

Exhibit D-1 – Memorial Auditorium Block Environmental Reports

Analytical Report Cover Page (53 Pages)

Environmental Soil Data Report for the Former Buffalo Memorial Auditorium Site (118 Pages)

Supplemental Environmental Data Report for inner Harbor Development (43 pages)

Analytical Report Cover Page

LIRO Engineers

For Lab Project # 09-1769

Issued May 28, 2009

Re-Issued May 29, 2009

This report contains a total of 53 pages

This project was re-issued to reflect the Volatile analysis for TCLP Extract.

The reported results relate only to the samples as they have been received by the laboratory.

Any noncompliant QC parameters having impact on the data are flagged or documented on the final report.

All soil/sludge samples have been reported on a dry weight basis, unless qualified "reported as received". Other solids are reported as received.

Each page of this document is part of a multipage report. This document may not be reproduced except in its entirety, without the prior consent of Paradigm Environmental Services, Inc.

The Chain of Custody provides additional information, including compliance with sample condition requirements upon receipt. Sample condition requirements are defined under the 2003 NELAC Standard, sections 5.5.8.3.1 and 5.5.8.3.2.

NYSDOH ELAP does not certify for all parameters. Paradigm Environmental Services or the indicated subcontracted laboratory does hold certification for all analytes where certification is offered by ELAP unless otherwise specified.

Data qualifiers are used, when necessary, to provide additional information about the data. This information may be communicated as a flag or as text at the bottom of the report. Please refer to the following list of frequently used data flags and their meaning:

"ND" = analyzed for but not detected.

"E" = Result has been estimated, calibration limit exceeded.

"D" = Duplicate results outside QC limits. May indicate a non-homogenous matrix.

"M" = Matrix spike recoveries outside QC limits. Matrix bias indicated.

"B" = Method blank contained trace levels of analyte. Refer to included method blank report.

pH Analysis Report**Client:** LIRO Engineers Inc.

Client Job Site: Buffalo Memorial Auditorium **Lab Project Number:** 09-1769
Demo
Client Job Number: N/A **Date Sampled:** 05/14/2009
Time Sampled: 11:20 - 15:00
Date Received: 05/15/2009
Sample Type: Soil **Time Received:** 5:10 PM
Location: Laboratory **Date Analyzed:** 05/18/2009
Time Analyzed: 1:50 PM

Lab Sample Number	Field Number	Field Location	Result (pH)
5934	N/A	BMAD-South-0-1	8.62
5935	N/A	BMAD-N.East-0-1	9.4
5936	N/A	BMAD-North-0-1	11.08
5937	N/A	BMAD-N.West-0-1	9.77
5938	N/A	BMAD-S.West-0-1	10.6
5939	N/A	BMAD-S.East-0-1	8.41

ELAP Number 10958

Method: EPA 9045C

Comments:

Signature:


Bruce Hoogesteger: Technical Director

Flashpoint by Pensky-Martin Analysis Report

Client: LIRO Engineers Inc.

Client Job Site: Buffalo Memorial Auditorium **Lab Project Number:** 09-1769

Demo

Client Job Number: N/A

Date Sampled: 05/14/2009

Date Received: 05/15/2009

Sample Type: Soil

Date Analyzed: 5/18 - 5/19/2009


Lab Sample Number	Field Number	Field Location	Result (°C)
5934	N/A	BMAD-South-0-1	>70
5935	N/A	BMAD-N.East-0-1	>70
5936	N/A	BMAD-North-0-1	>70
5937	N/A	BMAD-N.West-0-1	>70
5938	N/A	BMAD-S.West-0-1	>70
5939	N/A	BMAD-S.East-0-1	>70

ELAP Number 10958

Method: SW846 1010

Comments: °C = degrees Centigrade

Signature:


Bruce Hoogesteger: Technical Director

Paint Filter Analysis Report

Client: LIRO Engineers Inc.

Client Job Site: Buffalo Memorial Auditorium **Lab Project Number:** 09-1769
Demo
Client Job Number: N/A

Sample Type: Soil

Date Sampled: 05/14/2009
Date Received: 05/15/2009
Date Analyzed: 05/18/2009


Lab Sample Number	Field Number	Field Location	Result
5934	N/A	BMAD-South-0-1	Pass (No free liquid)
5935	N/A	BMAD-N.East-0-1	Pass (No free liquid)
5936	N/A	BMAD-North-0-1	Pass (No free liquid)
5937	N/A	BMAD-N.West-0-1	Pass (No free liquid)
5938	N/A	BMAD-S.West-0-1	Pass (No free liquid)
5939	N/A	BMAD-S.East-0-1	Pass (No free liquid)

ELAP Number 10958

Method: SW846 9095

Comments:

Signature:



Bruce Hoogesteger: Technical Director



179 Lake Avenue, Rochester, NY 14608 (585) 647-2530 FAX (585) 647-3311

Client: LIRO Engineers Inc.

Lab Project No.: 09-1769

Client Job Site: Buffalo Memorial Auditorium
Demo

Lab Sample No.: 5934

Client Job No.: N/A

Sample Type: Soil

Field Location: BMAD-South-0-1

Date Sampled: 05/14/2009

Field ID No.: N/A

Date Received: 05/15/2009

Laboratory Report for Solid Waste Analysis

Parameter	Date Analyzed	Analytical Method	Result (mg/kg)
Arsenic	05/18/2009	EPA 6010	4.81
Barium	05/20/2009	EPA 6010	50.3
Cadmium	05/18/2009	EPA 6010	<0.427
Chromium	05/18/2009	EPA 6010	10.6
Lead	05/18/2009	EPA 6010	63.8
Mercury	05/19/2009	EPA 7471	0.127
Selenium	05/18/2009	EPA 6010	<0.427
Silver	05/18/2009	EPA 6010	<0.854

ELAP ID No.:10958

Comments: The laboratory control spike and spike duplicate percent difference was outside QC limits for Barium.

Approved By: _____

Bruce Hoogesteger, Technical Director



179 Lake Avenue, Rochester, NY 14608 (585) 647-2530 FAX (585) 647-3311

Client: LIRO Engineers Inc.
Client Job Site: Buffalo Memorial Auditorium
 Demo
Client Job No.: N/A

Lab Project No.: 09-1769
Lab Sample No.: 5935

Sample Type: Soil

Field Location: BMAD-N.East-0-1
Field ID No.: N/A

Date Sampled: 05/14/2009
Date Received: 05/15/2009

Laboratory Report for Solid Waste Analysis

Parameter	Date Analyzed	Analytical Method	Result (mg/kg)
Arsenic	05/18/2009	EPA 6010	5.99
Barium	05/20/2009	EPA 6010	115
Cadmium	05/18/2009	EPA 6010	<0.581
Chromium	05/18/2009	EPA 6010	10.8
Lead	05/18/2009	EPA 6010	377
Mecury	05/19/2009	EPA 7471	1.49
Selenium	05/18/2009	EPA 6010	<0.581
Silver	05/18/2009	EPA 6010	<1.16

ELAP ID No.:10958

Comments: The laboratory control spike and spike duplicate percent difference was outside QC limits for Barium.

Approved By: _____

Bruce Hoogesteger, Technical Director



179 Lake Avenue, Rochester, NY 14608 (585) 647-2530 FAX (585) 647-3311

Client: LIRO Engineers Inc.
Lab Project No.: 09-1769

Client Job Site: Buffalo Memorial Auditorium
 Demo

Lab Sample No.: 5936

Client Job No.: N/A

Sample Type: Soil

Field Location: BMAD-North-0-1

Date Sampled: 05/14/2009

Field ID No.: N/A

Date Received: 05/15/2009

Laboratory Report for Solid Waste Analysis

Parameter	Date Analyzed	Analytical Method	Result (mg/kg)
Arsenic	05/18/2009	EPA 6010	27.7
Barium	05/18/2009	EPA 6010	62.1
Cadmium	05/18/2009	EPA 6010	<0.593
Chromium	05/18/2009	EPA 6010	12.4
Lead	05/18/2009	EPA 6010	205
Mecury	05/19/2009	EPA 7471	0.0206
Selenium	05/18/2009	EPA 6010	<0.593
Silver	05/18/2009	EPA 6010	<1.19

ELAP ID No.:10958

Comments: The laboratory control spike and spike duplicate percent difference was outside QC limits for Barium.

Approved By: 

Bruce Hoogesteger, Technical Director



179 Lake Avenue, Rochester, NY 14608 (585) 647-2530 FAX (585) 647-3311

Client: LIRO Engineers Inc.
Client Job Site: Buffalo Memorial Auditorium
 Demo
Client Job No.: N/A

Lab Project No.: 09-1769
Lab Sample No.: 5937

Sample Type: Soil

Field Location: BMAD-N.West-0-1
Field ID No.: N/A

Date Sampled: 05/14/2009
Date Received: 05/15/2009

Laboratory Report for Solid Waste Analysis

Parameter	Date Analyzed	Analytical Method	Result (mg/kg)
Arsenic	05/20/2009	EPA 6010	9.44
Barium	05/20/2009	EPA 6010	95.8
Cadmium	05/20/2009	EPA 6010	<0.404
Chromium	05/20/2009	EPA 6010	11.3
Lead	05/20/2009	EPA 6010	343
Mercury	05/19/2009	EPA 7471	0.512
Selenium	05/20/2009	EPA 6010	3.97
Silver	05/20/2009	EPA 6010	<0.809

ELAP ID No.:10958

Comments: The laboratory control spike and spike duplicate percent difference was outside QC limits for Barium.

Approved By: 
 Bruce Hoogesteger, Technical Director



179 Lake Avenue, Rochester, NY 14608 (585) 647-2530 FAX (585) 647-3311

Client:	<u>LIRO Engineers Inc.</u>	Lab Project No.:	09-1769
Client Job Site:	Buffalo Memorial Auditorium Demo	Lab Sample No.:	5938
Client Job No.:	N/A	Sample Type:	Soil
Field Location:	BMAD-S.West-0-1	Date Sampled:	05/14/2009
Field ID No.:	N/A	Date Received:	05/15/2009

Laboratory Report for Solid Waste Analysis

Parameter	Date Analyzed	Analytical Method	Result (mg/kg)
Arsenic	05/20/2009	EPA 6010	9.53
Barium	05/20/2009	EPA 6010	88.7
Cadmium	05/20/2009	EPA 6010	<0.471
Chromium	05/20/2009	EPA 6010	8.01
Lead	05/20/2009	EPA 6010	198
Mercury	05/19/2009	EPA 7471	0.521
Selenium	05/20/2009	EPA 6010	<0.471
Silver	05/20/2009	EPA 6010	<0.942

ELAP ID No.:10958

Comments: The laboratory control spike and spike duplicate percent difference was outside QC limits for Barium.

Approved By: 
 Bruce Hoogesteger, Technical Director



PARADIGM

ENVIRONMENTAL SERVICES, INC.

179 Lake Avenue, Rochester, NY 14608 (585) 647-2530 FAX (585) 647-3311

Client: LIRO Engineers Inc.

Lab Project No.: 09-1769

Client Job Site: Buffalo Memorial Auditorium
Demo

Lab Sample No.: 5939

Client Job No.: N/A

Sample Type: Soil

Field Location: BMAD-S.East-0-1

Date Sampled: 05/14/2009

Field ID No.: N/A

Date Received: 05/15/2009

Laboratory Report for Solid Waste Analysis

Parameter	Date Analyzed	Analytical Method	Result (mg/kg)
Arsenic	05/20/2009	EPA 6010	9.00 D
Barium	05/20/2009	EPA 6010	36.3 D
Cadmium	05/20/2009	EPA 6010	<0.517 M
Chromium	05/20/2009	EPA 6010	9.09
Lead	05/20/2009	EPA 6010	132 D,M
Mecury	05/19/2009	EPA 7471	0.109 D,M
Selenium	05/20/2009	EPA 6010	<0.517
Silver	05/20/2009	EPA 6010	<1.03

ELAP ID No.:10958

Comments: The laboratory control spike and spike duplicate percent difference was outside QC limits for Barium.

Approved By: _____

Bruce Hoogesteger, Technical Director



179 Lake Avenue, Rochester, NY 14608 (585) 647-2530 FAX (585) 647-3311

Client: LIRO Engineers Inc.
Lab Project No.: 09-1769

Lab Sample No.: 5934

Client Job Site: Buffalo Memorial Auditorium
 Demo

Sample Type: TCLP Extract

Client Job No.: N/A

Field Location: BMAD-South-0-1

Date Sampled: 05/14/2009

Date Received: 05/15/2009


Field ID No.: N/A

Laboratory Report for TCLP Metals Analysis

Parameter	Date Analyzed	Analytical Method	Result (mg/L)	Regulatory Limit (mg/L)
TCLP Metal Series				
Arsenic	05/22/2009	EPA 6010	<0.100	5.0
Barium	05/22/2009	EPA 6010	1.41	100.0
Cadmium	05/22/2009	EPA 6010	<0.025	1.0
Chromium	05/22/2009	EPA 6010	<0.050	5.0
Lead	05/22/2009	EPA 6010	<0.100	5.0
Mercury	05/21/2009	EPA 7470	<0.0020	0.2
Selenium	05/22/2009	EPA 6010	<0.100	1.0
Silver	05/22/2009	EPA 6010	<0.050	5.0

ELAP ID No.: 10958

Comments:

Approved By:

 Bruce Hoogesteger, Technical Director



179 Lake Avenue, Rochester, NY 14608 (585) 647-2530 FAX (585) 647-3311

Client: LIRO Engineers Inc.
Lab Project No.: 09-1769

Lab Sample No.: 5935

Client Job Site: Buffalo Memorial Auditorium
 Demo

Sample Type: TCLP Extract

Client Job No.: N/A

Field Location: BMAD-N.East-0-1

Date Sampled: 05/14/2009

Date Received: 05/15/2009

Field ID No.: N/A

Laboratory Report for TCLP Metals Analysis

Parameter	Date Analyzed	Analytical Method	Result (mg/L)	Regulatory Limit (mg/L)
TCLP Metal Series				
Arsenic	05/22/2009	EPA 6010	<0.100	5.0
Barium	05/22/2009	EPA 6010	1.08	100.0
Cadmium	05/22/2009	EPA 6010	<0.025	1.0
Chromium	05/22/2009	EPA 6010	<0.050	5.0
Lead	05/22/2009	EPA 6010	<0.100	5.0
Mercury	05/21/2009	EPA 7470	<0.0020	0.2
Selenium	05/22/2009	EPA 6010	<0.100	1.0
Silver	05/22/2009	EPA 6010	<0.050	5.0

ELAP ID No.: 10958

Comments:

Approved By: 
 Bruce Hookesteger, Technical Director



179 Lake Avenue, Rochester, NY 14608 (585) 647-2530 FAX (585) 647-3311

Client: LIRO Engineers Inc.
Lab Project No.: 09-1769

Lab Sample No.: 5936

Client Job Site: Buffalo Memorial Auditorium
 Demo

Sample Type: TCLP Extract

Client Job No.: N/A

Field Location: BMAD-North-0-1

Date Sampled: 05/14/2009

Date Received: 05/15/2009

Field ID No.: N/A

Laboratory Report for TCLP Metals Analysis

Parameter	Date Analyzed	Analytical Method	Result (mg/L)	Regulatory Limit (mg/L)
TCLP Metal Series				
Arsenic	05/22/2009	EPA 6010	<0.100	5.0
Barium	05/22/2009	EPA 6010	0.584	100.0
Cadmium	05/22/2009	EPA 6010	<0.025	1.0
Chromium	05/22/2009	EPA 6010	<0.050	5.0
Lead	05/22/2009	EPA 6010	<0.100	5.0
Mercury	05/21/2009	EPA 7470	<0.0020	0.2
Selenium	05/22/2009	EPA 6010	<0.100	1.0
Silver	05/22/2009	EPA 6010	<0.050	5.0

ELAP ID No.: 10958

Comments:

Approved By:

 Bruce Hoogesteger, Technical Director



179 Lake Avenue, Rochester, NY 14608 (585) 647-2530 FAX (585) 647-3311

Client: LIRO Engineers Inc.
Lab Project No.: 09-1769

Lab Sample No.: 5937

Client Job Site: Buffalo Memorial Auditorium
 Demo

Sample Type: TCLP Extract

Client Job No.: N/A

Field Location: BMAD-N.West-0-1

Date Sampled: 05/14/2009

Date Received: 05/15/2009

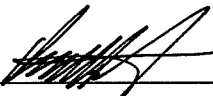
Field ID No.: N/A

Laboratory Report for TCLP Metals Analysis

Parameter	Date Analyzed	Analytical Method	Result (mg/L)	Regulatory Limit (mg/L)
TCLP Metal Series				
Arsenic	05/22/2009	EPA 6010	<0.100	5.0
Barium	05/22/2009	EPA 6010	0.869	100.0
Cadmium	05/22/2009	EPA 6010	<0.025	1.0
Chromium	05/22/2009	EPA 6010	<0.050	5.0
Lead	05/22/2009	EPA 6010	<0.100	5.0
Mercury	05/21/2009	EPA 7470	<0.0020	0.2
Selenium	05/22/2009	EPA 6010	<0.100	1.0
Silver	05/22/2009	EPA 6010	<0.050	5.0

ELAP ID No.: 10958

Comments:

Approved By: 
 Bruce Hoogesteger, Technical Director



179 Lake Avenue, Rochester, NY 14608 (585) 647-2530 FAX (585) 647-3311

Client: LIRO Engineers Inc.
Lab Project No.: 09-1769

Lab Sample No.: 5938

Client Job Site: Buffalo Memorial Auditorium
 Demo

Sample Type: TCLP Extract

Client Job No.: N/A

Field Location: BMAD-S.West-0-1

Date Sampled: 05/14/2009

Date Received: 05/15/2009

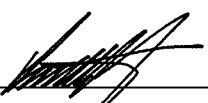
Field ID No.: N/A

Laboratory Report for TCLP Metals Analysis

Parameter	Date Analyzed	Analytical Method	Result (mg/L)	Regulatory Limit (mg/L)
TCLP Metal Series				
Arsenic	05/22/2009	EPA 6010	<0.100	5.0
Barium	05/22/2009	EPA 6010	1.18	100.0
Cadmium	05/22/2009	EPA 6010	<0.025	1.0
Chromium	05/22/2009	EPA 6010	<0.050	5.0
Lead	05/22/2009	EPA 6010	<0.100	5.0
Mercury	05/21/2009	EPA 7470	<0.0020	0.2
Selenium	05/22/2009	EPA 6010	<0.100	1.0
Silver	05/22/2009	EPA 6010	<0.050	5.0

ELAP ID No.: 10958

Comments:

Approved By:

 Bruce Hoogesteger, Technical Director

Client: **LIRO Engineers Inc.**

Lab Project No.: 09-1769

Lab Sample No.: 5939

 Client Job Site: Buffalo Memorial Auditorium
 Demo

Sample Type: TCLP Extract

Client Job No.: N/A

Field Location: BMAD-S.East-0-1

Date Sampled: 05/14/2009

Date Received: 05/15/2009

Field ID No.: N/A

Laboratory Report for TCLP Metals Analysis

Parameter	Date Analyzed	Analytical Method	Result (mg/L)	Regulatory Limit (mg/L)
TCLP Metal Series				
Arsenic	05/22/2009	EPA 6010	<0.100	5.0
Barium	05/22/2009	EPA 6010	0.966	100.0
Cadmium	05/22/2009	EPA 6010	<0.025	1.0
Chromium	05/22/2009	EPA 6010	<0.050	5.0
Lead	05/22/2009	EPA 6010	<0.100	5.0
Mercury	05/21/2009	EPA 7470	<0.0020	0.2
Selenium	05/22/2009	EPA 6010	<0.100	1.0
Silver	05/22/2009	EPA 6010	<0.050	5.0

ELAP ID No.: 10958

Comments:

 Approved By: 
 Bruce Hoogesteger, Technical Director

PCB Analysis Report for Soils/Solids/Sludges

Client: LIRO Engineers Inc.

