenol	UG/KG	ND	330	ND	2000	ND	NA
Diethyl phthalate	UG/KG	ND	330	ND	2000	ND	NA
2,4-Dimethylphenol	UG/KG	ND	330	ND	2000	ND	NA
Dimethyl phthalate	UG/KG	ND	330	ND	2000	ND	NA
4,6-Dinitro-2-methylphenol	UG/KG	ND	1600	ND	9500	ND	NA
2,4-Dinitrophenol	UG/KG	2600	330	2800	2000	2800	2000
2,6-Dinitrotoluene	UG/KG	ND	ND	ND	2600	ND	NA
Di-n-octyl phthalate	UG/KG	ND	440	ND	2700	ND	NA

NA = Not Applicable

ND = Not Detected

Client ID Job No Sample Date	Lab ID	Matrix Spike Blank A04-6713	A4B1303001	Y2133.08-TP4-0'-3' A04-6713	A4671302MS	Y2133.08-TP4-0'-3' A04-6713	A4671302SD
Analyte	Units	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit
Fluoranthene	UG/KG	ND	330	ND	2000	ND	2000
Fluorene	UG/KG	ND	330	ND	2000	ND	2000
Hexachlorobenzene	UG/KG	ND	330	ND	2000	ND	2000
Hexachlorobutadiene	UG/KG	ND	330	ND	2000	ND	2000
Hexachlorocyclopentadiene	UG/KG	ND	330	ND	2000	ND	2000
Hexachloroethane	UG/KG	ND	330	ND	2000	ND	2000
Indeno(1,2,3-cd)pyrene	UG/KG	ND	330	ND	2000	ND	2000
Iso phorone	UG/KG	ND	330	ND	2000	ND	2000
2-Methyl naphthalene	UG/KG	ND	330	ND	2000	ND	2000
2-Nitroaniline	UG/KG	ND	330	ND	2000	ND	2000
3-Nitroaniline	UG/KG	ND	1600	ND	9500	ND	9600
4-Nitroaniline	UG/KG	ND	1600	ND	9500	ND	9600
Nitrobenzene	UG/KG	ND	330	ND	2000	ND	2000
2-Nitrophenol	UG/KG	ND	330	ND	2000	ND	2000
4-Nitrophenol	UG/KG	2300	1600	ND	9500	ND	9600
N-nitrosodiphenylamine	UG/KG	ND	330	ND	2000	ND	2000
N-Nitroso-Di-n-propylamine	UG/KG	2600	330	2800	2000	2800	2000
Pentachlorophenol	UG/KG	3900	1600	ND	9500	ND	9600
Phenanthrene	UG/KG	ND	330	ND	2000	ND	2000
Phenol	UG/KG	1900	330	2600	2000	2300	2000
Pyrene	UG/KG	3800	330	4300	2000	4700	2000
1,2,4-Trichlorobenzene	UG/KG	2000	330	2700	2000	2700	2000
2,4,5-Trichlorophenol	UG/KG	ND	790	ND	4700	ND	4800
2,4,6-Trichlorophenol	UG/KG	ND	330	ND	2000	ND	2000
IS/SURROGATE(S)	%						
1,4-Dichlorobenzene-D <sub>4</sub>	%	113	50-200	97	50-200	100	50-200
Naphthalene-D <sub>8</sub>	%	120	50-200	98	50-200	101	50-200
Acenaphthene-D <sub>10</sub>	%	114	50-200	93	50-200	96	50-200
Phenanthrene-D <sub>10</sub>	%	104	50-200	92	50-200	93	50-200
Chrysene-D <sub>12</sub>	%	98	50-200	83	50-200	85	50-200
Perylene-D <sub>12</sub>	%	144	50-200	106	50-200	112	50-200
Nitrobenzene-D <sub>5</sub>	%	64	30-127	66	30-127	57	30-127
2-Fluorobiphenyl	%	78	36-138	78	36-138	77	36-138
p-Terphenyl-D <sub>14</sub>	%	114	41-167	98	41-167	102	41-167
Phenol-D <sub>5</sub>	%	65	34-120	69	34-120	64	34-120
2-Fluorophenol	%	59	26-120	66	26-120	60	26-120
2,4,6-Tribromophenol	%	100	42-140	82	42-140	82	42-140

NA = Not Applicable

ND = Not Detected

Date: 07/27/2004  
Time: 11:22:15

Gallagher Beach  
Gallagher Beach  
METHOD 8081 - TCL PESTICIDES

Rept: AN0326

Client ID Job No Sample Date	Lab ID	Method Blank		Method A04-6713		Method A4B1303202		Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit
		Analyte	Units	Sample Value	Reporting Limit	Sample Value	Reporting Limit					
Aldrin		UG/KG	ND	1.6	NA	NA	NA	NA	NA	NA	NA	NA
alpha-BHC		UG/KG	ND	1.6	NA	NA	NA	NA	NA	NA	NA	NA
beta-BHC		UG/KG	ND	1.6	NA	NA	NA	NA	NA	NA	NA	NA
gamma-BHC (Lindane)		UG/KG	ND	1.6	NA	NA	NA	NA	NA	NA	NA	NA
de Ta-BHC		UG/KG	ND	1.6	NA	NA	NA	NA	NA	NA	NA	NA
Chlordane		UG/KG	ND	1.6	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDD		UG/KG	ND	1.6	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDE		UG/KG	ND	1.6	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDT		UG/KG	ND	1.6	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin		UG/KG	ND	1.6	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan I		UG/KG	ND	1.6	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II		UG/KG	ND	1.6	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate		UG/KG	ND	1.6	NA	NA	NA	NA	NA	NA	NA	NA
Endrin		UG/KG	ND	1.6	NA	NA	NA	NA	NA	NA	NA	NA
Endrin aldehyde		UG/KG	ND	1.6	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor		UG/KG	ND	1.6	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor epoxide		UG/KG	ND	1.6	NA	NA	NA	NA	NA	NA	NA	NA
Methoxychlor		UG/KG	ND	1.6	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene	SURROGATE(S)	UG/KG	ND	33	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloro-m-xylene	%	84		38-132	NA	NA	NA	NA	NA	NA	NA	NA
Decachlorobiphenyl	%	114		46-151	NA	NA	NA	NA	NA	NA	NA	NA

NA = Not Applicable

ND = Not Detected

STL Buffalo

Date: 07/17/004  
Time: 11:22:15

Gallagher Beach  
Gallagher Beach

METHOD 8082 - POLYCHLORINATED BIIPHENYLS

Client ID Job No Sample Date	Lab ID	Method Blank A04-6713	A4B1303402	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit
Analyte	Units								
Aroclor 1016	UG/KG	ND	17	NA	NA	NA	NA	NA	NA
Aroclor 1221	UG/KG	ND	17	NA	NA	NA	NA	NA	NA
Aroclor 1232	UG/KG	ND	17	NA	NA	NA	NA	NA	NA
Aroclor 1242	UG/KG	ND	17	NA	NA	NA	NA	NA	NA
Aroclor 1248	UG/KG	ND	17	NA	NA	NA	NA	NA	NA
Aroclor 1254	UG/KG	ND	17	NA	NA	NA	NA	NA	NA
Aroclor 1260	UG/KG	ND	17	NA	NA	NA	NA	NA	NA
SURROGATE(S)	%	81	32-148	NA	NA	NA	NA	NA	NA
Tetrachloro-m-xylene	%	94	36-153	NA	NA	NA	NA	NA	NA
Decachlorobiphenyl									

NA = Not Applicable      ND = Not Detected

STL Buffalo

Date: 07/27/2004  
Time: 11:22:15

Gallagher Beach  
Gallagher Beach  
METHOD 8151 - TCL HERBICIDES

Rept: AN0326

Client ID Job No Sample Date		Method Blank A04-6713		Method A4B1303503	
Analyte	Lab ID	Units	Sample Value	Reporting Limit	Sample Value
2,4-D		UG/KG	ND	16	NA
2,4,5-TP (silvex)		UG/KG	ND	16	NA
2,4,5-T		UG/KG	ND	16	NA
SURROGATE(S)					
Dichlorophenyl Acetic Acid	%	68	10-120	NA	NA

NA = Not Applicable

ND = Not Detected

STL Buffalo

Date: 07/11/004  
Time: 11:22:15

Rept: AN0326

## Gallagher Beach

## Gallagher Beach

## METHOD 8081 - TCL PESTICIDES

Client ID Job No Sample Date	Lab ID	Matrix Spike Blank A04-6713	Y2133.08-TP3-0'-3' A04-6713 07/15/2004	Y2133.08-TP3-0'-3' A04-6713 07/15/2004	Y2133.08-TP3-0'-3' A04-6713 07/15/2004
Analyte	Units	Sample Value	Reporting Limit	Sample Value	Reporting Limit
Aldrin	UG/KG	15	1.6	9.2	1.9
alpha-BHC	UG/KG	14	1.6	9.2	1.9
beta-BHC	UG/KG	16	1.6	18	1.9
gamma-BHC (Lindane)	UG/KG	14	1.6	13	1.9
delta-BHC	UG/KG	15	1.6	12	1.9
Chlordane	UG/KG	ND	16	19	ND
4,4'-DDD	UG/KG	17	1.6	13	1.9
4,4'-DDE	UG/KG	20	1.6	15	1.9
4,4'-DDT	UG/KG	17	1.6	18	1.9
Dieldrin	UG/KG	16	1.6	14	1.9
Endosulfan I	UG/KG	18	1.6	11	1.9
Endosulfan II	UG/KG	13	1.6	8.2	1.9
Endosulfan Sulfate	UG/KG	17	1.6	6.1	1.9
Endrin	UG/KG	16	1.6	16	1.9
Endrin aldehyde	UG/KG	15	1.6	4.3	1.9
Heptachlor	UG/KG	16	1.6	12	1.9
Heptachlor epoxide	UG/KG	16	1.6	9.8	1.9
Methoxychlor	UG/KG	18	1.6	18	1.9
Toxaphene	UG/KG	ND	32	38	ND
SURROGATE(S)	%	87	38-132 46-151	48	38-132 46-151
Tetrachlorom-xylen	%	121	82	58	38-132 46-151
Decachlorobiphenyl	%			126	38-132 46-151

NA = Not Applicable

ND = Not Detected

STL Buffalo

Date: 07/27/2004  
Time: 11:22:15

Rept: AN0326

Gallagher Beach

METHOD 8082 - POLYCHLORINATED BIPHENYLS

Gallagher Beach

NA = Not Applicable      ND = Not Detected

Client ID Job No Sample Date	Lab ID	Matrix Spike Blank A04-6713 A4B1303401		
Analyte	Units	Sample Value	Reporting Limit	Sample Value
Aroclor 1016	UG/KG	ND	16	NA
Aroclor 1221	UG/KG	ND	16	NA
Aroclor 1232	UG/KG	ND	16	NA
Aroclor 1242	UG/KG	ND	16	NA
Aroclor 1248	UG/KG	ND	16	NA
Aroclor 1254	UG/KG	160	16	NA
Aroclor 1260	UG/KG	ND	16	NA
<u>SURROGATE(S)</u>				
Tetrachloro-m-xylene	%	90	32-148	NA
Decachlorobiphenyl	%	95	36-153	NA

STL Buffalo

Date: 07/22/2004  
Time: 11:22:15

Gallagher Beach  
Gallagher Beach

METHOD 8151 - TCL HERBICIDES

Rept: AN0326

Client ID Job No Sample Date	Lab ID	Matrix Spike Blank A04-6713	Matrix Spike Blk Dup AAB1303501	Matrix spike Blk Dup A04-6713	Matrix spike Blk Dup AAB1303502	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit
Analyte	Units	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit
2,4-D	UG/KG	44	16	52	17	NA	NA	NA	NA	NA	NA
2,4,5-TP (Silvex)	UG/KG	41	16	48	17	NA	NA	NA	NA	NA	NA
2,4,5-T	UG/KG	34	16	40	17	NA	NA	NA	NA	NA	NA
SURROGATE(S)											
Dichlorophenyl Acetic Acid	%	70	10-120	76	10-120	NA		NA		NA	

NA = Not Applicable ND = Not Detected

STL Buffalo

Client ID Job No Sample Date	Lab ID	Method Blank A04-6713	Method Blank A4B1299102	Method Blank A04-6713	Method Blank A4B1308702
Analyte	Units	Sample Value	Reporting Limit	Sample Value	Reporting Limit
Mercury - Total	MG/KG	ND		NA	
Iron - Total	MG/KG	NA		NA	
Magnesium - Total	MG/KG	NA		NA	
Thallium - Total	MG/KG	NA		ND	
Silver - Total	MG/KG	NA		ND	
Cobalt - Total	MG/KG	NA		ND	
calcium - Total	MG/KG	NA		ND	
Aluminum - Total	MG/KG	NA		ND	
Arsenic - Total	MG/KG	NA		ND	
Antimony - Total	MG/KG	NA		ND	
Barium - Total	MG/KG	NA		ND	
Beryllium - Total	MG/KG	NA		ND	
Cadmium - Total	MG/KG	NA		ND	
Selenium - Total	MG/KG	NA		ND	
Chromium - Total	MG/KG	NA		ND	
Copper - Total	MG/KG	NA		ND	
Lead - Total	MG/KG	NA		ND	
Manganese - Total	MG/KG	NA		ND	
Nickel - Total	MG/KG	NA		ND	
Potassium - Total	MG/KG	NA		ND	
Sodium - Total	MG/KG	NA		ND	
Vandium - Total	MG/KG	NA		ND	
Zinc - Total	MG/KG	NA		ND	

Case: 07411.004  
Time: 11:22:20

Gallagher Beach  
Gallagher Beach  
TOTAL TCL METALS

Rept: ANOZo

Client ID Job No Sample Date	Lab ID	LCS A04-6713	A4B1299101	LCS CLP Soils A04-6713	A4B1308701	Sample Value	Reporting Limit	Sample Value	Reporting Limit
Analyte	Units	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit
Mercury - Total	MG/KG	3.7	0.24	NA	NA	NA	NA	NA	NA
Manganese - Total	MG/KG	NA	NA	561	0.20	NA	NA	NA	NA
Sodium - Total	MG/KG	NA	NA	413	141	NA	NA	NA	NA
Copper - Total	MG/KG	NA	NA	116	1.0	NA	NA	NA	NA
Aluminum - Total	MG/KG	NA	NA	6360	10.1	NA	NA	NA	NA
Arsenic - Total	MG/KG	NA	NA	102	2.0	NA	NA	NA	NA
Antimony - Total	MG/KG	NA	NA	46.4	15.2	NA	NA	NA	NA
Barium - Total	MG/KG	NA	NA	323	0.50	NA	NA	NA	NA
Beryllium - Total	MG/KG	NA	NA	129	0.20	NA	NA	NA	NA
Cadmium - Total	MG/KG	NA	NA	94.3	0.20	NA	NA	NA	NA
Selenium - Total	MG/KG	NA	NA	166	4.0	NA	NA	NA	NA
Calcium - Total	MG/KG	NA	NA	3140	10.1	NA	NA	NA	NA
Chromium - Total	MG/KG	NA	NA	158	0.50	NA	NA	NA	NA
Cobalt - Total	MG/KG	NA	NA	132	0.50	NA	NA	NA	NA
Iron - Total	MG/KG	NA	NA	9560	10.1	NA	NA	NA	NA
Lead - Total	MG/KG	NA	NA	99.5	1.0	NA	NA	NA	NA
Magnesium - Total	MG/KG	NA	NA	1940	20.2	NA	NA	NA	NA
Nickel - Total	MG/KG	NA	NA	124	0.50	NA	NA	NA	NA
Potassium - Total	MG/KG	NA	NA	1860	30.3	NA	NA	NA	NA
Silver - Total	MG/KG	NA	NA	79.4	0.50	NA	NA	NA	NA
Thallium - Total	MG/KG	NA	NA	148	6.1	NA	NA	NA	NA
Vanadium - Total	MG/KG	NA	NA	110	0.50	NA	NA	NA	NA
Zinc - Total	MG/KG	NA	NA	183	2.0	NA	NA	NA	NA

NA = Not Applicable

ND = Not Detected

STL Buffalo

Date: 07/27/2004  
Time: 11:22:22

Gallagher Beach  
Gallagher Beach  
WET CHEMISTRY ANALYSIS

Rept: AN0326

Client ID Job No Sample Date	Lab ID	Method Blank A04-6713	A4B1301204
Analyte	Units	Sample Value	Reporting Limit
Cyanide - Total	ug/g	ND	1.0
		NA	NA

NA = Not Applicable

ND = Not Detected

STL Buffalo

Date: 07/21/2004  
Time: 11:22:22

Gallagher Beach  
Gallagher Beach  
WET CHEMISTRY ANALYSIS

Rept: AN0320

Client ID Job No Sample Date	Lab ID	LCS AO4-6713	AB1301203				
Analyte	Units	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit
Cyanide - Total	ug/g	238	1.0	NA	NA	NA	NA

NA = Not Applicable

ND = Not Detected

STL Buffalo

Client Sample ID: VBLK88  
 Lab Sample ID: A4B1321202

MSB 88  
 A4B1321201

Analyte	Units of Measure	Blank Spike	Concentration Spike Amount	% Recovery Blank Spike	QC LIMITS
<b>METHOD 8260 - TCL VOLATILE ORGANICS</b>					
1,1-Dichloroethene	UG/KG	37.1	50.0	74	65-146
Trichloroethene	UG/KG	51.1	50.0	102	74-127
Benzene	UG/KG	50.3	50.0	101	74-128
Toluene	UG/KG	48.3	50.0	97	74-123
Chlorobenzene	UG/KG	47.9	50.0	96	76-124

WATTS ENGINEERS

Date : 07/27/2004 11:22:25

Client Sample ID: VBLK89  
Lab Sample ID: A4B1321204MSB 89  
A4B1321203

Analyte	Units of Measure	Blank Spike	Concentration Spike Amount	% Recovery Blank Spike	QC LIMITS
<b>METHOD 8260 - TCL VOLATILE ORGANICS</b>					
1,1-Dichloroethene	UG/KG	35.2	50.0	70	65-146
Trichloroethene	UG/KG	46.9	50.0	94	74-127
Benzene	UG/KG	47.1	50.0	94	74-128
Toluene	UG/KG	45.4	50.0	91	74-123
Chlorobenzene	UG/KG	45.4	50.0	91	76-124

\* Indicates Result is outside QC Limits  
 NC = Not Calculated ND = Not Detected

date : 07/27/2004 11:22:30

WATTS ENGINEERS  
SAMPLE DATE 07/15/2004

Rept: AN0364

Client Sample ID: Y2133.08-TP4-01-3' Lab Sample ID: A4671302 MS Y2133.08-TP4-01-3' A4671302SD

Analyte	Units of Measure	Sample	Concentration		% Recovery		QC LIMITS RPD	REC.
			Matrix spike	Spike Duplicate	MS	MSD		
<b>METHOD 8270 - TCL SEMI-VOLATILE ORGANICS</b>								
Phenol	µg/KG	0	2600	2349	3942	3988	66	25.0
2-Chlorophenol	µg/KG	0	2679	2458	3942	3988	68	26.0
1,4-Dichlorobenzene	µg/KG	0	2556	2449	3942	3988	65	34-118
N-Nitroso-D-i-n-propylamine	µg/KG	0	2827	2771	3942	3988	61	30.0
1,2,4-Trichlorobenzene	µg/KG	0	2700	2721	3942	3988	69	30-120
4-Chloro-3-methylphenol	µg/KG	0	2973	2830	3942	3988	75	20.0
Acenaphthene	µg/KG	0	3140	3249	3942	3988	80	42-131
4-Nitrophenol	µg/KG	0	506	527	3942	3988	13 *	16.0
2,4-Dinitrotoluene	µg/KG	0	2812	2841	3942	3988	71	24.0
Pentachlorophenol	µg/KG	0	1317	1791	3942	3988	45	52-130
Pyrene	µg/KG	670	4341	4737	3942	3988	102	27.0
							98	28-135
							9	48-154

\* Indicates Result is outside QC Limits  
 NC = Not Calculated ND = Not Detected

Date : 07/12/2004 11:22:30

WATT'S ENGINEERS

Rept: AN0364

Client Sample ID: S Blank  
Lab Sample ID: A4B1303002Matrix spike Blank  
AB1303001

Analyte	Units of Measure	Blank Spike	Concentration Spike Amount	% Recovery Blank Spike	QC LIMITS
<b>METHOD 8270 - TCL SEMI-VOLATILE ORGANICS</b>					
Phenol	UG/KG	1945	3307	59	35-120
2-Chlorophenol	UG/KG	2041	3307	62	34-118
1,4-Dichlorobenzene	UG/KG	1871	3307	56	30-120
N-Nitroso-Di-n-propylamine	UG/KG	2551	3307	77	42-131
1,2,4-Trichlorobenzene	UG/KG	2033	3307	61	32-120
4-Chloro-3-methylphenol	UG/KG	2561	3307	77	45-135
Acenaphthene	UG/KG	2696	3307	82	49-131
4-Nitrophenol	UG/KG	2287	3307	69	36-142
2,4-Dinitrotoluene	UG/KG	2620	3307	79	45-138
Pentachlorophenol	UG/KG	3894	3307	118	28-135
Pyrene	UG/KG	3853	3307	116	48-154

\* Indicates Result is outside QC Limits  
 NC = Not Calculated ND = Not Detected

Client Sample ID: Y2133.08-TP3-0'-3'  
 Lab Sample ID: A4671301MS

Y2133.08-TP3-0'-3'  
 A4671301SD

Y2133.08-TP3-0'-3'  
 A4671301SD

Analyte	Units of Measure	Sample	Matrix Spike	Concentration		MS	Spike Amount	MSD	% Recovery	MS	MSD	Avg	% RPD	QC LIMITS RPD	QC LIMITS REC.
				Spike Duplicate	MS										
<b>METHOD 8081 - TCL PESTICIDES</b>															
Aldrin	UG/KG	0.461	9.21	11.2	19.1	18.8	46 *	57	52	21	30.0	48-128			
alpha-BHC	UG/KG	0	9.25	9.97	19.1	18.8	48	53	51	10	30.0	47-123			
beta-BHC	UG/KG	6.54	17.5	19.3	19.1	18.8	58	68	63	16	30.0	56-129			
delta-BHC	UG/KG	2.50	11.8	14.9	19.1	18.8	49	66	58	30	30.0	42-127			
gamma-BHC (Lindane)	UG/KG	0	13.1	13.7	19.1	18.8	69	73	71	6	30.0	42-136			
4,4'-DDD	UG/KG	2.88	12.8	14.2	19.1	18.8	52	60	56	14	30.0	42-133			
4,4'-DDE	UG/KG	0	14.7	16.5	19.1	18.8	77	88	83	13	30.0	44-136			
4,4'-DDT	UG/KG	8.81	18.4	20.5	19.1	18.8	50	62	56	21	30.0	49-148			
Dieldrin	UG/KG	0.692	13.5	14.6	19.1	18.8	67	74	71	10	30.0	51-132			
Endosulfan I	UG/KG	0	11.0	12.8	19.1	18.8	58	68	63	16	30.0	42-132			
Endosulfan II	UG/KG	0	8.18	9.45	19.1	18.8	43 *	50	47	15	30.0	44-135			
Endosulfan Sulfate	UG/KG	11.9	6.12	7.94	19.1	18.8	-30 *	-21 *	-26	35 *	30.0	42-136			
Endrin aldehyde	UG/KG	0	4.28	7.00	19.1	18.8	22 *	37	30	51 *	30.0	37-123			
Endrin	UG/KG	0	15.5	17.9	19.1	18.8	81	96	89	17	30.0	41-132			
Heptachlor	UG/KG	0.500	11.8	13.8	19.1	18.8	59	71	65	18	30.0	43-127			
Heptachlor epoxide	UG/KG	0	9.79	11.9	19.1	18.8	51	63	57	21	30.0	45-128			
Methoxychlor	UG/KG	2.46	17.7	11.9	19.1	18.8	80	50	65	46 *	30.0	42-140			