Client Job Site: Buffalo Memorial Auditorium
Demo

Client Job Number: N/A
Field Location: BMAD - South - 0 - 1
Field ID Number: N/A
Sample Type: Soil

Lab Project Number: 09-1769
Lab Sample Number: 5934

Date Sampled: 05/14/2009
Date Received: 05/15/2009
Date Analyzed: 05/21/2009

PCB Identification	Results in mg / Kg
Aroclor 1016	ND< 0.333
Aroclor 1221	ND< 0.333
Aroclor 1232	ND< 0.333
Aroclor 1242	ND< 0.333
Aroclor 1248	ND< 0.333
Aroclor 1254	ND< 0.333
Aroclor 1260	ND< 0.333

ELAP Number 10958

Method: EPA 8082

Comments: ND denotes Non Detect
mg / Kg = milligram per Kilogram

Signature: _____

Bruce Hoogesteger: Technical Director

PCB Analysis Report for Soils/Solids/Sludges

Client: LIRO Engineers Inc.

Client Job Site: Buffalo Memorial Auditorium
Demo

Client Job Number: N/A
Field Location: BMAD - N. East - 0 - 1
Field ID Number: N/A
Sample Type: Soil

Lab Project Number: 09-1769
Lab Sample Number: 5935

Date Sampled: 05/14/2009
Date Received: 05/15/2009
Date Analyzed: 05/21/2009

PCB Identification	Results in mg / Kg
Aroclor 1016	ND< 0.351
Aroclor 1221	ND< 0.351
Aroclor 1232	ND< 0.351
Aroclor 1242	ND< 0.351
Aroclor 1248	ND< 0.351
Aroclor 1254	ND< 0.351
Aroclor 1260	ND< 0.351

ELAP Number 10958

Method: EPA 8082

Comments: ND denotes Non Detect
mg / Kg = milligram per Kilogram

Signature: _____

Bruce Hoogesteger: Technical Director

PCB Analysis Report for Soils/Solids/Sludges

Client: LIRO Engineers Inc.

Client Job Site: Buffalo Memorial Auditorium
Demo

Client Job Number: N/A
Field Location: BMAD - North - 0 - 1
Field ID Number: N/A
Sample Type: Soil

Lab Project Number: 09-1769
Lab Sample Number: 5936

Date Sampled: 05/14/2009
Date Received: 05/15/2009
Date Analyzed: 05/21/2009


PCB Identification	Results in mg / Kg
Aroclor 1016	ND< 0.356
Aroclor 1221	ND< 0.356
Aroclor 1232	ND< 0.356
Aroclor 1242	ND< 0.356
Aroclor 1248	ND< 0.356
Aroclor 1254	ND< 0.356
Aroclor 1260	ND< 0.356

ELAP Number 10958

Method: EPA 8082

Comments: ND denotes Non Detect
mg / Kg = milligram per Kilogram

Signature: _____


Bruce Hoogesteger: Technical Director

PCB Analysis Report for Soils/Solids/Sludges

Client: LIRO Engineers Inc.

Client Job Site:	Buffalo Memorial Auditorium Demo	Lab Project Number:	09-1769
Client Job Number:	N/A	Lab Sample Number:	5937
Field Location:	BMAD - N. West - 0 - 1	Date Sampled:	05/14/2009
Field ID Number:	N/A	Date Received:	05/15/2009
Sample Type:	Soil	Date Analyzed:	05/21/2009

PCB Identification	Results in mg / Kg
Aroclor 1016	ND< 0.348
Aroclor 1221	ND< 0.348
Aroclor 1232	ND< 0.348
Aroclor 1242	ND< 0.348
Aroclor 1248	ND< 0.348
Aroclor 1254	ND< 0.348
Aroclor 1260	ND< 0.348

ELAP Number 10958

Method: EPA 8082

Comments: ND denotes Non Detect
mg / Kg = milligram per Kilogram

Signature: _____

Bruce Hoogesteger, Technical Director

PCB Analysis Report for Soils/Solids/Sludges

Client: LIRO Engineers Inc.

Client Job Site:	Buffalo Memorial Auditorium Demo	Lab Project Number:	09-1769
Client Job Number:	N/A	Lab Sample Number:	5938
Field Location:	BMAD - S. West - 0 - 1	Date Sampled:	05/14/2009
Field ID Number:	N/A	Date Received:	05/15/2009
Sample Type:	Soil	Date Analyzed:	05/21/2009

PCB Identification	Results in mg / Kg
Aroclor 1016	ND< 0.345
Aroclor 1221	ND< 0.345
Aroclor 1232	ND< 0.345
Aroclor 1242	ND< 0.345
Aroclor 1248	ND< 0.345
Aroclor 1254	ND< 0.345
Aroclor 1260	ND< 0.345

ELAP Number 10958

Method: EPA 8082

Comments: ND denotes Non Detect
mg / Kg = milligram per Kilogram

Signature: _____

Bruce Hoogesteger: Technical Director

PCB Analysis Report for Soils/Solids/Sludges

Client: LIRO Engineers Inc.

Client Job Site: Buffalo Memorial Auditorium
Demo

Client Job Number: N/A
Field Location: BMAD - S. East - 0 - 1
Field ID Number: N/A
Sample Type: Soil

Lab Project Number: 09-1769
Lab Sample Number: 5939

Date Sampled: 05/14/2009
Date Received: 05/15/2009
Date Analyzed: 05/21/2009

PCB Identification	Results in mg / Kg
Aroclor 1016	ND< 0.382
Aroclor 1221	ND< 0.382
Aroclor 1232	ND< 0.382
Aroclor 1242	ND< 0.382
Aroclor 1248	ND< 0.382
Aroclor 1254	ND< 0.382
Aroclor 1260	ND< 0.382

ELAP Number 10958

Method: EPA 8082

Comments: ND denotes Non Detect
mg / Kg = milligram per Kilogram

Signature: _____

Bruce Hoogesteger: Technical Director

PHC Analysis Report for Soils/Solids/SludgesClient: **LIRO Engineers Inc.**Client Job Site: Buffalo Memorial Auditorium
Demo

Lab Project Number: 09-1769

Lab Sample Number: 5934

Client Job Number: N/A

Field Location: BMAD - South - 0 - 1

Date Sampled: 05/14/2009

Field ID Number: N/A

Date Received: 05/15/2009

Sample Type: Soil

Date Analyzed: 05/22/2009

PHC Classification	Results in ug / Kg
Medium Weight PHC as: Diesel Fuel	10,600

ELAP Number 10958

Method: NYSDOH 310.13

Comments: ND denotes Non Detect

ug / Kg = microgram per Kilogram

PHC = Petroleum Hydrocarbon

Signature: _____

Bruce Hoogesteger, Technical Director

PHC Analysis Report for Soils/Solids/Sludges

Client: LIRO Engineers Inc.

Client Job Site: Buffalo Memorial Auditorium
Demo

Client Job Number: N/A
Field Location: BMAD - N. East - 0 - 1
Field ID Number: N/A
Sample Type: Soil

Lab Project Number: 09-1769

Lab Sample Number: 5935

Date Sampled: 05/14/2009

Date Received: 05/15/2009

Date Analyzed: 05/22/2009

PHC Classification	Results in ug / Kg
Medium Weight PHC as: Diesel Fuel	54,100

ELAP Number 10958

Method: NYSDOH 310.13

Comments: ND denotes Non Detect

ug / Kg = microgram per Kilogram

PHC = Petroleum Hydrocarbon

Signature: _____

Bruce Hoogesteger: Technical Director

PHC Analysis Report for Soils/Solids/Sludges

Client: LIRO Engineers Inc.

Client Job Site: Buffalo Memorial Auditorium
Demo

Client Job Number: N/A
Field Location: BMAD - North - 0 - 1
Field ID Number: N/A
Sample Type: Soil

Lab Project Number: 09-1769
Lab Sample Number: 5936

Date Sampled: 05/14/2009
Date Received: 05/15/2009
Date Analyzed: 05/22/2009

PHC Classification	Results in ug / Kg
Medium Weight PHC as: Diesel Fuel	17,600

ELAP Number 10958 Method: NYSDOH 310.13

Comments: ND denotes Non Detect
ug / Kg = microgram per Kilogram
PHC = Petroleum Hydrocarbon

Signature: _____

Bruce Hoogestéger, Technical Director

**PHC Analysis Report for Soils/Solids/Sludges****Client:** LIRO Engineers Inc.**Client Job Site:** Buffalo Memorial Auditorium
Demo**Client Job Number:** N/A**Field Location:** BMAD - N. West - 0 - 1**Field ID Number:** N/A**Sample Type:** Soil**Lab Project Number:** 09-1769**Lab Sample Number:** 5937**Date Sampled:** 05/14/2009**Date Received:** 05/15/2009**Date Analyzed:** 05/22/2009

PHC Classification	Results in ug / Kg
Medium Weight PHC as: Diesel Fuel	339,000

ELAP Number 10958

Method: NYSDOH 310.13

Comments: ND denotes Non Detect

ug / Kg = microgram per Kilogram

PHC = Petroleum Hydrocarbon

Signature: _____

Bruce Hoogesteger: Technical Director

PHC Analysis Report for Soils/Solids/Sludges**Client:** LIRO Engineers Inc.**Client Job Site:** Buffalo Memorial Auditorium
Demo**Client Job Number:** N/A**Field Location:** BMAD - S. West - 0 - 1**Field ID Number:** N/A**Sample Type:** Soil**Lab Project Number:** 09-1769**Lab Sample Number:** 5938**Date Sampled:** 05/14/2009**Date Received:** 05/15/2009**Date Analyzed:** 05/22/2009

PHC Classification	Results in ug / Kg
Medium Weight PHC as: Diesel Fuel	16,400

ELAP Number 10958

Method: NYSDOH 310.13

Comments: ND denotes Non Detect

ug / Kg = microgram per Kilogram

PHC = Petroleum Hydrocarbon

Signature: _____

Bruce Hoogesteger: Technical Director

**PHC Analysis Report for Soils/Solids/Sludges**Client: **LIRO Engineers Inc.**Client Job Site: Buffalo Memorial Auditorium
Demo

Client Job Number: N/A

Field Location: BMAD - S. East - 0 - 1

Field ID Number: N/A

Sample Type: Soil

Lab Project Number: 09-1769

Lab Sample Number: 5939

Date Sampled: 05/14/2009

Date Received: 05/15/2009

Date Analyzed: 05/22/2009

PHC Classification	Results in ug / Kg
Medium Weight PHC as: Diesel Fuel	10,000

ELAP Number 10958

Method: NYSDOH 310.13

Comments: ND denotes Non Detect

ug / Kg = microgram per Kilogram

PHC = Petroleum Hydrocarbon

Signature: _____

Bruce Hoogesteger: Technical Director

Semi-Volatile Analysis Report for Soils/Solids/Sludges

Client: LIRO Engineers Inc.

Client Job Site: Buffalo Memorial Auditorium	Lab Project Number: 09-1769
Demo	Lab Sample Number: 5934
Client Job Number: N/A	
Field Location: BMAD - South - 0 - 1	Date Sampled: 05/14/2009
Field ID Number: N/A	Date Received: 05/15/2009
Sample Type: Soil	Date Analyzed: 05/20/2009

Base / Neutrals	Results in ug / Kg	Base / Neutrals	Results in ug / Kg
Acenaphthene	ND< 321	Dibenz (a,h) anthracene	ND< 321
Anthracene	ND< 321	Fluoranthene	ND< 321
Benzo (a) anthracene	ND< 321	Fluorene	ND< 321
Benzo (a) pyrene	ND< 321	Indeno (1,2,3-cd) pyrene	ND< 321
Benzo (b) fluoranthene	ND< 321	Naphthalene	ND< 321
Benzo (g,h,i) perylene	ND< 321	Phenanthrene	ND< 321
Benzo (k) fluoranthene	ND< 321	Pyrene	ND< 321
Chrysene	ND< 321	Acenaphthylene	ND< 321
Diethyl phthalate	ND< 321	1,2-Dichlorobenzene	ND< 321
Dimethyl phthalate	ND< 803	1,3-Dichlorobenzene	ND< 321
Butylbenzylphthalate	ND< 321	1,4-Dichlorobenzene	ND< 321
Di-n-butyl phthalate	ND< 321	1,2,4-Trichlorobenzene	ND< 321
Di-n-octylphthalate	ND< 321	Nitrobenzene	ND< 321
Bis (2-ethylhexyl) phthalate	ND< 321	2,4-Dinitrotoluene	ND< 321
2-Chloronaphthalene	ND< 321	2,6-Dinitrotoluene	ND< 321
Hexachlorobenzene	ND< 321	Bis (2-chloroethyl) ether	ND< 321
Hexachloroethane	ND< 321	Bis (2-chloroisopropyl) ether	ND< 321
Hexachlorocyclopentadiene	ND< 321	Bis (2-chloroethoxy) methan	ND< 321
Hexachlorobutadiene	ND< 321	4-Bromophenyl phenyl ether	ND< 321
N-Nitroso-di-n-propylamine	ND< 321	4-Chlorophenyl phenyl ether	ND< 321
N-Nitrosodiphenylamine	ND< 321	Benzidine	ND< 803
N-Nitrosodimethylamine	ND< 321	3,3'-Dichlorobenzidine	ND< 321
Isophorone	ND< 321	4-Chloroaniline	ND< 321
Benzyl alcohol	ND< 803	2-Nitroaniline	ND< 803
Dibenzofuran	ND< 321	3-Nitroaniline	ND< 803
2-Methylnaphthalene	ND< 321	4-Nitroaniline	ND< 803

Acids	Results in ug / Kg	Acids	Results in ug / Kg
Phenol	ND< 321	2-Methylphenol	ND< 321
2-Chlorophenol	ND< 321	3&4-Methylphenol	ND< 321
2,4-Dichlorophenol	ND< 321	2,4-Dimethylphenol	ND< 321
2,6-Dichlorophenol	ND< 321	2-Nitrophenol	ND< 321
2,4,5-Trichlorophenol	ND< 803	4-Nitrophenol	ND< 803
2,4,6-Trichlorophenol	ND< 321	2,4-Dinitrophenol	ND< 321
Pentachlorophenol	ND< 803	4,6-Dinitro-2-methylphenol	ND< 803
4-Chloro-3-methylphenol	ND< 321	Benzoic acid	ND< 803

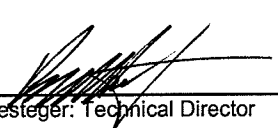
ELAP Number 10958

Method: EPA 8270C

Data File: S45332.D

Comments: ND denotes Non Detect
 ug / Kg = microgram per Kilogram

Signature:


 Bruce Hoogesteger, Technical Director

Semi-Volatile Analysis Report for Soils/Solids/Sludges

 Client: LIRO Engineers Inc.

Client Job Site:	Buffalo Memorial Auditorium	Lab Project Number:	09-1769
	Demo	Lab Sample Number:	5935
Client Job Number:	N/A		
Field Location:	BMAD - N. East - 0 - 1	Date Sampled:	05/14/2009
Field ID Number:	N/A	Date Received:	05/15/2009
Sample Type:	Soil	Date Analyzed:	05/20/2009

Base / Neutrals	Results in ug / Kg	Base / Neutrals	Results in ug / Kg
Acenaphthene	456	Dibenz (a,h) anthracene	ND< 332
Anthracene	1,130	Fluoranthene	4,290
Benzo (a) anthracene	1,760	Fluorene	384
Benzo (a) pyrene	1,430	Indeno (1,2,3-cd) pyrene	695
Benzo (b) fluoranthene	1,520	Naphthalene	ND< 332
Benzo (g,h,i) perylene	661	Phenanthrene	3,700
Benzo (k) fluoranthene	865	Pyrene	2,710
Chrysene	1,640	Acenaphthylene	ND< 332
Diethyl phthalate	ND< 332	1,2-Dichlorobenzene	ND< 332
Dimethyl phthalate	ND< 831	1,3-Dichlorobenzene	ND< 332
Butylbenzylphthalate	ND< 332	1,4-Dichlorobenzene	ND< 332
Di-n-butyl phthalate	ND< 332	1,2,4-Trichlorobenzene	ND< 332
Di-n-octylphthalate	ND< 332	Nitrobenzene	ND< 332
Bis (2-ethylhexyl) phthalate	ND< 332	2,4-Dinitrotoluene	ND< 332
2-Chloronaphthalene	ND< 332	2,6-Dinitrotoluene	ND< 332
Hexachlorobenzene	ND< 332	Bis (2-chloroethyl) ether	ND< 332
Hexachloroethane	ND< 332	Bis (2-chloroisopropyl) ether	ND< 332
Hexachlorocyclopentadiene	ND< 332	Bis (2-chloroethoxy) methan	ND< 332
Hexachlorobutadiene	ND< 332	4-Bromophenyl phenyl ether	ND< 332
N-Nitroso-di-n-propylamine	ND< 332	4-Chlorophenyl phenyl ether	ND< 332
N-Nitrosodiphenylamine	ND< 332	Benzidine	ND< 831
N-Nitrosodimethylamine	ND< 332	3,3'-Dichlorobenzidine	ND< 332
Isophorone	ND< 332	4-Chloroaniline	ND< 332
Benzyl alcohol	ND< 831	2-Nitroaniline	ND< 831
Dibenzofuran	ND< 332	3-Nitroaniline	ND< 831
2-Methylnaphthalene	ND< 332	4-Nitroaniline	ND< 831

Acids	Results in ug / Kg	Acids	Results in ug / Kg
Phenol	ND< 332	2-Methylphenol	ND< 332
2-Chlorophenol	ND< 332	3&4-Methylphenol	ND< 332
2,4-Dichlorophenol	ND< 332	2,4-Dimethylphenol	ND< 332
2,6-Dichlorophenol	ND< 332	2-Nitrophenol	ND< 332
2,4,5-Trichlorophenol	ND< 831	4-Nitrophenol	ND< 831
2,4,6-Trichlorophenol	ND< 332	2,4-Dinitrophenol	ND< 332
Pentachlorophenol	ND< 831	4,6-Dinitro-2-methylphenol	ND< 831
4-Chloro-3-methylphenol	ND< 332	Benzoic acid	ND< 831

ELAP Number 10958

Method: EPA 8270C

Data File: S45333.D

Comments: ND denotes Non Detect
 ug / Kg = microgram per Kilogram

Signature:


 Bruce Hoogesteger: Technical Director

Semi-Volatile Analysis Report for Soils/Solids/Sludges

 Client: **LIRO Engineers Inc.**

Client Job Site:	Buffalo Memorial Auditorium	Lab Project Number:	09-1769
	Demo	Lab Sample Number:	5936
Client Job Number:	N/A		
Field Location:	BMAD - North - 0 - 1	Date Sampled:	05/14/2009
Field ID Number:	N/A	Date Received:	05/15/2009
Sample Type:	Soil	Date Analyzed:	05/20/2009