Date : 07/27/2004 11:22:34

WATTS ENGINEERS

Rept: AN0364

Client Sample ID: Method Blank  
 Lab Sample ID: A4B1303202

Matrix Spike Blank  
 A4B1303201

Analyte	Units of Measure	Blank Spike	Concentration Spike Amount	% Recovery Blank Spike	QC LIMITS
<b>METHOD 8081 - TCL PESTICIDES</b>					
Aldrin	UG/KG	14.6	16.3	90	48-128
alpha-BHC	UG/KG	13.9	16.3	86	47-123
beta-BHC	UG/KG	16.3	16.3	100	56-129
delta-BHC	UG/KG	14.7	16.3	90	42-127
gamma-BHC (Lindane)	UG/KG	14.4	16.3	89	42-136
4,4'-DDD	UG/KG	16.9	16.3	104	42-133
4,4'-DDE	UG/KG	19.9	16.3	122	44-136
4,4'-DDT	UG/KG	16.7	16.3	103	49-148
Dieldrin	UG/KG	15.9	16.3	98	51-132
Endosulfan I	UG/KG	17.9	16.3	110	42-132
Endosulfan II	UG/KG	13.2	16.3	81	44-135
Endosulfan Sulfate	UG/KG	16.7	16.3	103	42-136
Endrin aldehyde	UG/KG	14.9	16.3	91	37-123
Endrin	UG/KG	15.9	16.3	98	41-132
Heptachlor	UG/KG	15.9	16.3	98	43-127
Heptachlor epoxide	UG/KG	15.8	16.3	97	45-128
Methoxychlor	UG/KG	17.7	16.3	109	42-140

\* Indicates Result is outside QC Limits  
 NC = Not Calculated ND = Not Detected

Rept: AN0364

WATTS ENGINEERS

Date : 07/27/2004 11:22:34

Client Sample ID: Method Blank  
Lab Sample ID: A4B1303402

Client Sample ID: Method Blank		Matrix Spike Blank	
		A4B1303401	
Analyte	Units of Measure	Concentration Blank Spike	Spike Amount
METHOD 8082 - POLYCHLORINATED BIPHENYLS Aroclor 1254	UG/KG	165	164

Analyte	Units of Measure	Concentration Blank Spike	Spike Amount	% Recovery Blank Spike	QC LIMITS
METHOD 8082 - POLYCHLORINATED BIPHENYLS Aroclor 1254	UG/KG	165	164	100	52-153

\* Indicates Result is outside QC Limits  
 NC = Not Calculated ND = Not Detected

Date : 07/27/2004 11:22:34

WATTS ENGINEERS

Rept: AN0364

Client Sample ID: Method Blank  
Lab Sample ID: A4B1303503Matrix Spike Blank  
A4B1303501

Analyte	Units of Measure	Concentration			Spike Amount	SBD	SB	SBD	Avg	% RPD	% Recovery	QC LIMITS
		Spike Blank	Blank	Dup								
METHOD 8151 - TCL HERBICIDES	UG/KG	44.5	52.3	64.9	66.4	68	79	74	15	50.0	13-132	
2,4-D	UG/KG	41.2	48.2	64.9	66.4	63	72	68	13	50.0	28-114	
2,4,5-TP (Silvex)	UG/KG	33.8	40.5	64.9	66.4	52	61	57	16	50.0	20-110	
2,4,5-T												

\* Indicates Result is outside QC Limits  
 NC = Not Calculated ND = Not Detected

Date : 07/27/2004 11:22:38

WATTS ENGINEERS

Rept: AN0364

Client Sample ID: Method Blank  
 Lab Sample ID: A4B1299102

LCS  
 A4B1299101

Analyte	Units of Measure	Concentration Blank Spike	Spike Amount	% Recovery Blank Spike	QC Limits
TOTAL TCL METALS	MG/KG	3.73	4.00	93	80-120
TOTAL MERCURY					

Client Sample ID: Method Blank  
 Lab Sample ID: A4B1308702

LCS CLP Soils  
 A4B1308701

Analyte	Units of Measure	Blank Spike	Concentration Spike Amount	% Recovery Blank Spike	QC LIMITS
TOTAL TCL METALS					
TOTAL ALUMINUM	MG/KG	6362	6360	100	80-120
TOTAL ANTIMONY	MG/KG	46.45	65.20	71 *	80-120
TOTAL ARSENIC	MG/KG	102.3	110.0	93	80-120
TOTAL BARIUM	MG/KG	323.1	334.0	97	80-120
TOTAL BERYLLIUM	MG/KG	128.8	133.0	97	80-120
TOTAL CADMIUM	MG/KG	94.31	101.0	93	80-120
TOTAL CALCIUM	MG/KG	3144	3320	94	80-120
TOTAL CHROMIUM	MG/KG	158.4	167.0	95	80-120
TOTAL COBALT	MG/KG	132.1	136.0	97	80-120
TOTAL COPPER	MG/KG	115.5	118.0	98	80-120
TOTAL IRON	MG/KG	9559	11400	84	80-120
TOTAL LEAD	MG/KG	99.49	102.0	98	80-120
TOTAL MAGNESIUM	MG/KG	1941	1980	98	80-120
TOTAL MANGANESE	MG/KG	561.0	534.0	105	80-120
TOTAL NICKEL	MG/KG	124.3	127.0	98	80-120
TOTAL POTASSIUM	MG/KG	1861	1930	96	80-120
TOTAL SELENIUM	MG/KG	165.5	166.0	100	80-120
TOTAL SILVER	MG/KG	79.43	82.90	96	80-120
TOTAL SODIUM	MG/KG	412.9	452.0	91	80-120
TOTAL THALLIUM	MG/KG	148.4	152.0	98	80-120
TOTAL VANADIUM	MG/KG	110.1	118.0	93	80-120
TOTAL ZINC	MG/KG	183.0	193.0	95	80-120

\* Indicates Result is outside QC Limits  
 NC = Not Calculated ND = Not Detected

WATTS ENGINEERS

Date : 07/27/2004 11:22:41

Rept: AN0364

Client Sample ID: Method Blank  
Lab Sample ID: A4B1301204LCS  
A4B1301203

Analyte	Units of Measure	Concentration		% Recovery Blank Spike	QC LIMITS
		Blank	Spike Amount		
WET CHEMISTRY ANALYSIS METHOD 9012 - TOTAL CYANIDE	UG/G	237.5	277.0	86	60-118

\* Indicates Result is outside QC Limits  
 NC = Not Calculated ND = Not Detected

Date: 07/21/2004  
Time: 11:22:43

WATTS ENGINEERS  
SAMPLE CHRONOLOGY

METHOD 8260 - TCL VOLATILE ORGANICS

Client Sample ID	Y2133.08-PILE COMP		Y2133.08-TP3-0'-3'		Y2133.08-TP4-0'-3'	
Job No & Lab Sample ID	A04-6713	A4671303	A04-6713	A4671301	A04-6713	A4671302
Sample Date	07/15/2004	15:55	07/15/2004	15:45	07/15/2004	15:50
Received Date	07/16/2004	11:53	07/16/2004	11:53	07/16/2004	11:53
Extraction Date	07/20/2004	17:17	07/20/2004	16:41	07/20/2004	16:59
Analysis Date	-		-		-	
Extraction HT Met?	YES		YES		YES	
Analytical HT Met?	SOIL	LOW	SOIL	LOW	SOIL	LOW
Sample Matrix	1.0		1.0		1.0	
Dilution Factor	5.05	GRAMS	5.19	GRAMS	5.05	GRAMS
Sample wt/vol % dry	78.40		86.62		82.41	

Date: 07/27/2004  
Time: 11:22:43

WATTS ENGINEERS  
QC SAMPLE CHRONOLOGY

Rept: AN0374  
Page: 2

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METHOD 8260 - TCL VOLATILE ORGANICS

Client Sample ID	MSB 88	MSB 89
Job No & Lab Sample ID	A04-6713 A4B1321201	A04-6713 A4B1321203
Sample Date		
Received Date		
Extraction Date	07/20/2004 14:48	07/20/2004 15:07
Analysis Date	-	-
Extraction HT Met?	-	-
Analytical HT Met?		
Sample Matrix	SOIL	SOIL
Dilution Factor	LOW	LOW
Sample wt/vol	1.0	1.0
% Dry	5.0 GRAMS	5.0 GRAMS
	100.00	100.00

NA = Not Applicable

Date: 07/21/2004  
Time: 11:22:43

WATTS ENGINEERS  
QC SAMPLE CHRONOLOGY

## METHOD 8260 - TCL VOLATILE ORGANICS

	Client Sample ID	VBLK88	A04-6713	A4B1321202	VBLK89	A04-6713	A4B1321204
Sample Date							
Received Date							
Extraction Date							
Analysis Date	07/20/2004	14:11	-	-	07/20/2004	14:50	-
Extraction HT Met?	-	-	SOIL	LOW	-	-	SOIL
Analytical HT Met?	-	-	1.0	5.0	1.0	5.0	LOW
Sample Matrix	SOIL	GRAMS	GRAMS	GRAMS	GRAMS	GRAMS	GRAMS
Dilution Factor							
Sample wt/vol	100.00				100.00		
% Dry							

N/A = Not Applicable

Date: 07/27/2004  
Time: 11:22:48

WATTS ENGINEERS  
SAMPLE CHRONOLOGY

Rept: AN0374  
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METHOD 8270 - TCL SEMI-VOLATILE ORGANICS

Client Sample ID	Y2133.08-PILE COMP	Y2133.08-TP3-0'-3'	Y2133.08-TP4-0'-3'
Job No & Lab Sample ID	A04-6713 A4671303	A04-6713 A4671301	A04-6713 A4671302
Sample Date	07/15/2004	15:55	15:45
Received Date	07/16/2004	11:53	07/15/2004
Extraction Date	07/19/2004	07:00	11:53
Analysis Date	07/21/2004	17:02	07/19/2004
Extraction HT Met?	YES	07/21/2004	07:00
Analytical HT Met?	YES	15:14	07/21/2004
Sample Matrix	SOIL	LOW	15:41
Dilution Factor	5.0	5.0	YES
Sample wt/vol	30.47	30.7	YES
% Dry	78.40	86.62	SOIL
			LOW
			5.0
			GRAMS
			30.37
			82.41

Date: 07/22/04  
Time: 11:22:48

WATT ENGINEERS  
QC SAMPLE CHRONOLOGY

Rept: ANDY  
Page: 2

## METHOD 8270 - TCL SEMI-VOLATILE ORGANICS

Client Sample ID	Matrix Spike Blank	Y2133.08-TP4-0'-3' A04-6713 A4671302MS	Y2133.08-TP4-0'-3' A04-6713 A4671302SD
Job No & Lab Sample ID	A04-6713 A4B1303001		
Sample Date	07/19/2004 07:00	07/15/2004 15:50	07/15/2004 15:50
Received Date	07/19/2004 19:12	07/16/2004 11:53	07/16/2004 11:53
Extraction Date	-	07/19/2004 07:00	07/19/2004 07:00
Analysis Date		07/21/2004 16:08	07/21/2004 16:35
Extraction HT Met?	YES	YES	YES
Analytical HT Met?	YES	YES	YES
Sample Matrix	SOIL	SOIL	SOIL
Dilution Factor	1.0	LOW	LOW
Sample wt/vol	30.23	5.0	5.0
% Dry	100.00	GRAMS	GRAMS
		30.78	30.42
		82.41	82.41

Date: 07/27/2004  
Time: 11:22:48

WATTS ENGINEERS  
QC SAMPLE CHRONOLOGY

Rept: AN0374  
Page: 3

## METHOD 8270 - TCL SEMI-VOLATILE ORGANICS

Client Sample ID	S Blank
Job No & Lab Sample ID	A04-6713 A4B1303002
Sample Date	
Received Date	07/19/2004 07:00
Extraction Date	07/19/2004 19:39
Analysis Date	-
Extraction HT Met?	-
Analytical HT Met?	-
Sample Matrix	SOIL
Dilution Factor	LOW
Sample wt/vol	1.0
% Dry	30.32 GRAMS
	100.00

## METHOD 8081 - TCL PESTICIDES

Client Sample ID	Y2133.08-PILE COMP	Y2133.08-TP3-'-3'	Y2133.08-TP4-'-3'
Job No & Lab Sample ID	A04-6713 A4671303	A04-6713 A4671301	A04-6713 A4671302
Sample Date	07/15/2004 15:55	07/15/2004 15:45	07/15/2004 15:50
Received Date	07/16/2004 11:53	07/16/2004 11:53	07/16/2004 11:53
Extraction Date	07/19/2004 07:00	07/19/2004 07:00	07/19/2004 07:00
Analysis Date	07/23/2004 00:27	07/22/2004 22:05	07/22/2004 23:52
Extraction HT Met?	YES	YES	YES
Analytical HT Met?	YES	YES	YES
Sample Matrix	SOIL LOW	SOIL LOW	SOIL LOW
Dilution Factor	1.0	1.0	1.0
Sample wt/vol	30.58 GRAMS	30.0 GRAMS	30.04 GRAMS
% Dry	78.40	86.62	82.41

## METHOD 8082 - POLYCHLORINATED BIPHENYLS

Client Sample ID	Y2133.08-PILE COMP	Y2133.08-TP3-'-3'	Y2133.08-TP4-'-3'
Job No & Lab Sample ID	A04-6713 A4671303	A04-6713 A4671301	A04-6713 A4671302
Sample Date	07/15/2004 15:55	07/15/2004 15:45	07/15/2004 15:50
Received Date	07/16/2004 11:53	07/16/2004 11:53	07/16/2004 11:53
Extraction Date	07/19/2004 07:00	07/19/2004 07:00	07/19/2004 07:00
Analysis Date	07/20/2004 11:33	07/20/2004 11:07	07/20/2004 11:20
Extraction HT Met?	YES	YES	YES
Analytical HT Met?	YES	YES	YES
Sample Matrix	SOIL LOW	SOIL LOW	SOIL LOW
Dilution Factor	1.0	1.0	1.0
Sample wt/vol	30.11 GRAMS	30.99 GRAMS	30.49 GRAMS
% Dry	78.40	86.62	82.41

## METHOD 8151 - TCL HERBICIDES

Client Sample ID	Y2133.08-PILE COMP	Y2133.08-TP3-'-3'	Y2133.08-TP4-'-3'
Job No & Lab Sample ID	A04-6713 A4671303	A04-6713 A4671301	A04-6713 A4671302
Sample Date	07/15/2004 15:55	07/15/2004 15:45	07/15/2004 15:50
Received Date	07/16/2004 11:53	07/16/2004 11:53	07/16/2004 11:53
Extraction Date	07/19/2004 07:00	07/19/2004 07:00	07/19/2004 07:00
Analysis Date	07/22/2004 00:23	07/21/2004 22:50	07/21/2004 23:36
Extraction HT Met?	YES	YES	YES
Analytical HT Met?	YES	YES	YES
Sample Matrix	SOIL LOW	SOIL LOW	SOIL LOW
Dilution Factor	1.0	1.0	1.0
Sample wt/vol	30.6 GRAMS	30.24 GRAMS	30.87 GRAMS
% Dry	78.40	86.62	82.41

METHOD 8081 - TCH PESTICIDES

	Client Sample ID Job No & Lab Sample ID	Matrix Spike Blank A04-6713 A4B1303201	Matrix Spike Blank A04-6713 A4B1303401	Matrix Spike Blank A04-6713 A4B1303501	Matrix Spike Blk Dup A04-6713 A4B1303502	Y2133-08-TP3-0'-3' A04-6713 A4671301MS
Sample Date						07/15/2004 15:45
Received Date						07/16/2004 11:53
Extraction Date		07/19/2004 07:00				07/19/2004 07:00
Analysis Date		07/21/2004 20:20				07/22/2004 22:41
Extraction HT Met?		-				YES
Analytical HT Met?		-				YES
Sample Matrix		SOIL	LOW			SOIL
Dilution Factor		1.0				1.0
Sample wt/vol		30.67	GRAMS			30.18 GRAMS
Dry		100.00				86.62

## METHOD 80082 - POLYCHLORINATED BIPHENYLS

Client Sample ID	Matrix Spike Blank	Matrix Spike Blank	Matrix Spike Blank	Matrix Spike Blk Dup	Y2133-08-TP3-0'-3' A04-6713 A4671301MS
Job No & Lab Sample ID	A04-6713 A4B1303201	A04-6713 A4B1303401	A04-6713 A4B1303501	A04-6713 A4B1303502	NA
Sample Date					
Received Date					
Extraction Date					
Analysis Date					
Extraction HT Met?					
Analytical HT Met?					
Sample Matrix					
Dilution Factor					
Sample wt/vol					
Dry					

METHOD 8151 = TCI HERBICIDES

Client Sample ID Job No & Lab Sample ID	Matrix Spike Blank A04-6713 A4B1303201	Matrix Spike Blank A04-6713 A4B1303401	Matrix Spike Blank A04-6713 A4B1303501	Matrix Spike Blk Dup A04-6713 A4B1303502	Y2133_08-TP3-0'3' A04-6713 A4671301MS
sample Date					NA
received Date				07/19/2004 07:00 07/21/2004 20:31	07/19/2004 07:00 07/21/2004 21:18
extraction Date				—	—
analysis Date		NA			
extraction HT Met?					
analytical HT Met?					
sample Matrix				SOIL 1.0 30.78 GRAMS 100.00	SOIL 1.0 30.08 GRAMS 100.00
dilution Factor					
sample wt/vol					
Dry					

NA = Not Applicable

Date: 07/22/2004  
Time: 11:22:50

WATTS ENGINEERS  
QC SAMPLE CHRONOLOGY

Rept: AND3/4  
Page: 3

## METHOD 8081 - TCL PESTICIDES

Client Sample ID	Y2133.08-TP3-0'-3'
Job No & Lab Sample ID	A04-6713 A4671301SD
Sample Date	07/15/2004 15:45
Received Date	07/16/2004 11:53
Extraction Date	07/19/2004 07:00
Analysis Date	07/22/2004 23:16
Extraction HT Met?	YES
Analytical HT Met?	YES
Sample Matrix	SOIL
Dilution Factor	LOW
Sample wt/vol	1.0
% dry	30.66 GRAMS
	86.62

METHOD 8081 - TCL PESTICIDES

Client Sample ID	Method Blank	Method Blank	Method Blank
Job No & Lab Sample ID	A04-6713 A4B1303202	A04-6713 A4B1303402	A04-6713 A4B1303503
Sample Date			
Received Date			
Extraction Date	07/19/2004	07:00	
Analysis Date	07/21/2004	20:56	
Extraction HI Met?	-		
Analytical HI Met?			
Sample Matrix			
Dilution Factor			
Sample wt/vol			
% DRY	SOIL	LOW	
	1.0		
	30.35	GRAMS	
	100.00		

METHOD 8082 - POLYCHLORINATED BIPHENYLS

Client Sample ID	Method Blank	Method Blank	Method Blank
Job No & Lab Sample ID	A04-6713 A4B1303202	A04-6713 A4B1303402	A04-6713 A4B1303503
Sample Date			
Received Date			
Extraction Date			
Analysis Date			
Extraction HI Met?			
Analytical HI Met?			
Sample Matrix			
Dilution Factor			
Sample wt/vol			
% DRY			
		07/19/2004 07:00	
		07/20/2004 10:42	
	NA		
		-	
		SOIL	LOW
		1.0	
		30.08	GRAMS
		100.00	

METHOD 8151 - TCL HERBICIDES

Client Sample ID	Method Blank	Method Blank	Method Blank
Job No & Lab Sample ID	A04-6713 A4B1303202	A04-6713 A4B1303402	A04-6713 A4B1303503
Sample Date			
Received Date			
Extraction Date			
Analysis Date			
Extraction HI Met?			
Analytical HI Met?			
Sample Matrix			
Dilution Factor			
Sample wt/vol			
% DRY			
		07/19/2004 07:00	
		07/21/2004 22:04	
	NA		
		-	
		SOIL	LOW
		1.0	
		30.84	GRAMS
		100.00	

NA = Not Applicable

Lab ID	Sample ID	Units	Analyte	Method	Dilution Factor	Sample Date	Receive Date	TCLP Date	THT	Analysis Date	AHT	Matrix
A4671303	Y2133.08-PILE COMP	MG/KG	Aluminum - Total	6010	1.00	07/15/2004 15:55	07/16 11:53	NA	NA	07/20 20:38	Yes	SOIL
		MG/KG	Antimony - Total	6010	1.00	07/15/2004 15:55	07/16 11:53	NA	NA	07/20 20:38	Yes	SOIL
		MG/KG	Arsenic - Total	6010	1.00	07/15/2004 15:55	07/16 11:53	NA	NA	07/20 20:38	Yes	SOIL
		MG/KG	Barium - Total	6010	1.00	07/15/2004 15:55	07/16 11:53	NA	NA	07/20 20:38	Yes	SOIL
		MG/KG	Beryllium - Total	6010	1.00	07/15/2004 15:55	07/16 11:53	NA	NA	07/20 20:38	Yes	SOIL
		MG/KG	Cadmium - Total	6010	1.00	07/15/2004 15:55	07/16 11:53	NA	NA	07/20 20:38	Yes	SOIL
		MG/KG	Calcium - Total	6010	1.00	07/15/2004 15:55	07/16 11:53	NA	NA	07/20 20:38	Yes	SOIL
		MG/KG	Chromium - Total	6010	1.00	07/15/2004 15:55	07/16 11:53	NA	NA	07/20 20:38	Yes	SOIL
		MG/KG	Cobalt - Total	6010	1.00	07/15/2004 15:55	07/16 11:53	NA	NA	07/20 20:38	Yes	SOIL
		MG/KG	Copper - Total	6010	1.00	07/15/2004 15:55	07/16 11:53	NA	NA	07/20 20:38	Yes	SOIL
		MG/KG	Iron - Total	6010	1.00	07/15/2004 15:55	07/16 11:53	NA	NA	07/20 20:38	Yes	SOIL
		MG/KG	Lead - Total	6010	1.00	07/15/2004 15:55	07/16 11:53	NA	NA	07/20 20:38	Yes	SOIL
		MG/KG	Magnesium - Total	6010	1.00	07/15/2004 15:55	07/16 11:53	NA	NA	07/20 20:38	Yes	SOIL
		MG/KG	Manganese - Total	6010	1.00	07/15/2004 15:55	07/16 11:53	NA	NA	07/20 20:38	Yes	SOIL
		MG/KG	Mercury - Total	7471	1.00	07/15/2004 15:55	07/16 11:53	NA	NA	07/16 17:41	Yes	SOIL
		MG/KG	Nickel - Total	6010	1.00	07/15/2004 15:55	07/16 11:53	NA	NA	07/20 20:38	Yes	SOIL
		MG/KG	Potassium - Total	6010	1.00	07/15/2004 15:55	07/16 11:53	NA	NA	07/20 20:38	Yes	SOIL
		MG/KG	Selenium - Total	6010	1.00	07/15/2004 15:55	07/16 11:53	NA	NA	07/20 20:38	Yes	SOIL
		MG/KG	Silver - Total	6010	1.00	07/15/2004 15:55	07/16 11:53	NA	NA	07/20 20:38	Yes	SOIL
		MG/KG	Sodium - Total	6010	1.00	07/15/2004 15:55	07/16 11:53	NA	NA	07/20 20:38	Yes	SOIL
		MG/KG	Thallium - Total	6010	1.00	07/15/2004 15:55	07/16 11:53	NA	NA	07/20 20:38	Yes	SOIL
		MG/KG	Vanadium - Total	6010	1.00	07/15/2004 15:55	07/16 11:53	NA	NA	07/20 20:38	Yes	SOIL
		MG/KG	Zinc - Total	6010	1.00	07/15/2004 15:55	07/16 11:53	NA	NA	07/20 20:38	Yes	SOIL
A4671301	Y2133.08-TP3-0'-3'	MG/KG	Aluminum - Total	6010	1.00	07/15/2004 15:45	07/16 11:53	NA	NA	07/20 20:29	Yes	SOIL
		MG/KG	Antimony - Total	6010	1.00	07/15/2004 15:45	07/16 11:53	NA	NA	07/20 20:29	Yes	SOIL
		MG/KG	Arsenic - Total	6010	1.00	07/15/2004 15:45	07/16 11:53	NA	NA	07/20 20:29	Yes	SOIL
		MG/KG	Barium - Total	6010	1.00	07/15/2004 15:45	07/16 11:53	NA	NA	07/20 20:29	Yes	SOIL
		MG/KG	Beryllium - Total	6010	1.00	07/15/2004 15:45	07/16 11:53	NA	NA	07/20 20:29	Yes	SOIL
		MG/KG	Cadmium - Total	6010	1.00	07/15/2004 15:45	07/16 11:53	NA	NA	07/20 20:29	Yes	SOIL
		MG/KG	Calcium - Total	6010	5.00	07/15/2004 15:45	07/16 11:53	NA	NA	07/21 18:35	Yes	SOIL
		MG/KG	Chromium - Total	6010	1.00	07/15/2004 15:45	07/16 11:53	NA	NA	07/20 20:29	Yes	SOIL
		MG/KG	Cobalt - Total	6010	1.00	07/15/2004 15:45	07/16 11:53	NA	NA	07/20 20:29	Yes	SOIL
		MG/KG	Copper - Total	6010	1.00	07/15/2004 15:45	07/16 11:53	NA	NA	07/20 20:29	Yes	SOIL
		MG/KG	Iron - Total	6010	1.00	07/15/2004 15:45	07/16 11:53	NA	NA	07/20 20:29	Yes	SOIL
		MG/KG	Lead - Total	6010	1.00	07/15/2004 15:45	07/16 11:53	NA	NA	07/20 20:29	Yes	SOIL
		MG/KG	Magnesium - Total	6010	1.00	07/15/2004 15:45	07/16 11:53	NA	NA	07/20 20:29	Yes	SOIL
		MG/KG	Selenium - Total	6010	1.00	07/15/2004 15:45	07/16 11:53	NA	NA	07/20 20:29	Yes	SOIL
		MG/KG	Silver - Total	7471	1.00	07/15/2004 15:45	07/16 11:53	NA	NA	07/16 17:39	Yes	SOIL
		MG/KG	Nickel - Total	6010	1.00	07/15/2004 15:45	07/16 11:53	NA	NA	07/20 20:29	Yes	SOIL
		MG/KG	Potassium - Total	6010	1.00	07/15/2004 15:45	07/16 11:53	NA	NA	07/20 20:29	Yes	SOIL
		MG/KG	Sodium - Total	6010	1.00	07/15/2004 15:45	07/16 11:53	NA	NA	07/20 20:29	Yes	SOIL
		MG/KG	Thallium - Total	6010	1.00	07/15/2004 15:45	07/16 11:53	NA	NA	07/20 20:29	Yes	SOIL
		MG/KG	Vanadium - Total	6010	1.00	07/15/2004 15:45	07/16 11:53	NA	NA	07/20 20:29	Yes	SOIL
		MG/KG	Zinc - Total	6010	1.00	07/15/2004 15:45	07/16 11:53	NA	NA	07/20 20:29	Yes	SOIL
		MG/KG	Aluminum - Total	6010	1.00	07/15/2004 15:50	07/16 11:53	NA	NA	07/20 20:34	Yes	SOIL
		MG/KG	Antimony - Total	6010	1.00	07/15/2004 15:50	07/16 11:53	NA	NA	07/20 20:34	Yes	SOIL
A4671302	Y2133.08-TP4-0'-3'	MG/KG										

AHT = Analysis Holding Time Met

THT = TCLP Holding Time Met

NA = Not Applicable

Date: 07/27/2004 11:22:54  
Jobno: A04-6713

WATTS ENGINEERS  
SAMPLE CHRONOLOGY

Rept: AN0369

Lab ID	Sample ID	Units	Analyte	Method	Dilution Factor	Sample Date	Receive Date	TCLP Date	THT	Analysis Date	AHT	Matrix
A4671302	Y2133.08-TP4-0'-3'	MG/KG	Arsenic - Total	6010	1.00	07/15/2004 15:50	07/16 11:53	NA	NA	07/20 20:34	Yes	SOIL
		MG/KG	Barium - Total	6010	1.00	07/15/2004 15:50	07/16 11:53	NA	NA	07/20 20:34	Yes	SOIL
		MG/KG	Beryllium - Total	6010	1.00	07/15/2004 15:50	07/16 11:53	NA	NA	07/20 20:34	Yes	SOIL
		MG/KG	Cadmium - Total	6010	1.00	07/15/2004 15:50	07/16 11:53	NA	NA	07/20 20:34	Yes	SOIL
		MG/KG	Calcium - Total	6010	5.00	07/15/2004 15:50	07/16 11:53	NA	NA	07/21 18:40	Yes	SOIL
		MG/KG	Chromium - Total	6010	1.00	07/15/2004 15:50	07/16 11:53	NA	NA	07/20 20:34	Yes	SOIL
		MG/KG	Cobalt - Total	6010	1.00	07/15/2004 15:50	07/16 11:53	NA	NA	07/20 20:34	Yes	SOIL
		MG/KG	Copper - Total	6010	1.00	07/15/2004 15:50	07/16 11:53	NA	NA	07/20 20:34	Yes	SOIL
		MG/KG	Iron - Total	6010	1.00	07/15/2004 15:50	07/16 11:53	NA	NA	07/20 20:34	Yes	SOIL
		MG/KG	Lead - Total	6010	1.00	07/15/2004 15:50	07/16 11:53	NA	NA	07/20 20:34	Yes	SOIL
		MG/KG	Magnesium - Total	6010	1.00	07/15/2004 15:50	07/16 11:53	NA	NA	07/20 20:34	Yes	SOIL
		MG/KG	Manganese - Total	6010	1.00	07/15/2004 15:50	07/16 11:53	NA	NA	07/20 20:34	Yes	SOIL
		MG/KG	Mercury - Total	7471	1.00	07/15/2004 15:50	07/16 11:53	NA	NA	07/16 17:40	Yes	SOIL
		MG/KG	Nickel - Total	6010	1.00	07/15/2004 15:50	07/16 11:53	NA	NA	07/20 20:34	Yes	SOIL
		MG/KG	Potassium - Total	6010	1.00	07/15/2004 15:50	07/16 11:53	NA	NA	07/20 20:34	Yes	SOIL
		MG/KG	Selenium - Total	6010	1.00	07/15/2004 15:50	07/16 11:53	NA	NA	07/20 20:34	Yes	SOIL
		MG/KG	Silver - Total	6010	1.00	07/15/2004 15:50	07/16 11:53	NA	NA	07/20 20:34	Yes	SOIL
		MG/KG	Sodium - Total	6010	1.00	07/15/2004 15:50	07/16 11:53	NA	NA	07/20 20:34	Yes	SOIL
		MG/KG	Thallium - Total	6010	1.00	07/15/2004 15:50	07/16 11:53	NA	NA	07/20 20:34	Yes	SOIL
		MG/KG	Vanadium - Total	6010	1.00	07/15/2004 15:50	07/16 11:53	NA	NA	07/20 20:34	Yes	SOIL
		MG/KG	Zinc - Total	6010	1.00	07/15/2004 15:50	07/16 11:53	NA	NA	07/20 20:34	Yes	SOIL

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AHT = Analysis Holding Time Met  
THT = TCLP Holding Time Met  
NA = Not Applicable

STL Buffalo

Lab ID	Sample ID	Units	Analyte	Method	Dilution Factor	Sample Date	Receive Date	TCLP Date	AHT THT	Analysis Date	AHT	Matrix
A4B1299102	Method Blank	MG/KG	Mercury - Total	7471	1.00	-	-	-	-	NA	07/16 18:47	Yes
A4B1308702	Method Blank	MG/KG	Aluminum - Total	6010	1.00	-	-	-	-	NA	07/20 18:51	Yes
		MG/KG	Antimony - Total	6010	1.00	-	-	-	-	NA	07/20 18:51	Yes
		MG/KG	Arsenic - Total	6010	1.00	-	-	-	-	NA	07/20 18:51	Yes
		MG/KG	Barium - Total	6010	1.00	-	-	-	-	NA	07/20 18:51	Yes
		MG/KG	Beryllium - Total	6010	1.00	-	-	-	-	NA	07/20 18:51	Yes
		MG/KG	Cadmium - Total	6010	1.00	-	-	-	-	NA	07/20 18:51	Yes
		MG/KG	Calcium - Total	6010	1.00	-	-	-	-	NA	07/20 18:51	Yes
		MG/KG	Chromium - Total	6010	1.00	-	-	-	-	NA	07/20 18:51	Yes
		MG/KG	Cobalt - Total	6010	1.00	-	-	-	-	NA	07/20 18:51	Yes
		MG/KG	Copper - Total	6010	1.00	-	-	-	-	NA	07/20 18:51	Yes
		MG/KG	Iron - Total	6010	1.00	-	-	-	-	NA	07/20 18:51	Yes
		MG/KG	Lead - Total	6010	1.00	-	-	-	-	NA	07/20 18:51	Yes
		MG/KG	Magnesium - Total	6010	1.00	-	-	-	-	NA	07/20 18:51	Yes
		MG/KG	Manganese - Total	6010	1.00	-	-	-	-	NA	07/20 18:51	Yes
		MG/KG	Nickel - Total	6010	1.00	-	-	-	-	NA	07/20 18:51	Yes
		MG/KG	Potassium - Total	6010	1.00	-	-	-	-	NA	07/20 18:51	Yes
		MG/KG	Selenium - Total	6010	1.00	-	-	-	-	NA	07/20 18:51	Yes
		MG/KG	Silver - Total	6010	1.00	-	-	-	-	NA	07/20 18:51	Yes
		MG/KG	Sodium - Total	6010	1.00	-	-	-	-	NA	07/20 18:51	Yes
		MG/KG	Thallium - Total	6010	1.00	-	-	-	-	NA	07/20 18:51	Yes
		MG/KG	Vanadium - Total	6010	1.00	-	-	-	-	NA	07/20 18:51	Yes
		MG/KG	Zinc - Total	6010	1.00	-	-	-	-	NA	07/20 18:51	Yes
		MG/KG	Mercury - Total	7471	1.00	-	-	-	-	NA	07/16 17:49	Yes
		MG/KG	Aluminum - Total	6010	1.00	-	-	-	-	NA	07/20 18:56	Yes
		MG/KG	Antimony - Total	6010	1.00	-	-	-	-	NA	07/20 18:56	Yes
		MG/KG	Arsenic - Total	6010	1.00	-	-	-	-	NA	07/20 18:56	Yes
		MG/KG	Barium - Total	6010	1.00	-	-	-	-	NA	07/20 18:56	Yes
		MG/KG	Beryllium - Total	6010	1.00	-	-	-	-	NA	07/20 18:56	Yes
		MG/KG	Cadmium - Total	6010	1.00	-	-	-	-	NA	07/20 18:56	Yes
		MG/KG	Calcium - Total	6010	1.00	-	-	-	-	NA	07/20 18:56	Yes
		MG/KG	Chromium - Total	6010	1.00	-	-	-	-	NA	07/20 18:56	Yes
		MG/KG	Cobalt - Total	6010	1.00	-	-	-	-	NA	07/20 18:56	Yes
		MG/KG	Copper - Total	6010	1.00	-	-	-	-	NA	07/20 18:56	Yes
		MG/KG	Iron - Total	6010	1.00	-	-	-	-	NA	07/20 18:56	Yes
		MG/KG	Lead - Total	6010	1.00	-	-	-	-	NA	07/20 18:56	Yes
		MG/KG	Magnesium - Total	6010	1.00	-	-	-	-	NA	07/20 18:56	Yes
		MG/KG	Manganese - Total	6010	1.00	-	-	-	-	NA	07/20 18:56	Yes
		MG/KG	Nickel - Total	6010	1.00	-	-	-	-	NA	07/20 18:56	Yes
		MG/KG	Potassium - Total	6010	1.00	-	-	-	-	NA	07/20 18:56	Yes
		MG/KG	Selenium - Total	6010	1.00	-	-	-	-	NA	07/20 18:56	Yes
		MG/KG	Silver - Total	6010	1.00	-	-	-	-	NA	07/20 18:56	Yes
		MG/KG	Sodium - Total	6010	1.00	-	-	-	-	NA	07/20 18:56	Yes
		MG/KG	Thallium - Total	6010	1.00	-	-	-	-	NA	07/20 18:56	Yes
		MG/KG	Vanadium - Total	6010	1.00	-	-	-	-	NA	07/20 18:56	Yes
		MG/KG	Zinc - Total	6010	1.00	-	-	-	-	NA	07/20 18:56	Yes

AHT = Analysis Holding Time Met  
THT = TCLP Holding Time Met  
NA = Not Applicable

WATTS ENGINEERS  
SAMPLE CHRONOLOGYDate: 07/27/2004 11:22:58  
Jobno: A04-6713

Rept: AN0369

Lab ID	Sample ID	Units	Analyte	Method	Dilution Factor	Sample Date	Receive Date	TCLP Date	THT	AHT	Matrix
A4671303	Y2133.08-PILE COMP	UG/G	Cyanide - Total	9012A	1.00	07/15/2004 15:55	07/16 11:53	NA	NA	Yes	SOIL
A4671301	Y2133.08-1P3-0'-3'	UG/G	Cyanide - Total	9012A	1.00	07/15/2004 15:45	07/16 11:53	NA	NA	Yes	SOIL
A4671302	Y2133.08-1P4-0'-3'	UG/G	Cyanide - Total	9012A	1.00	07/15/2004 15:50	07/16 11:53	NA	NA	Yes	SOIL

AHT = Analysis Holding Time Met  
 THT = TCLP Holding Time Met  
 NA = Not Applicable

STL Buffalo

AHT = Analysis Holding Time Met  
 THT = TCLP Holding Time Met  
 NA = Not Applicable

WATTS ENGINEERS  
QC CHRONOLOGY

Date: 07/17/2004...2:58  
Jobno: A04-6713

Rept: AWW-9

Lab ID	Sample ID	Units	Analyte	Method	Dilution Factor	Sample Date	Receive Date	TCLP Date	THT Date	Analysis Date	AHT	Matrix
A4B1301204	Method Blank	ug/g	Cyanide - Total	9012A	1.00	-	-	-	-	07/17/2004	Yes	SOIL
A4B1301203	LCS	ug/g	Cyanide - Total	9012A	1.00	-	-	-	-	07/17/2004	Yes	SOIL

## Chain of Custody

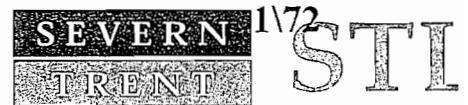
# Chain of Custody Record

**SEVERN  
TRENT**

**Severn Trent Laboratories, Inc.**

STL 4124 (0801)

Client <b>Watts Engineers</b>	Project Manager <b>Andrew Klimek</b>	Date <b>7/15/04</b>	Chain of Custody Number <b>168846</b>
Address <b>3826 Main St</b>	Telephone Number (Area Code)/Fax Number <b>716.670.1000</b>	Lab Number <b>STL, Buffalo</b>	Page <b>1 or 1</b>
City <b>Buffalo</b>	Site Contact <b>Matthew Holmgren</b>	Analysis (Attach list if more space needed)	
State <b>NY</b>	Zip Code <b>14226</b>	Carrier/Mailbill Number <b>Jeff Yoho</b>	
Project Name and Location (State) <b>Gallagher Beach - Phase III, Buffalo, NY</b>			
Contract/Purchase Order/Quote No. <b>STL → NY2A893617 1</b>			
Matrix			
Containers & Preservatives			
Liners			
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Uppers			
SUS			
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**STL Buffalo**  
10 Hazelwood Drive, Suite 106  
Amherst, NY 14228

Tel: 716 691 2600 Fax: 716 691 7991  
[www.stl-inc.com](http://www.stl-inc.com)

#### ANALYTICAL REPORT

Job#: A04-6714

STL Project#: NY2A893617  
Site Name: Gallagher Beach  
Task: Gallagher Beach

Mr. Andrew Klimek  
Watts Engineers  
3826 Main St.  
Buffalo, NY 14226

STL Buffalo

  
\_\_\_\_\_  
Jeff R. Yohe  
Project Manager

07/28/2004

ANALYTICAL REPORT

Job# : A04-6714

STL Project#: NY2A893617  
Site Name: Gallagher Beach  
Task: Gallagher Beach

Mr. Andrew Klimek  
Watts Engineers  
3826 Main St.  
Buffalo, NY 14226

STL Buffalo

---

Jeff R. Yohe  
Project Manager

07/28/2004

**STL Buffalo**  
**Current Certifications**

<b>STATE</b>	<b>Program</b>	<b>Cert # / Lab ID</b>
<b>A2LA (ISO 17025)</b>	SDWA, CWA, RCRA	0732-01
<b>Arkansas</b>	SDWA, CWA, RCRA, SOIL	03-054-D/88-0686
<b>California</b>	NELAP SDWA, CWA, RCRA	01169CA
<b>Canada</b>	GENERAL	SCC 1007-15/10B
<b>Connecticut</b>	SDWA, CWA, RCRA, SOIL	PH-0568
<b>Florida</b>	NELAP RCRA	E87672
<b>Georgia</b>	SDWA	956
<b>Illinois</b>	NELAP SDWA, CWA, RCRA	200003
<b>Iowa</b>	SW/CS	374
<b>Kansas</b>	NELAP SDWA, CWA, RCRA	E-10187
<b>Kentucky</b>	SDWA	90029
<b>Kentucky UST</b>	UST	30
<b>Louisiana</b>	NELAP CWA, RCRA	2031
<b>Maine</b>	SDWA, CWA	NY044
<b>Maryland</b>	SDWA	294
<b>Massachusetts</b>	SDWA, CWA	M-NY044
<b>Michigan</b>	SDWA	9937
<b>Minnesota</b>	CWA, RCRA	036-999-337
<b>New Hampshire</b>	NELAP SDWA, CWA	233701
<b>New Jersey</b>	SDWA, CWA, RCRA, CLP	NY455
<b>New York</b>	NELAP, AIR, SDWA, CWA, RCRA	10026
<b>North Carolina</b>	CWA	411
<b>North Dakota</b>	SDWA, CWA, RCRA	R-176
<b>Oklahoma</b>	CWA, RCRA	9421
<b>Pennsylvania</b>	Env. Lab Reg.	68-281
<b>South Carolina</b>	RCRA	91013
<b>USDA</b>	FOREIGN SOIL PERMIT	S-4650
<b>Virginia</b>	SDWA	278
<b>Washington</b>	CWA	C254
<b>West Virginia</b>	CWA	252
<b>Wisconsin</b>	CWA	998310390
<b>Wyoming UST</b>	UST	NA

## SAMPLE SUMMARY

<u>LAB SAMPLE ID</u>	<u>CLIENT SAMPLE ID</u>	<u>SAMPLED</u>		<u>RECEIVED</u>	
		<u>DATE</u>	<u>TIME</u>	<u>DATE</u>	<u>TIME</u>
A4671401	Y2133.08-TP1-0'-2'	07/15/2004	15:30	07/16/2004	11:53
A4671402	Y2133.08-TP1-2'-6'	07/15/2004	15:35	07/16/2004	11:53
A4671403	Y2133.08-TP1-7'-9'	07/15/2004	15:40	07/16/2004	11:53

## METHODS SUMMARY

Job#: A04-6714STL Project#: NY2A893617  
Site Name: Gallagher Beach

PARAMETER	ANALYTICAL METHOD
METHOD 8260 - TCL VOLATILE ORGANICS	SW8463 8260
METHOD 8270 - TCL SEMI-VOLATILE ORGANICS	SW8463 8270
METHOD 8081 - TCL PESTICIDES	SW8463 8081
METHOD 8082 - POLYCHLORINATED BIPHENYLS	SW8463 8082
METHOD 8151 - TCL HERBICIDES	SW8463 8151
Aluminum - Total	SW8463 6010
Antimony - Total	SW8463 6010
Arsenic - Total	SW8463 6010
Barium - Total	SW8463 6010
Beryllium - Total	SW8463 6010
Cadmium - Total	SW8463 6010
Calcium - Total	SW8463 6010
Chromium - Total	SW8463 6010
Cobalt - Total	SW8463 6010
Copper - Total	SW8463 6010
Iron - Total	SW8463 6010
Lead - Total	SW8463 6010
Magnesium - Total	SW8463 6010
Manganese - Total	SW8463 6010
Mercury - Total	SW8463 7471
Nickel - Total	SW8463 6010
Potassium - Total	SW8463 6010
Selenium - Total	SW8463 6010
Silver - Total	SW8463 6010
Sodium - Total	SW8463 6010
Thallium - Total	SW8463 6010
Vanadium - Total	SW8463 6010
Zinc - Total	SW8463 6010
Cyanide - Total	SW8463 9012A

References:

- SW8463 "Test Methods for Evaluating Solid Waste Physical/Chemical Methods (SW846), Third Edition, 9/86; Update I, 7/92; Update IIA, 8/93; Update II, 9/94; Update IIB, 1/95; Update III, 12/96.