Base / Neutrals	Results in ug / Kg	Base / Neutrals	Results in ug / Kg
Acenaphthene	ND< 340	Dibenz (a,h) anthracene	ND< 340
Anthracene	517	Fluoranthene	3,140
Benzo (a) anthracene	1,060	Fluorene	ND< 340
Benzo (a) pyrene	574	Indeno (1,2,3-cd) pyrene	ND< 340
Benzo (b) fluoranthene	817	Naphthalene	ND< 340
Benzo (g,h,i) perylene	ND< 340	Phenanthrene	2,390
Benzo (k) fluoranthene	513	Pyrene	1,870
Chrysene	1,120	Acenaphthylene	ND< 340
Diethyl phthalate	ND< 340	1,2-Dichlorobenzene	ND< 340
Dimethyl phthalate	ND< 850	1,3-Dichlorobenzene	ND< 340
Butylbenzylphthalate	ND< 340	1,4-Dichlorobenzene	ND< 340
Di-n-butyl phthalate	ND< 340	1,2,4-Trichlorobenzene	ND< 340
Di-n-octylphthalate	ND< 340	Nitrobenzene	ND< 340
Bis (2-ethylhexyl) phthalate	ND< 340	2,4-Dinitrotoluene	ND< 340
2-Chloronaphthalene	ND< 340	2,6-Dinitrotoluene	ND< 340
Hexachlorobenzene	ND< 340	Bis (2-chloroethyl) ether	ND< 340
Hexachloroethane	ND< 340	Bis (2-chloroisopropyl) ether	ND< 340
Hexachlorocyclopentadiene	ND< 340	Bis (2-chloroethoxy) methan	ND< 340
Hexachlorobutadiene	ND< 340	4-Bromophenyl phenyl ether	ND< 340
N-Nitroso-di-n-propylamine	ND< 340	4-Chlorophenyl phenyl ether	ND< 340
N-Nitrosodiphenylamine	ND< 340	Benzidine	ND< 850
N-Nitrosodimethylamine	ND< 340	3,3'-Dichlorobenzidine	ND< 340
Isophorone	ND< 340	4-Chloroaniline	ND< 340
Benzyl alcohol	ND< 850	2-Nitroaniline	ND< 850
Dibenzofuran	ND< 340	3-Nitroaniline	ND< 850
2-Methylnaphthalene	ND< 340	4-Nitroaniline	ND< 850

Acids	Results in ug / Kg	Acids	Results in ug / Kg
Phenol	ND< 340	2-Methylphenol	ND< 340
2-Chlorophenol	ND< 340	3&4-Methylphenol	ND< 340
2,4-Dichlorophenol	ND< 340	2,4-Dimethylphenol	ND< 340
2,6-Dichlorophenol	ND< 340	2-Nitrophenol	ND< 340
2,4,5-Trichlorophenol	ND< 850	4-Nitrophenol	ND< 850
2,4,6-Trichlorophenol	ND< 340	2,4-Dinitrophenol	ND< 340
Pentachlorophenol	ND< 850	4,6-Dinitro-2-methylphenol	ND< 850
4-Chloro-3-methylphenol	ND< 340	Benzoic acid	ND< 850


ELAP Number 10958

Method: EPA 8270C

Data File: S45334.D

Comments: ND denotes Non Detect
 ug / Kg = microgram per Kilogram

Signature:


 Bruce Hoogesteger: Technical Director

Semi-Volatile Analysis Report for Soils/Solids/Sludges

Client: **LIRO Engineers Inc.**

Client Job Site: Buffalo Memorial Auditorium
Demo
Client Job Number: N/A
Field Location: BMAD - N. West - 0 - 1
Field ID Number: N/A
Sample Type: Soil

Lab Project Number: 09-1769
Lab Sample Number: 5937
Date Sampled: 05/14/2009
Date Received: 05/15/2009
Date Analyzed: 05/21/2009

Base / Neutrals	Results in ug / Kg	Base / Neutrals	Results in ug / Kg
Acenaphthene	20,500	Dibenz (a,h) anthracene	ND< 16,700
Anthracene	48,000	Fluoranthene	174,000
Benzo (a) anthracene	61,200	Fluorene	22,300
Benzo (a) pyrene	51,000	Indeno (1,2,3-cd) pyrene	28,300
Benzo (b) fluoranthene	49,000	Naphthalene	24,700
Benzo (g,h,i) perylene	32,900	Phenanthrene	183,000
Benzo (k) fluoranthene	38,500	Pyrene	120,000
Chrysene	57,500	Acenaphthylene	ND< 16,700
Diethyl phthalate	ND< 16,700	1,2-Dichlorobenzene	ND< 16,700
Dimethyl phthalate	ND< 41,800	1,3-Dichlorobenzene	ND< 16,700
Butylbenzylphthalate	ND< 16,700	1,4-Dichlorobenzene	ND< 16,700
Di-n-butyl phthalate	ND< 16,700	1,2,4-Trichlorobenzene	ND< 16,700
Di-n-octylphthalate	ND< 16,700	Nitrobenzene	ND< 16,700
Bis (2-ethylhexyl) phthalate	ND< 16,700	2,4-Dinitrotoluene	ND< 16,700
2-Chloronaphthalene	ND< 16,700	2,6-Dinitrotoluene	ND< 16,700
Hexachlorobenzene	ND< 16,700	Bis (2-chloroethyl) ether	ND< 16,700
Hexachloroethane	ND< 16,700	Bis (2-chloroisopropyl) ether	ND< 16,700
Hexachlorocyclopentadiene	ND< 16,700	Bis (2-chloroethoxy) methan	ND< 16,700
Hexachlorobutadiene	ND< 16,700	4-Bromophenyl phenyl ether	ND< 16,700
N-Nitroso-di-n-propylamine	ND< 16,700	4-Chlorophenyl phenyl ether	ND< 16,700
N-Nitrosodiphenylamine	ND< 16,700	Benzidine	ND< 41,800
N-Nitrosodimethylamine	ND< 16,700	3,3'-Dichlorobenzidine	ND< 16,700
Isophorone	ND< 16,700	4-Chloroaniline	ND< 16,700
Benzyl alcohol	ND< 41,800	2-Nitroaniline	ND< 41,800
Dibenzofuran	19,000	3-Nitroaniline	ND< 41,800
2-Methylnaphthalene	ND< 16,700	4-Nitroaniline	ND< 41,800

Acids	Results in ug / Kg	Acids	Results in ug / Kg
Phenol	ND< 16,700	2-Methylphenol	ND< 16,700
2-Chlorophenol	ND< 16,700	3&4-Methylphenol	ND< 16,700
2,4-Dichlorophenol	ND< 16,700	2,4-Dimethylphenol	ND< 16,700
2,6-Dichlorophenol	ND< 16,700	2-Nitrophenol	ND< 16,700
2,4,5-Trichlorophenol	ND< 41,800	4-Nitrophenol	ND< 41,800
2,4,6-Trichlorophenol	ND< 16,700	2,4-Dinitrophenol	ND< 16,700
Pentachlorophenol	ND< 41,800	4,6-Dinitro-2-methylphenol	ND< 41,800
4-Chloro-3-methylphenol	ND< 16,700	Benzoic acid	ND< 41,800

ELAP Number 10958

Method: EPA 8270C

Data File: S45353.D

Comments: ND denotes Non Detect

ug / Kg = microgram per Kilogram

Surrogate outliers indicate probable matrix interference

Signature: _____

Bruce Hoogesteger: Technical Director

Semi-Volatile Analysis Report for Soils/Solids/Sludges

 Client: **LIRO Engineers Inc.**

Client Job Site:	Buffalo Memorial Auditorium Demo	Lab Project Number: 09-1769
Client Job Number:	N/A	Lab Sample Number: 5938
Field Location:	BMAD - S. West - 0 - 1	Date Sampled: 05/14/2009
Field ID Number:	N/A	Date Received: 05/15/2009
Sample Type:	Soil	Date Analyzed: 05/20/2009

Base / Neutrals	Results in ug / Kg	Base / Neutrals	Results in ug / Kg
Acenaphthene	ND< 330	Dibenz (a,h) anthracene	ND< 330
Anthracene	524	Fluoranthene	2,160
Benzo (a) anthracene	835	Fluorene	ND< 330
Benzo (a) pyrene	647	Indeno (1,2,3-cd) pyrene	419
Benzo (b) fluoranthene	699	Naphthalene	ND< 330
Benzo (g,h,i) perylene	444	Phenanthrene	1,920
Benzo (k) fluoranthene	455	Pyrene	1,410
Chrysene	805	Acenaphthylene	ND< 330
Diethyl phthalate	ND< 330	1,2-Dichlorobenzene	ND< 330
Dimethyl phthalate	ND< 826	1,3-Dichlorobenzene	ND< 330
Butylbenzylphthalate	ND< 330	1,4-Dichlorobenzene	ND< 330
Di-n-butyl phthalate	ND< 330	1,2,4-Trichlorobenzene	ND< 330
Di-n-octylphthalate	ND< 330	Nitrobenzene	ND< 330
Bis (2-ethylhexyl) phthalate	ND< 330	2,4-Dinitrotoluene	ND< 330
2-Chloronaphthalene	ND< 330	2,6-Dinitrotoluene	ND< 330
Hexachlorobenzene	ND< 330	Bis (2-chloroethyl) ether	ND< 330
Hexachloroethane	ND< 330	Bis (2-chloroisopropyl) ether	ND< 330
Hexachlorocyclopentadiene	ND< 330	Bis (2-chloroethoxy) methan	ND< 330
Hexachlorobutadiene	ND< 330	4-Bromophenyl phenyl ether	ND< 330
N-Nitroso-di-n-propylamine	ND< 330	4-Chlorophenyl phenyl ether	ND< 330
N-Nitrosodiphenylamine	ND< 330	Benzidine	ND< 826
N-Nitrosodimethylamine	ND< 330	3,3'-Dichlorobenzidine	ND< 330
Isophorone	ND< 330	4-Chloroaniline	ND< 330
Benzyl alcohol	ND< 826	2-Nitroaniline	ND< 826
Dibenzofuran	ND< 330	3-Nitroaniline	ND< 826
2-Methylnaphthalene	ND< 330	4-Nitroaniline	ND< 826

Acids	Results in ug / Kg	Acids	Results in ug / Kg
Phenol	ND< 330	2-Methylphenol	ND< 330
2-Chlorophenol	ND< 330	3&4-Methylphenol	ND< 330
2,4-Dichlorophenol	ND< 330	2,4-Dimethylphenol	ND< 330
2,6-Dichlorophenol	ND< 330	2-Nitrophenol	ND< 330
2,4,5-Trichlorophenol	ND< 826	4-Nitrophenol	ND< 826
2,4,6-Trichlorophenol	ND< 330	2,4-Dinitrophenol	ND< 330
Pentachlorophenol	ND< 826	4,6-Dinitro-2-methylphenol	ND< 826
4-Chloro-3-methylphenol	ND< 330	Benzoic acid	ND< 826

ELAP Number 10958

Method: EPA 8270C

Data File: S45337.D

Comments: ND denotes Non Detect
 ug / Kg = microgram per Kilogram

Signature:


 Bruce Hoogesteger: Technical Director

**Semi-Volatile Analysis Report for Soils/Solids/Sludges**Client: **LIRO Engineers Inc.**Client Job Site: Buffalo Memorial Auditorium
Demo

Lab Project Number: 09-1769

Lab Sample Number: 5939

Client Job Number: N/A

Field Location: BMAD - S. East - 0 - 1

Date Sampled: 05/14/2009

Field ID Number: N/A

Date Received: 05/15/2009

Sample Type: Soil

Date Analyzed: 05/20/2009

Base / Neutrals	Results in ug / Kg	Base / Neutrals	Results in ug / Kg
Acenaphthene	ND< 365	Dibenz (a,h) anthracene	ND< 365
Anthracene	ND< 365	Fluoranthene	ND< 365
Benzo (a) anthracene	ND< 365	Fluorene	ND< 365
Benzo (a) pyrene	ND< 365	Indeno (1,2,3-cd) pyrene	ND< 365
Benzo (b) fluoranthene	ND< 365	Naphthalene	ND< 365
Benzo (g,h,i) perylene	ND< 365	Phenanthrene	ND< 365
Benzo (k) fluoranthene	ND< 365	Pyrene	ND< 365
Chrysene	ND< 365	Acenaphthylene	ND< 365
Diethyl phthalate	ND< 365	1,2-Dichlorobenzene	ND< 365
Dimethyl phthalate	ND< 913	1,3-Dichlorobenzene	ND< 365
Butylbenzylphthalate	ND< 365	1,4-Dichlorobenzene	ND< 365
Di-n-butyl phthalate	ND< 365	1,2,4-Trichlorobenzene	ND< 365
Di-n-octylphthalate	ND< 365	Nitrobenzene	ND< 365
Bis (2-ethylhexyl) phthalate	ND< 365	2,4-Dinitrotoluene	ND< 365
2-Chloronaphthalene	ND< 365	2,6-Dinitrotoluene	ND< 365
Hexachlorobenzene	ND< 365	Bis (2-chloroethyl) ether	ND< 365
Hexachloroethane	ND< 365	Bis (2-chloroisopropyl) ether	ND< 365
Hexachlorocyclopentadiene	ND< 365	Bis (2-chloroethoxy) methan	ND< 365
Hexachlorobutadiene	ND< 365	4-Bromophenyl phenyl ether	ND< 365
N-Nitroso-di-n-propylamine	ND< 365	4-Chlorophenyl phenyl ether	ND< 365
N-Nitrosodiphenylamine	ND< 365	Benzidine	ND< 913
N-Nitrosodimethylamine	ND< 365	3,3'-Dichlorobenzidine	ND< 365
Isophorone	ND< 365	4-Chloroaniline	ND< 365
Benzyl alcohol	ND< 913	2-Nitroaniline	ND< 913
Dibenzofuran	ND< 365	3-Nitroaniline	ND< 913
2-Methylnaphthalene	ND< 365	4-Nitroaniline	ND< 913

Acids	Results in ug / Kg	Acids	Results in ug / Kg
Phenol	ND< 365	2-Methylphenol	ND< 365
2-Chlorophenol	ND< 365	3&4-Methylphenol	ND< 365
2,4-Dichlorophenol	ND< 365	2,4-Dimethylphenol	ND< 365
2,6-Dichlorophenol	ND< 365	2-Nitrophenol	ND< 365
2,4,5-Trichlorophenol	ND< 913	4-Nitrophenol	ND< 913
2,4,6-Trichlorophenol	ND< 365	2,4-Dinitrophenol	ND< 365
Pentachlorophenol	ND< 913	4,6-Dinitro-2-methylphenol	ND< 913
4-Chloro-3-methylphenol	ND< 365	Benzoic acid	ND< 913

ELAP Number 10958

Method: EPA 8270C

Data File: S45338.D

Comments: ND denotes Non Detect

ug / Kg = microgram per Kilogram

Signature: _____

Bruce Hoogesteger: Technical Director

Semi-Volatile Analysis Report for TCLP Extract

Client: LIRO Engineers Inc.

Client Job Site:	Buffalo Memorial Auditorium Demo	Lab Project Number: 09-1769
		Lab Sample Number: 5934
Client Job Number:	N/A	
Field Location:	BMAD - South - 0 - 1	Date Sampled: 05/14/2009
Field ID Number:	N/A	Date Received: 05/15/2009
Sample Type:	TCLP Extract	Date Analyzed: 05/23/2009

Base / Neutrals	Results in ug / L	Regulatory Limits in ug / L
1,4-Dichlorobenzene	ND< 40.0	7,500
2,4-Dinitrotoluene	ND< 40.0	130
Hexachlorobenzene	ND< 40.0	3000
Hexachlorobutadiene	ND< 40.0	500
Hexachloroethane	ND< 40.0	130
Nitrobenzene	ND< 40.0	2000
Pyridine	ND< 40.0	5000

Acids	Results in ug / L	Regulatory Limits in ug / L
Cresols (as m,p,o-Cresol)	ND< 80.0	200,000
Pentachlorophenol	ND< 100	100,000
2,4,5-Trichlorophenol	ND< 100	400,000
2,4,6-Trichlorophenol	ND< 40.0	2000

ELAP Number 10958

Method: EPA 8270C

Data File: S45377.D

Comments: ND denotes Non Detect
ug / L = microgram per Liter

Signature: _____

Bruce Hoogesteger: Technical Director

Semi-Volatile Analysis Report for TCLP Extract

Client: **LIRO Engineers Inc.**

Client Job Site:	Buffalo Memorial Auditorium Demo	Lab Project Number:	09-1769
Client Job Number:	N/A	Lab Sample Number:	5935
Field Location:	BMAD - N. East - 0 - 1	Date Sampled:	05/14/2009
Field ID Number:	N/A	Date Received:	05/15/2009
Sample Type:	TCLP Extract	Date Analyzed:	05/23/2009

Base / Neutrals	Results in ug / L	Regulatory Limits in ug / L
1,4-Dichlorobenzene	ND< 40.0	7,500
2,4-Dinitrotoluene	ND< 40.0	130
Hexachlorobenzene	ND< 40.0	3000
Hexachlorobutadiene	ND< 40.0	500
Hexachloroethane	ND< 40.0	130
Nitrobenzene	ND< 40.0	2000
Pyridine	ND< 40.0	5000

Acids	Results in ug / L	Regulatory Limits in ug / L
Cresols (as m,p,o-Cresol)	ND< 80.0	200,000
Pentachlorophenol	ND< 100	100,000
2,4,5-Trichlorophenol	ND< 100	400,000
2,4,6-Trichlorophenol	ND< 40.0	2000

ELAP Number 10958

Method: EPA 8270C

Data File: S45378.D

Comments: ND denotes Non Detect
 ug / L = microgram per Liter

Signature:


 Bruce Hoogesteger: Technical Director

Semi-Volatile Analysis Report for TCLP Extract

Client: **LIRO Engineers Inc.**

Client Job Site:	Buffalo Memorial Auditorium Demo	Lab Project Number:	09-1769
Client Job Number:	N/A	Lab Sample Number:	5936
Field Location:	BMAD - North - 0 - 1	Date Sampled:	05/14/2009
Field ID Number:	N/A	Date Received:	05/15/2009
Sample Type:	TCLP Extract	Date Analyzed:	05/23/2009

Base / Neutrals	Results in ug / L	Regulatory Limits in ug / L
1,4-Dichlorobenzene	ND< 40.0	7,500
2,4-Dinitrotoluene	ND< 40.0	130
Hexachlorobenzene	ND< 40.0	3000
Hexachlorobutadiene	ND< 40.0	500
Hexachloroethane	ND< 40.0	130
Nitrobenzene	ND< 40.0	2000
Pyridine	ND< 40.0	5000

Acids	Results in ug / L	Regulatory Limits in ug / L
Cresols (as m,p,o-Cresol)	ND< 80.0	200,000
Pentachlorophenol	ND< 100	100,000
2,4,5-Trichlorophenol	ND< 100	400,000
2,4,6-Trichlorophenol	ND< 40.0	2000


ELAP Number 10958

Method: EPA 8270C

Data File: S45379.D

Comments: ND denotes Non Detect
ug / L = microgram per Liter

Signature:


Bruce Hoogesteger: Technical Director

Semi-Volatile Analysis Report for TCLP Extract

Client: **LIRO Engineers Inc.**

Client Job Site:	Buffalo Memorial Auditorium Demo	Lab Project Number:	09-1769
Client Job Number:	N/A	Lab Sample Number:	5937
Field Location:	BMAD - N. West - 0 - 1	Date Sampled:	05/14/2009
Field ID Number:	N/A	Date Received:	05/15/2009
Sample Type:	TCLP Extract	Date Analyzed:	05/23/2009

Base / Neutrals	Results in ug / L	Regulatory Limits in ug / L
1,4-Dichlorobenzene	ND< 40.0	7,500
2,4-Dinitrotoluene	ND< 40.0	130
Hexachlorobenzene	ND< 40.0	3000
Hexachlorobutadiene	ND< 40.0	500
Hexachloroethane	ND< 40.0	130
Nitrobenzene	ND< 40.0	2000
Pyridine	ND< 40.0	5000

Acids	Results in ug / L	Regulatory Limits in ug / L
Cresols (as m,p,o-Cresol)	ND< 80.0	200,000
Pentachlorophenol	ND< 100	100,000
2,4,5-Trichlorophenol	ND< 100	400,000
2,4,6-Trichlorophenol	ND< 40.0	2000