## NON-COMFORMANCE SUMMARY

Job#: A04-6714STL Project#: NY2A893617  
Site Name: Gallagher BeachGeneral Comments

The enclosed data have been reported utilizing data qualifiers (Q) as defined on the Data Comment Page.

Soil, sediment and sludge sample results are reported on "dry weight" basis unless otherwise noted in this data package.

According to 40CFR Part 136.3, pH, Chlorine Residual and Dissolved Oxygen analyses are to be performed immediately after aqueous sample collection. When these parameters are not indicated as field (e.g. pH-Field), they were not analyzed immediately, but as soon as possible after laboratory receipt.

Sample dilutions were performed as indicated on the attached Dilution Log. The rationale for dilution is specified by the 3-digit code and definition.

Sample Receipt Comments

A04-6714

Sample Cooler(s) were received at the following temperature(s); 6.0 °C  
All samples were received in good condition.

GC/MS Volatile Data

The analyte Methylene Chloride was detected in the Method Blank A4B1321202 (VBLK88) at a level below the project established reporting limit. No corrective action is necessary for any values in Method Blanks that are below the requested reporting limits.

The analyte Bromomethane was detected in the Method Blank A4B1321204 (VBLK89) at a level below the project established reporting limit. No corrective action is necessary for any values in Method Blanks that are below the requested reporting limits.

GC/MS Semivolatile Data

No deviations from protocol were encountered during the analytical procedures.

GC Extractable Data

For method 8081, the recovery of surrogate Decachlorobiphenyl in sample Y2133.08-TP1-7'-9' is outside of established quality control limits due to the sample matrix. The recovery of surrogate Tetrachloro-m-xylene is within quality control limits; no corrective action is required.

All sample extract required treatment with Copper prior to analysis due to the presence of elemental Sulfur, and were florisil treated to minimize matrix interferences.

For method 8151, the recoveries of several compounds in the Matrix Spike Blank are decreased and exceed QC limits due to an error during preparation. All batch surrogate recoveries and the sample Matrix Spike and Matrix Spike Duplicate recoveries for this batch are compliant. From these results, it is the opinion of the laboratory that the sample data is unaffected by the Matrix Blank Spike anomaly.

Metals Data

The LCS CLP (Lot D038540) recovery for Antimony fell outside of the quality control limits, however, the LCS value was within the manufacturer's recommended acceptance limits. No corrective action was taken.

The ICSAB recovery for Selenium was above quality control limits. However, since target analytes were non-detect in the samples and the high recoveries would yield a high bias, no further corrective action was necessary.

Wet Chemistry Data

No deviations from protocol were encountered during the analytical procedures.

\*\*\*\*\*

The results presented in this report relate only to the analytical testing and condition of the sample at receipt. This report pertains to only those samples actually tested. All pages of this report are integral parts of the analytical data. Therefore, this report should be reproduced only in its entirety.

Date: 07/28/2004

Time: 15:14:56

Dilution Log w/Code Information

For Job A04-6714

7\72 Page:  
Rept: AN1266

<u>Client Sample ID</u>	<u>Lab Sample ID</u>	<u>Parameter (Inorganic)/Method (Organic)</u>	<u>Dilution</u>	<u>Code</u>
Y2133.08-TP1-0'-2'	A4671401	8270	5.00	012
Y2133.08-TP1-2'-6'	A4671402	8081	2.00	002
Y2133.08-TP1-2'-6'	A4671402	8082	5.00	008
Y2133.08-TP1-2'-6'	A4671402	8270	20.00	012
Y2133.08-TP1-2'-6'	A4671402	Calcium - Total	5.00	008
Y2133.08-TP1-7'-9'	A4671403	8081	4.00	002
Y2133.08-TP1-7'-9'	A4671403	8082	5.00	008
Y2133.08-TP1-7'-9'	A4671403	8270	5.00	012
Y2133.08-TP1-7'-9'	A4671403	Mercury - Total	10.00	008

Dilution Code Definition:

- 002 - sample matrix effects
- 003 - excessive foaming
- 004 - high levels of non-target compounds
- 005 - sample matrix resulted in method non-compliance for an Internal Standard
- 006 - sample matrix resulted in method non-compliance for Surrogate
- 007 - nature of the TCLP matrix
- 008 - high concentration of target analyte(s)
- 009 - sample turbidity
- 010 - sample color
- 011 - insufficient volume for lower dilution
- 012 - sample viscosity
- 013 - other

## DATA COMMENT PAGE

### ORGANIC DATA QUALIFIERS

- ND or U Indicates compound was analyzed for, but not detected at or above the reporting limit.
- J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed, or when the data indicates the presence of a compound that meets the identification criteria but the result is less than the sample quantitation limit but greater than zero.
- C This flag applies to pesticide results where the identification has been confirmed by GC/MS.
- B This flag is used when the analyte is found in the associated blank, as well as in the sample.
- E This flag identifies compounds whose concentrations exceed the calibration range of the instrument for that specific analysis.
- D This flag identifies all compounds identified in an analysis at the secondary dilution factor.
- N Indicates presumptive evidence of a compound. This flag is used only for tentatively identified compounds, where the identification is based on the Mass Spectral library search. It is applied to all TIC results.
- P This flag is used for a pesticide/Aroclor target analyte when there is greater than 25% difference for detected concentrations between the two GC columns. The lower of the two values is reported on the data page and flagged with a "P".
- A This flag indicates that a TIC is a suspected aldol-condensation product.
- 1 Indicates coelution.
- \* Indicates analysis is not within the quality control limits.

### INORGANIC DATA QUALIFIERS

- ND or U Indicates element was analyzed for, but not detected at or above the reporting limit.
- J or B Indicates a value greater than or equal to the instrument detection limit, but less than the quantitation limit.
- N Indicates spike sample recovery is not within the quality control limits.
- K Indicates the post digestion spike recovery is not within the quality control limits.
- S Indicates value determined by the Method of Standard Addition.
- M Indicates duplicate injection results exceeded quality control limits.
- W Post digestion spike for Furnace AA analysis is out of quality control limits (85-115%) while sample absorbance is less than 50% of spike absorbance.
- E Indicates a value estimated or not reported due to the presence of interferences.
- H Indicates analytical holding time exceedance. The value obtained should be considered an estimate.
- \* Indicates analysis is not within the quality control limits.
- + Indicates the correlation coefficient for the Method of Standard Addition is less than 0.995.

## Sample Data Package

Date: 07/28/2004  
Time: 15:15:03

Rept: AN0326

Gallagher Beach  
Gallagher Beach  
METHOD 8260 - TCL VOLATILE ORGANICS

Client ID Job No Sample Date	Lab ID	Y2133-08-TP1-01-2' A04-6714 07/15/2004	Y2133-08-TP1-21-6' A04-6714 07/15/2004	Y2133-08-TP1-7-9' A4671402 07/15/2004	Y2133-08-TP1-7-9' A4671403 07/15/2004
Analyte	Units	Sample Value	Reporting Limit	Sample Value	Reporting Limit
Acetone	ug/kg	ND	28	69	66
Benzene	ug/kg	ND	6	ND	ND
Bromodichloromethane	ug/kg	ND	6	ND	ND
Bromoform	ug/kg	ND	6	ND	ND
Bromoethane	ug/kg	ND	6	ND	ND
2-Butanone	ug/kg	ND	28	ND	ND
Carbon Disulfide	ug/kg	ND	6	ND	ND
Chlorobenzene	ug/kg	ND	6	ND	ND
Chloroethane	ug/kg	ND	6	ND	ND
Chloroform	ug/kg	ND	6	ND	ND
Chloronethane	ug/kg	ND	6	ND	ND
Cyclohexane	ug/kg	ND	6	ND	ND
1,2-Dibromoethane	ug/kg	ND	6	ND	ND
Dibromoethane	ug/kg	ND	6	ND	ND
1,2-Dibromo-3-chloropropane	ug/kg	ND	6	ND	ND
1,2-Dichlorobenzene	ug/kg	ND	6	ND	ND
1,3-Dichlorobenzene	ug/kg	ND	6	ND	ND
1,4-Dichlorobenzene	ug/kg	ND	6	ND	ND
Dichlorodifluoromethane	ug/kg	ND	6	ND	ND
1,1-Dichloroethane	ug/kg	ND	6	ND	ND
1,2-Dichloroethane	ug/kg	ND	6	ND	ND
1,1-Dichloroethene	ug/kg	ND	6	ND	ND
cis-1,2-Dichloroethene	ug/kg	ND	6	ND	ND
trans-1,2-Dichloroethene	ug/kg	ND	6	ND	ND
1,2-Dichloropropene	ug/kg	ND	6	ND	ND
cis-1,3-Dichloropropene	ug/kg	ND	6	ND	ND
trans-1,3-Dichloropropene	ug/kg	ND	6	ND	ND
Ethyllbenzene	ug/kg	ND	28	ND	ND
2-Hexanone	ug/kg	ND	6	ND	ND
Isopropylbenzene	ug/kg	ND	6	ND	ND
Methyl acetate	ug/kg	ND	6	ND	ND
Methylcyclohexane	ug/kg	ND	6	ND	ND
Methylene chloride	ug/kg	ND	6	ND	ND
4-Methyl-2-pentanone	ug/kg	ND	28	ND	ND
Methyl tert butyl ether	ug/kg	ND	6	ND	ND
Styrene	ug/kg	ND	6	ND	ND
1,1,2,2-Tetrachloroethane	ug/kg	ND	6	ND	ND
Tetrachloroethene	ug/kg	ND	6	ND	ND
Toluene	ug/kg	ND	6	ND	ND
1,2,4-Trichlorobenzene	ug/kg	ND	6	ND	ND
1,1,1-Trichloroethane	ug/kg	ND	6	ND	ND
1,1,2-Trichloroethane	ug/kg	ND	6	ND	ND

NA = Not Applicable ND = Not Detected

STL Buffalo

Date: 07/28/2004  
Time: 15:15:03

Rept: AN0326

Gallagher Beach  
Gallagher Beach

METHOD 8260 - TCL VOLATILE ORGANICS

Client ID Job No Sample Date	Lab ID	Y2133.08-TP1-0' 2' A04-6714 07/15/2004	Y2133.08-TP1-2' -6' A4671401 07/15/2004	Y2133.08-TP1-7' -9' A04-6714 07/15/2004
Analyte	Units	Sample Value	Reporting Limit	Sample Value
1,1,2-Trichloro-1,2,2-trifluor	UG/KG	ND	ND	ND
Trichlorofluoromethane	UG/KG	ND	ND	ND
Trichloroethene	UG/KG	ND	ND	ND
Vinyl acetate	UG/KG	28	ND	28
Vinyl chloride	UG/KG	11	ND	11
Total xylenes	UG/KG	17	ND	17
IS/SURROGATE (S)	%			
Chlorobenzene-D5	%	96	50-200	91
1,4-Difluorobenzene	%	95	50-200	92
1,4-Dichlorobenzene-D4	%	97	50-200	74
Toluene-D8	%	82	71-125	84
p-Bromofluorobenzene	%	80	68-124	75
1,2-Dichloroethane-D4	%	88	61-136	81

Date: 07/28/2004  
Time: 15:15

Rept: AN0326

Gallagher Beach  
Gallagher Beach  
METHOD 8270 - TCL SEMI-VOLATILE ORGANICS

Client ID	Job No	Lab ID	Sample Date	Y2133-08-TP1-0-2'	A04-6714 07/15/2004	Y2133-08-TP1-2-6'	A04-6714 07/15/2004	Y2133-08-TP1-7-9'	A04-6714 07/15/2004	Y2133-08-TP1-7-9'	A4671403	
Analyte	Units	Sample Value		Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit
Acenaphthene	UG/KG	ND		2100	ND	7800	ND	2600	ND	2600	NA	NA
Acenaphthylene	UG/KG	ND		2100	ND	7800	ND	2600	ND	2600	NA	NA
Acetophenone	UG/KG	ND		2100	ND	7800	ND	2600	ND	2600	NA	NA
Anthracene	UG/KG	ND		2100	ND	7800	ND	2600	ND	2600	NA	NA
Atrazine	UG/KG	ND		2100	ND	7800	ND	2600	ND	2600	NA	NA
Benzaldehyde	UG/KG	ND		2100	ND	7800	ND	2600	ND	2600	NA	NA
Benz(a)anthracene	UG/KG	ND		2100	ND	7800	ND	2600	ND	2600	NA	NA
Benzo(b)fluoranthene	UG/KG	ND		2100	ND	7800	ND	2600	ND	2600	NA	NA
Benzo(k)fluoranthene	UG/KG	ND		2100	ND	7800	ND	2600	ND	2600	NA	NA
Benz(ghi)perylene	UG/KG	ND		2100	ND	7800	ND	2600	ND	2600	NA	NA
Benz(o)a)pyrene	UG/KG	ND		2100	ND	7800	ND	2600	ND	2600	NA	NA
Benzoic acid	UG/KG	ND		10000	ND	38000	ND	12000	ND	12000	NA	NA
Benzyl alcohol	UG/KG	ND		2100	ND	7800	ND	2600	ND	2600	NA	NA
Biphenyl	UG/KG	ND		2100	ND	7800	ND	2600	ND	2600	NA	NA
Bis(2-chloroethoxy) methane	UG/KG	ND		2100	ND	7800	ND	2600	ND	2600	NA	NA
Bis(2-chloroethyl) ether	UG/KG	ND		2100	ND	7800	ND	2600	ND	2600	NA	NA
2,2'-(Oxybis(1-chloropropane))	UG/KG	ND		2100	ND	7800	ND	2600	ND	2600	NA	NA
Bis(2-ethylhexyl) phthalate	UG/KG	ND		2100	ND	7800	ND	2600	ND	2600	NA	NA
4-Bromophenyl phenyl ether	UG/KG	ND		2100	ND	7800	ND	2600	ND	2600	NA	NA
Butyl benzyl phthalate	UG/KG	ND		2100	ND	7800	ND	2600	ND	2600	NA	NA
Caprolactam	UG/KG	ND		2100	ND	7800	ND	2600	ND	2600	NA	NA
4-Chloroaniline	UG/KG	ND		2100	ND	7800	ND	2600	ND	2600	NA	NA
4-Chloro-3-methylphenol	UG/KG	ND		2100	ND	7800	ND	2600	ND	2600	NA	NA
2-Chloronaphthalene	UG/KG	ND		2100	ND	7800	ND	2600	ND	2600	NA	NA
2-Chlorophenol	UG/KG	ND		2100	ND	7800	ND	2600	ND	2600	NA	NA
4-Chlorophenyl phenyl ether	UG/KG	ND		2100	ND	7800	ND	2600	ND	2600	NA	NA
Chrysene	UG/KG	ND		2100	ND	7800	ND	2600	ND	2600	NA	NA
Dibenz(a,h)anthracene	UG/KG	ND		2100	ND	7800	ND	2600	ND	2600	NA	NA
Dibenzofuran	UG/KG	ND		2100	ND	7800	ND	2600	ND	2600	NA	NA
Di-n-butyl phthalate	UG/KG	ND		2100	ND	7800	ND	2600	ND	2600	NA	NA
1,2-Dichlorobenzene	UG/KG	ND		2100	ND	7800	ND	2600	ND	2600	NA	NA
1,3-Dichlorobenzene	UG/KG	ND		2100	ND	7800	ND	2600	ND	2600	NA	NA
1,4-Dichlorobenzene	UG/KG	ND		2100	ND	7800	ND	2600	ND	2600	NA	NA
3,3'-Dichlorobenzidine	UG/KG	ND		4200	ND	16000	ND	5100	ND	5100	NA	NA
2,4-Dichlorophenol	UG/KG	ND		2100	ND	7800	ND	2600	ND	2600	NA	NA
Diethyl phthalate	UG/KG	ND		2100	ND	7800	ND	2600	ND	2600	NA	NA
2,4-Dimethylphenol	UG/KG	ND		2100	ND	7800	ND	2600	ND	2600	NA	NA
Dimethyl phthalate	UG/KG	ND		2100	ND	7800	ND	2600	ND	2600	NA	NA
4,6-Dinitro-2-methylphenol	UG/KG	ND		10000	ND	38000	ND	12000	ND	12000	NA	NA
2,4-Dinitrotoluene	UG/KG	ND		2100	ND	7800	ND	2600	ND	2600	NA	NA
2,6-Dinitrotoluene	UG/KG	ND		2800	ND	10000	ND	3400	ND	3400	NA	NA
Di-n-octyl phthalate	UG/KG	ND										

NA = Not Applicable      ND = Not Detected

STL Buffalo

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Date: 07/28/2004  
Time: 15:15:15

Rept: AN0326

Gallagher Beach  
Gallagher Beach  
METHOD 8270 - TCL SEMI-VOLATILE ORGANICS

Client ID Job No Sample Date	Lab ID A04-6714 07/15/2004	Y2133-08-TP1-0-2' A4671401 07/15/2004	Y2133-08-TP1-2-6' A04-6714 07/15/2004	Y2133-08-TP1-7-9' A4671403 07/15/2004					
Analyte	Units	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit
Fluoranthene	UG/KG	ND	2100	3700 J	7800	ND	2600	NA	NA
Fluorene	UG/KG	ND	2100	ND	7800	ND	2600	NA	NA
Hexachlorobenzene	UG/KG	ND	2100	ND	7800	ND	2600	NA	NA
Hexachlorobutadiene	UG/KG	ND	2100	ND	7800	ND	2600	NA	NA
Hexachlorocyclopentadiene	UG/KG	ND	2100	ND	7800	ND	2600	NA	NA
Hexachloroethane	UG/KG	ND	2100	ND	7800	ND	2600	NA	NA
Indeno[1,2,3-cd]pyrene	UG/KG	ND	2100	ND	7800	ND	2600	NA	NA
Isophorone	UG/KG	ND	2100	ND	7800	ND	2600	NA	NA
2-Methylnaphthalene	UG/KG	ND	2100	ND	7800	ND	2600	NA	NA
2-Methylphenol	UG/KG	ND	2100	ND	7800	ND	2600	NA	NA
4-Methylphenol	UG/KG	ND	2100	ND	7800	ND	2600	NA	NA
Naphthalene	UG/KG	ND	2100	ND	7800	ND	2600	NA	NA
2-Nitroaniline	UG/KG	ND	10000	ND	38000	ND	12000	NA	NA
3-Nitroaniline	UG/KG	ND	10000	ND	38000	ND	12000	NA	NA
4-Nitroaniline	UG/KG	ND	10000	ND	38000	ND	12000	NA	NA
Nitrobenzene	UG/KG	ND	2100	ND	7800	ND	2600	NA	NA
2-Nitrophenol	UG/KG	ND	2100	ND	7800	ND	2600	NA	NA
4-Nitrophenol	UG/KG	ND	10000	ND	38000	ND	12000	NA	NA
N-nitrosodiphenylamine	UG/KG	ND	2100	ND	7800	ND	2600	NA	NA
N-Nitroso-Di-n-propylamine	UG/KG	ND	2100	ND	7800	ND	2600	NA	NA
Pentachlorophenol	UG/KG	ND	10000	ND	38000	ND	12000	NA	NA
Phenanthrene	UG/KG	ND	2100	2800 J	7800	ND	2600	NA	NA
Phenol	UG/KG	ND	2100	ND	7800	ND	2600	NA	NA
Pyrene	UG/KG	ND	2100	3700 J	7800	ND	2600	NA	NA
1,2,4-Trichlorobenzene	UG/KG	ND	5100	ND	19000	ND	6200	NA	NA
2,4,5-Trichlorophenol	UG/KG	ND	2100	ND	7800	ND	2600	NA	NA
2,4,6-Trichlorophenol	UG/KG	ND							
IS/SURROGATE(S)=	%	93	50-200	98	50-200	99	50-200	NA	NA
1,4-Dichlorobenzene-D4	%	93	50-200	95	50-200	98	50-200	NA	NA
Naphthalene-D8	%	91	50-200	95	50-200	92	50-200	NA	NA
Acenaphthene-D10	%	84	50-200	87	50-200	81	50-200	NA	NA
Phenanthrene-D10	%	83	50-200	83	50-200	76	50-200	NA	NA
Chrysene-D12	%	110	50-200	111	50-200	108	50-200	NA	NA
Perylene-D12	%	66	30-127	57	30-127	72	30-127	NA	NA
Nitrobenzene-D5	%	80	36-138	74	36-138	86	36-138	NA	NA
2-Fluorobiphenyl	%	99	41-167	107	41-167	102	41-167	NA	NA
p-Terphenyl-d14	%	72	34-120	66	34-120	76	34-120	NA	NA
Phenol-D5	%	66	26-120	70	26-120	75	26-120	NA	NA
2-Fluorophenol	%	87	42-140	69	42-140	92	42-140	NA	NA

NA = Not Applicable      ND = Not Detected

STL Buffalo

Date: 07/28/2004  
Time: 15:15:21

Rept: AN0326

Gallagher Beach  
Gallagher Beach

METHOD 8081 - TCL PESTICIDES

Client ID Job No Sample Date	Lab ID	Y2133.08-TP1-0'-2' A04-6714 07/15/2004	Y2133.08-TP1-2'-6' A4671401 07/15/2004	Y2133.08-TP1-7'-9' A04-6714 07/15/2004	Y2133.08-TP1-7'-9' A4671403 07/15/2004
Analyte	Units	Sample Value	Reporting Limit	Sample Value	Reporting Limit
Aldrin	UG/KG	ND	2.1	ND	3.9
alpha-BHC	UG/KG	ND	2.1	ND	3.9
beta-BHC	UG/KG	ND	2.1	ND	3.9
gamma-BHC (Lindane)	UG/KG	ND	2.1	ND	3.9
delta-BHC	UG/KG	ND	2.1	ND	3.9
Chlordane	UG/KG	ND	2.1	ND	3.9
4,4'-DDD	UG/KG	ND	2.1	ND	3.9
4,4'-DDE	UG/KG	ND	2.1	ND	3.9
4,4'-DDT	UG/KG	3.6	2.1	12	3.9
Dieldrin	UG/KG	4.3	2.1	2.9 J	3.9
Endosulfan I	UG/KG	ND	2.1	ND	3.9
Endosulfan II	UG/KG	ND	2.1	ND	3.9
Endosulfan Sulfate	UG/KG	ND	2.1	ND	3.9
Endrin	UG/KG	1.0 J	2.1	1.2 J	3.9
Endrin aldehyde	UG/KG	ND	2.1	ND	3.9
Heptachlor	UG/KG	ND	2.1	0.93 J	3.9
Heptachlor epoxide	UG/KG	ND	2.1	ND	3.9
Methoxychlor	UG/KG	ND	42	ND	3.9
Toxaphene	UG/KG	ND	76	ND	76
SURROGATE(S)	%	51	38-132	39	38-132
Tetrachloro-m-xylylene	%	134	46-151	130	46-151
Decachlorobiphenyl	%			74	38-132
				158 *	46-151

NA = Not Applicable      ND = Not Detected

STL Buffalo

Date:	07/28/2004	Gallagher Beach	
Time:	15:15:21	Gallagher Beach	
METHOD 8082 - POLYCHLORINATED BIPHENYLS			

Client ID Job No Sample Date	Lab ID	Y2133.08-TP1-0'-2' A04-6714 07/15/2004		Y2133.08-TP1-2'-6' A04-6714 07/15/2004		Y2133.08-TP1-7'-9' A04-6714 07/15/2004	
Analyte	Units	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit
Aroclor 1016	ug/kg	ND	21	ND	96	ND	130
Aroclor 1221	ug/kg	ND	21	ND	96	ND	130
Aroclor 1232	ug/kg	ND	21	ND	96	ND	130
Aroclor 1242	ug/kg	ND	21	ND	96	ND	130
Aroclor 1248	ug/kg	22	21	240	96	360	130
Aroclor 1254	ug/kg	40	21	94 J	96	320	130
Aroclor 1260	ug/kg	18 J	21	ND	96	170	130
<u>SURROGATE(S)</u>		78		32-148		65	
Tetrachloro-m-xylylene		76		36-153		50	
Decachlorobiphenyl		75		32-148		32-148	
		45		36-153		36-153	

NA = Not Applicable

ND = Not Detected

STL Buffalo

Date: 07/28/2004  
Time: 15:15:21

Gallagher Beach  
Gallagher Beach  
METHOD 8151 - TCL HERBICIDES

Rept: AN0326

Client ID Job No Sample Date	Lab ID	Y2133.08-TP1-0'-2' A04-6714 07/15/2004	Y2133.08-TP1-2'-6' A4671402 07/15/2004	Y2133.08-TP1-7'-9' A04-6714 07/15/2004
Analyte	Units	Sample Value	Reporting Limit	Sample Value
2,4-D	UG/KG	ND	ND	ND
2,4,5-TP (Silvex)	UG/KG	ND	ND	ND
2,4,5-T	UG/KG	ND	ND	ND
SURROGATE(S)	%	88	10-147	85
Dichlorophenyl Acetic Acid	%	10-147	70	10-147

NA = Not Applicable

ND = Not Detected

STL Buffalo

Date: 07/28/2004  
Time: 15:15:25

Rept: AN0326

Gallagher Beach  
Gallagher Beach  
TOTAL TCL METALS

Client ID Job No Sample Date	Lab ID	Y2133.08-TP1-0'-2' A04-6714 07/15/2004	Y2133.08-TP1-2'-6' A04-6714 07/15/2004	Y2133.08-TP1-7'-9' A4671402 07/15/2004	Y2133.08-TP1-7'-9' A4671403 07/15/2004
Analyte	Units	Sample Value	Reporting Limit	Sample Value	Reporting Limit
Aluminum - Total	MG/KG	16800	13.1	9300	11.5
Antimony - Total	MG/KG	ND	19.6	ND	17.2
Arsenic - Total	MG/KG	7.0	2.6	7.5	2.3
Barium - Total	MG/KG	82.2	0.65	107	0.57
Beryllium - Total	MG/KG	0.90	0.26	0.70	0.23
Cadmium - Total	MG/KG	1.0	0.26	1.1	0.23
Calcium - Total	MG/KG	14200	13.1	60500	57.5
Chromium - Total	MG/KG	25.4	0.65	23.0	0.57
Cobalt - Total	MG/KG	13.0	0.65	4.8	0.57
Copper - Total	MG/KG	22.2	1.3	36.7	1.1
Iron - Total	MG/KG	29400	13.1	14500	11.5
Lead - Total	MG/KG	24.2	1.3	223	1.1
Magnesium - Total	MG/KG	4670	26.1	21800	23.0
Manganese - Total	MG/KG	568	0.26	456	0.23
Mercury - Total	MG/KG	0.060	0.027	0.56	0.026
Nickel - Total	MG/KG	33.9	0.65	13.1	0.57
Potassium - Total	MG/KG	1960	39.2	1800	34.5
Selenium - Total	MG/KG	ND	5.2	ND	4.6
Silver - Total	MG/KG	ND	0.65	ND	0.57
Sodium - Total	MG/KG	ND	183	277	161
Thallium - Total	MG/KG	ND	7.8	ND	6.9
Vanadium - Total	MG/KG	27.8	0.65	17.8	0.57
Zinc - Total	MG/KG	103	2.6	165	2.3

NA = Not Applicable      ND = Not Detected

STL Buffalo

Date: 07/28/2004  
Time: 15:15:28

Gallagher Beach  
Gallagher Beach  
WET CHEMISTRY ANALYSIS

Rept: AN0326

Client ID Job No Sample Date	Lab ID	Y2133-08-TP1-0-2' A04-6714 07/15/2004	Y2133-08-TP1-2-6' A04-6714 07/15/2004	Y2133-08-TP1-7-9' A4671402 07/15/2004
Analyte	Units	Sample Value	Reporting Limit	Sample Value
Cyanide - Total	ug/G	ND	1.0	ND

## Batch Quality Control Data

Date: 07/28/2004 15:19:31  
 Batch No: A4B13212

Rept: AN1392

MS/MSD Batch QC Results

Lab Sample ID: A4654901

A4654901MS

Analyte	Units of Measure	Sample	Concentration		Spike Duplicate	Spike Amount	MS	MSD	% Recovery		% RPD	QC LIMITS RPD	REC.
			Matrix Spike	Spike					MS	MSD	Avg		
METHOD 8260 - VOLATILE ORGANIC Methylene chloride	ug/kg	15.7	64.0	64.3	75.1	76.7	64	63	64	2	20.0	49-127	

Date: 07/28/2004 15:19:31  
Batch No: A4613030

## MS/MSD Batch QC Results

Rept: AN1392

Lab Sample ID: A4671302

A4671302MS

A4671302SD

Analyte	Units of Measure	Sample	Concentration		Spike Amount	MS	MSD	% Recovery		MS	MSD	Avg	% RPD	QC LIMITS REC.
			Matrix	Spike Duplicate				%	RPD					
<b>METHOD 8270 - TCL SEMI-VOLATILE ORGANICS</b>														
Phenol	UG/KG	0	2600	2349	3942	3988	66	59	63	11	25.0	35-120		
2-Chlorophenol	UG/KG	0	2679	2458	3942	3988	68	62	65	9	26.0	34-118		
1,4-Dichlorobenzene	UG/KG	0	2556	2449	3942	3988	65	61	63	6	30.0	30-120		
N-Nitroso-di-n-propylamine	UG/KG	0	2827	2771	3942	3988	72	69	71	4	20.0	42-131		
1,2,4-Trichlorobenzene	UG/KG	0	2721	2700	3942	3988	69	68	69	1	24.0	32-120		
4-Chloro-3-methylphenol	UG/KG	0	2973	2830	3942	3988	75	71	73	5	20.0	45-135		
Acenaphthene	UG/KG	0	3140	3249	3942	3988	80	81	81	1	16.0	49-131		
4-Nitrophenol	UG/KG	0	506	527	3942	3988	13	*	13	0	25.0	36-142		
2,4-Dinitrotoluene	UG/KG	0	2812	2841	3942	3988	71	71	71	0	19.0	45-138		
Pentachlorophenol	UG/KG	0	1317	1791	3942	3988	33	45	39	*	27.0	28-135		
Pyrene	UG/KG	670	4341	4737	3942	3988	93	102	98	9	25.0	48-154		

\* Indicates Result is outside QC Limits  
NC = Not Calculated ND = Not Detected

Date: 07/28/2004 15:19:31  
 Batch No: A4B13069

Rept: AN1392

MS/MSD Batch QC Results

Lab Sample ID: A4662605

A4662605NS

Analyte		Sample		Concentration		Spike Amount		% Recovery		QC LIMITS RPD REC.	
Units of Measure	Matrix Spike	Spike Duplicate	MS	MSD	MS	MSD	MS	MSD	Avg	% RPD	
METHOD 8082 - POLYCHLORINATED BIPHENYLS											
Aroclor 1254	0	173	185	182	185	185	95	100	98	5	52-153
Total Polychlorinated Biphenyls (8082)	0	173	185	182	185	185	95	100	98	5	52-153

\* Indicates Result is outside QC Limits  
 NC = Not Calculated ND = Not Detected

Date: 07/28/2004 15:19:31  
Batch No: A4B13032

MS/MSD Batch GC Results

Rept: AN1392

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Lab Sample ID: A4671301

A4671301MS

A4671301SD

Analyte	Units of Measure	Sample	Concentration			Spike Amount	MS	% Recovery	MS	% RPD	QC LIMITS RPD	
			Matrix	Spike	Duplicate							
<b>METHOD 8081 - TCL PESTICIDES</b>												
Aldrin	UG/KG	0.461	9.21	11.2	19.1	18.8	46 *	57	52	30.0	48-128	
alpha-BHC	UG/KG	0	9.25	9.97	19.1	18.8	48	53	51	30.0	47-123	
beta-BHC	UG/KG	6.54	17.5	19.3	19.1	18.8	58	68	63	30.0	56-129	
delta-BHC	UG/KG	2.50	11.8	14.9	19.1	18.8	49	66	58	30.0	42-127	
gamma-BHC (Lindane)	UG/KG	0	13.1	13.7	19.1	18.8	69	73	71	30.0	42-136	
4,4'-DD	UG/KG	2.88	12.8	14.2	19.1	18.8	52	60	56	30.0	42-133	
4,4'-DDE	UG/KG	0	14.7	16.5	19.1	18.8	77	88	83	30.0	44-136	
4,4'-DDT	UG/KG	8.81	18.4	20.5	19.1	18.8	50	62	56	30.0	49-148	
Dieldrin	UG/KG	0.692	13.5	14.6	19.1	18.8	67	74	71	30.0	51-132	
Endosulfan I	UG/KG	0	12.8	11.0	19.1	18.8	58	68	63	30.0	42-132	
Endosulfan II	UG/KG	0	8.18	9.45	19.1	18.8	43 *	50	47	30.0	44-135	
Endosulfan Sulfate	UG/KG	11.9	6.12	7.94	19.1	18.8	-30 *	-21 *	-26	30.0	42-136	
Endrin aldehyde	UG/KG	0	4.28	7.00	19.1	18.8	22 *	37	51 *	30.0	37-123	
Endrin	UG/KG	0	15.5	17.9	19.1	18.8	81	96	89	17	30.0	41-132
Heptachlor	UG/KG	0.500	11.8	13.8	19.1	18.8	59	71	65	18	30.0	43-127
Heptachlor epoxide	UG/KG	0	9.79	11.9	19.1	18.8	51	63	57	21	30.0	45-128
Methoxychlor	UG/KG	2.46	17.7	11.9	19.1	18.8	80	65	65	46 *	30.0	42-140

\* Indicates Result is outside QC Limits  
NC = Not Calculated ND = Not Detected

STL Buffalo

Date: 07/28/2004 15:19:31  
Batch No: A4B13065

## MS/MSD Batch GC Results

Rept: AN1392

Lab Sample ID: A4672210

A4672210MS

A4672210SD

Analyte	Units of Measure	Sample	Concentration		MS	Spike Amount	MSD	% Recovery		MS	MSD	Avg	% RPD	QC LIMITS	RPD	REC.
			Matrix spike	Spike Duplicate				%	MSD							
LCS - ASP 2000 - METHOD 8151 - HERBICIDE	UG/KG	0.631	78.4	67.8		80.6		84		90	13	50.0	11-128			
2,4-D	UG/KG	0	58.4	62.7		80.6		72		75	8	30.0	29-179			
2,4,5-TP (Silvex)	UG/KG	3.19	47.4	53.8		80.6		55		59	14	50.0	20-110			
2,4,5-T	UG/KG															

\* Indicates Result is outside QC Limits  
NC = Not Calculated ND = Not Detected

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STL Buffalo

Date: 07/28/2004 15:19:31  
 Batch No: A4B12991

Rept: AN1392

MS/MSD Batch QC Results

Lab Sample ID: A4670701

A4670701MS

A4670701SD

Analyte	Units of Measure	Concentration		Spike Duplicate	Spike Amount	MS	MSD	% Recovery		% RPD	QC LIMITS REC.
		Sample	Matrix spike					MS	MSD		
MERCURY ANALYSIS	MG/KG	0.0656	0.515	0.464	0.418	0.434	108	92	100	16	20.0
TOTAL MERCURY											80-120

Date: 07/28/2004 15:19:31  
Batch No: A4B12991

Rept: AN1392

MS/MSD Batch QC Results

Lab Sample ID: A4671901

A4671901MS

Analyte	Units of Measure	Sample	Concentration		Spike Duplicate	Spike Amount	MS	MSD	% Recovery		MS	MSD	Avg	% RPD	QC LIMITS RPD	REC.
			Matrix	Spike					%	RPD						
MERCURY ANALYSIS TOTAL MERCURY	MG/KG	1.24	2.00	1.43	0.344	0.351	223	*	56	*	140	120	*	20.0	80-120	

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\* Indicates Result is outside QC Limits  
NC = Not Calculated ND = Not Detected

STL Buffalo

Date: 07/28/2004 15:19:31  
 Batch No: A4B13166

Rept: AN1392

## MS/MSD Batch QC Results

Lab Sample ID: A4655408

A4655408MS		Concentration				Spike Amount		% Recovery MS		QC LIMITS	
Analyte	Units of Measure	Sample	Matrix spike								
CYANIDE ANALYSIS METHOD 335.4 - TOTAL CYANIDE	MG/L	0.447	0.514			0.100		67	*	85-115	

\* Indicates Result is outside QC Limits  
 NC = Not Calculated ND = Not Detected

Rept: AN1392

Date: 07/28/2004 15:19:31  
Batch No: A4B13166

## MS/MSD Batch QC Results

Lab Sample ID: A4660307

A4660307MS

Analyte	Units of Measure	Concentration		Spike Amount	% Recovery MS	QC LIMITS
		Sample	Matrix Spike			
CYANIDE ANALYSIS	Mg/L	0	0.0942	0.100	94	85-115
METHOD 9012 - TOTAL CYANIDE						

## Chronology and QC Summary Package

Date: 07/28/2004  
Time: 15:15:35

Rept: AN0326

Gallagher Beach  
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METHOD 8260 - TCL VOLATILE ORGANICS

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Client ID Job No Sample Date	Lab ID	VBLK88 A04-6714	A4B1321202	VBLK99 A04-6714	A4B1321204	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit
Analyte	Units	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit
Acetone	UG/KG	ND	25	ND	25	NA	NA	NA	NA	NA	NA
Benzene	UG/KG	ND	5	ND	5	NA	NA	NA	NA	NA	NA
Bromodichloromethane	UG/KG	ND	5	ND	5	NA	NA	NA	NA	NA	NA
Bromoform	UG/KG	ND	5	ND	5	NA	NA	NA	NA	NA	NA
Bromomethane	UG/KG	ND	5	ND	5	NA	NA	NA	NA	NA	NA
2-Butanone	UG/KG	ND	25	ND	25	NA	NA	NA	NA	NA	NA
carbon disulfide	UG/KG	ND	5	ND	5	NA	NA	NA	NA	NA	NA
chlorobenzene	UG/KG	ND	5	ND	5	NA	NA	NA	NA	NA	NA
chloroethane	UG/KG	ND	5	ND	5	NA	NA	NA	NA	NA	NA
chloroform	UG/KG	ND	5	ND	5	NA	NA	NA	NA	NA	NA
chloromethane	UG/KG	ND	5	ND	5	NA	NA	NA	NA	NA	NA
cyclohexane	UG/KG	ND	5	ND	5	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	UG/KG	ND	5	ND	5	NA	NA	NA	NA	NA	NA
Dibromochloromethane	UG/KG	ND	5	ND	5	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	UG/KG	ND	5	ND	5	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	UG/KG	ND	5	ND	5	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	UG/KG	ND	5	ND	5	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	UG/KG	ND	5	ND	5	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	UG/KG	ND	5	ND	5	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	UG/KG	ND	5	ND	5	NA	NA	NA	NA	NA	NA
1,1,2-Dichloroethane	UG/KG	ND	5	ND	5	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	UG/KG	ND	5	ND	5	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	UG/KG	ND	5	ND	5	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	UG/KG	ND	5	ND	5	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	UG/KG	ND	5	ND	5	NA	NA	NA	NA	NA	NA
trans-1,3-Dichloropropene	UG/KG	ND	5	ND	5	NA	NA	NA	NA	NA	NA
Ethylbenzene	UG/KG	ND	25	ND	25	NA	NA	NA	NA	NA	NA
2-Hexanone	UG/KG	ND	5	ND	5	NA	NA	NA	NA	NA	NA
Isopropylbenzene	UG/KG	ND	5	ND	5	NA	NA	NA	NA	NA	NA
Methyl acetate	UG/KG	ND	5	ND	5	NA	NA	NA	NA	NA	NA
Methyl cyclohexane	UG/KG	ND	5	ND	5	NA	NA	NA	NA	NA	NA
Methylene chloride	UG/KG	ND	4 J	ND	5	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	UG/KG	ND	25	ND	25	NA	NA	NA	NA	NA	NA
Methyl tert butyl ether	UG/KG	ND	5	ND	5	NA	NA	NA	NA	NA	NA
Styrene	UG/KG	ND	5	ND	5	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	UG/KG	ND	5	ND	5	NA	NA	NA	NA	NA	NA
Tetrachloroethene	UG/KG	ND	5	ND	5	NA	NA	NA	NA	NA	NA
Toluene	UG/KG	ND	5	ND	5	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	UG/KG	ND	5	ND	5	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	UG/KG	ND	5	ND	5	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	UG/KG	ND	5	ND	5	NA	NA	NA	NA	NA	NA

NA = Not Applicable      ND = Not Detected

STL Buffalo

Date: 07/28/2004  
Time: 15:15:35

Gallagher Beach  
Gallagher Beach  
METHOD 8260 - TCL VOLATILE ORGANICS

Rept: AN0326

Client ID Job No Sample Date	Lab ID	VBLK88 A04-6714	A4B1321202	VBLK89 A04-6714	A4B1321204		
Analyte	Units	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit
1,1,2-Trichloro-1,2,2-trifluoromethane	UG/KG	ND	5	ND	5	NA	NA
Trichloroethene	UG/KG	ND	5	ND	5	NA	NA
Vinyl acetate	UG/KG	ND	25	ND	25	NA	NA
Vinyl chloride	UG/KG	ND	10	ND	10	NA	NA
Total Xylenes	UG/KG	ND	15	ND	15	NA	NA
<u>IS/SURROGATE(S)</u>							
Chlorobenzene-D5	%	79	50-200	81	50-200	NA	NA
1,4-Bifluorobenzene	%	80	50-200	81	50-200	NA	NA
1,4-Dichlorobenzene-D4	%	58	50-200	80	50-200	NA	NA
Toluene-D8	%	90	71-125	81	71-125	NA	NA
p-Bromoifluorobenzene	%	79	68-124	82	68-124	NA	NA
1,2-Dichloroethane-D4	%	92	61-136	87	61-136	NA	NA

NA = Not Applicable

ND = Not Detected

STL Buffalo

Date: 07/28/2004  
Time: 15:15:35

Gallagher Beach  
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METHOD 8260 - TCL VOLATILE ORGANICS

Rept: AN0326

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Client ID Job No Sample Date	Lab ID	MSB 88 A04-6714	A4B1321201	MSB 89 A04-6714	A4B1321203
Analyte	Units	Sample Value	Reporting Limit	Sample Value	Reporting Limit
Acetone	UG/KG	210	25	200	25
Benzene	UG/KG	50	5	47	5
Bromodichloromethane	UG/KG	50	5	46	5
Bromoform	UG/KG	46	5	42	5
Bromomethane	UG/KG	39	5	38 B	5
2-Butanone	UG/KG	230	25	230	25
Carbon Disulfide	UG/KG	38	5	35	5
Carbon Tetrachloride	UG/KG	53	5	38	5
Chlorobenzene	UG/KG	48	5	45	5
Chloroethane	UG/KG	48	5	41	5
Chloroform	UG/KG	51	5	48	5
Chloromethane	UG/KG	50	5	44	5
Cyclohexane	UG/KG	49	5	45	5
1,2-Dibromoethane	UG/KG	46	5	46	5
Dibromochloromethane	UG/KG	48	5	44	5
1,2-Dibromo-3-chloropropane	UG/KG	42	5	45	5
1,2-Dichlorobenzene	UG/KG	48	5	45	5
1,3-Dichlorobenzene	UG/KG	49	5	45	5
1,4-Dichlorobenzene	UG/KG	48	5	46	5
Dichlorodifluoromethane	UG/KG	42	5	39	5
1,1-Dichloroethane	UG/KG	48	5	46	5
1,2-Dichloroethane	UG/KG	50	5	48	5
1,1-Dichloroethene	UG/KG	37	5	35	5
cis-1,2-Dichloroethene	UG/KG	48	5	45	5
trans-1,2-Dichloroethene	UG/KG	49	5	46	5
1,2-Dichloropropane	UG/KG	49	5	47	5
cis-1,3-Dichloropropene	UG/KG	49	5	47	5
trans-1,3-Dichloropropene	UG/KG	46	5	45	5
Ethylbenzene	UG/KG	50	5	46	5
2-Hexanone	UG/KG	220	25	220	25
Isopropylbenzene	UG/KG	50	5	44	5
Methyl Acetate	UG/KG	30	5	34	5
Methyl Cyclohexane	UG/KG	50	5	45	5
Methyl Chloride	UG/KG	43 B	5	41	5
4-Methyl-2-pentanone	UG/KG	230	25	230	25
Methyl tert butyl ether	UG/KG	50	5	48	5
Styrene	UG/KG	47	5	45	5
1,1,2,2-Tetrachloroethane	UG/KG	49	5	47	5
Tetrachloroethene	UG/KG	48	5	44	5
Toluene	UG/KG	48	5	45	5
1,2,4-Trichlorobenzene	UG/KG	39	5	48	5
1,1,1-Trichloroethane	UG/KG	50	5	46	5
1,1,2-Trichloroethane	UG/KG	47	5	46	5

NA = Not Applicable      ND = Not Detected

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Date: 07/28/2004  
Time: 15:15:35