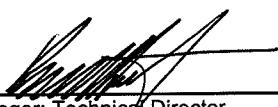
ELAP Number 10958

Method: EPA 8270C

Data File: S45380.D

Comments: ND denotes Non Detect
 ug / L = microgram per Liter

Signature:


 Bruce Hoogesteger: Technical Director

Semi-Volatile Analysis Report for TCLP Extract

Client: **LIRO Engineers Inc.**

Client Job Site:	Buffalo Memorial Auditorium Demo	Lab Project Number:	09-1769
Client Job Number:	N/A	Lab Sample Number:	5938
Field Location:	BMAD - S. West - 0 - 1	Date Sampled:	05/14/2009
Field ID Number:	N/A	Date Received:	05/15/2009
Sample Type:	TCLP Extract	Date Analyzed:	05/23/2009

Base / Neutrals	Results in ug / L	Regulatory Limits in ug / L
1,4-Dichlorobenzene	ND< 40.0	7,500
2,4-Dinitrotoluene	ND< 40.0	130
Hexachlorobenzene	ND< 40.0	3000
Hexachlorobutadiene	ND< 40.0	500
Hexachloroethane	ND< 40.0	130
Nitrobenzene	ND< 40.0	2000
Pyridine	ND< 40.0	5000

Acids	Results in ug / L	Regulatory Limits in ug / L
Cresols (as m,p,o-Cresol)	ND< 80.0	200,000
Pentachlorophenol	ND< 100	100,000
2,4,5-Trichlorophenol	ND< 100	400,000
2,4,6-Trichlorophenol	ND< 40.0	2000


ELAP Number 10958

Method: EPA 8270C

Data File: S45381.D

Comments: ND denotes Non Detect
 ug / L = microgram per Liter

Signature:


 Bruce Hoogesteger: Technical Director

Semi-Volatile Analysis Report for TCLP ExtractClient: **LIRO Engineers Inc.**Client Job Site: Buffalo Memorial Auditorium
Demo

Client Job Number: N/A

Field Location: BMAD - S. East - 0 - 1

Field ID Number: N/A

Sample Type: TCLP Extract

Lab Project Number: 09-1769

Lab Sample Number: 5939

Date Sampled: 05/14/2009

Date Received: 05/15/2009

Date Analyzed: 05/23/2009

Base / Neutrals	Results in ug / L	Regulatory Limits in ug / L
1,4-Dichlorobenzene	ND< 40.0	7,500
2,4-Dinitrotoluene	ND< 40.0	130
Hexachlorobenzene	ND< 40.0	3000
Hexachlorobutadiene	ND< 40.0	500
Hexachloroethane	ND< 40.0	130
Nitrobenzene	ND< 40.0	2000
Pyridine	ND< 40.0	5000

Acids	Results in ug / L	Regulatory Limits in ug / L
Cresols (as m,p,o-Cresol)	ND< 80.0	200,000
Pentachlorophenol	ND< 100	100,000
2,4,5-Trichlorophenol	ND< 100	400,000
2,4,6-Trichlorophenol	ND< 40.0	2000

ELAP Number 10958

Method: EPA 8270C

Data File: S45382.D

Comments: ND denotes Non Detect
ug / L = microgram per Liter

Signature: _____

Bruce Hoogesteger: Technical Director

Volatile Analysis Report for Soils/Solids/Sludges

Client: LIRO Engineers Inc.

Client Job Site: Buffalo Memorial Auditorium
 Demo
Client Job Number: N/A
Field Location: BMAD - South - 0 - 1
Field ID Number: N/A
Sample Type: Soil

Lab Project Number: 09-1769
Lab Sample Number: 5934
Date Sampled: 05/14/2009
Date Received: 05/15/2009
Date Analyzed: 05/20/2009

Halocarbons	Results in ug / Kg
Bromodichloromethane	ND< 7.28
Bromomethane	ND< 7.28
Bromoform	ND< 18.2
Carbon Tetrachloride	ND< 18.2
Chloroethane	ND< 7.28
Chloromethane	ND< 7.28
2-Chloroethyl vinyl Ether	ND< 36.4
Chloroform	ND< 7.28
Dibromochloromethane	ND< 7.28
1,1-Dichloroethane	ND< 7.28
1,2-Dichloroethane	ND< 7.28
1,1-Dichloroethene	ND< 7.28
cis-1,2-Dichloroethene	ND< 7.28
trans-1,2-Dichloroethene	ND< 7.28
1,2-Dichloropropane	ND< 7.28
cis-1,3-Dichloropropene	ND< 7.28
trans-1,3-Dichloropropene	ND< 7.28
Methylene chloride	ND< 18.2
1,1,2,2-Tetrachloroethane	ND< 7.28
Tetrachloroethene	ND< 7.28
1,1,1-Trichloroethane	ND< 7.28
1,1,2-Trichloroethane	ND< 7.28
Trichloroethene	ND< 7.28
Trichlorofluoromethane	ND< 7.28
Vinyl chloride	ND< 7.28

Aromatics	Results in ug / Kg
Benzene	ND< 7.28
Chlorobenzene	ND< 7.28
Ethylbenzene	ND< 7.28
Toluene	ND< 7.28
m,p-Xylene	ND< 7.28
o-Xylene	ND< 7.28
Styrene	ND< 18.2
1,2-Dichlorobenzene	ND< 18.2
1,3-Dichlorobenzene	ND< 18.2
1,4-Dichlorobenzene	ND< 7.28

Ketones	Results in ug / Kg
Acetone	145
2-Butanone	ND< 36.4
2-Hexanone	ND< 18.2
4-Methyl-2-pentanone	ND< 18.2

Miscellaneous	Results in ug / Kg
Carbon disulfide	ND< 7.28
Vinyl acetate	ND< 18.2

ELAP Number 10958

Method: EPA 8260B

Data File: V65824.D


Comments: ND denotes Non Detect

ug / Kg = microgram per Kilogram

Surrogate outliers indicate probable matrix interference

Internal Standard outliers indicate probable matrix interference

Signature:


 Bruce Hoogesteger, Technical Director

Volatile Analysis Report for Soils/Solids/Sludges

Client: LIRO Engineers Inc.

Client Job Site: Buffalo Memorial Auditorium
 Demo
Client Job Number: N/A
Field Location: BMAD - N. East - 0 - 1
Field ID Number: N/A
Sample Type: Soil

Lab Project Number: 09-1769
Lab Sample Number: 5935
Date Sampled: 05/14/2009
Date Received: 05/15/2009
Date Analyzed: 05/20/2009

Halocarbons	Results in ug / Kg
Bromodichloromethane	ND< 7.58
Bromomethane	ND< 7.58
Bromoform	ND< 18.9
Carbon Tetrachloride	ND< 18.9
Chloroethane	ND< 7.58
Chloromethane	ND< 7.58
2-Chloroethyl vinyl Ether	ND< 37.9
Chloroform	ND< 7.58
Dibromochloromethane	ND< 7.58
1,1-Dichloroethane	ND< 7.58
1,2-Dichloroethane	ND< 7.58
1,1-Dichloroethene	ND< 7.58
cis-1,2-Dichloroethene	ND< 7.58
trans-1,2-Dichloroethene	ND< 7.58
1,2-Dichloropropane	ND< 7.58
cis-1,3-Dichloropropene	ND< 7.58
trans-1,3-Dichloropropene	ND< 7.58
Methylene chloride	ND< 18.9
1,1,2,2-Tetrachloroethane	ND< 7.58
Tetrachloroethene	ND< 7.58
1,1,1-Trichloroethane	ND< 7.58
1,1,2-Trichloroethane	ND< 7.58
Trichloroethene	ND< 7.58
Trichlorofluoromethane	ND< 7.58
Vinyl chloride	ND< 7.58

Aromatics	Results in ug / Kg
Benzene	ND< 7.58
Chlorobenzene	ND< 7.58
Ethylbenzene	ND< 7.58
Toluene	ND< 7.58
m,p-Xylene	ND< 7.58
o-Xylene	ND< 7.58
Styrene	ND< 18.9
1,2-Dichlorobenzene	ND< 18.9
1,3-Dichlorobenzene	ND< 18.9
1,4-Dichlorobenzene	ND< 7.58

Ketones	Results in ug / Kg
Acetone	114
2-Butanone	ND< 37.9
2-Hexanone	ND< 18.9
4-Methyl-2-pentanone	ND< 18.9

Miscellaneous	Results in ug / Kg
Carbon disulfide	ND< 7.58
Vinyl acetate	ND< 18.9

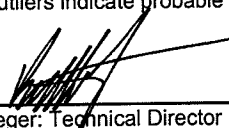
ELAP Number 10958

Method: EPA 8260B

Data File: V65825.D

Comments: ND denotes Non Detect
 ug / Kg = microgram per Kilogram
 Surrogate outliers indicate probable matrix interference

Signature:


 Bruce Hoogesteger, Technical Director

Volatile Analysis Report for Soils/Solids/Sludges

Client: LIRO Engineers Inc.

Client Job Site: Buffalo Memorial Auditorium
Demo
Client Job Number: N/A
Field Location: BMAD - North - 0 - 1
Field ID Number: N/A
Sample Type: Soil

Lab Project Number: 09-1769
Lab Sample Number: 5936
Date Sampled: 05/14/2009
Date Received: 05/15/2009
Date Analyzed: 05/20/2009

Halocarbons	Results in ug / Kg
Bromodichloromethane	ND< 7.53
Bromomethane	ND< 7.53
Bromoform	ND< 18.8
Carbon Tetrachloride	ND< 18.8
Chloroethane	ND< 7.53
Chloromethane	ND< 7.53
2-Chloroethyl vinyl Ether	ND< 37.7
Chloroform	ND< 7.53
Dibromochloromethane	ND< 7.53
1,1-Dichloroethane	ND< 7.53
1,2-Dichloroethane	ND< 7.53
1,1-Dichloroethene	ND< 7.53
cis-1,2-Dichloroethene	ND< 7.53
trans-1,2-Dichloroethene	ND< 7.53
1,2-Dichloropropane	ND< 7.53
cis-1,3-Dichloropropene	ND< 7.53
trans-1,3-Dichloropropene	ND< 7.53
Methylene chloride	ND< 18.8
1,1,2,2-Tetrachloroethane	ND< 7.53
Tetrachloroethene	ND< 7.53
1,1,1-Trichloroethane	ND< 7.53
1,1,2-Trichloroethane	ND< 7.53
Trichloroethene	ND< 7.53
Trichlorofluoromethane	251
Vinyl chloride	ND< 7.53

Aromatics	Results in ug / Kg
Benzene	ND< 7.53
Chlorobenzene	ND< 7.53
Ethylbenzene	ND< 7.53
Toluene	ND< 7.53
m,p-Xylene	ND< 7.53
o-Xylene	ND< 7.53
Styrene	ND< 18.8
1,2-Dichlorobenzene	ND< 18.8
1,3-Dichlorobenzene	ND< 18.8
1,4-Dichlorobenzene	ND< 7.53

Ketones	Results in ug / Kg
Acetone	284
2-Butanone	ND< 37.7
2-Hexanone	ND< 18.8
4-Methyl-2-pentanone	ND< 18.8

Miscellaneous	Results in ug / Kg
Carbon disulfide	ND< 7.53
Vinyl acetate	ND< 18.8

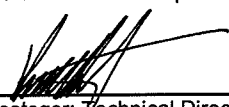
ELAP Number 10958

Method: EPA 8260B

Data File: V65826.D

Comments: ND denotes Non Detect
ug / Kg = microgram per Kilogram
Surrogate outliers indicate probable matrix interference

Signature:


Bruce Hoogesteger: Technical Director

Volatile Analysis Report for Soils/Solids/Sludges

Client: **LIRO Engineers Inc.**

Client Job Site: Buffalo Memorial Auditorium
Demo
Client Job Number: N/A
Field Location: BMAD - N. West - 0 - 1
Field ID Number: N/A
Sample Type: Soil

Lab Project Number: 09-1769
Lab Sample Number: 5937
Date Sampled: 05/14/2009
Date Received: 05/15/2009
Date Analyzed: 05/20/2009

Halocarbons	Results in ug / Kg
Bromodichloromethane	ND< 8.02
Bromomethane	ND< 8.02
Bromoform	ND< 20.0
Carbon Tetrachloride	ND< 20.0
Chloroethane	ND< 8.02
Chloromethane	ND< 8.02
2-Chloroethyl vinyl Ether	ND< 40.1
Chloroform	ND< 8.02
Dibromochloromethane	ND< 8.02
1,1-Dichloroethane	ND< 8.02
1,2-Dichloroethane	ND< 8.02
1,1-Dichloroethene	ND< 8.02
cis-1,2-Dichloroethene	ND< 8.02
trans-1,2-Dichloroethene	ND< 8.02
1,2-Dichloropropane	ND< 8.02
cis-1,3-Dichloropropene	ND< 8.02
trans-1,3-Dichloropropene	ND< 8.02
Methylene chloride	ND< 20.0
1,1,2,2-Tetrachloroethane	ND< 8.02
Tetrachloroethene	ND< 8.02
1,1,1-Trichloroethane	ND< 8.02
1,1,2-Trichloroethane	ND< 8.02
Trichloroethene	ND< 8.02
Trichlorofluoromethane	42.7
Vinyl chloride	ND< 8.02

Aromatics	Results in ug / Kg
Benzene	ND< 8.02
Chlorobenzene	ND< 8.02
Ethylbenzene	ND< 8.02
Toluene	ND< 8.02
m,p-Xylene	ND< 8.02
o-Xylene	ND< 8.02
Styrene	ND< 20.0
1,2-Dichlorobenzene	ND< 20.0
1,3-Dichlorobenzene	ND< 20.0
1,4-Dichlorobenzene	ND< 8.02

Ketones	Results in ug / Kg
Acetone	153
2-Butanone	ND< 40.1
2-Hexanone	ND< 20.0
4-Methyl-2-pentanone	ND< 20.0

Miscellaneous	Results in ug / Kg
Carbon disulfide	ND< 8.02
Vinyl acetate	ND< 20.0

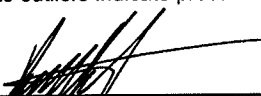
ELAP Number 10958

Method: EPA 8260B

Data File: V65827.D

Comments: ND denotes Non Detect
ug / Kg = microgram per Kilogram
Surrogate outliers indicate probable matrix interference

Signature:


Bruce Hoogesteger: Technical Director

Volatile Analysis Report for Soils/Solids/Sludges

Client: **LIRO Engineers Inc.**

Client Job Site: Buffalo Memorial Auditorium
Demo
Client Job Number: N/A
Field Location: BMAD - S. West - 0 - 1
Field ID Number: N/A
Sample Type: Soil

Lab Project Number: 09-1769
Lab Sample Number: 5938
Date Sampled: 05/14/2009
Date Received: 05/15/2009
Date Analyzed: 05/20/2009

Halocarbons	Results in ug / Kg
Bromodichloromethane	ND< 10.6
Bromomethane	ND< 10.6
Bromoform	ND< 26.4
Carbon Tetrachloride	ND< 26.4
Chloroethane	ND< 10.6
Chloromethane	ND< 10.6
2-Chloroethyl vinyl Ether	ND< 52.9
Chloroform	ND< 10.6
Dibromochloromethane	ND< 10.6
1,1-Dichloroethane	ND< 10.6
1,2-Dichloroethane	ND< 10.6
1,1-Dichloroethene	ND< 10.6
cis-1,2-Dichloroethene	ND< 10.6
trans-1,2-Dichloroethene	ND< 10.6
1,2-Dichloropropane	ND< 10.6
cis-1,3-Dichloropropene	ND< 10.6
trans-1,3-Dichloropropene	ND< 10.6
Methylene chloride	ND< 26.4
1,1,2,2-Tetrachloroethane	ND< 10.6
Tetrachloroethene	ND< 10.6
1,1,1-Trichloroethane	ND< 10.6
1,1,2-Trichloroethane	ND< 10.6
Trichloroethene	ND< 10.6
Trichlorofluoromethane	18.3
Vinyl chloride	ND< 10.6

Aromatics	Results in ug / Kg
Benzene	ND< 10.6
Chlorobenzene	ND< 10.6
Ethylbenzene	ND< 10.6
Toluene	ND< 10.6
m,p-Xylene	ND< 10.6
o-Xylene	ND< 10.6
Styrene	ND< 26.4
1,2-Dichlorobenzene	ND< 26.4
1,3-Dichlorobenzene	ND< 26.4
1,4-Dichlorobenzene	ND< 10.6

Ketones	Results in ug / Kg
Acetone	277
2-Butanone	ND< 52.9
2-Hexanone	ND< 26.4
4-Methyl-2-pentanone	ND< 26.4

Miscellaneous	Results in ug / Kg
Carbon disulfide	ND< 10.6
Vinyl acetate	ND< 26.4

ELAP Number 10958

Method: EPA 8260B

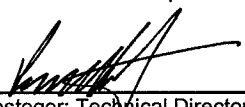
Data File: V65828.D

Comments: ND denotes Non Detect

ug / Kg = microgram per Kilogram

Surrogate outliers indicate probable matrix interference

Signature:


Bruce Hoogesteger: Technical Director



Volatile Analysis Report for Soils/Solids/Sludges

Client: **LIRO Engineers Inc.**

Client Job Site: Buffalo Memorial Auditorium
Demo
Client Job Number: N/A
Field Location: BMAD - S. East - 0 - 1
Field ID Number: N/A
Sample Type: Soil

Lab Project Number: 09-1769
Lab Sample Number: 5939
Date Sampled: 05/14/2009
Date Received: 05/15/2009
Date Analyzed: 05/20/2009

Halocarbons	Results in ug / Kg
Bromodichloromethane	ND< 9.22
Bromomethane	ND< 9.22
Bromoform	ND< 23.1
Carbon Tetrachloride	ND< 23.1
Chloroethane	ND< 9.22
Chloromethane	ND< 9.22
2-Chloroethyl vinyl Ether	ND< 46.1
Chloroform	ND< 9.22
Dibromochloromethane	ND< 9.22
1,1-Dichloroethane	ND< 9.22
1,2-Dichloroethane	ND< 9.22
1,1-Dichloroethene	ND< 9.22
cis-1,2-Dichloroethene	ND< 9.22
trans-1,2-Dichloroethene	ND< 9.22
1,2-Dichloropropane	ND< 9.22
cis-1,3-Dichloropropene	ND< 9.22
trans-1,3-Dichloropropene	ND< 9.22
Methylene chloride	ND< 23.1
1,1,2,2-Tetrachloroethane	ND< 9.22
Tetrachloroethene	ND< 9.22
1,1,1-Trichloroethane	ND< 9.22
1,1,2-Trichloroethane	ND< 9.22
Trichloroethene	ND< 9.22
Trichlorofluoromethane	ND< 9.22
Vinyl chloride	ND< 9.22

Aromatics	Results in ug / Kg
Benzene	ND< 9.22
Chlorobenzene	ND< 9.22
Ethylbenzene	ND< 9.22
Toluene	ND< 9.22
m,p-Xylene	ND< 9.22
o-Xylene	ND< 9.22
Styrene	ND< 23.1
1,2-Dichlorobenzene	ND< 23.1
1,3-Dichlorobenzene	ND< 23.1
1,4-Dichlorobenzene	ND< 9.22

Ketones	Results in ug / Kg
Acetone	204
2-Butanone	ND< 46.1
2-Hexanone	ND< 23.1
4-Methyl-2-pentanone	ND< 23.1

Miscellaneous	Results in ug / Kg
Carbon disulfide	ND< 9.22
Vinyl acetate	ND< 23.1

ELAP Number 10958

Method: EPA 8260B

Data File: V65829.D

Comments: ND denotes Non Detect

ug / Kg = microgram per Kilogram

Surrogate outliers indicate probable matrix interference

Internal Standard outliers indicate probable matrix interference

Signature:

Bruce Hoogesteger: Technical Director

**Volatile Analysis Report for TCLP Extract****Client:** LIRO Engineers Inc.

Client Job Site:	Buffalo Memorial Auditorium	Lab Project Number:	09-1769
	Demo	Lab Sample Number:	5934
Client Job Number:	N/A		
Field Location:	BMAD - South - 0 - 1	Date Sampled:	05/14/2009
Field ID Number:	N/A	Date Received:	05/15/2009
Sample Type:	TCLP Extract	Date Analyzed:	05/19/2009
		Date Reissued:	05/29/2009

Compounds	Results in ug / L	Regulatory Limits in ug / L
Benzene	ND< 7.00	500
2-Butanone	ND< 100	200,000
Carbon Tetrachloride	ND< 20.0	500
Chlorobenzene	ND< 20.0	100,000
Chloroform	ND< 20.0	6,000
1,2-Dichloroethane	ND< 20.0	500
1,1-Dichloroethene	ND< 20.0	700
Tetrachloroethene	ND< 20.0	700
Trichloroethene	ND< 20.0	500
Vinyl chloride	ND< 20.0	200

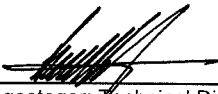
ELAP Number 10958

Method: EPA 8260B

Data File: V65780.D

Comments: ND denotes Non Detect
ug / L = microgram per Liter

Signature:


Bruce Hoogesteger: Technical Director

Volatile Analysis Report for TCLP ExtractClient: **LIRO Engineers Inc.**

Client Job Site:	Buffalo Memorial Auditorium	Lab Project Number:	09-1769
	Demo	Lab Sample Number:	5935
Client Job Number:	N/A		
Field Location:	BMAD - N. East - 0 - 1	Date Sampled:	05/14/2009
Field ID Number:	N/A	Date Received:	05/15/2009
Sample Type:	TCLP Extract	Date Analyzed:	05/19/2009
		Date Reissued:	05/29/2009

Compounds	Results in ug / L	Regulatory Limits in ug / L
Benzene	ND< 7.00	500
2-Butanone	ND< 100	200,000
Carbon Tetrachloride	ND< 20.0	500
Chlorobenzene	ND< 20.0	100,000
Chloroform	ND< 20.0	6,000
1,2-Dichloroethane	ND< 20.0	500
1,1-Dichloroethene	ND< 20.0	700
Tetrachloroethene	ND< 20.0	700
Trichloroethene	ND< 20.0	500
Vinyl chloride	ND< 20.0	200

ELAP Number 10958

Method: EPA 8260B

Data File: V65781.D

Comments: ND denotes Non Detect
ug / L = microgram per Liter

Signature: _____

Bruce Hoogesteger, Technical Director

**Volatile Analysis Report for TCLP Extract****Client:** LIRO Engineers Inc.**Client Job Site:** Buffalo Memorial Auditorium
Demo**Lab Project Number:** 09-1769**Lab Sample Number:** 5936**Client Job Number:** N/A**Field Location:** BMAD - North - 0 - 1**Date Sampled:** 05/14/2009**Field ID Number:** N/A**Date Received:** 05/15/2009**Sample Type:** TCLP Extract**Date Analyzed:** 05/19/2009**Date Reissued:** 05/29/2009

Compounds	Results in ug / L	Regulatory Limits in ug / L
Benzene	ND< 7.00	500
2-Butanone	ND< 100	200,000
Carbon Tetrachloride	ND< 20.0	500
Chlorobenzene	ND< 20.0	100,000
Chloroform	ND< 20.0	6,000
1,2-Dichloroethane	ND< 20.0	500
1,1-Dichloroethene	ND< 20.0	700
Tetrachloroethene	ND< 20.0	700
Trichloroethene	ND< 20.0	500
Vinyl chloride	ND< 20.0	200

ELAP Number 10958

Method: EPA 8260B

Data File: V65782.D

Comments: ND denotes Non Detect
ug / L = microgram per Liter

Signature: _____

Bruce Hoogesteger: Technical Director

**Volatile Analysis Report for TCLP Extract****Client:** LIRO Engineers Inc.

Client Job Site:	Buffalo Memorial Auditorium Demo	Lab Project Number:	09-1769
Client Job Number:	N/A	Lab Sample Number:	5937
Field Location:	BMAD - N. West - 0 - 1	Date Sampled:	05/14/2009
Field ID Number:	N/A	Date Received:	05/15/2009
Sample Type:	TCLP Extract	Date Analyzed:	05/21/2009
		Date Reissued:	05/29/2009

Compounds	Results in ug / L	Regulatory Limits in ug / L
Benzene	ND< 7.00	500
2-Butanone	ND< 100	200,000
Carbon Tetrachloride	ND< 20.0	500
Chlorobenzene	ND< 20.0	100,000
Chloroform	ND< 20.0	6,000
1,2-Dichloroethane	ND< 20.0	500
1,1-Dichloroethene	ND< 20.0	700
Tetrachloroethene	ND< 20.0	700
Trichloroethene	ND< 20.0	500
Vinyl chloride	ND< 20.0	200

ELAP Number 10958

Method: EPA 8260B

Data File: V65855.D

Comments: ND denotes Non Detect
ug / L = microgram per Liter

Signature: _____

Bruce Hoogesteger: Technical Director

**Volatile Analysis Report for TCLP Extract**Client: **LIRO Engineers Inc.**

Client Job Site:	Buffalo Memorial Auditorium	Lab Project Number:	09-1769
	Demo	Lab Sample Number:	5938
Client Job Number:	N/A		
Field Location:	BMAD - S. West - 0 - 1	Date Sampled:	05/14/2009
Field ID Number:	N/A	Date Received:	05/15/2009
Sample Type:	TCLP Extract	Date Analyzed:	05/21/2009
		Date Reissued:	05/29/2009

Compounds	Results in ug / L	Regulatory Limits in ug / L
Benzene	ND< 7.00	500
2-Butanone	ND< 100	200,000
Carbon Tetrachloride	ND< 20.0	500
Chlorobenzene	ND< 20.0	100,000
Chloroform	ND< 20.0	6,000
1,2-Dichloroethane	ND< 20.0	500
1,1-Dichloroethene	ND< 20.0	700
Tetrachloroethene	ND< 20.0	700
Trichloroethene	ND< 20.0	500
Vinyl chloride	ND< 20.0	200

ELAP Number 10958

Method: EPA 8260B

Data File: V65856.D

Comments: ND denotes Non Detect
ug / L = microgram per Liter

Signature: _____

Bruce Hoogesteger: Technical Director

**Volatile Analysis Report for TCLP Extract**Client: **LIRO Engineers Inc.**

Client Job Site:	Buffalo Memorial Auditorium	Lab Project Number:	09-1769
	Demo	Lab Sample Number:	5939
Client Job Number:	N/A		
Field Location:	BMAD - S. East - 0 - 1	Date Sampled:	05/14/2009
Field ID Number:	N/A	Date Received:	05/15/2009
Sample Type:	TCLP Extract	Date Analyzed:	05/21/2009
		Date Reissued:	05/29/2009

Compounds	Results in ug / L	Regulatory Limits in ug / L
Benzene	ND< 7.00	500
2-Butanone	ND< 100	200,000
Carbon Tetrachloride	ND< 20.0	500
Chlorobenzene	ND< 20.0	100,000
Chloroform	ND< 20.0	6,000
1,2-Dichloroethane	ND< 20.0	500
1,1-Dichloroethene	ND< 20.0	700
Tetrachloroethene	ND< 20.0	700
Trichloroethene	ND< 20.0	500
Vinyl chloride	ND< 20.0	200

ELAP Number 10958

Method: EPA 8260B

Data File: V65857.D

Comments: ND denotes Non Detect
ug / L = microgram per Liter

Signature: _____

Bruce Hoogesteger: Technical Director

Paradigm Environmental BKPeterson, LLC - Service

CHAIN OF CUSTODY

145 Lake Avenue
Rochester, NY 14608

ARTIME ORGANIZATION

647-1530

(585) 254-0659

PROJECT NAME/ SITE NAME:
Bogertal Municipal
AUDITORIUM - D5-10

COMPANY: LIRCO ENVIRONMENTAL INC.		COMPANY: CAE INC.		LAB PROJECT #:	CLIENT PROJECT #:
ADDRESS: 690 DELAWARE AVE		ADDRESS: 1815 LOVE ROAD		09-1769	
CITY: BOGERTAL	STATE: NY	CITY: GRAND ISLAND	STATE: NY	ZIP: 14612	
PHONE: 716-982-5416	FAX: 716-882-0640	PHONE: 716-775-8066	FAX: 716-775-8067	TURNAROUND TIME (WORKING DAYS)	
ATTN: MIKE BYRNE	ATTN: RALPH CLARKE	STD 10 OTHER			
COMMENTS: - CSU - 913-7953		REQUESTED ANALYSIS: BMAIR - 16 BYRNE @ LIRCO.COM quote 72042909			

DATE	TIME	C O M P O S I T E	G R A B	SAMPLE LOCATION/FIELD ID	M A T R I X	C O N T A M I N A N T S	TCVP	SVOCs	PCBS	TPH	pH	IGNITABILITY	PAINT FILTER	REMARKS	BKPeterson LAB SAMPLE NUMBER
15/14/09	1120	X		BMAID-SOUTH-O-1	5013	X	X	X	X	X	X	X	X	Per quote:	5934
23/14/09	1140	X		BMAID-N.BASF-O-1	513	X	X	X	X	X	X	X	X	8270 ABU (total)	5935
35/14/09	0340	X		BMAID-NORTH-O-1	513	X	X	X	X	X	X	X	X	RCRA Metals total (EPA 515)	5936
45/14/09	1430	X		BMAID-N.VAST-O-1	513	X	X	X	X	X	X	X	X	and TCVP VOCs	5937
55/14/09	1405	X		BMAID-S.WEST-O-1	513	X	X	X	X	X	X	X	X	TCVP SVOCs, TCVP RCRA Metals	5938
65/14/09	1500	X		BMAID-S.EAST-O-1	513	X	X	X	X	X	X	X	X	Per JH 518, do not run reactivity or 10 solids per Mike Byrne.	5939
7															
8															
9															
10															

LAB USE ONLY - BELOW THIS LINE

Sample Condition: Per NELAC/ELAP 210/241/242/243/244

Receipt Parameter		NELAC Compliance	
Container Type:	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>		
Preservation:	Y <input type="checkbox"/> N <input type="checkbox"/>		
Holding Time:	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>		
Temperature:	Y <input type="checkbox"/> N <input checked="" type="checkbox"/>		
Comments:	10°Ciced		

Sampled By:	Muel Pfla	Date/Time:	5/14/09 1500	Total Cost:	
Relinquished By:	Muel Pfla	Date/Time:	5/15/09 1620		
Received By:	Emily meyer	Date/Time:	5/15/09 1020		
Received @ Lab By:	Emily meyer	Date/Time:	5/15/09 1710		

EMPIRE **GEO** SERVICES, INC.

A SUBSIDIARY OF SJB SERVICES, INC.

November 6, 2009
Project No. BE-09-094A

Erie Canal Harbor Development Corporation

c/o Mr. Darryl C. Murszewski, Senior Project Engineer
C&S Companies
90 Broadway Street
Buffalo, New York, 14203

Re: Environmental Soil Data Report for the
Former Buffalo Memorial Auditorium Site
Proposed Buffalo Canal Side Development
Buffalo, New York

Dear Mr. Murszewski:

Empire GeoServices, Inc. (Empire) was retained by C&S Companies (C&S) on behalf of the Erie Canal Harbor Development Corporation (ECHDC), to complete a subsurface investigation at the former Buffalo Memorial Auditorium Site located in Buffalo, New York. This investigation included a geotechnical evaluation and environmental laboratory analysis of selected soil samples. This letter report summarizes the environmental laboratory data. Empire submitted the geotechnical evaluation to C&S under separate covers dated July 14th, 2009 and November 2nd, 2009.

SUBSURFACE INVESTIGATION

Empire completed the subsurface investigation during two events. The first event was completed in June, 2009 and the second event was completed during September and October, 2009. The two subsurface investigation efforts included the completion of 14 test borings and the installation of four groundwater observation wells. The test borings were designated B-1 through B-14 and the groundwater observation wells were identified by the test borings in which they were installed (B-1, B-4, B-7A, and B-14).

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MEMBER


ACEC New York
American Council of Engineering Companies of New York

The test borings were advanced using a Central Mine Equipment (CME) model 550X, all terrain drill rig and a CME model 85 truck mounted drill rig. All the test borings were advanced in overburden using hollow stem augers and split spoon sampling techniques. Representative soil samples were continuously obtained from the ground surface to a depth of 14 to 56 feet and in intervals of five feet or less below the zone of continuous sampling. The two inch outside diameter split spoon sampler was driven into the undisturbed soils ahead of the augers, utilizing a 140 pound drop hammer freely falling 30-inches. Details of the subsurface investigation including test boring locations, soil types encountered, standard penetration test results, and monitoring well installation diagrams were presented in Empire's previously submitted geotechnical evaluation reports.

ENVIRONMENTAL SCREENING

The recovered soil samples were screened for volatile organic compound (VOC) vapors using an Ion Science PhoCheck 1000 Photoionization Detector (PID) equipped with a 10.6 eV lamp. The PID will detect, if present, the aggregate concentration of many VOCs at a practical threshold of approximately 1-2 parts per million (ppm). In addition, the soils were visually inspected for evidence of environmental degradation (i.e. discoloration, odors, etc.).

In general, the PID readings were at ambient/background levels for the recovered soil samples. Isolated detections of slightly elevated PID measurements were recorded on soil samples recovered from test borings B-1, B-2, B-10 and B-11. Evidence of petroleum or chemical staining was not observed on the recovered soils. The results of the PID screenings and noted observations are presented on the subsurface logs presented in Empire's previous geotechnical reports.

SAMPLE COLLECTION AND ENVIRONMENTAL LABORATORY ANALYSIS

Soil samples were collected for environmental laboratory analysis from test borings B-1, B-2, B-3A, B-4, B-5, B-7, B-8, and B-10 as directed by C&S. Samples B-2, B-3A, and B-4 were composited from ground surface to a depth 24 feet. Soil samples from borings B-7 and B-8 were composited from the ground surface to eight feet below grade. B-1 was collected from ground surface to a depth of 12 feet. Sample B-5 was collected from ground surface to 16 feet below grade. B-8 was composited from ground surface to a depth of nine feet.

All samples were analyzed for Target Compound List (TCL) Volatile Organic Compounds (VOCs) including NYSDEC Spill Technology and Remediation Series (STARS) VOCs and Methyl tert-butyl Ether (MTBE), TCL Semi-Volatile Organic Compounds (SVOCs), Target Analyte List Metals including Mercury, Pesticide Compounds, Herbicide Compounds, and Polychlorinated Biphenyls (PCBs). In addition, a second set of soil samples was collected from test borings B-1, B-2, B-5, and B-8 that was analyzed for Toxicity Characteristic Leaching Procedure (TCLP) VOCs, TCLP SVOCs, TCLP Metals, TCLP Pesticide Compounds, TCLP Herbicide Compounds, ignitability, corrosivity, reactivity, and paint filter analysis.

The collected soil samples were placed into pre-cleaned containers, labeled with the date, time and location of project and placed in an iced cooler at approximately 4-degrees Celsius for transport to Paradigm Environmental Services, Inc. (Paradigm) in Rochester, New York. Paradigm is a New York State Department of Health (NYSDOH) certified analytical testing laboratory. Chain-of-custody documentation accompanied the samples. Analytical data summary tables are presented in Attachment A. Paradigm's analytical reports are included in Attachment B.

LABORATORY ANALYTICAL RESULTS

Analysis for Total Concentrations

The analytical results of the soil samples were compared the New York State Department of Environmental Conservation (NYSDEC) Recommended Soil Cleanup Objectives (RSCOs) presented in the Division Technical and Administrative Guidance Memorandum: Determination of Soil Cleanup Objectives and Cleanup Levels (TAGM 4046). Compounds or elements that were detected above the laboratory method detection limits are briefly summarized below. Specific information regarding detections is presented on the summary tables in Attachment A.

Volatile Organic Compounds: The four VOCs toluene, m/p-xylenes, naphthalene, and 1,3,5-trimethylbenzene were detected in the collected soil samples. The concentration levels of these detections were well below the NYSDEC TAGM 4046 RSCOs. A summary of the detected VOCs is presented on Table 1 of Attachment A.

Semi Volatile Organic Compounds: Seventeen SVOCs were detected in the collected soil samples. Of these detections, the individual SVOCs benzo(a)anthracene, benzo(a)pyrene, benzo(ghi)perylene, benzo(k)fluoranthene, chrysene, dibenzo(a,h)anthracene, and indeno(1,2,3-cd)pyrene exceeded NYSDEC TAGM 4046 RSCOs. However the total SVOC concentrations in all of the soil samples were well below the TAGM 4046 RSCO for total SVOCs. A summary of the detected SVOCs is presented on Table 2 of Attachment A.

Metals: Nineteen metals were detected in collected soil samples. Of these detections, cadmium, lead, calcium, copper, magnesium, mercury, and zinc exceeded NYSDEC TAGM 4046 RSCOs. The TAGM RSCOs for these metals are based on background levels averaged over the eastern United States. Since it is likely that these detections are at or near background levels for this local, commercial/industrial area of Buffalo, they are not considered to represent a significant environmental concern. Additional research regarding local background levels would be required for verification. A summary of the detected metals is presented on Table 3 of Attachment A.

Pesticide Compounds: The two pesticide compounds beta-BHC and gamma-BHC were detected in the collected soil samples. These detections were below NYSDEC TAGM 4046 RSCOs.

Herbicide Compounds: Herbicide compounds were not detected in any of the soil samples.

Polychlorinated Biphenyls: Polychlorinated biphenyls were not detected in any of the soil samples.

Analysis for Leachable Concentrations and Hazardous Waste Testing

The laboratory data resulting from the Toxicity Characteristic Leaching Procedure (TCLP) analysis were compared to the Regulatory Levels included in Table 1, "Contaminant Concentration for Toxicity," of NYSDEC Part 371.2 regarding hazardous waste criteria.

Volatile Organic Compounds: The analysis of the TCLP extracts did not detect volatile organic compounds above the method detection limits.

Semi Volatile Organic Compounds: The analysis of the TCLP extracts did not detect semi volatile organic compounds above the method detection limits.

Metal/Inorganic Compounds: The two metals barium and lead were detected in the TCLP extracts at levels well below the Part 371.2 levels. A summary of the detected TCLP metals is presented on Table 5 of Attachment A.

Pesticide Compounds: The analysis of the TCLP extracts did not detect pesticide compounds above the method detection limits.

Herbicide Compounds: The analysis of the TCLP extracts did not detect herbicide compounds above the method detection limits.

Ignitability: The submitted soil samples did not exhibit a flashpoint greater than 70 degrees Celsius and therefore were nonhazardous for ignitability.

Reactivity: The submitted soil samples did not exhibit cyanide and sulfide reactivity levels that exceeded regulatory limits and therefore were nonhazardous for reactivity.

Corrosivity: The submitted soil samples exhibited pH results from 7.82 to 10.4 standard units and therefore were nonhazardous for corrosivity.

Paint Filter Test: The submitted soil samples had acceptable results for the paint filter test.

This report has been prepared for the exclusive use of Erie Canal Harbor Development Corporation c/o C&S Companies for specific application to the Former Buffalo Memorial Auditorium Site in accordance with generally accepted environmental practices. If you have any questions or require further assistance, please contact our office at (716) 649-8110.

Respectfully submitted,
EMPIRE GEOSERVICES, INC.