Gallagher Beach  
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METHOD 8260 - TCL VOLATILE ORGANICS

Rept: AN0326

Client ID	Lab ID	MSB 88 A04-6714	A4B1321201	MSB 89 A04-6714	A4B1321203
Analyte	Units	Sample Value	Reporting Limit	Sample Value	Reporting Limit
1,1,2-Trichloro-1,2,2-trifluoromethane	UG/KG	37	5	34	5
Trichlorofluoromethane	UG/KG	52	5	44	5
Vinyl acetate	UG/KG	51	5	47	5
Vinyl chloride	UG/KG	230	25	280	25
Total xylenes	UG/KG	49	10	47	10
Total xylenes	UG/KG	140	15	150	15
IS/SURROGATE(S)	%				
Chlorobenzene-D5	%	94	50-200	101	50-200
1,4-Difluorobenzene	%	90	50-200	98	50-200
1,4-Dichlorobenzene-D4	%	93	50-200	106	50-200
Toluene-D8	%	81	71-125	80	71-125
p-Bromofluorobenzene	%	81	68-124	81	68-124
1,2-Dichloroethane-D4	%	81	61-136	81	61-136

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Rept: AN0326

Gallagher Beach  
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METHOD 8270 - TCL SEMI-VOLATILE ORGANICS

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Client ID	Job No	Lab ID	S Blank	A04-6714	A4B1303002	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit
Analyte		Units									
Acenaphthene		UG/KG				NA	NA	NA	NA	NA	NA
Acenaphthylene		UG/KG	ND	ND	330	NA	NA	NA	NA	NA	NA
Acetophenone		UG/KG	ND	ND	330	NA	NA	NA	NA	NA	NA
Anthracene		UG/KG	ND	ND	330	NA	NA	NA	NA	NA	NA
Atrazine		UG/KG	ND	ND	330	NA	NA	NA	NA	NA	NA
Benzaldehyde		UG/KG	ND	ND	330	NA	NA	NA	NA	NA	NA
Benzota(anthracene		UG/KG	ND	ND	330	NA	NA	NA	NA	NA	NA
Benzot(b)fluoranthene		UG/KG	ND	ND	330	NA	NA	NA	NA	NA	NA
Benzot(k)fluoranthene		UG/KG	ND	ND	330	NA	NA	NA	NA	NA	NA
Benzot(ghi)perylene		UG/KG	ND	ND	330	NA	NA	NA	NA	NA	NA
Benzota(pyrene		UG/KG	ND	ND	330	NA	NA	NA	NA	NA	NA
Benzoic acid		UG/KG	ND	16.00	NA	NA	NA	NA	NA	NA	NA
Benzyl alcohol		UG/KG	ND	ND	330	NA	NA	NA	NA	NA	NA
Biphenyl		UG/KG	ND	ND	330	NA	NA	NA	NA	NA	NA
Bis(2-chloroethoxy) methane		UG/KG	ND	ND	330	NA	NA	NA	NA	NA	NA
Bis(2-chloroethyl) ether		UG/KG	ND	ND	330	NA	NA	NA	NA	NA	NA
2,2'-oxybis(1-chloropropane)		UG/KG	ND	ND	330	NA	NA	NA	NA	NA	NA
Bis(2-ethylhexyl) phthalate		UG/KG	ND	ND	330	NA	NA	NA	NA	NA	NA
4-Bromophenyl phenyl ether		UG/KG	ND	ND	330	NA	NA	NA	NA	NA	NA
Butyl benzyl phthalate		UG/KG	ND	ND	330	NA	NA	NA	NA	NA	NA
Caprolactam		UG/KG	ND	ND	330	NA	NA	NA	NA	NA	NA
4-Chloroaniline		UG/KG	ND	ND	330	NA	NA	NA	NA	NA	NA
4-Chloro-3-methylphenol		UG/KG	ND	ND	330	NA	NA	NA	NA	NA	NA
2-chloronaphthalene		UG/KG	ND	ND	330	NA	NA	NA	NA	NA	NA
2-chlorophenol		UG/KG	ND	ND	330	NA	NA	NA	NA	NA	NA
4-chlorophenyl phenyl ether		UG/KG	ND	ND	330	NA	NA	NA	NA	NA	NA
Chrysene		UG/KG	ND	ND	330	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene		UG/KG	ND	ND	330	NA	NA	NA	NA	NA	NA
Dibenzofuran		UG/KG	ND	ND	330	NA	NA	NA	NA	NA	NA
Di-n-butyl phthalate		UG/KG	ND	ND	330	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene		UG/KG	ND	ND	330	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene		UG/KG	ND	ND	330	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene		UG/KG	ND	ND	650	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine		UG/KG	ND	ND	330	NA	NA	NA	NA	NA	NA
2,4-Dichloropheno l		UG/KG	ND	ND	330	NA	NA	NA	NA	NA	NA
Dietethyl phthalate		UG/KG	ND	ND	330	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol		UG/KG	ND	ND	330	NA	NA	NA	NA	NA	NA
Dimethyl phthalate		UG/KG	ND	ND	330	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol		UG/KG	ND	ND	1600	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol		UG/KG	ND	ND	330	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene		UG/KG	ND	ND	440	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene		UG/KG	ND	ND							
Di-n-octyl phthalate		UG/KG	ND	ND							

NA = Not Applicable      ND = Not Detected

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Date: 07/28/2004  
Time: 15:15:47

Rept: AN0326

Gallagher Beach  
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METHOD 8270 - TCL SEMI-VOLATILE ORGANICS

Client ID Job No Sample Date	Lab ID	S Blank AO4-6714	A4B1303002	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit
Analyte	Units								
Fluoranthene	UG/KG	ND		330	NA	NA	NA	NA	NA
Fluorene	UG/KG	ND		330	NA	NA	NA	NA	NA
Hexachlorobenzene	UG/KG	ND		330	NA	NA	NA	NA	NA
Hexachlorobutadiene	UG/KG	ND		330	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	UG/KG	ND		330	NA	NA	NA	NA	NA
Hexachloroethane	UG/KG	ND		330	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	UG/KG	ND		330	NA	NA	NA	NA	NA
Isophorone	UG/KG	ND		330	NA	NA	NA	NA	NA
2-Methylnaphthalene	UG/KG	ND		330	NA	NA	NA	NA	NA
2-Methylphenol	UG/KG	ND		330	NA	NA	NA	NA	NA
4-Methylphenol	UG/KG	ND		330	NA	NA	NA	NA	NA
Naphthalene	UG/KG	ND		330	NA	NA	NA	NA	NA
2-Nitroaniline	UG/KG	ND		1600	NA	NA	NA	NA	NA
3-Nitroaniline	UG/KG	ND		1600	NA	NA	NA	NA	NA
4-Nitroaniline	UG/KG	ND		1600	NA	NA	NA	NA	NA
Nitrobenzene	UG/KG	ND		330	NA	NA	NA	NA	NA
2-Nitrophenol	UG/KG	ND		330	NA	NA	NA	NA	NA
4-Nitrophenol	UG/KG	ND		1600	NA	NA	NA	NA	NA
N-nitrosodiphenylamine	UG/KG	ND		330	NA	NA	NA	NA	NA
N-nitroso-Di-n-propylamine	UG/KG	ND		330	NA	NA	NA	NA	NA
Pentachlorophenol	UG/KG	ND		1600	NA	NA	NA	NA	NA
Phenanthrene	UG/KG	ND		330	NA	NA	NA	NA	NA
Phenol	UG/KG	ND		330	NA	NA	NA	NA	NA
Pyrene	UG/KG	ND		330	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	UG/KG	ND		330	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	UG/KG	ND		790	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	UG/KG	ND		330	NA	NA	NA	NA	NA
IS/SURROGATE(S)	%	107	50-200	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene-D4	%	110	50-200	NA	NA	NA	NA	NA	NA
Naphthalene-D8	%	106	50-200	NA	NA	NA	NA	NA	NA
Acenaphthene-D10	%	97	50-200	NA	NA	NA	NA	NA	NA
Phenanthrene-D10	%	94	50-200	NA	NA	NA	NA	NA	NA
Chrysene-D12	%	130	50-200	NA	NA	NA	NA	NA	NA
Perylene-D12	%	54	30-127	NA	NA	NA	NA	NA	NA
Nitrobenzene-D5	%	65	36-138	NA	NA	NA	NA	NA	NA
2-Fluorobiphenyl	%	101	41-167	NA	NA	NA	NA	NA	NA
p-Terphenyl-d14	%	53	34-120	NA	NA	NA	NA	NA	NA
Phenol-D5	%	50	26-120	NA	NA	NA	NA	NA	NA
2-Fluorophenol	%	89	42-140	NA	NA	NA	NA	NA	NA

NA = Not Applicable      ND = Not Detected

STL Buffalo

Date: 07/28/2004  
Time: 15:15:47

Rept: AN0326

Gallagher Beach  
Gallagher Beach  
METHOD 8270 - TCL SEMI-VOLATILE ORGANICS

Client ID Job No Sample Date	Lab ID	Matrix Spike Blank A04-6714	Matrix Spike Blank A4B1303001	Sample Value	Reporting Limit						
Analyte	Units	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG
Acenaphthene		2700	ND	330	ND	NA	NA	NA	NA	NA	NA
Acenaphthylene		UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG
Acetophenone		UG/KG	ND	330	ND	NA	NA	NA	NA	NA	NA
Anthracene		UG/KG	ND	330	ND	NA	NA	NA	NA	NA	NA
Atrazine		UG/KG	ND	330	ND	NA	NA	NA	NA	NA	NA
Benzaldehyde		UG/KG	ND	330	ND	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene		UG/KG	ND	330	ND	NA	NA	NA	NA	NA	NA
Benzof(b)fluoranthene		UG/KG	ND	330	ND	NA	NA	NA	NA	NA	NA
Benzof(k)fluoranthene		UG/KG	ND	330	ND	NA	NA	NA	NA	NA	NA
Benzof(ghi)perylene		UG/KG	ND	330	ND	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene		UG/KG	ND	330	ND	NA	NA	NA	NA	NA	NA
Benzoic acid		UG/KG	ND	1600	ND	NA	NA	NA	NA	NA	NA
Benzyl alcohol		UG/KG	ND	330	ND	NA	NA	NA	NA	NA	NA
Biphenyl		UG/KG	ND	330	ND	NA	NA	NA	NA	NA	NA
Bis(2-chloroethoxy) methane		UG/KG	ND	330	ND	NA	NA	NA	NA	NA	NA
Bis(2-chloroethyl) ether		UG/KG	ND	330	ND	NA	NA	NA	NA	NA	NA
2,2'-Oxybis(1-chloropropane)		UG/KG	ND	330	ND	NA	NA	NA	NA	NA	NA
Bis(2-ethylhexyl) phthalate		UG/KG	ND	330	ND	NA	NA	NA	NA	NA	NA
4-Bromophenyl phenyl ether		UG/KG	ND	330	ND	NA	NA	NA	NA	NA	NA
Butyl benzyl phthalate		UG/KG	ND	330	ND	NA	NA	NA	NA	NA	NA
Caprolactam		UG/KG	ND	330	ND	NA	NA	NA	NA	NA	NA
4-Chloroaniline		UG/KG	ND	330	ND	NA	NA	NA	NA	NA	NA
4-Chloro-3-methylphenol		UG/KG	ND	2600	ND	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene		UG/KG	ND	330	ND	NA	NA	NA	NA	NA	NA
2-Chlorophenol		UG/KG	ND	2000	ND	NA	NA	NA	NA	NA	NA
4-Chlorophenyl phenyl ether		UG/KG	ND	330	ND	NA	NA	NA	NA	NA	NA
Chrysene		UG/KG	ND	330	ND	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene		UG/KG	ND	330	ND	NA	NA	NA	NA	NA	NA
Dibenzofuran		UG/KG	ND	330	ND	NA	NA	NA	NA	NA	NA
Dim-butyl phthalate		UG/KG	ND	330	ND	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene		UG/KG	ND	330	ND	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene		UG/KG	ND	1900	ND	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene		UG/KG	ND	650	ND	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine		UG/KG	ND	330	ND	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol		UG/KG	ND	330	ND	NA	NA	NA	NA	NA	NA
Diethyl phthalate		UG/KG	ND	330	ND	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol		UG/KG	ND	330	ND	NA	NA	NA	NA	NA	NA
Dimethyl phthalate		UG/KG	ND	330	ND	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol		UG/KG	ND	1600	ND	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol		UG/KG	ND	2600	ND	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene		UG/KG	ND	330	ND	NA	NA	NA	NA	NA	NA
Dim-octyl phthalate		UG/KG	ND	440	ND	NA	NA	NA	NA	NA	NA

NA = Not Applicable

ND = Not Detected

Date: 07/28/2004  
Time: 15:15:47

Rept: AN0326

Gallagher Beach  
Gallagher Beach  
METHOD 8270 - TCL SEMI-VOLATILE ORGANICS

Client ID	Lab No	Lab ID	Matrix Spike Blank A04-6714	Sample Value		Reporting Limit		Sample Value		Reporting Limit	
Analyte		Units									
Fluoranthene		UG/KG	ND	330	NA	NA	NA	NA	NA	NA	NA
Fluorene		UG/KG	ND	330	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene		UG/KG	ND	330	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene		UG/KG	ND	330	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene		UG/KG	ND	330	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane		UG/KG	ND	330	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene		UG/KG	ND	330	NA	NA	NA	NA	NA	NA	NA
Isophorone		UG/KG	ND	330	NA	NA	NA	NA	NA	NA	NA
2-Methyl Indaphthalene		UG/KG	ND	330	NA	NA	NA	NA	NA	NA	NA
2-Methyl Phenol		UG/KG	ND	330	NA	NA	NA	NA	NA	NA	NA
4-Methyl Phenol		UG/KG	ND	330	NA	NA	NA	NA	NA	NA	NA
Naphthalene		UG/KG	ND	330	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline		UG/KG	ND	1600	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline		UG/KG	ND	1600	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline		UG/KG	ND	1600	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene		UG/KG	ND	330	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol		UG/KG	2300	NA	NA	NA	NA	NA	NA	NA	NA
N-nitrosodiphenylamine		UG/KG	ND	330	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-Dim-propylamine		UG/KG	2600	330	NA	NA	NA	NA	NA	NA	NA
Penta chlorophenol		UG/KG	3900	1600	NA	NA	NA	NA	NA	NA	NA
Phenanthrene		UG/KG	ND	330	NA	NA	NA	NA	NA	NA	NA
Phenol		UG/KG	1900	330	NA	NA	NA	NA	NA	NA	NA
Pyrene		UG/KG	3800	2000	330	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene		UG/KG	ND	790	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol		UG/KG	ND	330	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol		UG/KG									
IS/SURROGATE(S)		%	113	50-200	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene-D4		%	120	50-200	NA	NA	NA	NA	NA	NA	NA
Naphthalene-D8		%	114	50-200	NA	NA	NA	NA	NA	NA	NA
Acenaphthene-D10		%	104	50-200	NA	NA	NA	NA	NA	NA	NA
Phenanthrene-D10		%	98	50-200	NA	NA	NA	NA	NA	NA	NA
Chrysene-D12		%	144	50-200	NA	NA	NA	NA	NA	NA	NA
Perylene-D12		%	64	30-127	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene-D5		%	78	36-138	NA	NA	NA	NA	NA	NA	NA
2-Fluorobiphenyl		%	114	41-167	NA	NA	NA	NA	NA	NA	NA
p-Terphenyl-d14		%	65	34-120	NA	NA	NA	NA	NA	NA	NA
Phenol-D5		%	59	26-120	NA	NA	NA	NA	NA	NA	NA
2-Fluorophenol		%	100	42-140	NA	NA	NA	NA	NA	NA	NA
2,4,6-Tribromophenol		%									

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NA = Not Applicable      ND = Not Detected

STL Buffalo

Date: 07/28/2004  
Time: 15:15:53

Gallagher Beach  
Gallagher Beach  
METHOD 8081 - TCL PESTICIDES

Rept: AN0326

Client ID Job No Sample Date	Lab ID	Method Blank A04-6714	Method Blank A4B1303202	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit
Analyte	Units								
Aldrin	UG/KG	ND	1.6	NA	NA	NA	NA	NA	NA
alpha-BHC	UG/KG	ND	1.6	NA	NA	NA	NA	NA	NA
beta-BHC	UG/KG	ND	1.6	NA	NA	NA	NA	NA	NA
gamma-BHC (Lindane)	UG/KG	ND	1.6	NA	NA	NA	NA	NA	NA
delta-BHC	UG/KG	ND	1.6	NA	NA	NA	NA	NA	NA
chlor dane	UG/KG	ND	16	NA	NA	NA	NA	NA	NA
4,4'-DDD	UG/KG	ND	1.6	NA	NA	NA	NA	NA	NA
4,4'-DDE	UG/KG	ND	1.6	NA	NA	NA	NA	NA	NA
4,4'-DDT	UG/KG	ND	1.6	NA	NA	NA	NA	NA	NA
Dieldrin	UG/KG	ND	1.6	NA	NA	NA	NA	NA	NA
Endosulfan I	UG/KG	ND	1.6	NA	NA	NA	NA	NA	NA
Endosulfan II	UG/KG	ND	1.6	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	UG/KG	ND	1.6	NA	NA	NA	NA	NA	NA
Endrin	UG/KG	ND	1.6	NA	NA	NA	NA	NA	NA
Endrin aldehyde	UG/KG	ND	1.6	NA	NA	NA	NA	NA	NA
Heptachlor	UG/KG	ND	1.6	NA	NA	NA	NA	NA	NA
Heptachlor epoxide	UG/KG	ND	1.6	NA	NA	NA	NA	NA	NA
Methoxychlor	UG/KG	ND	33	NA	NA	NA	NA	NA	NA
Toxaphene	SURROGATE(S)	%	84 114	38-132 46-151	NA	NA	NA	NA	NA
Tetrachloro-m-xylene									
Decachlorobiphenyl									

NA = Not Applicable      ND = Not Detected

STL Buffalo

Date: 07/28/2004  
Time: 15:15:53

Rept: AN0326

Gallagher Beach  
Gallagher Beach  
METHOD 8082 - POLYCHLORINATED BIPHENYLS

Client ID Job No Sample Date	Lab ID	Method Blank A04-6714	A4B1306902	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit
Analyte	Units	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit
Aroclor 1016	ug/kg	ND	16	NA	NA	NA	NA	NA	NA
Aroclor 1221	ug/kg	ND	16	NA	NA	NA	NA	NA	NA
Aroclor 1232	ug/kg	ND	16	NA	NA	NA	NA	NA	NA
Aroclor 1242	ug/kg	ND	16	NA	NA	NA	NA	NA	NA
Aroclor 1248	ug/kg	ND	16	NA	NA	NA	NA	NA	NA
Aroclor 1254	ug/kg	ND	16	NA	NA	NA	NA	NA	NA
Aroclor 1260	ug/kg	ND	16	NA	NA	NA	NA	NA	NA
<u>SURROGATE(S)</u>									
Tetrachloro-m-xylene Decachlorobiphenyl	%	81 99	32-148 36-153	NA NA	NA	NA	NA	NA	NA

NA = Not Applicable

ND = Not Detected

STL Buffalo

Date: 07/28/2004  
Time: 15:15:53

Gallagher Beach  
Gallagher Beach  
METHOD 8151 - TCL HERBICIDES

Rept: AN0326

Client ID Job No Sample Date	Lab ID	Method Blank A04-6714	A4B1306502	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit
Analyte	Units			Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit
2,4-D	ug/kg	ND	17	NA	NA	NA	NA	NA	NA
2,4,5-TP (Silvex)	ug/kg	ND	17	NA	NA	NA	NA	NA	NA
2,4,5-T	ug/kg	ND	17	NA	NA	NA	NA	NA	NA
SURROGATE(S)	%	74	10-147	NA		NA		NA	
Dichlorophenyl Acetic Acid	%								

NA = Not Applicable

ND = Not Detected

STL Buffalo

Date: 07/28/2004  
Time: 15:15:53

Rept: AN0326

Gallagher Beach  
Gallagher Beach  
METHOD 8081 - TCL PESTICIDES

Client ID Job No Sample Date	Lab ID	Matrix Spike Blank A04-6714	Matrix Spike Blank A4B1303201	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit
Analyte	Units								
Aldrin	UG/KG	15	1.6	NA	NA	NA	NA	NA	NA
alpha-BHC	UG/KG	14	1.6	NA	NA	NA	NA	NA	NA
beta-BHC	UG/KG	16	1.6	NA	NA	NA	NA	NA	NA
gamma-BHC (Lindane)	UG/KG	14	1.6	NA	NA	NA	NA	NA	NA
detta-BHC	UG/KG	15	1.6	NA	NA	NA	NA	NA	NA
Chlordane	UG/KG	ND	16	NA	NA	NA	NA	NA	NA
4,4'-DDD	UG/KG	17	1.6	NA	NA	NA	NA	NA	NA
4,4'-DDE	UG/KG	20	1.6	NA	NA	NA	NA	NA	NA
4,4'-DDT	UG/KG	17	1.6	NA	NA	NA	NA	NA	NA
Dieldrin	UG/KG	16	1.6	NA	NA	NA	NA	NA	NA
Endosulfan I	UG/KG	18	1.6	NA	NA	NA	NA	NA	NA
Endosulfan II	UG/KG	13	1.6	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	UG/KG	17	1.6	NA	NA	NA	NA	NA	NA
Endrin	UG/KG	16	1.6	NA	NA	NA	NA	NA	NA
Endrin Aldehyde	UG/KG	15	1.6	NA	NA	NA	NA	NA	NA
Heptachlor	UG/KG	16	1.6	NA	NA	NA	NA	NA	NA
Heptachlor epoxide	UG/KG	18	1.6	NA	NA	NA	NA	NA	NA
Methoxychlor	UG/KG	ND	32	NA	NA	NA	NA	NA	NA
Toxaphene	SURROGATE(S)								
Tetrachloro-m-xylene	%	87	38-132	NA	NA	NA	NA	NA	NA
Decachlorobiphenyl	%	121	46-151	NA	NA	NA	NA	NA	NA

NA = Not Applicable      ND = Not Detected

STL Buffalo

Date: 07/28/2004  
Time: 15:15:53

Rept: AN0326

Ga Lager Beach  
Ga Lager Beach  
METHOD 8082 - POLYCHLORINATED BIPHENYLS

Client ID Job No Sample Date	Lab ID	Matrix Spike Blank A04-6714	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit
Analyte	Units	Units	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit
Aroclor 1016	UG/KG	ND	16	NA	NA	NA	NA	NA
Aroclor 1221	UG/KG	ND	16	NA	NA	NA	NA	NA
Aroclor 1232	UG/KG	ND	16	NA	NA	NA	NA	NA
Aroclor 1242	UG/KG	ND	16	NA	NA	NA	NA	NA
Aroclor 1248	UG/KG	ND	16	NA	NA	NA	NA	NA
Aroclor 1254	UG/KG	160	16	NA	NA	NA	NA	NA
Aroclor 1260	UG/KG	ND	16	NA	NA	NA	NA	NA
<u>SURROGATE(S)</u>								
Tetrachloro-m-xylene	%	78	32-148	NA	NA	NA	NA	NA
Decachlorobiphenyl	%	96	36-153	NA	NA	NA	NA	NA

NA = Not Applicable      ND = Not Detected

STL Buffalo

Date: 07/28/2004  
Time: 15:15:53

Rept: AN0326

Gallagher Beach  
Gallagher Beach  
METHOD 8151 - TCL HERBICIDES

Client ID Job No Sample Date	Lab ID	Matrix Spike Blank A04-6714	TP8 (2-4) A04-6714	TP8 (2-4) A04-6714	TP8 (2-4) A4672210MS	TP8 (2-4) A4672210SD
Analyte	Units	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value
2,4-D	UG/KG	ND	17	78	68	20
2,4,5-TP (Silvex)	UG/KG	11 J	17	58	63	NA
2,4,5-T	UG/KG	4.8 J	17	47	20	NA
SURROGATE(S)=					54	20
Dichlorophenyl Acetic Acid	%	68	10-147	80	10-147	89
					10-147	NA

Date: 07/28/2004  
Time: 15:15:58

Gallagher Beach  
Gallagher Beach  
TOTAL TCL METALS

Rept: AN0326

Client ID Job No Sample Date	Lab ID	Method Blank		Method Blank	
		A04-6714	A4B1299102	A04-6714	A4B1308702
Analyte	Units	Sample Value	Reporting Limit	Sample Value	Reporting Limit
Mercury - Total	MG/KG	ND		NA	
Iron - Total	MG/KG	NA		NA	
Magnesium - Total	MG/KG	NA		NA	
Thallium - Total	MG/KG	NA		NA	
Silver - Total	MG/KG	NA		NA	
Cobalt - Total	MG/KG	NA		NA	
Calcium - Total	MG/KG	NA		NA	
Aluminum - Total	MG/KG	NA		NA	
Arsenic - Total	MG/KG	NA		NA	
Antimony - Total	MG/KG	NA		NA	
Barium - Total	MG/KG	NA		NA	
Beryllium - Total	MG/KG	NA		NA	
Cadmium - Total	MG/KG	NA		NA	
Selenium - Total	MG/KG	NA		NA	
Chromium - Total	MG/KG	NA		NA	
Copper - Total	MG/KG	NA		NA	
Lead - Total	MG/KG	NA		NA	
Manganese - Total	MG/KG	NA		NA	
Nickel - Total	MG/KG	NA		NA	
Potassium - Total	MG/KG	NA		NA	
Sodium - Total	MG/KG	NA		NA	
Vanadium - Total	MG/KG	NA		NA	
Zinc - Total	MG/KG	NA		NA	

NA = Not Applicable      ND = Not Detected

STL Buffalo

Date: 07/28/2004  
Time: 15:15:58

Rept: AN0326

Gallagher Beach  
Gallagher Beach  
TOTAL TCL METALS

Client ID	Lab No	Lab ID	LCS A04-6714	A4B1299101	LCS CLP Soils A04-6714	A4B1308701	
Analyte	Units	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit
Mercury - Total	MG/KG	3.7	0.24	NA	0.20	NA	NA
Manganese - Total	MG/KG	NA		561	141	NA	NA
Sodium - Total	MG/KG	NA		413	116	NA	NA
Copper - Total	MG/KG	NA		NA	1.0	NA	NA
Aluminum - Total	MG/KG	NA		6360	10.1	NA	NA
Arsenic - Total	MG/KG	NA		NA	2.0	NA	NA
Antimony - Total	MG/KG	NA		102	NA	NA	NA
Barium - Total	MG/KG	NA		46.4	15.2	NA	NA
Beryllium - Total	MG/KG	NA		323	0.50	NA	NA
Cadmium - Total	MG/KG	NA		129	0.20	NA	NA
Selenium - Total	MG/KG	NA		94.3	0.20	NA	NA
Calcium - Total	MG/KG	NA		166	4.0	NA	NA
Chromium - Total	MG/KG	NA		3140	10.1	NA	NA
Cobalt - Total	MG/KG	NA		158	0.50	NA	NA
Iron - Total	MG/KG	NA		132	0.50	NA	NA
Lead - Total	MG/KG	NA		9560	10.1	NA	NA
Magnesium - Total	MG/KG	NA		99.5	1.0	NA	NA
Nickel - Total	MG/KG	NA		1940	20.2	NA	NA
Potassium - Total	MG/KG	NA		124	0.50	NA	NA
Silver - Total	MG/KG	NA		1860	30.3	NA	NA
Thallium - Total	MG/KG	NA		79.4	0.50	NA	NA
Vanadium - Total	MG/KG	NA		148	6.1	NA	NA
Zinc - Total	MG/KG	NA		110	0.50	NA	NA
				183	2.0	NA	NA

NA = Not Applicable ND = Not Detected

STL Buffalo

Date: 07/28/2004  
Time: 15:16:01

Gallagher Beach  
Gallagher Beach  
WET CHEMISTRY ANALYSIS

Rept: AN0326

Client ID Job No Sample Date	Lab ID	Method Blank A04-6714	A4B1316604					
Analyte	Units	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value
Cyanide - Total	ug/g	ND	1.0	NA	NA	NA	NA	NA

NA = Not Applicable      ND = Not Detected

STL Buffalo

Date: 07/28/2004  
Time: 15:10:01

Rept: AN0326

Gallagher Beach  
Gallagher Beach  
WET CHEMISTRY ANALYSIS

Client ID Job No Sample Date	Lab ID	LCS A04-6714	A4B1316603				
Analyte	Units	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit
Cyanide - Total	ug/g	250	1.0	NA	NA	NA	NA

Date : 07/28/2004 15:16:04

WATTS ENGINEERS

Rept: AN0364

Client Sample ID: VBLK88  
Lab Sample ID: A4B1321202MSB 88  
A4B1321201

Analyte	Units of Measure	Blank Spike	Concentration Spike Amount	% Recovery Blank Spike	QC LIMITS
<b>METHOD 8260 - TCL VOLATILE ORGANICS</b>					
1,1-Dichloroethene	UG/KG	37.1	50.0	74	65-146
Trichloroethene	UG/KG	51.1	50.0	102	74-127
Benzene	UG/KG	50.3	50.0	101	74-128
Toluene	UG/KG	48.3	50.0	97	74-123
Chlorobenzene	UG/KG	47.9	50.0	96	76-124

\* Indicates Result is outside QC Limits  
 NC = Not Calculated ND = Not Detected

Date : 07/28/2004 15:16:04

WATTS ENGINEERS

Rept: AN0364

Client Sample ID: VBLK89  
Lab Sample ID: A4B1321204MSB 89  
A4B1321203

Analyte	Units of Measure	Blank Spike	Concentration Spike Amount	% Recovery Blank Spike	QC LIMITS
<b>METHOD 8260 - TCL VOLATILE ORGANICS</b>					
1,1-Dichloroethene	µg/kg	35.2	50.0	70	65-146
Trichloroethene	µg/kg	46.9	50.0	94	74-127
Benzene	µg/kg	47.1	50.0	94	74-128
Toluene	µg/kg	45.4	50.0	91	74-123
chlorobenzene	µg/kg	45.4	50.0	91	76-124

\* Indicates Result is outside QC Limits  
 NC = Not Calculated ND = Not Detected

Date : 07/28/2004 15:16:09

WATTS ENGINEERS

Rept: AN0364

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\* Indicates Result is outside QC Limits  
 NC = Not Calculated ND = Not Detected

STL Buffalo

Client Sample ID: S Blank  
 Lab Sample ID: A4B1303002

Matrix Spike Blank  
 A4B1303001

Analyte	Units of Measure	Blank Spike	Concentration	Spike Amount	% Recovery	Blank Spike	QC LIMITS
<b>METHOD 8270 - TCL SEMI-VOLATILE ORGANICS</b>							
Phenol	UG/KG	1945	3307	59	35-120		
2-Chlorophenol	UG/KG	2041	3307	62	34-118		
1,4-Dichlorobenzene	UG/KG	1871	3307	56	30-120		
N-Nitroso-di-n-propylamine	UG/KG	2551	3307	77	42-131		
1,2,4-Trichlorobenzene	UG/KG	2033	3307	61	32-120		
4-Chloro-3-methylphenol	UG/KG	2561	3307	77	45-135		
Acenaphthene	UG/KG	2696	3307	82	49-131		
4-Nitrophenol	UG/KG	2287	3307	69	36-142		
2,4-Dinitrotoluene	UG/KG	2620	3307	79	45-138		
Pentachlorophenol	UG/KG	3894	3307	118	28-135		
Pyrene	UG/KG	3853	3307	116	48-154		

Date : 07/28/2004 15:16:12

WATTS ENGINEERS

Rept: AN0364

Client Sample ID: Method Blank  
Lab Sample ID: A4B1303202Matrix Spike Blank  
A4B1303201

Analyte	Units of Measure	Blank Spike	Concentration Spike Amount	% Recovery Blank Spike	QC LIMITS
<b>METHOD 8081 - TCL PESTICIDES</b>					
Aldrin	UG/KG	14.6	16.3	90	48-128
alpha-BHC	UG/KG	13.9	16.3	86	47-123
beta-BHC	UG/KG	16.3	16.3	100	56-129
delta-BHC	UG/KG	14.7	16.3	90	42-127
gamma-BHC (Lindane)	UG/KG	14.4	16.3	89	42-136
4,4'-DDD	UG/KG	16.9	16.3	104	42-133
4,4'-DDE	UG/KG	19.9	16.3	122	44-136
4,4'-DDT	UG/KG	16.7	16.3	103	49-148
Dieldrin	UG/KG	15.9	16.3	98	51-132
Endosulfan I	UG/KG	17.9	16.3	110	42-132
Endosulfan II	UG/KG	13.2	16.3	81	44-135
Endosulfan Sulfate	UG/KG	16.7	16.3	103	42-136
Endrin aldehyde	UG/KG	14.9	16.3	91	37-123
Endrin	UG/KG	15.9	16.3	98	41-132
Heptachlor	UG/KG	15.9	16.3	98	43-127
Heptachlor epoxide	UG/KG	15.8	16.3	97	45-128
Methoxychlor	UG/KG	17.7	16.3	109	42-140

\* Indicates Result is outside QC Limits  
 NC = Not Calculated ND = Not Detected

WATTS ENGINEERS

Date : 07/28/2004 15:16:12

Client Sample ID: Method Blank  
 Lab Sample ID: A4B1306502

Client Sample ID: Method Blank		Matrix Spike Blank		WATTS ENGINEERS		
		A4B1306501				
Analyte	Units of Measure	Blank Spike	Concentration Spike Amount	% Recovery Blank Spike	QC LIMITS	
METHOD 8151 - TCL HERBICIDES	UG/KG	2.76	65.7	4 *	13-152	
2,4-D	UG/KG	10.7	65.7	16 *	28-114	
2,4,5-TP (Silvex)	UG/KG	4.83	65.7	7 *	20-110	
2,4,5-T						

\* Indicates Result is outside QC Limits  
 NC = Not Calculated ND = Not Detected

Date : 07/28/2004 15:16:12

WATTS ENGINEERS

Rept: AN0364

Client Sample ID: Method Blank  
Lab Sample ID: A4B1306902Matrix Spike Blank  
A4B1306901

Client Sample ID: Method Blank		Matrix Spike Blank	
Analyte	Units of Measure	Concentration	% Recovery
		Blank Spike Amount	Blank Spike Amount
METHOD 8082 - POLYCHLORINATED BIPHENYLS	ug/kg	159	161
Aroclor 1254			98
			52-153

\* Indicates Result is outside QC Limits  
 NC = Not Calculated ND = Not Detected

Date : 07/28/2004 15:6:16

WATTS ENGINEERS

Rept: AN0364

Client Sample ID: Method Blank  
Lab Sample ID: A4B1299102LCS  
A4B1299101

Analyte	Units of Measure	Concentration Blank Spike	Spike Amount	% Recovery Blank Spike	QC LIMITS
TOTAL TCL METALS	MG/KG	3.73	4.00	93	80-120
TOTAL MERCURY					

Date : 07/28/2004 15:16:16

WATTS ENGINEERS

Rept: ANC364

client Sample ID: Method Blank  
Lab Sample ID: A4B1308702LCS CLP Soils  
A4B1308701

Analyte	Units of Measure	Blank Spike	Concentration Spike Amount	% Recovery Blank Spike	QC LIMITS
TOTAL TCL METALS	MG/KG	6362	6360	100	80-120
TOTAL ALUMINUM	MG/KG	46.45	65.20	71 *	80-120
TOTAL ANTIMONY	MG/KG	102.3	110.0	93	80-120
TOTAL ARSENIC	MG/KG	323.1	334.0	97	80-120
TOTAL BARIUM	MG/KG	128.8	133.0	97	80-120
TOTAL BERYLLIUM	MG/KG	94.31	101.0	93	80-120
TOTAL CADMIUM	MG/KG	3144	3320	94	80-120
TOTAL CALCIUM	MG/KG	158.4	167.0	95	80-120
TOTAL CHROMIUM	MG/KG	132.1	136.0	97	80-120
TOTAL COBALT	MG/KG	115.5	118.0	98	80-120
TOTAL COPPER	MG/KG	9559	11400	84	80-120
TOTAL IRON	MG/KG	99.49	102.0	98	80-120
TOTAL LEAD	MG/KG	1941	1980	98	80-120
TOTAL MAGNESIUM	MG/KG	561.0	534.0	105	80-120
TOTAL MANGANESE	MG/KG	124.3	127.0	98	80-120
TOTAL NICKEL	MG/KG	1861	1930	96	80-120
TOTAL POTASSIUM	MG/KG	165.5	166.0	100	80-120
TOTAL SELENIUM	MG/KG	79.43	82.90	96	80-120
TOTAL SILVER	MG/KG	412.9	452.0	91	80-120
TOTAL SODIUM	MG/KG	148.4	152.0	98	80-120
TOTAL THALLIUM	MG/KG	110.1	118.0	93	80-120
TOTAL VANADIUM	MG/KG	183.0	193.0	95	80-120
TOTAL ZINC	MG/KG				

\* Indicates Result is outside QC Limits  
 NC = Not Calculated ND = Not Detected

Date : 07/28/2004 15:16:19

WATTS ENGINEERS

Rept: AN0364

Client Sample ID: Method Blank  
Lab Sample ID: A4B1316604LCS  
A4B1316603

Analyte	Units of Measure	Concentration Blank Spike	Spike Amount	% Recovery Blank Spike	QC LIMITS
WET CHEMISTRY ANALYSIS METHOD 9012 - TOTAL CYANIDE	UG/G	250.4	277.0	90	60-118

\* Indicates Result is outside QC Limits  
 NC = Not Calculated ND = Not Detected

Date: 07/28/2004  
Time: 15:18:22

WATTS ENGINEERS  
SAMPLE CHRONOLOGY

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#### METHOD 8260 - TCL VOLATILE ORGANICS

Client Sample ID		Y2133.08-TP1-0-2' A04-6714 A4671401		Y2133.08-TP1-2-'6' A04-6714 A4671402		Y2133.08-TP1-7-'9' A04-6714 A4671403	
Sample Date	07/15/2004	15:30		07/15/2004	15:35	07/15/2004	15:40
Received Date	07/16/2004	11:53		07/16/2004	11:53	07/16/2004	11:53
Extraction Date	07/20/2004	17:36		07/20/2004	17:53	07/20/2004	18:12
Analysis Date	-			-		-	
Extraction HT Met?	YES		YES			YES	
Analytical HT Met?	SOIL	LOW	SOIL	LOW		SOIL	LOW
Sample Matrix	1.0		1.0			1.0	
Dilution Factor	5.0	GRAMS	5.1	GRAMS		5.19	GRAMS
Sample wt/vol	87.53		86.30			61.05	
% Dry							

Date: 07/28/2004  
Time: 15:16:22

WATTS ENGINEERS  
QC SAMPLE CHRONOLOGY

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## METHOD 8260 - TCL VOLATILE ORGANICS

	Client Sample ID Job No & Lab Sample ID	MSB 88 A04-6714	A4B1321201	MSB 89 A04-6714	A4B1321203
Sample Date Received Date					
Extraction Date	07/20/2004	14:48		07/20/2004	15:07
Analysis Date	-	-		-	-
Extraction HT Met?				SOIL	LOW
Analytical HT Met?				1.0	GRAMS
Sample Matrix	SOIL	LOW		5.0	
Dilution Factor	1.0	GRAMS		100.00	
Sample wt/vol.	5.0				
% Dry	100.00				

Date: 07/28/2004  
Time: 15:16:22

WATTS ENGINEERS  
QC SAMPLE CHRONOLOGY

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## METHOD 8260 - TCL VOLATILE ORGANICS

Client Sample ID		VBLK88	VBLK89
Job No & Lab Sample ID	A04-6714	A4B1321202	A04-6714
Sample Date	07/20/2004	14:11	07/20/2004
Received Date	-	-	14:30
Extraction Date	-	-	
Analysis Date	-	-	
Extraction HT Met?	-	-	
Analytical HT Met?	-	-	
Sample Matrix	SOIL	SOIL	
Dilution Factor	LOW	LOW	
Sample wt/vol	1.0	1.0	
% Dry	5.0	5.0	
	100.00	100.00	GRAMS

Rept: AN0374  
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WATTS ENGINEERS  
SAMPLE CHRONOLOGY

Date: 07/28/2004  
Time: 15:16:26

METHOD 8270 - TCL SEMI-VOLATILE ORGANICS

	Client Sample ID Job No & Lab Sample ID	Y2133-08-TP1-0-2' A04-6714 A4671401	Y2133-08-TP1-2'-6' A04-6714 A4671402	Y2133-08-TP1-7'-9' A04-6714 A4671403
Sample Date	07/15/2004	15:30	07/15/2004	15:35
Received Date	07/16/2004	11:55	07/16/2004	11:53
Extraction Date	07/19/2004	07:00	07/19/2004	07:00
Analysis Date	07/21/2004	17:29	07/21/2004	17:56
Extraction HT Met?	YES		YES	
Analytical HT Met?	YES		YES	
Sample Matrix	SOIL	LOW	SOIL	LOW
Dilution Factor	5.0	GRAMS	20.0	5.0
Sample wt/vol	30.5		30.18	30.92
% Dry	76.96		84.59	62.66

Date: 07/28/2004  
Time: 15:16:26

WATTS ENGINEERS  
QC SAMPLE CHRONOLOGY

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## METHOD 8270 - TCL SEMI-VOLATILE ORGANICS

Client Sample ID	Matrix Spike Blank
Job No & Lab Sample ID	A04-6714 A4B1303001
Sample Date Received Date	
Extraction Date	07/19/2004 07:00
Analysis Date	07/19/2004 19:12
Extraction HT Met?	-
Analytical HT Met?	-
Sample Matrix	SOIL
Dilution Factor	1.0
Sample wt/vol	30.23 GRAMS
% dry	100.00

Date: 07/28/2004  
Time: 15:16:26

WATTS ENGINEERS  
QC SAMPLE CHRONOLOGY

Rept: AN0374  
Page: 3

## METHOD 8270 - TCL SEMI-VOLATILE ORGANICS

	Client Sample ID	S Blank		
Job No & Lab Sample ID	A04-6714	A4B1303002		
Sample Date				
Received Date	07/19/2004	07:00		
Extraction Date	07/19/2004	19:59		
Analysis Date	-	-		
Extraction HT Met?				
Analytical HT Met?				
Sample Matrix	SOIL	LOW		
Dilution Factor	1.0			
Sample wt/vol	30.32	GRAMS		
% Dry	100.00			

Date: 07/28/2004  
Time: 15:16:29

WATTS ENGINEERS  
SAMPLE CHRONOLOGY

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## METHOD 8081 - TCL PESTICIDES

Client Sample ID Job No & Lab Sample ID	Y2133.08-TP1-0'-2' A04-6714 A4671401	Y2133.08-TP1-2'-6' A04-6714 A4671402	Y2133.08-TP1-7'-9' A04-6714 A4671403
Sample Date Received Date	07/15/2004 15:30 07/16/2004 11:53	07/15/2004 15:35 07/16/2004 11:53	07/15/2004 15:40 07/16/2004 11:53
Extraction Date Analysis Date	07/19/2004 07:00 07/23/2004 01:03	07/19/2004 07:00 07/23/2004 01:38	07/19/2004 07:00 07/23/2004 02:14
Extraction HT Met? Analytical HT Met?	YES YES	YES YES	YES YES
Sample Matrix Dilution Factor	SOIL 1.0	SOIL 2.0	SOIL 4.0
Sample wt/vol % dry	GRAMS 30.71	GRAMS 30.61	GRAMS 30.53
	76.96	84.59	62.66

## METHOD 8082 - POLYCHLORINATED BIPHENYLS

Client Sample ID Job No & Lab Sample ID	Y2133.08-TP1-0'-2' A04-6714 A4671401	Y2133.08-TP1-2'-6' A04-6714 A4671402	Y2133.08-TP1-7'-9' A04-6714 A4671403
Sample Date Received Date	07/15/2004 15:30 07/16/2004 11:53	07/15/2004 15:35 07/16/2004 11:53	07/15/2004 15:40 07/16/2004 11:53
Extraction Date Analysis Date	07/20/2004 07:00 07/22/2004 16:36	07/20/2004 07:00 07/22/2004 16:51	07/20/2004 07:00 07/22/2004 17:21
Extraction HT Met? Analytical HT Met?	YES YES	YES YES	YES YES
Sample Matrix Dilution Factor	SOIL 1.0	SOIL 5.0	SOIL 5.0
Sample wt/vol % dry	GRAMS 30.99	GRAMS 30.64	GRAMS 30.2
	76.96	84.59	62.66

## METHOD 8151 - TCL HERBICIDES

Client Sample ID Job No & Lab Sample ID	Y2133.08-TP1-0'-2' A04-6714 A4671401	Y2133.08-TP1-2'-6' A04-6714 A4671402	Y2133.08-TP1-7'-9' A04-6714 A4671403
Sample Date Received Date	07/15/2004 15:30 07/16/2004 11:53	07/15/2004 15:35 07/16/2004 11:53	07/15/2004 15:40 07/16/2004 11:53
Extraction Date Analysis Date	07/20/2004 07:00 07/23/2004 05:18	07/20/2004 07:00 07/23/2004 06:04	07/20/2004 07:00 07/23/2004 06:50
Extraction HT Met? Analytical HT Met?	YES YES	YES YES	YES YES
Sample Matrix Dilution Factor	SOIL 1.0	SOIL 1.0	SOIL 1.0
Sample wt/vol % dry	GRAMS 30.3543	GRAMS 30.31	GRAMS 30.88
	76.96	84.59	62.66