Stephen J. Bochenek
Engineering Geologist



David R. Steiner
Environmental Services Manager

Attachments

A – Analytical Summary Tables

B – Paradigm Environmental Services, Inc. Analytical Reports

ATTACHMENT A**Analytical Summary Tables**

TABLE 1
BUFFALO MEMORIAL AUDITORIUM - PROPOSED BUFFALO CANAL SIDE DEVELOPMENT
SUMMARY OF DETECTED VOLATILE ORGANIC COMPOUNDS

VOCs	Units	TAGM 4046 Recommended Soil Cleanup Objective	LOCATIONS (Sampling Interval)							
			B-1 (0 - 12')	B-2 (0 - 24')	B-3A (0 - 24')	B-4 (0 - 24')	B-5 (0 - 16')	B-7 (0 - 8')	B-8 (0 - 9')	B-10 (0 - 8')
Toluene	ppb	1,500	ND	ND	ND	ND	ND	ND	11.9	ND
m/p-Xylene	ppb	1,200	ND	ND	ND	ND	ND	ND	13.8	ND
Naphthalene	ppb	13,000	377	177	ND	ND	ND	ND	ND	ND
1,2,4-Trimethylbenzene	ppb	1,360	11.1	ND	ND	ND	ND	ND	ND	ND
Total VOCs Concentration	ppb	10,000	388.1	177	ND	ND	ND	ND	25.7	ND

Notes:

MDL- Method Detection Limit

ND- Non Detect

ppb- Parts Per Billion

*- Total Xylene Recommended Soil Cleanup Objective Listed

Bold Concentration Equals or Exceeds TAGM 4046 Recommended Soil Cleanup Objectives

TABLE 2
BUFFALO MEMORIAL AUDITORIUM - PROPOSED BUFFALO CANAL SIDE DEVELOPMENT
SUMMARY OF DETECTED SEMI-VOLATILE ORGANIC COMPOUNDS

SVOCs	Units	TAGM 4046 Recommended Soil Cleanup Objective	LOCATIONS (Sampling Interval)							
			B-1 (0 - 12')	B-2 (0 - 24')	B-3A (0 - 24')	B-4 (0 - 22')	B-5 (0 - 16')	B-7 (0 - 8')	B-8 (0 - 9')	B-10 (0 - 8')
Acenaphthene	ppb	50,000*	1,750	2,750	ND	529	ND	ND	ND	ND
Acenaphthylene	ppb	41,000	1,980	ND	ND	ND	ND	ND	ND	ND
Anthracene	ppb	41,000	8,220	6,010	ND	1,700	ND	444	ND	ND
Benzo(a)anthracene	ppb	224 or MDL	14,700	8,240	ND	2,880	ND	890	ND	ND
Benzo(a)pyrene	ppb	61 or MDL	11,600	6,840	ND	2,270	ND	812	ND	ND
Benzo(b)fluoranthene	ppb	1,100	10,600	5,710	ND	2,230	ND	758	ND	ND
Benzo(ghi)perylene	ppb	50,000*	6,050	3,780	ND	1,310	ND	577	ND	ND
Benzo(k)fluoranthene	ppb	1,100	11,300	5,510	ND	2,100	ND	592	ND	ND
Bis(2-ethylhexyl)phthalate	ppb	50,000*	ND	ND	ND	ND	ND	ND	822	ND
Chrysene	ppb	400	13,000	7,350	ND	2,630	ND	895	ND	ND
Dibenzo(a,h)anthracene	ppb	14 or MDL	2,910	ND	ND	608	ND	ND	ND	ND
Dibenzofuran	ppb	6,200	2,670	1,940	ND	516	ND	ND	ND	ND
Fluoranthene	ppb	50,000*	31,900	19,100	ND	5,840	ND	2,020	409	722
Fluorene	ppb	50,000*	4,160	2,700	345	803	ND	ND	ND	ND
Indeno(1,2,3-cd)pyrene	ppb	3,200	7,060	3,490	ND	1,310	ND	623	ND	ND
Naphthalene	ppb	13,000	2,070	2,160	ND	325	ND	ND	ND	ND
Phenanthrene	ppb	50,000*	22,200	16,600	ND	4,720	ND	1,800	ND	607
Pyrene	ppb	50,000*	21,800	14,600	ND	4,290	ND	1,640	355	533
Total SVOCs Concentration	ppb	500,000	173,970	106,780	345	34,061	ND	11,051	1,586	1,862

Notes:

MDL- Method Detection Limit

ND- Non Detect

ppb- Parts Per Billion

*- Total SVOC Concentration Less Than 500,000 ppb

Bold Concentration Equals or Exceeds TAGM 4046 Recommended Soil Cleanup Objectives

TABLE 3
BUFFALO MEMORIAL AUDITORIUM - PROPOSED BUFFALO CANAL SIDE DEVELOPMENT
SUMMARY OF DETECTED METALS

INORGANIC COMPOUNDS	Units	TAGM 4046		LOCATIONS (Sampling Interval)							
		Recommended Soil Cleanup Objective	Eastern USA Background	B-1 (0 - 12')	B-2 (0 - 24')	B-3A (0 - 24')	B-4 (0 - 24')	B-5 (0 - 16')	B-7 (0 - 8')	B-8 (0 - 9')	B-10 (0 - 8')
Aluminum	mg/kg	SB	33,000	6,390	6,430	7,250	6,340	8,760	9,640	8,170	13,900
Arsenic	mg/kg	7.5 or SB	3 - 12	8.41	6.76	5.87	5.25	5.28	9.32	3.83	4.66
Barium	mg/kg	300 or SB	15 - 600	64.2	111	76.8	82.2	47.9	402	55	106
Beryllium	mg/kg	0.16 or SB	0 - 1.75	ND	ND	ND	ND	ND	0.457	ND	0.689
Cadmium	mg/kg	1 or SB	0.1 - 1	0.542	ND	ND	ND	ND	2.46	ND	0.697
Calcium	mg/kg	SB	130 - 35,000	81,900	55,500	46,300	42,800	47,100	31,200	64,500	64,200
Chromium	mg/kg	10 or SB	1.5 - 40	9.89	10.4	11.1	9.42	21.0	25.5	13	20
Cobalt	mg/kg	30 or SB	2.5 - 60	5.33	4.49	5.43	4.45	5.86	5.86	5.07	8.38
Copper	mg/kg	25 or SB	1 - 50	29.5	38.9	28.4	21.4	26.4	149	23.7	31.3
Iron	mg/kg	2,000 or SB	2,000 - 550,000	14,900	14,600	13,500	11,000	16,200	19,200	13,500	21,500
Lead	mg/kg	SB	200 - 500	120	144	133	122	65.6	1,650	66.4	161
Magnesium	mg/kg	SB	100 - 5,000	26,400	10,800	14,000	10,100	23,600	8,900	11,100	16,600
Manganese	mg/kg	SB	50 - 5,000	353	243	307	301	366	317	327	288
Mercury	mg/kg	0.1	0.001 - 0.2	0.0728	0.377	0.0121	0.327	0.136	1.52	0.109	0.388
Nickel	mg/kg	13 or SB	0.5 - 25	12	10.4	13.8	9.86	17.2	19.2	12.1	19.7
Potassium	mg/kg	SB	8,500 - 43,000	1,180	1,140	1,240	1,080	1,810	1,870	1,220	3,440
Selenium	mg/kg	2 or SB	0.1 - 3.9	ND	ND	0.734	ND	ND	ND	ND	ND
Sodium	mg/kg	SB	6,000 - 8,000	383	236	430	178	126	487	461	886
Vanadium	mg/kg	150 or SB	1 - 300	15.4	16.8	17.6	15.3	20.1	23.2	13.3	29.1
Zinc	mg/kg	20 or SB	9 - 50	88.7	115	119	94.5	75.0	1,250	53.2	102

Notes:

SB- Site Background

ND- Non Detect

mg/kg- milligrams per kilogram

Bold Concentration Equals or Exceeds TAGM 4046 Recommended Soil Cleanup Objectives

TABLE 4
BUFFALO MEMORIAL AUDITORIUM - PROPOSED BUFFALO CANAL SIDE DEVELOPMENT
SUMMARY OF DETECTED PESTICIDE COMPOUNDS

PESTICIDES	Units	TAGM 4046	LOCATIONS (Sampling Interval)							
		Recommended Soil Cleanup Objective	B-1 (0 -12')	B-2 (0 - 24')	B-3A (0 - 24')	B-4 (0 - 24')	B-5 (0 -16')	B-7 (0 - 8')	B-8 (0 - 9')	B-10 (0 - 8')
beta-BHC	ppb	200	ND	ND	13.9	ND	7.94	ND	ND	ND
gamma-BHC	ppb	60	ND	ND	4.40	ND	4.30	ND	ND	ND

Notes:
ND- Non Detect
ppb- Parts Per Billion

TABLE 5
BUFFALO MEMORIAL AUDITORIUM - PROPOSED BUFFALO CANAL SIDE DEVELOPMENT
SUMMARY OF DETECTED TCLP METALS

INORGANIC COMPOUNDS	Units	Federal Regulatory Limits	LOCATIONS (Sampling Interval)			
			B-1 (0 - 12')	B-2 (0 - 24')	B-5 (0 - 16')	B-8 (0 - 9')
Barium	mg/l	100.0	1.31	1.27	1.65	0.512
Lead	mg/l	5.0	0.153	ND	ND	ND

Notes:

ND- Non Detect

mg/l- milligrams per liter

ATTACHMENT B

Paradigm Environmental Services, Inc. Analytical Reports

Analytical Report Cover Page

SJB Services

For Lab Project # 09-2303

Issued July 13, 2009

This report contains a total of 18 pages

The reported results relate only to the samples as they have been received by the laboratory.

Any noncompliant QC parameters having impact on the data are flagged or documented on the final report.

All soil/sludge samples have been reported on a dry weight basis, unless qualified "reported as received". Other solids are reported as received.

Each page of this document is part of a multipage report. This document may not be reproduced except in its entirety, without the prior consent of Paradigm Environmental Services, Inc.

The Chain of Custody provides additional information, including compliance with sample condition requirements upon receipt. Sample condition requirements are defined under the 2003 NELAC Standard, sections 5.5.8.3.1 and 5.5.8.3.2.

NYSDOH ELAP does not certify for all parameters. Paradigm Environmental Services or the indicated subcontracted laboratory does hold certification for all analytes where certification is offered by ELAP unless otherwise specified.

Data qualifiers are used, when necessary, to provide additional information about the data. This information may be communicated as a flag or as text at the bottom of the report. Please refer to the following list of frequently used data flags and their meaning:

"ND" = analyzed for but not detected.

"E" = Result has been estimated, calibration limit exceeded.

"D" = Duplicate results outside QC limits. May indicate a non-homogenous matrix.

"M" = Matrix spike recoveries outside QC limits. Matrix bias indicated.

"B" = Method blank contained trace levels of analyte. Refer to included method blank report.

Client: SJB Services
Client Job Site: Buffalo Aud Site
Client Job No.: N/A
Field Location: B-1 (0-12')


Lab Project No.: 09-2303
Lab Sample No.: 7427
Sample Type: Soil
Date Sampled: 6/26/2009
Date Received: 6/29/2009

Laboratory Report for Reactivity

Parameter	Date Analyzed	Analytical Method	Results (mg/kg)
Cyanide Reactivity	6/30/2009	SW846, 7.3.3.2	ND<1.0
Sulfide Reactivity	6/30/2009	SW846, 7.3.4.2	20

ELAP ID. No.: 10709

Comments: ND denotes Non Detect.
Hazardous Waste Regulatory Levels for Reactivity are as follows:
Sulfide - 500 mg/kg, Cyanide - 250 mg/kg.

Approved By Technical Director: 
Bruce Hoogesteger



PARADIGM

ENVIRONMENTAL SERVICES, INC.

179 Lake Avenue Rochester, New York 14608 (585) 647-2530 FAX (585) 647-3311

Client: SJB Services

Client Job Site: Buffalo Aud. Site

Client Job No: N/A

Field Location: B-1 (0-12')

Lab Project No: 09-2303

Lab Sample No: 7427

Sample Type: Soil

Date Sampled: 6/26/2009

Date Received: 6/29/2009

Date Analyzed: 7/10/2009

Laboratory Report for Herbicides Analysis

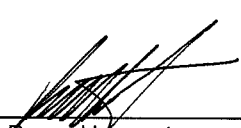
Parameter	Result (ug/kg)	Reporting Limit (ug/kg)
2,4-D	ND	200
Dinoseb	ND	200
Dicamba	ND	200
2,4,5-T	ND	200
2,4,5-TP (Silvex)	ND	200

Analytical Method: SW 8151A

ELAP ID: 10709

Comments: ND denotes Non Detect.

Approved By Technical Director: _____


Bruce Hoogesteger

Client: **SJB Services** Lab Project No: 09-2303
Client Job Site: Buffalo Aud. Site Lab Sample No: 7427
Client Job No: N/A Sample Type: TCLP Extract
Field Location: B-1 (0-12') Date Sampled: 6/26/2009
Date Received: 6/29/2009
Date Analyzed: 7/8/2009

Herbicide Analysis Report for TCLP Extract

Parameter	Result (mg/L)	Regulatory Limit (mg/L)
2,4,5-TP (Silvex)	ND<0.05	1.0
2,4-D	ND<0.50	10.0

Analytical Method: SW1311/8151

ELAP ID: 10709

Comments: ND denotes Non Detect.

Approved By Technical Director: _____


Bruce Hoogesteger

pH Analysis ReportClient: **SJB Services**

Client Job Site: Buffalo Aud Site

Lab Project Number: 09-2303

Client Job Number: N/A

Date Sampled: 6/26/2009

Time Sampled: 9:00 AM

Date Received: 6/29/2009

Sample Type: Soil

Time Received: 4:05 PM

Location: Laboratory

Date Analyzed: 6/30/2009

Time Analyzed: 9:35 AM

Lab Sample Number	Field Number	Field Location	Result (pH)
7427	N/A	B-1 (0-12')	10.4

ELAP Number 10958

Method: EPA 9045C

Comments:

Signature:



Bruce Hoogesteger: Technical Director

Paint Filter Analysis Report

Client: SJB Services

Client Job Site: Buffalo Aud Site

Lab Project Number: 09-2303

Client Job Number: N/A

Date Sampled: 6/26/2009

Date Received: 6/29/2009

Sample Type: Soil

Date Analyzed: 6/30/2009

Lab Sample Number	Field Number	Field Location	Result
7427	N/A	B-1 (0-12')	Pass (No free liquid)

ELAP Number 10958

Method: SW846 9095

Comments:

Signature:


Bruce Hoogesteger: Technical Director

Flashpoint by Pensky-Martin Analysis Report

Client: SJB Services

Client Job Site: Buffalo Aud Site

Lab Project Number: 09-2303

Client Job Number: N/A

Date Sampled: 06/26/2009

Date Received: 06/29/2009

Sample Type: Soil

Date Analyzed: 07/06/2009

Lab Sample Number	Field Number	Field Location	Result (°C)
7427	N/A	B-1 (0-12')	> 70

ELAP Number 10958

Method: SW846 1010

Comments: °C = degrees Centigrade

Signature:


Bruce Hoogesteger: Technical Director

Client: **SJB Services**

Lab Project No.: 09-2303

Client Job Site: Buffalo Aud Site

Lab Sample No.: 7427

Client Job No.: N/A

Sample Type: Soil

Field Location: B-1 (0-12')

Date Sampled: 06/26/2009

Field ID No.: N/A

Date Received: 06/29/2009

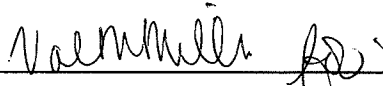
Laboratory Report for TAL Metals Analysis in Solid

Parameter	Date Analyzed	Analytical Method	Result (mg/kg)
Aluminum	07/02/2009	SW846 6010	6390
Antimony	07/02/2009	SW846 6010	<6.04
Arsenic	07/02/2009	SW846 6010	8.41
Barium	07/02/2009	SW846 6010	64.2
Beryllium	07/02/2009	SW846 6010	<0.502
Cadmium	07/02/2009	SW846 6010	0.542
Calcium	07/02/2009	SW846 6010	81900
Chromium	07/02/2009	SW846 6010	9.89
Cobalt	07/02/2009	SW846 6010	5.33
Copper	07/02/2009	SW846 6010	29.5
Iron	07/02/2009	SW846 6010	14900
Lead	07/02/2009	SW846 6010	120
Magnesium	07/02/2009	SW846 6010	26400
Manganese	07/02/2009	SW846 6010	353
Mercury	06/30/2009	SW846 7471	0.0728 D
Nickel	07/02/2009	SW846 6010	12.0
Potassium	07/02/2009	SW846 6010	1180
Selenium	07/02/2009	SW846 6010	<0.502
Silver	07/02/2009	SW846 6010	<1.01
Sodium	07/07/2009	SW846 6010	383
Thallium	07/02/2009	SW846 6010	<0.604
Vanadium	07/02/2009	SW846 6010	15.4
Zinc	07/02/2009	SW846 6010	88.7

ELAP ID No.:10958

Comments:

Approved By:


 Bruce Hoogesteger, Technical Director

Client: **SJB Services**

Lab Project No.: 09-2303

Client Job Site: Buffalo Aud Site

Lab Sample No.: 7427

Client Job No.: N/A

Sample Type: TCLP Extract

Field Location: B-1 (0-12')

Date Sampled: 06/26/2009

Date Received: 06/29/2009

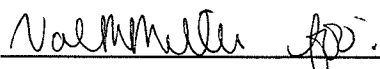
Field ID No.: N/A

Laboratory Report for TCLP Metals Analysis

Parameter	Date Analyzed	Analytical Method	Result (mg/L)	Regulatory Limit (mg/L)
TCLP Metal Series				
Arsenic	07/02/2009	EPA 6010	<0.100	5.0
Barium	07/02/2009	EPA 6010	1.31	100.0
Cadmium	07/02/2009	EPA 6010	<0.025	1.0
Chromium	07/02/2009	EPA 6010	<0.050	5.0
Lead	07/02/2009	EPA 6010	0.153	5.0
Mercury	06/30/2009	EPA 7470	<0.0020	0.2
Selenium	07/02/2009	EPA 6010	<0.100	1.0
Silver	07/02/2009	EPA 6010	<0.050	5.0

ELAP ID No.: 10958

Comments: The laboratory control spike was outside QC limits for Ba.

 Approved By: 
 Bruce Hoogesteger, Technical Director

PCB Analysis Report for Soils/Solids/SludgesClient: **SJB Services**

Client Job Site: Buffalo Aud Site

Lab Project Number: 09-2303

Lab Sample Number: 7427

Client Job Number: N/A

Field Location: B-1 (0-12')

Date Sampled: 06/26/2009

Field ID Number: N/A

Date Received: 06/29/2009

Sample Type: Soil

Date Analyzed: 07/01/2009

PCB Identification	Results in mg / Kg
Aroclor 1016	ND< 0.358
Aroclor 1221	ND< 0.358
Aroclor 1232	ND< 0.358
Aroclor 1242	ND< 0.358
Aroclor 1248	ND< 0.358
Aroclor 1254	ND< 0.358
Aroclor 1260	ND< 0.358

ELAP Number 10958

Method: EPA 8082

Comments: ND denotes Non Detect

mg / Kg = milligram per Kilogram

Signature: _____

Bruce Hoogesteger: Technical Director

Pesticide Analysis Report for Soils/Solids/SludgesClient: **SJB Services**

Client Job Site: Buffalo Aud Site

Lab Project Number: 09-2303

Lab Sample Number: 7427

Client Job Number: N/A

Field Location: B-1 (0-12')

Date Sampled: 06/26/2009

Field ID Number: N/A

Date Received: 06/29/2009

Sample Type: Soil

Date Analyzed: 06/30/2009

Pesticide Identification	Results in ug / Kg
Aldrin	ND< 3.45
alpha-BHC	ND< 3.45
beta-BHC	ND< 3.45
delta-BHC	ND< 3.45
gamma-BHC	ND< 3.45
alpha-Chlordane	ND< 3.45
gamma-Chlordane	ND< 3.45
4,4'-DDD	ND< 3.45
4,4'-DDE	ND< 3.45
4,4'-DDT	ND< 3.45
Dieldrin	ND< 3.45
Endosulfan I	ND< 3.45
Endosulfan II	ND< 3.45
Endosulfan Sulfate	ND< 3.45
Endrin	ND< 3.45
Endrin Aldehyde	ND< 3.45
Heptachlor	ND< 3.45
Heptachlor Epoxide	ND< 3.45
Methoxychlor	ND< 3.45
Toxaphene	ND< 173

ELAP Number 10958

Method: EPA 8081

Comments: ND denotes Non Detect

ug / Kg = microgram per Kilogram

Signature: _____

Bruce Hoogesteger: Technical Director

Pesticide Analysis Report for TCLP ExtractClient: **SJB Services**

Client Job Site: Buffalo Aud Site

Lab Project Number: 09-2303

Lab Sample Number: 7427

Client Job Number: N/A

Field Location: B-1 (0-12')

Date Sampled: 06/26/2009

Field ID Number: N/A

Date Received: 06/29/2009

Sample Type: TCLP Extract

Date Analyzed: 06/30/2009

Pesticide Identification	Results in ug / L	Regulatory Limits in ug / L
gamma-BHC	ND< 1.00	400
Chlordane	ND< 1.00	30.0
Endrin	ND< 1.00	20.0
Heptachlor	ND< 1.00	8.00
Heptachlor Epoxide	ND< 1.00	8.00
Methoxychlor	ND< 1.00	10000
Toxaphene	ND< 50.0	500

ELAP Number 10958

Method: EPA 8081

Comments: ND denotes Non Detect
ug / L = microgram per Liter

Signature: _____

Bruce Hoogesteger: Technical Director

**Semi-Volatile Analysis Report for Soils/Solids/Sludges**Client: **SJB Services**

Client Job Site: Buffalo Aud Site

Lab Project Number: 09-2303

Lab Sample Number: 7427

Client Job Number: N/A

Field Location: B-1 (0-12')

Date Sampled: 06/26/2009

Field ID Number: N/A

Date Received: 06/29/2009

Sample Type: Soil

Date Analyzed: 07/06/2009

Base / Neutrals	Results in ug / Kg	Base / Neutrals	Results in ug / Kg
Acenaphthene	1,750	Dibenz (a,h) anthracene	2,910
Anthracene	8,220	Fluoranthene	31,900
Benzo (a) anthracene	14,700	Fluorene	4,160
Benzo (a) pyrene	11,600	Indeno (1,2,3-cd) pyrene	7,060
Benzo (b) fluoranthene	10,600	Naphthalene	2,070
Benzo (g,h,i) perylene	6,050	Phenanthrene	22,200
Benzo (k) fluoranthene	11,300	Pyrene	21,800
Chrysene	13,000	Acenaphthylene	1,980
Diethyl phthalate	ND< 1,720	1,2-Dichlorobenzene	ND< 1,720
Dimethyl phthalate	ND< 4,300	1,3-Dichlorobenzene	ND< 1,720
Butylbenzylphthalate	ND< 1,720	1,4-Dichlorobenzene	ND< 1,720
Di-n-butyl phthalate	ND< 1,720	1,2,4-Trichlorobenzene	ND< 1,720
Di-n-octylphthalate	ND< 1,720	Nitrobenzene	ND< 1,720
Bis (2-ethylhexyl) phthalate	ND< 1,720	2,4-Dinitrotoluene	ND< 1,720
2-Chloronaphthalene	ND< 1,720	2,6-Dinitrotoluene	ND< 1,720
Hexachlorobenzene	ND< 1,720	Bis (2-chloroethyl) ether	ND< 1,720
Hexachloroethane	ND< 1,720	Bis (2-chloroisopropyl) ether	ND< 1,720
Hexachlorocyclopentadiene	ND< 1,720	Bis (2-chloroethoxy) methan	ND< 1,720
Hexachlorobutadiene	ND< 1,720	4-Bromophenyl phenyl ether	ND< 1,720
N-Nitroso-di-n-propylamine	ND< 1,720	4-Chlorophenyl phenyl ether	ND< 1,720
N-Nitrosodiphenylamine	ND< 1,720	Benzidine	ND< 4,300
N-Nitrosodimethylamine	ND< 1,720	3,3'-Dichlorobenzidine	ND< 1,720
Isophorone	ND< 1,720	4-Chloroaniline	ND< 1,720
Benzyl alcohol	ND< 4,300	2-Nitroaniline	ND< 4,300
Dibenzofuran	2,670	3-Nitroaniline	ND< 4,300
2-Methylnaphthalene	ND< 1,720	4-Nitroaniline	ND< 4,300

Acids	Results in ug / Kg	Acids	Results in ug / Kg
Phenol	ND< 1,720	2-Methylphenol	ND< 1,720
2-Chlorophenol	ND< 1,720	3&4-Methylphenol	ND< 1,720
2,4-Dichlorophenol	ND< 1,720	2,4-Dimethylphenol	ND< 1,720
2,6-Dichlorophenol	ND< 1,720	2-Nitrophenol	ND< 1,720
2,4,5-Trichlorophenol	ND< 4,300	4-Nitrophenol	ND< 4,300
2,4,6-Trichlorophenol	ND< 1,720	2,4-Dinitrophenol	ND< 4,300
Pentachlorophenol	ND< 4,300	4,6-Dinitro-2-methylphenol	ND< 4,300
4-Chloro-3-methylphenol	ND< 1,720	Benzoic acid	ND< 4,300

ELAP Number 10958

Method: EPA 8270C


Data File: S46016.D

Comments: ND denotes Non Detect

ug / Kg = microgram per Kilogram

Surrogate outliers indicate probable matrix interference

Signature:


 Bruce Hoogesteger: Technical Director

**Semi-Volatile Analysis Report for TCLP Extract**Client: **SJB Services**

Client Job Site: Buffalo Aud Site

Lab Project Number: 09-2303

Lab Sample Number: 7427

Client Job Number: N/A

Field Location: B-1 (0-12')

Date Sampled: 06/26/2009

Field ID Number: N/A

Date Received: 06/29/2009

Sample Type: TCLP Extract

Date Analyzed: 07/01/2009

Base / Neutrals	Results in ug / L	Regulatory Limits in ug / L
1,4-Dichlorobenzene	ND< 40.0	7,500
2,4-Dinitrotoluene	ND< 40.0	130
Hexachlorobenzene	ND< 40.0	3000
Hexachlorobutadiene	ND< 40.0	500
Hexachloroethane	ND< 40.0	130
Nitrobenzene	ND< 40.0	2000
Pyridine	ND< 40.0	5000

Acids	Results in ug / L	Regulatory Limits in ug / L
Cresols (as m,p,o-Cresol)	ND< 80.0	200,000
Pentachlorophenol	ND< 100	100,000
2,4,5-Trichlorophenol	ND< 100	400,000
2,4,6-Trichlorophenol	ND< 40.0	2000

ELAP Number 10958

Method: EPA 8270C

Data File: S45960.D

Comments: ND denotes Non Detect
ug / L = microgram per Liter

Signature:


Bruce Hoogesteger: Technical Director

**Volatile Analysis Report for Soils/Solids/Sludges**Client: **SJB Services**

Client Job Site: Buffalo Aud site

Lab Project Number: 09-2303

Lab Sample Number: 7427

Client Job Number: N/A

Field Location: B-1 (0-12')

Date Sampled: 06/26/2009

Field ID Number: N/A

Date Received: 06/29/2009

Sample Type: Soil

Date Analyzed: 07/02/2009

Halocarbons	Results in ug / Kg
Bromodichloromethane	ND< 10.5
Bromomethane	ND< 10.5
Bromoform	ND< 26.2
Carbon Tetrachloride	ND< 26.2
Chloroethane	ND< 10.5
Chloromethane	ND< 10.5
2-Chloroethyl vinyl Ether	ND< 52.4
Chloroform	ND< 10.5
Dibromochloromethane	ND< 10.5
1,1-Dichloroethane	ND< 10.5
1,2-Dichloroethane	ND< 10.5
1,1-Dichloroethene	ND< 10.5
cis-1,2-Dichloroethene	ND< 10.5
trans-1,2-Dichloroethene	ND< 10.5
1,2-Dichloropropane	ND< 10.5
cis-1,3-Dichloropropene	ND< 10.5
trans-1,3-Dichloropropene	ND< 10.5
Methylene chloride	ND< 26.2
1,1,2,2-Tetrachloroethane	ND< 10.5
Tetrachloroethene	ND< 10.5
1,1,1-Trichloroethane	ND< 10.5
1,1,2-Trichloroethane	ND< 10.5
Trichloroethene	ND< 10.5
Trichlorofluoromethane	ND< 10.5
Vinyl chloride	ND< 10.5

Aromatics	Results in ug / Kg
Benzene	ND< 10.5
Chlorobenzene	ND< 10.5
Ethylbenzene	ND< 10.5
Toluene	ND< 10.5
m,p-Xylene	ND< 10.5
o-Xylene	ND< 10.5
Styrene	ND< 26.2
1,2-Dichlorobenzene	ND< 26.2
1,3-Dichlorobenzene	ND< 26.2
1,4-Dichlorobenzene	ND< 10.5

Ketones	Results in ug / Kg
Acetone	ND< 52.4
2-Butanone	ND< 52.4
2-Hexanone	ND< 26.2
4-Methyl-2-pentanone	ND< 26.2

Miscellaneous	Results in ug / Kg
Carbon disulfide	ND< 10.5
Vinyl acetate	ND< 26.2

ELAP Number 10958

Method: EPA 8260B

Data File: V66819.D

Comments: ND denotes Non Detect

ug / Kg = microgram per Kilogram

Surrogate outliers indicate probable matrix interference

Signature: _____

Bruce Hoogesteger: Technical Director

**Volatile Analysis Report for Soils/Solids/Sludges (Additional STARS Compounds)**Client: **SJB Services**

Client Job Site: Buffalo Aud site

Lab Project Number: 09-2303

Lab Sample Number: 7427

Client Job Number: N/A

Field Location: B-1 (0-12')

Date Sampled: 06/26/2009

Field ID Number: N/A

Date Received: 06/29/2009

Sample Type: Soil

Date Analyzed: 07/02/2009

Aromatics	Results in ug / Kg	Aromatics	Results in ug / Kg
n-Butylbenzene	ND< 52.4	1,2,4-Trimethylbenzene	11.1
sec-Butylbenzene	ND< 10.5	1,3,5-Trimethylbenzene	ND< 10.5
tert-Butylbenzene	ND< 26.2		
n-Propylbenzene	ND< 10.5	Miscellaneous	
Isopropylbenzene	ND< 52.4	Methyl tert-butyl Ether	ND< 10.5
p-Isopropyltoluene	ND< 52.4		
Naphthalene	377		

ELAP Number 10958

Method: EPA 8260B

Data File: V66819.D

Comments: ND denotes Non Detect

ug / Kg = microgram per Kilogram

Surrogate outliers indicate probable matrix interference

Signature: _____

Bruce Hoogesteger: Technical Director

**Volatile Analysis Report for TCLP Extract**Client: **SJB Service**

Client Job Site: Buffalo Aud Site

Lab Project Number: 09-2303

Lab Sample Number: 7427

Client Job Number: N/A

Field Location: B-1 (0-12')

Date Sampled: 06/26/2009

Field ID Number: N/A

Date Received: 06/29/2009

Sample Type: TCLP Extract

Date Analyzed: 07/01/2009

Compounds	Results in ug / L	Regulatory Limits in ug / L
Benzene	ND< 7.00	500
2-Butanone	ND< 100	200,000
Carbon Tetrachloride	ND< 20.0	500
Chlorobenzene	ND< 20.0	100,000
Chloroform	ND< 20.0	6,000
1,2-Dichloroethane	ND< 20.0	500
1,1-Dichloroethene	ND< 20.0	700
Tetrachloroethene	ND< 20.0	700
Trichloroethene	ND< 20.0	500
Vinyl chloride	ND< 20.0	200

ELAP Number 10958

Method: EPA 8260B

Data File: V66782.D

Comments: ND denotes Non Detect
ug / L = microgram per Liter

Signature:

Bruce Hoogesteger: Technical Director

PARADIGM

CHAIN OF CUSTODY

ENVIRONMENTAL SERVICES, INC.

179 Lake Avenue
Rochester, NY 14608
(585) 647-2530 • (800) 724-1997
FAX: (585) 647-3311

REPORT TO:

INVOICE TO:

COMPANY: SOB Services	COMPANY: - SAME -	LAB PROJECT #:	CLIENT PROJECT #:
ADDRESS: 5167 South PONDAGE	ADDRESS:	09-2303	
CITY: Hempstead STATE: NY ZIP: 11505	CITY: STATE: ZIP:	TURNAROUND TIME: (WORKING DAYS)	
PHONE: 716-644-8110 FAX:	PHONE: FAX:	QUOTE #:	
ATTN:	ATTN:	1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input checked="" type="checkbox"/> 5 <input type="checkbox"/>	STD OTHER

PROJECT NAME/SITE NAME:

Buffalo Pond site

COMMENTS:

Email: RESOLVSTO, defense@sih.egs.com

REQUESTED ANALYSIS

DATE	TIME	C O M P O S I T E	G R A B	SAMPLE LOCATION/FIELD ID	M A T R I X	C O N T A I N E R	ANALYSIS	REMARKS	PARADIGM LAB SAMPLE NUMBER
162609	0900	X		B1 (CO-12)	Soil	4	X	Advance	
2									
3									
4				TCLP "Labeled" Bottles					
5				TCLP VOCs					
6				TCLP SVOCs					
7				TCLP Metals					
8				TCLP Pesticides					
9				TCLP Herbicides					
10				IGRA 1011111; COTROG 0111111; Reactivity; Pesticide Filter Test					

** LAB USE ONLY BELOW THIS LINE **

Sample Condition: Per NELAC/ELAP 210/241/242/243/244

Receipt Parameter NELAC Compliance

Container Type:	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>
Preservation:	N/A Y <input type="checkbox"/> N <input type="checkbox"/>
Holding Time:	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>
Temperature:	15°Ciced Y <input type="checkbox"/> N <input checked="" type="checkbox"/>

Sampled By: [Signature]	Date/Time: 6-26-09/0900
Relinquished By: [Signature]	Date/Time: 6-29-09/1110
Received By: [Signature]	Date/Time: 6-29-09
Received @ Lab By: Elizabeth A. Honck	Date/Time: 6/29/09 1605

Total Cost:

P.L.F.

Analytical Report Cover Page

SJB Services

For Lab Project # 09-2255

Issued July 13, 2009

This report contains a total of 18 pages

The reported results relate only to the samples as they have been received by the laboratory.

Any noncompliant QC parameters having impact on the data are flagged or documented on the final report.

All soil/sludge samples have been reported on a dry weight basis, unless qualified "reported as received". Other solids are reported as received.

Each page of this document is part of a multipage report. This document may not be reproduced except in its entirety, without the prior consent of Paradigm Environmental Services, Inc.

The Chain of Custody provides additional information, including compliance with sample condition requirements upon receipt. Sample condition requirements are defined under the 2003 NELAC Standard, sections 5.5.8.3.1 and 5.5.8.3.2.

NYSDOH ELAP does not certify for all parameters. Paradigm Environmental Services or the indicated subcontracted laboratory does hold certification for all analytes where certification is offered by ELAP unless otherwise specified.

Data qualifiers are used, when necessary, to provide additional information about the data. This information may be communicated as a flag or as text at the bottom of the report. Please refer to the following list of frequently used data flags and their meaning:

"ND" = analyzed for but not detected.

"E" = Result has been estimated, calibration limit exceeded.

"D" = Duplicate results outside QC limits. May indicate a non-homogenous matrix.

"M" = Matrix spike recoveries outside QC limits. Matrix bias indicated.

"B" = Method blank contained trace levels of analyte. Refer to included method blank report.

pH Analysis Report

Client: **SJB Services**

Client Job Site: Buffalo Aud Site

Lab Project Number: 09-2255

Client Job Number: N/A

Date Sampled: 06/22/2009

Time Sampled: 10:40 AM

Date Received: 06/25/2009

Sample Type: Soil

Time Received: 10:50 AM

Location: Laboratory

Date Analyzed: 06/25/2009

Time Analyzed: 1:00 PM

Lab Sample Number	Field Number	Field Location	Result (pH)
7287	N/A	B-2 (0-24')	9.08

ELAP Number 10958

Method: EPA 9045C

Comments:

Signature:


Bruce Hoogesteger, Technical Director

Flashpoint by Pensky-Martin Analysis Report

Client: SJB Services

Client Job Site: Buffalo Aud Site

Lab Project Number: 09-2255

Client Job Number: N/A

Date Sampled: 06/22/2009

Date Received: 06/25/2009

Sample Type: Soil

Date Analyzed: 06/25/2009

Lab Sample Number	Field Number	Field Location	Result (°C)
7287	N/A	B-2 (0-24')	>70

ELAP Number 10958

Method: SW846 1010

Comments: °C = degrees Centigrade

Signature: _____


Bruce Hoogesteger, Technical Director

Paint Filter Analysis Report

Client: SJB Services

Client Job Site: Buffalo Aud Site

Lab Project Number: 09-2255

Client Job Number: N/A

Date Sampled: 06/22/2009

Date Received: 06/25/2009

Sample Type: Soil

Date Analyzed: 06/25/2009


Lab Sample Number	Field Number	Field Location	Result
7287	N/A	B-2 (0-24')	Pass (No free liquid)

ELAP Number 10958

Method: SW846 9095

Comments:

Signature: _____


Bruce Hoogesteger, Technical Director

Client: SJB Services
Client Job Site: Buffalo Aud Site
Client Job No.: N/A
Field Location: B-2 (0-24')
Field ID No.: N/A

Lab Project No.: 09-2255
Lab Sample No.: 7287
Sample Type: Soil
Date Sampled: 06/22/2009
Date Received: 06/25/2009

Laboratory Report for TAL Metals Analysis in Solid

Parameter	Date Analyzed	Analytical Method	Result (mg/kg)
Aluminum	06/29/2009	SW846 6010	6430
Antimony	06/29/2009	SW846 6010	<5.67
Arsenic	06/29/2009	SW846 6010	6.76
Barium	06/29/2009	SW846 6010	111
Beryllium	06/29/2009	SW846 6010	<0.472
Cadmium	06/29/2009	SW846 6010	<0.472
Calcium	07/01/2009	SW846 6010	55500
Chromium	06/29/2009	SW846 6010	10.4
Cobalt	06/29/2009	SW846 6010	4.49
Copper	06/29/2009	SW846 6010	38.9
Iron	06/29/2009	SW846 6010	14600
Lead	06/29/2009	SW846 6010	144
Magnesium	06/29/2009	SW846 6010	10800
Manganese	06/29/2009	SW846 6010	243
Mercury	06/30/2009	SW846 7471	0.377
Nickel	06/29/2009	SW846 6010	10.4
Potassium	06/29/2009	SW846 6010	1140
Selenium	06/29/2009	SW846 6010	<0.472
Silver	06/29/2009	SW846 6010	<0.945
Sodium	07/01/2009	SW846 6010	236
Thallium	06/29/2009	SW846 6010	<0.567
Vanadium	06/29/2009	SW846 6010	16.8
Zinc	06/29/2009	SW846 6010	115

ELAP ID No.:10958

Comments:

Approved By:


 Bruce Hoogesteger, Technical Director

Client: **SJB Services**

Lab Project No.: 09-2255

Lab Sample No.: 7287

Client Job Site: Buffalo Aud Site

Sample Type: TCLP Extract

Client Job No.: N/A

Date Sampled: 06/22/2009

Field Location: B-2 (0-24')

Date Received: 06/25/2009

Field ID No.: N/A

Laboratory Report for TCLP Metals Analysis

Parameter	Date Analyzed	Analytical Method	Result (mg/L)	Regulatory Limit (mg/L)
TCLP Metal Series				
Arsenic	06/30/2009	EPA 6010	<0.100	5.0
Barium	06/30/2009	EPA 6010	1.27	100.0
Cadmium	06/30/2009	EPA 6010	<0.025	1.0
Chromium	06/30/2009	EPA 6010	<0.050	5.0
Lead	06/30/2009	EPA 6010	<0.100	5.0
Mercury	06/26/2009	EPA 7470	<0.0020	0.2
Selenium	06/30/2009	EPA 6010	<0.100	1.0
Silver	06/30/2009	EPA 6010	<0.050	5.0

ELAP ID No.: 10958

Comments: The laboratory control spike and spike duplicate percent difference was outside QC limits for Ba.