Date: 07/28/2004  
Time: 15:16:29

WATTS ENGINEERS  
QC SAMPLE CHRONOLOGY

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METHOD 8081 - TCL PESTICIDES

Client Sample ID Job No & Lab Sample ID	Matrix Spike Blank A04-6714 A4B1303201	Matrix Spike Blank A04-6714 A4B1306501	Matrix Spike Blank A04-6714 A4B1306901	TP8 (2-4) A04-6714 A4672210MS	TP8 (2-4) A04-6714 A4672210SD
Sample Date Received Date	07/19/2004 07:00 07/21/2004 20:20	NA	NA	NA	NA
Extraction Date Analysis Date	-	NA	NA	NA	NA
Extraction HT Met? Analytical HT Met?	SOIL 1.0 30.67 100.00	LOW GRAMS	NA	NA	NA
Sample Matrix Dilution Factor Sample wt/vol % dry					

METHOD 8082 - POLYCHLORINATED BIPHENYLS

Client Sample ID Job No & Lab Sample ID	Matrix Spike Blank A04-6714 A4B1303201	Matrix Spike Blank A04-6714 A4B1306501	Matrix Spike Blank A04-6714 A4B1306901	TP8 (2-4) A04-6714 A4672210MS	TP8 (2-4) A04-6714 A4672210SD
Sample Date Received Date	NA	NA	NA	07/20/2004 07:00 07/21/2004 11:15	NA
Extraction Date Analysis Date	NA	NA	NA	-	NA
Extraction HT Met? Analytical HT Met?	SOIL 1.0 30.92 100.00	LOW GRAMS	NA	SOIL 1.0 30.92 100.00	NA
Sample Matrix Dilution Factor Sample wt/vol % dry					

METHOD 8151 - TCL HERBICIDES

Client Sample ID Job No & Lab Sample ID	Matrix Spike Blank A04-6714 A4B1303201	Matrix Spike Blank A04-6714 A4B1306501	Matrix Spike Blank A04-6714 A4B1306901	TP8 (2-4) A04-6714 A4672210MS	TP8 (2-4) A04-6714 A4672210SD
Sample Date Received Date	07/20/2004 07:00 07/23/2004 03:45	NA	07/20/2004 07:00 07/22/2004 23:54	07/20/2004 07:00 07/23/2004 00:40	07/20/2004 07:00 07/23/2004 -
Extraction Date Analysis Date	NA	NA	NA	SOIL 1.0 30.43 100.00	SOIL 1.0 30.31 82.35
Extraction HT Met? Analytical HT Met?	SOIL 1.0 30.43 100.00	LOW GRAMS	SOIL 1.0 30.1 82.35	LOW GRAMS	LOW GRAMS
Sample Matrix Dilution Factor Sample wt/vol % dry					

NA = Not Applicable

STL Buffalo

Date: 07/28/2004  
Time: 15:16:29

WATTS ENGINEERS  
QC SAMPLE CHRONOLOGY

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## METHOD 8081 - TCL PESTICIDES

Client Sample ID Job No & Lab Sample ID	Method Blank A04-6714 A4B1303202	Method Blank A04-6714 A4B1306502	Method Blank A04-6714 A4B1306902
Sample Date Received Date	07/19/2004 07:00 -		
Extraction Date	07/21/2004 20:56	NA	NA
Analysis Date			
Extraction HI Met?	-		
Analytical HI Met?			
Sample Matrix			
Dilution Factor			
Sample wt/vol % dry	SOIL 1.0 30.35 GRAMS 100.00		

## METHOD 8082 - POLYCHLORINATED BIPHENYLS

Client Sample ID Job No & Lab Sample ID	Method Blank A04-6714 A4B1303202	Method Blank A04-6714 A4B1306502	Method Blank A04-6714 A4B1306902
Sample Date Received Date			
Extraction Date			
Analysis Date			
Extraction HI Met?	NA		
Analytical HI Met?			
Sample Matrix			
Dilution Factor			
Sample wt/vol % dry	NA		

## METHOD 8151 - TCL HERBICIDES

Client Sample ID Job No & Lab Sample ID	Method Blank A04-6714 A4B1303202	Method Blank A04-6714 A4B1306502	Method Blank A04-6714 A4B1306902
Sample Date Received Date			
Extraction Date			
Analysis Date			
Extraction HI Met?	NA		
Analytical HI Met?			
Sample Matrix			
Dilution Factor			
Sample wt/vol % dry			

NA = Not Applicable

Date: 07/28/2004 15:16:33  
Jobno: A04-6714

WATTS ENGINEERS  
SAMPLE CHRONOLOGY

Rept: AN0369

Lab ID	Sample ID	Units	Analyte	Method	Dilution Factor	Sample Date	Receive Date	TCLP Date	AHT Date	AHT Matrix
A4671401	Y2133.08-TP1-0'-2'	MG/KG	Aluminum - Total	6010	1.00	07/15/2004 15:30	07/16 11:53	NA	07/20 20:43	Yes SOIL
		MG/KG	Antimony - Total	6010	1.00	07/15/2004 15:30	07/16 11:53	NA	07/20 20:43	Yes SOIL
		MG/KG	Arsenic - Total	6010	1.00	07/15/2004 15:30	07/16 11:53	NA	07/20 20:43	Yes SOIL
		MG/KG	Barium - Total	6010	1.00	07/15/2004 15:30	07/16 11:53	NA	07/20 20:43	Yes SOIL
		MG/KG	Beryllium - Total	6010	1.00	07/15/2004 15:30	07/16 11:53	NA	07/20 20:43	Yes SOIL
		MG/KG	Cadmium - Total	6010	1.00	07/15/2004 15:30	07/16 11:53	NA	07/20 20:43	Yes SOIL
		MG/KG	Calcium - Total	6010	1.00	07/15/2004 15:30	07/16 11:53	NA	07/20 20:43	Yes SOIL
		MG/KG	Chromium - Total	6010	1.00	07/15/2004 15:30	07/16 11:53	NA	07/20 20:43	Yes SOIL
		MG/KG	Cobalt - Total	6010	1.00	07/15/2004 15:30	07/16 11:53	NA	07/20 20:43	Yes SOIL
		MG/KG	Copper - Total	6010	1.00	07/15/2004 15:30	07/16 11:53	NA	07/20 20:43	Yes SOIL
		MG/KG	Iron - Total	6010	1.00	07/15/2004 15:30	07/16 11:53	NA	07/20 20:43	Yes SOIL
		MG/KG	Lead - Total	6010	1.00	07/15/2004 15:30	07/16 11:53	NA	07/20 20:43	Yes SOIL
		MG/KG	Magnesium - Total	6010	1.00	07/15/2004 15:30	07/16 11:53	NA	07/20 20:43	Yes SOIL
		MG/KG	Manganese - Total	6010	1.00	07/15/2004 15:30	07/16 11:53	NA	07/20 20:43	Yes SOIL
		MG/KG	Mercury - Total	7471	1.00	07/15/2004 15:30	07/16 11:53	NA	07/16 17:43	Yes SOIL
		MG/KG	Nickel - Total	6010	1.00	07/15/2004 15:30	07/16 11:53	NA	07/20 20:43	Yes SOIL
		MG/KG	Potassium - Total	6010	1.00	07/15/2004 15:30	07/16 11:53	NA	07/20 20:43	Yes SOIL
		MG/KG	Selenium - Total	6010	1.00	07/15/2004 15:30	07/16 11:53	NA	07/20 20:43	Yes SOIL
		MG/KG	Silver - Total	6010	1.00	07/15/2004 15:30	07/16 11:53	NA	07/20 20:43	Yes SOIL
		MG/KG	Sodium - Total	6010	1.00	07/15/2004 15:30	07/16 11:53	NA	07/20 20:43	Yes SOIL
		MG/KG	Thallium - Total	6010	1.00	07/15/2004 15:30	07/16 11:53	NA	07/20 20:43	Yes SOIL
		MG/KG	Vanadium - Total	6010	1.00	07/15/2004 15:30	07/16 11:53	NA	07/20 20:43	Yes SOIL
		MG/KG	Zinc - Total	6010	1.00	07/15/2004 15:30	07/16 11:53	NA	07/20 20:43	Yes SOIL
		MG/KG	Aluminum - Total	6010	1.00	07/15/2004 15:35	07/16 11:53	NA	07/20 20:48	Yes SOIL
		MG/KG	Antimony - Total	6010	1.00	07/15/2004 15:35	07/16 11:53	NA	07/20 20:48	Yes SOIL
		MG/KG	Arsenic - Total	6010	1.00	07/15/2004 15:35	07/16 11:53	NA	07/20 20:48	Yes SOIL
		MG/KG	Barium - Total	6010	1.00	07/15/2004 15:35	07/16 11:53	NA	07/20 20:48	Yes SOIL
		MG/KG	Beryllium - Total	6010	1.00	07/15/2004 15:35	07/16 11:53	NA	07/20 20:48	Yes SOIL
		MG/KG	Cadmium - Total	6010	1.00	07/15/2004 15:35	07/16 11:53	NA	07/20 20:48	Yes SOIL
		MG/KG	Calcium - Total	6010	5.00	07/15/2004 15:35	07/16 11:53	NA	07/21 18:56	Yes SOIL
		MG/KG	Chromium - Total	6010	1.00	07/15/2004 15:35	07/16 11:53	NA	07/20 20:48	Yes SOIL
		MG/KG	Cobalt - Total	6010	1.00	07/15/2004 15:35	07/16 11:53	NA	07/20 20:48	Yes SOIL
		MG/KG	Copper - Total	6010	1.00	07/15/2004 15:35	07/16 11:53	NA	07/20 20:48	Yes SOIL
		MG/KG	Iron - Total	6010	1.00	07/15/2004 15:35	07/16 11:53	NA	07/20 20:48	Yes SOIL
		MG/KG	Nickel - Total	6010	1.00	07/15/2004 15:35	07/16 11:53	NA	07/20 20:48	Yes SOIL
		MG/KG	Potassium - Total	6010	1.00	07/15/2004 15:35	07/16 11:53	NA	07/20 20:48	Yes SOIL
		MG/KG	Selenium - Total	6010	1.00	07/15/2004 15:35	07/16 11:53	NA	07/20 20:48	Yes SOIL
		MG/KG	Silver - Total	6010	1.00	07/15/2004 15:35	07/16 11:53	NA	07/20 20:48	Yes SOIL
		MG/KG	Sodium - Total	6010	1.00	07/15/2004 15:35	07/16 11:53	NA	07/20 20:48	Yes SOIL
		MG/KG	Thallium - Total	6010	1.00	07/15/2004 15:35	07/16 11:53	NA	07/20 20:48	Yes SOIL
		MG/KG	Vanadium - Total	6010	1.00	07/15/2004 15:35	07/16 11:53	NA	07/20 20:48	Yes SOIL
		MG/KG	Zinc - Total	6010	1.00	07/15/2004 15:40	07/16 11:53	NA	07/20 20:53	Yes SOIL
		MG/KG	Aluminum - Total	6010	1.00	07/15/2004 15:40	07/16 11:53	NA	07/20 20:53	Yes SOIL
		MG/KG	Antimony - Total	6010	1.00	07/15/2004 15:40	07/16 11:53	NA	07/20 20:53	Yes SOIL
A4671402	Y2133.08-TP1-2'-6'									
A4671403	Y2133.08-TP1-7'-9'									

AHT = Analysis Holding Time Met

THT = TCLP Holding Time Met

NA = Not Applicable

STL Buffalo

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Date: 07/28/2004 15:16:33  
Jobno: A04-6714

WATTS ENGINEERS  
SAMPLE CHRONOLOGY

Rept: AN0369

Lab ID	Sample ID	Units	Analyte	Method	Dilution Factor	Sample Date	Receive Date	TCLP Date	AHT Date	Analysis Date	AHT Matrix
A4671403	Y2133.08-TP1-7'-9'	MG/KG	Arsenic - Total	6010	1.00	07/15/2004 15:40	07/16 11:53	NA	NA 07/20 20:53	Yes	SOIL
		MG/KG	Barium - Total	6010	1.00	07/15/2004 15:40	07/16 11:53	NA	NA 07/20 20:53	Yes	SOIL
		MG/KG	Beryllium - Total	6010	1.00	07/15/2004 15:40	07/16 11:53	NA	NA 07/20 20:53	Yes	SOIL
		MG/KG	Cadmium - Total	6010	1.00	07/15/2004 15:40	07/16 11:53	NA	NA 07/20 20:53	Yes	SOIL
		MG/KG	Calcium - Total	6010	1.00	07/15/2004 15:40	07/16 11:53	NA	NA 07/20 20:53	Yes	SOIL
		MG/KG	Chromium - Total	6010	1.00	07/15/2004 15:40	07/16 11:53	NA	NA 07/20 20:53	Yes	SOIL
		MG/KG	Cobalt - Total	6010	1.00	07/15/2004 15:40	07/16 11:53	NA	NA 07/20 20:53	Yes	SOIL
		MG/KG	Copper - Total	6010	1.00	07/15/2004 15:40	07/16 11:53	NA	NA 07/20 20:53	Yes	SOIL
		MG/KG	Iron - Total	6010	1.00	07/15/2004 15:40	07/16 11:53	NA	NA 07/20 20:53	Yes	SOIL
		MG/KG	Lead - Total	6010	1.00	07/15/2004 15:40	07/16 11:53	NA	NA 07/20 20:53	Yes	SOIL
		MG/KG	Magnesium - Total	6010	1.00	07/15/2004 15:40	07/16 11:53	NA	NA 07/20 20:53	Yes	SOIL
		MG/KG	Manganese - Total	6010	1.00	07/15/2004 15:40	07/16 11:53	NA	NA 07/20 20:53	Yes	SOIL
		MG/KG	Mercury - Total	7471	10.00	07/15/2004 15:40	07/16 11:53	NA	NA 07/16 17:46	Yes	SOIL
		MG/KG	Nickel - Total	6010	1.00	07/15/2004 15:40	07/16 11:53	NA	NA 07/20 20:53	Yes	SOIL
		MG/KG	Potassium - Total	6010	1.00	07/15/2004 15:40	07/16 11:53	NA	NA 07/20 20:53	Yes	SOIL
		MG/KG	Selenium - Total	6010	1.00	07/15/2004 15:40	07/16 11:53	NA	NA 07/20 20:53	Yes	SOIL
		MG/KG	Silver - Total	6010	1.00	07/15/2004 15:40	07/16 11:53	NA	NA 07/20 20:53	Yes	SOIL
		MG/KG	Sodium - Total	6010	1.00	07/15/2004 15:40	07/16 11:53	NA	NA 07/20 20:53	Yes	SOIL
		MG/KG	Thallium - Total	6010	1.00	07/15/2004 15:40	07/16 11:53	NA	NA 07/20 20:53	Yes	SOIL
		MG/KG	Vanadium - Total	6010	1.00	07/15/2004 15:40	07/16 11:53	NA	NA 07/20 20:53	Yes	SOIL
		MG/KG	Zinc - Total	6010	1.00	07/15/2004 15:40	07/16 11:53	NA	NA 07/20 20:53	Yes	SOIL

AHT = Analysis Holding Time Met  
THT = TCLP Holding Time Met  
NA = Not Applicable

Date: 07/28/2004 15:16:33  
Jobno: A04-6714

WATTS ENGINEERS  
QC CHRONOLOGY

Rept: AN0369

Lab ID	Sample ID	Units	Analyte	Method	Dilution Factor	Sample Date	Receive Date	TCLP Date	THT	Analysis Date	AHT	Matrix
A4B1299102	Method Blank	ng/kg	Mercury - Total	7471	1.00	-	-	-	-	07/16 18:47	Yes	SOIL
A4B1308702	Method Blank	ng/kg	Aluminum - Total	6010	1.00	-	-	-	-	07/20 18:51	Yes	SOIL
		ng/kg	Antimony - Total	6010	1.00	-	-	-	-	07/20 18:51	Yes	SOIL
		ng/kg	Arsenic - Total	6010	1.00	-	-	-	-	07/20 18:51	Yes	SOIL
		ng/kg	Barium - Total	6010	1.00	-	-	-	-	07/20 18:51	Yes	SOIL
		ng/kg	Beryllium - Total	6010	1.00	-	-	-	-	07/20 18:51	Yes	SOIL
		ng/kg	Cadmium - Total	6010	1.00	-	-	-	-	07/20 18:51	Yes	SOIL
		ng/kg	Calcium - Total	6010	1.00	-	-	-	-	07/20 18:51	Yes	SOIL
		ng/kg	Chromium - Total	6010	1.00	-	-	-	-	07/20 18:51	Yes	SOIL
		ng/kg	Cobalt - Total	6010	1.00	-	-	-	-	07/20 18:51	Yes	SOIL
		ng/kg	Copper - Total	6010	1.00	-	-	-	-	07/20 18:51	Yes	SOIL
		ng/kg	Iron - Total	6010	1.00	-	-	-	-	07/20 18:51	Yes	SOIL
		ng/kg	Lead - Total	6010	1.00	-	-	-	-	07/20 18:51	Yes	SOIL
		ng/kg	Magnesium - Total	6010	1.00	-	-	-	-	07/20 18:51	Yes	SOIL
		ng/kg	Manganese - Total	6010	1.00	-	-	-	-	07/20 18:51	Yes	SOIL
		ng/kg	Nickel - Total	6010	1.00	-	-	-	-	07/20 18:51	Yes	SOIL
		ng/kg	Potassium - Total	6010	1.00	-	-	-	-	07/20 18:51	Yes	SOIL
		ng/kg	Selenium - Total	6010	1.00	-	-	-	-	07/20 18:51	Yes	SOIL
		ng/kg	Silver - Total	6010	1.00	-	-	-	-	07/20 18:51	Yes	SOIL
		ng/kg	Sodium - Total	6010	1.00	-	-	-	-	07/20 18:51	Yes	SOIL
		ng/kg	Thallium - Total	6010	1.00	-	-	-	-	07/20 18:51	Yes	SOIL
		ng/kg	Vanadium - Total	6010	1.00	-	-	-	-	07/20 18:51	Yes	SOIL
		ng/kg	Zinc - Total	6010	1.00	-	-	-	-	07/20 18:51	Yes	SOIL
		ng/kg	Mercury - Total	7471	1.00	-	-	-	-	07/16 17:49	Yes	SOIL
		ng/kg	Aluminum - Total	6010	1.00	-	-	-	-	07/20 18:56	Yes	SOIL
		ng/kg	Antimony - Total	6010	1.00	-	-	-	-	07/20 18:56	Yes	SOIL
		ng/kg	Arsenic - Total	6010	1.00	-	-	-	-	07/20 18:56	Yes	SOIL
		ng/kg	Barium - Total	6010	1.00	-	-	-	-	07/20 18:56	Yes	SOIL
		ng/kg	Beryllium - Total	6010	1.00	-	-	-	-	07/20 18:56	Yes	SOIL
		ng/kg	Cadmium - Total	6010	1.00	-	-	-	-	07/20 18:56	Yes	SOIL
		ng/kg	Calcium - Total	6010	1.00	-	-	-	-	07/20 18:56	Yes	SOIL
		ng/kg	Chromium - Total	6010	1.00	-	-	-	-	07/20 18:56	Yes	SOIL
		ng/kg	Cobalt - Total	6010	1.00	-	-	-	-	07/20 18:56	Yes	SOIL
		ng/kg	Copper - Total	6010	1.00	-	-	-	-	07/20 18:56	Yes	SOIL
		ng/kg	Iron - Total	6010	1.00	-	-	-	-	07/20 18:56	Yes	SOIL
		ng/kg	Lead - Total	6010	1.00	-	-	-	-	07/20 18:56	Yes	SOIL
		ng/kg	Magnesium - Total	6010	1.00	-	-	-	-	07/20 18:56	Yes	SOIL
		ng/kg	Manganese - Total	6010	1.00	-	-	-	-	07/20 18:56	Yes	SOIL
		ng/kg	Nickel - Total	6010	1.00	-	-	-	-	07/20 18:56	Yes	SOIL
		ng/kg	Potassium - Total	6010	1.00	-	-	-	-	07/20 18:56	Yes	SOIL
		ng/kg	Selenium - Total	6010	1.00	-	-	-	-	07/20 18:56	Yes	SOIL
		ng/kg	Silver - Total	6010	1.00	-	-	-	-	07/20 18:56	Yes	SOIL
		ng/kg	Sodium - Total	6010	1.00	-	-	-	-	07/20 18:56	Yes	SOIL
		ng/kg	Thallium - Total	6010	1.00	-	-	-	-	07/20 18:56	Yes	SOIL
		ng/kg	Vanadium - Total	6010	1.00	-	-	-	-	07/20 18:56	Yes	SOIL
		ng/kg	Zinc - Total	6010	1.00	-	-	-	-	07/20 18:56	Yes	SOIL

AHT = Analysis Holding Time Met  
THT = TCLP Holding Time Met  
NA = Not Applicable

Date: 07/28/2004 15:16:36  
 Jobno: A04-6714

WATTS ENGINEERS  
 SAMPLE CHRONOLOGY

Rept: AN0369

Lab ID	Sample ID	Units	Analyte	Method	Dilution Factor	Sample Date	Receive Date	TCLP Date	THT	Analysis Date	AHT	Matrix
A4671401	Y2133.08-TP1-0'-2'	UG/G	Cyanide - Total	9012A	1.00	07/15/2004 15:30	07/16 11:53	NA	NA	07/21 07:29	Yes	SOIL
A4671402	Y2133.08-TP1-2'-6'	UG/G	Cyanide - Total	9012A	1.00	07/15/2004 15:35	07/16 11:53	NA	NA	07/21 07:29	Yes	SOIL
A4671403	Y2133.08-TP1-7'-9'	UG/G	Cyanide - Total	9012A	1.00	07/15/2004 15:40	07/16 11:53	NA	NA	07/21 07:29	Yes	SOIL

Date: 07/28/2004 15:16:36  
 Jobno: A04-6714

WATTS ENGINEERS  
 QC CHRONOLOGY

Rept: AN0369

Lab ID	Sample ID	Units	Analyte	Method	Dilution Factor	Sample Date	Receive Date	TCLP Date	THT	Analyst's Date	AHT	Matrix
A4E1316604	Method Blank	UG/G	Cyanide - Total	9012A	1.00	-	- 11:53	NA	07/21	07:29	Yes	SOIL
A4E1316603	LCS	UG/G	cyanide - Total	9012A	1.00	-	- 11:53	NA	07/21	07:29	Yes	SOIL

AHT = Analysis Holding Time Met  
 THT = TCLP Holding Time Met  
 NA = Not Applicable

## Chain of Custody

*Chain of  
Custody Record*

SEVERN  
TRENT

**Severn Trent Laboratories, Inc.**

STI