 Approved By: 
 Bruce Hoogesteger, Technical Director

Client: SJB Services

Lab Project No.: 09-2255

Lab Sample No.: 7287

Client Job Site: Buffalo Aud Site

Client Job No.: N/A

Sample Type: Soil

Field Location: B-2 (0-24')

Date Sampled: 6/22/2009

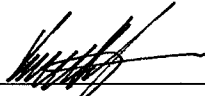
Date Received: 6/25/2009

Laboratory Report for Reactivity

Parameter	Date Analyzed	Analytical Method	Results (mg/kg)
Cyanide Reactivity	6/30/2009	SW846, 7.3.3.2	ND<1.0
Sulfide Reactivity	6/30/2009	SW846, 7.3.4.2	16

ELAP ID. No.: 10709

Comments: ND denotes Non Detect.
Hazardous Waste Regulatory Levels for Reactivity are as follows:
Sulfide - 500 mg/kg, Cyanide - 250 mg/kg.

Approved By Technical Director: 
Bruce Hoogesteger



Client: SJB Services

Lab Project No: 09-2255

Client Job Site: Buffalo Aud. Site

Lab Sample No: 7287

Sample Type: Soil

Client Job No: N/A

Date Sampled: 6/22/2009

Date Received: 6/25/2009

Field Location: B-2 (0-24')

Date Analyzed: 7/10/2009

Laboratory Report for Herbicides Analysis


Parameter	Result (ug/kg)	Reporting Limit (ug/kg)
2,4-D	ND	200
Dinoseb	ND	200
Dicamba	ND	200
2,4,5-T	ND	200
2,4,5-TP (Silvex)	ND	200

Analytical Method: SW 8151A

ELAP ID: 10709

Comments: ND denotes Non Detect.

Approved By Technical Director: _____


Bruce Hoogesteger

**PARADIGM**

ENVIRONMENTAL SERVICES, INC.

179 Lake Avenue Rochester, New York 14608 (585) 647-2530 FAX (585) 647-3311

Client: **SJB Services**

Client Job Site: Buffalo Aud. Site

Client Job No: N/A

Field Location: B-2 (0-24')

Lab Project No: 09-2255

Lab Sample No: 7287

Sample Type: TCLP Extract

Date Sampled: 6/22/2009

Date Received: 6/25/2009

Date Analyzed: 7/8/2009

Herbicide Analysis Report for TCLP Extract

Parameter	Result (mg/L)	Regulatory Limit (mg/L)
2,4,5-TP (Silvex)	ND<0.05	1.0
2,4-D	ND<0.50	10.0

Analytical Method: SW1311/8151

ELAP ID: 10709

Comments: ND denotes Non Detect.

Approved By Technical Director: _____


Bruce Hoogesteger

This report is part of a multipage document and should only be evaluated in its entirety. The Chain of Custody provides additional sample information, including compliance with the sample condition requirements upon receipt.

File ID: SJB 09-2255

PCB Analysis Report for Soils/Solids/Sludges

Client: SJB Services

Client Job Site: Buffalo Aud Site

Lab Project Number: 09-2255

Lab Sample Number: 7287

Client Job Number: N/A

Field Location: B-2 (0-24')

Date Sampled: 06/22/2009

Field ID Number: N/A

Date Received: 06/25/2009

Sample Type: Soil

Date Analyzed: 06/25/2009

PCB Identification	Results in mg / Kg
Aroclor 1016	ND< 0.335
Aroclor 1221	ND< 0.335
Aroclor 1232	ND< 0.335
Aroclor 1242	ND< 0.335
Aroclor 1248	ND< 0.335
Aroclor 1254	ND< 0.335
Aroclor 1260	ND< 0.335

ELAP Number 10958

Method: EPA 8082

Comments: ND denotes Non Detect
mg / Kg = milligram per Kilogram

Signature: _____


Bruce Hoogesteger: Technical Director

Pesticide Analysis Report for Soils/Solids/Sludges

Client: SJB Services

Client Job Site: Buffalo Aud Site

Lab Project Number: 09-2255

Lab Sample Number: 7287

Client Job Number: N/A

Field Location: B-2 (0-24')

Date Sampled: 06/22/2009

Field ID Number: N/A

Date Received: 06/25/2009

Sample Type: Soil

Date Analyzed: 06/29/2009

Pesticide Identification	Results in ug / Kg
Aldrin	ND< 3.25
alpha-BHC	ND< 3.25
beta-BHC	ND< 3.25
delta-BHC	ND< 3.25
gamma-BHC	ND< 3.25
alpha-Chlordane	ND< 3.25
gamma-Chlordane	ND< 3.25
4,4'-DDD	ND< 3.25
4,4'-DDE	ND< 3.25
4,4'-DDT	ND< 3.25
Dieldrin	ND< 3.25
Endosulfan I	ND< 3.25
Endosulfan II	ND< 3.25
Endosulfan Sulfate	ND< 3.25
Endrin	ND< 3.25
Endrin Aldehyde	ND< 3.25
Heptachlor	ND< 3.25
Heptachlor Epoxide	ND< 3.25
Methoxychlor	ND< 3.25
Toxaphene	ND< 162

ELAP Number 10958

Method: EPA 8081

Comments: ND denotes Non Detect

ug / Kg = microgram per Kilogram

Signature: _____

Bruce Hoogesteger: Technical Director

Pesticide Analysis Report for TCLP Extract

Client: SJB Services

Client Job Site: Buffalo Aud Site

Lab Project Number: 09-2255

Lab Sample Number: 7287

Client Job Number: N/A

Field Location: B-2 (0-24')

Date Sampled: 06/22/2009

Field ID Number: N/A

Date Received: 06/25/2009

Sample Type: TCLP Extract

Date Analyzed: 06/30/2009


Pesticide Identification	Results in ug / L	Regulatory Limits in ug / L
gamma-BHC	ND< 1.00	400
Chlordane	ND< 1.00	30.0
Endrin	ND< 1.00	20.0
Heptachlor	ND< 1.00	8.00
Heptachlor Epoxide	ND< 1.00	8.00
Methoxychlor	ND< 1.00	10000
Toxaphene	ND< 50.0	500

ELAP Number 10958

Method: EPA 8081

Comments: ND denotes Non Detect
ug / L = microgram per Liter

Signature: _____


Bruce Hoogesteger: Technical Director



ENVIRONMENTAL SERVICES, INC.

179 Lake Avenue Rochester, New York 14608 (585) 647 - 2530 FAX (585) 647 - 3311

Semi-Volatile Analysis Report for Soils/Solids/Sludges**Client: SJB Services****Client Job Site:** Buffalo Aud Site**Lab Project Number:** 09-2255**Lab Sample Number:** 7287**Client Job Number:** N/A**Field Location:** B-2 (0-24')**Date Sampled:** 06/22/2009**Field ID Number:** N/A**Date Received:** 06/25/2009**Sample Type:** Soil**Date Analyzed:** 06/30/2009

Base / Neutrals	Results in ug / Kg	Base / Neutrals	Results in ug / Kg
Acenaphthene	2,750	Dibenz (a,h) anthracene	ND< 1,610
Anthracene	6,010	Fluoranthene	19,100
Benzo (a) anthracene	8,240	Fluorene	2,700
Benzo (a) pyrene	6,840	Indeno (1,2,3-cd) pyrene	3,490
Benzo (b) fluoranthene	5,710	Naphthalene	2,160
Benzo (g,h,i) perylene	3,780	Phenanthrene	16,600
Benzo (k) fluoranthene	5,510	Pyrene	14,600
Chrysene	7,350	Acenaphthylene	ND< 1,610
Diethyl phthalate	ND< 1,610	1,2-Dichlorobenzene	ND< 1,610
Dimethyl phthalate	ND< 4,040	1,3-Dichlorobenzene	ND< 1,610
Butylbenzylphthalate	ND< 1,610	1,4-Dichlorobenzene	ND< 1,610
Di-n-butyl phthalate	ND< 1,610	1,2,4-Trichlorobenzene	ND< 1,610
Di-n-octylphthalate	ND< 1,610	Nitrobenzene	ND< 1,610
Bis (2-ethylhexyl) phthalate	ND< 1,610	2,4-Dinitrotoluene	ND< 1,610
2-Chloronaphthalene	ND< 1,610	2,6-Dinitrotoluene	ND< 1,610
Hexachlorobenzene	ND< 1,610	Bis (2-chloroethyl) ether	ND< 1,610
Hexachloroethane	ND< 1,610	Bis (2-chloroisopropyl) ether	ND< 1,610
Hexachlorocyclopentadiene	ND< 1,610	Bis (2-chloroethoxy) methan	ND< 1,610
Hexachlorobutadiene	ND< 1,610	4-Bromophenyl phenyl ether	ND< 1,610
N-Nitroso-di-n-propylamine	ND< 1,610	4-Chlorophenyl phenyl ether	ND< 1,610
N-Nitrosodiphenylamine	ND< 1,610	Benzidine	ND< 4,040
N-Nitrosodimethylamine	ND< 1,610	3,3'-Dichlorobenzidine	ND< 1,610
Isophorone	ND< 1,610	4-Chloroaniline	ND< 1,610
Benzyl alcohol	ND< 4,040	2-Nitroaniline	ND< 4,040
Dibenzofuran	1,940	3-Nitroaniline	ND< 4,040
2-Methylnapthalene	ND< 1,610	4-Nitroaniline	ND< 4,040

Acids	Results in ug / Kg	Acids	Results in ug / Kg
Phenol	ND< 1,610	2-Methylphenol	ND< 1,610
2-Chlorophenol	ND< 1,610	3&4-Methylphenol	ND< 1,610
2,4-Dichlorophenol	ND< 1,610	2,4-Dimethylphenol	ND< 1,610
2,6-Dichlorophenol	ND< 1,610	2-Nitrophenol	ND< 1,610
2,4,5-Trichlorophenol	ND< 4,040	4-Nitrophenol	ND< 4,040
2,4,6-Trichlorophenol	ND< 1,610	2,4-Dinitrophenol	ND< 4,040
Pentachlorophenol	ND< 4,040	4,6-Dinitro-2-methylphenol	ND< 4,040
4-Chloro-3-methylphenol	ND< 1,610	Benzoic acid	ND< 4,040

ELAP Number 10958

Method: EPA 8270C

Data File: S45933.D

Comments: ND denotes Non Detect

ug / Kg = microgram per Kilogram

Signature: _____

Bruce Hoogesteger, Technical Director

This report is part of a multipage document and should only be evaluated in its entirety. Chain of Custody provides additional information, including compliance with sample condition requirements upon receipt.

092255S1.XLS



ENVIRONMENTAL SERVICES, INC.

179 Lake Avenue Rochester, New York 14608 (585) 647 - 2530 FAX (585) 647 - 3311

Semi-Volatile Analysis Report for TCLP ExtractClient: **SJB Services**

Client Job Site: Buffalo Aud Site

Lab Project Number: 09-2255

Lab Sample Number: 7287

Client Job Number: N/A

Field Location: B-2 (0-24')

Date Sampled: 06/22/2009

Field ID Number: N/A

Date Received: 06/25/2009

Sample Type: TCLP Extract

Date Analyzed: 06/25/2009

Base / Neutrals	Results in ug / L	Regulatory Limits in ug / L
1,4-Dichlorobenzene	ND< 40.0	7,500
2,4-Dinitrotoluene	ND< 40.0	130
Hexachlorobenzene	ND< 40.0	3000
Hexachlorobutadiene	ND< 40.0	500
Hexachloroethane	ND< 40.0	130
Nitrobenzene	ND< 40.0	2000
Pyridine	ND< 40.0	5000

Acids	Results in ug / L	Regulatory Limits in ug / L
Cresols (as m,p,o-Cresol)	ND< 80.0	200,000
Pentachlorophenol	ND< 100	100,000
2,4,5-Trichlorophenol	ND< 100	400,000
2,4,6-Trichlorophenol	ND< 40.0	2000

ELAP Number 10958

Method: EPA 8270C

Data File: S45909.D

Comments: ND denotes Non Detect
ug / L = microgram per Liter

Signature: _____

Bruce Hoogesteger: Technical Director

This report is part of a multipage document and should only be evaluated in its entirety. Chain of Custody provides additional information, including compliance with sample condition requirements upon receipt.

092255S2.XLS

**Volatile Analysis Report for TCLP Extract**Client: **SJB Services**

Client Job Site: Buffalo Aud Site

Lab Project Number: 09-2255

Lab Sample Number: 7287

Client Job Number: N/A

Field Location: B-2 (0-24')

Date Sampled: 06/22/2009

Field ID Number: N/A

Date Received: 06/25/2009

Sample Type: TCLP Extract

Date Analyzed: 06/29/2009

Compounds	Results in ug / L	Regulatory Limits in ug / L
Benzene	ND< 20.0	500
2-Butanone	ND< 100	200,000
Carbon Tetrachloride	ND< 20.0	500
Chlorobenzene	ND< 20.0	100,000
Chloroform	ND< 20.0	6,000
1,2-Dichloroethane	ND< 20.0	500
1,1-Dichloroethene	ND< 20.0	700
Tetrachloroethene	ND< 20.0	700
Trichloroethene	ND< 20.0	500
Vinyl chloride	ND< 20.0	200

ELAP Number 10958

Method: EPA 8260B

Data File: V66722.D

Comments: ND denotes Non Detect
ug / L = microgram per Liter

Signature: _____

Bruce Hoogesteger: Technical Director

**Volatile Analysis Report for Soils/Solids/Sludges****Client: SJB Services****Client Job Site:** Buffalo Aud Site**Lab Project Number:** 09-2255**Lab Sample Number:** 7287**Client Job Number:** N/A**Field Location:** B-2 (0-24')**Date Sampled:** 06/22/2009**Field ID Number:** N/A**Date Received:** 06/25/2009**Sample Type:** Soil**Date Analyzed:** 06/30/2009

Halocarbons	Results in ug / Kg
Bromodichloromethane	ND< 8.69
Bromomethane	ND< 8.69
Bromoform	ND< 21.7
Carbon Tetrachloride	ND< 21.7
Chloroethane	ND< 8.69
Chloromethane	ND< 8.69
2-Chloroethyl vinyl Ether	ND< 43.5
Chloroform	ND< 8.69
Dibromochloromethane	ND< 8.69
1,1-Dichloroethane	ND< 8.69
1,2-Dichloroethane	ND< 8.69
1,1-Dichloroethene	ND< 8.69
cis-1,2-Dichloroethene	ND< 8.69
trans-1,2-Dichloroethene	ND< 8.69
1,2-Dichloropropane	ND< 8.69
cis-1,3-Dichloropropene	ND< 8.69
trans-1,3-Dichloropropene	ND< 8.69
Methylene chloride	ND< 21.7
1,1,2,2-Tetrachloroethane	ND< 8.69
Tetrachloroethene	ND< 8.69
1,1,1-Trichloroethane	ND< 8.69
1,1,2-Trichloroethane	ND< 8.69
Trichloroethene	ND< 8.69
Trichlorofluoromethane	ND< 8.69
Vinyl chloride	ND< 8.69

Aromatics	Results in ug / Kg
Benzene	ND< 8.69
Chlorobenzene	ND< 8.69
Ethylbenzene	ND< 8.69
Toluene	ND< 8.69
m,p-Xylene	ND< 8.69
o-Xylene	ND< 8.69
Styrene	ND< 21.7
1,2-Dichlorobenzene	ND< 21.7
1,3-Dichlorobenzene	ND< 21.7
1,4-Dichlorobenzene	ND< 8.69

Ketones	Results in ug / Kg
Acetone	ND< 43.5
2-Butanone	ND< 43.5
2-Hexanone	ND< 21.7
4-Methyl-2-pentanone	ND< 21.7

Miscellaneous	Results in ug / Kg
Carbon disulfide	ND< 8.69
Vinyl acetate	ND< 21.7

ELAP Number 10958

Method: EPA 8260B

Data File: V66751.D

Comments: ND denotes Non Detect

ug / Kg = microgram per Kilogram

Surrogate outliers indicate probable matrix interference

Signature: _____

Bruce Hoogesteger, Technical Director



Volatile Analysis Report for Soils/Solids/Sludges (Additional STARS Compounds)

Client: **SJB Services**

Client Job Site: Buffalo Aud Site

Lab Project Number: 09-2255

Lab Sample Number: 7287

Client Job Number: N/A

Field Location: B-2 (0-24')

Date Sampled: 06/22/2009

Field ID Number: N/A

Date Received: 06/25/2009

Sample Type: Soil

Date Analyzed: 06/30/2009

Aromatics	Results in ug / Kg	Aromatics	Results in ug / Kg
n-Butylbenzene	ND< 43.5	1,2,4-Trimethylbenzene	ND< 8.69
sec-Butylbenzene	ND< 8.69	1,3,5-Trimethylbenzene	ND< 8.69
tert-Butylbenzene	ND< 21.7		
n-Propylbenzene	ND< 8.69	Miscellaneous	
Isopropylbenzene	ND< 43.5	Methyl tert-butyl Ether	ND< 8.69
p-Isopropyltoluene	ND< 43.5		
Naphthalene	177		

ELAP Number 10958

Method: EPA 8260B

Data File: V66751.D

Comments: ND denotes Non Detect

ug / Kg = microgram per Kilogram

Surrogate outliers indicate probable matrix interference

Signature: _____

Bruce Hoogesteger, Technical Director

CHAIN OF CUSTODY

PARADIGM ENVIRONMENTAL SERVICES, INC.

179 Lake Avenue
Rochester, NY 14608
(585) 647-2530 • (800) 724-1997
FAX: (585) 647-3311

REPORT TO:

INVOICE TO:

PROJECT NAME/SITE NAME:
Buffalo and Site

COMPANY: SBS Services	COMPANY: SBS Services	LAB PROJECT #: 09.2255	CLIENT PROJECT #:
ADDRESS: 5167 South Park Drive	ADDRESS:		
CITY: Healdsburg	STATE: NY	ZIP: 14075	
PHONE: 716-649-8110	FAX:	TURNAROUND TIME: (WORKING DAYS)	
ATTN: Dave Steiner	ATTN:	QUOTE #: 514042809	STD <input checked="" type="checkbox"/> 5 OTHER <input type="checkbox"/>

COMMENTS: Please Email Results To: dsteiner@sbservices.com

REQUESTED ANALYSIS

DATE	TIME	C O M P O S I T E	G R A B	SAMPLE LOCATION/FIELD ID	M A T R I X	C O N T A I N E R	REMARKS	PARADIGM LAB SAMPLE NUMBER
162209	1040	X		B-2 (0-24") FELT Jars	Soil	X	↑ Per JD as per client 6/25	7287
2	↓	X		TELP Jars			TELP Jars	
3							TELP VOCs + STARS	
4							TELP VOCs	
5							TELP VOCs	
6							TELP VOCs	
7							TELP VOCs	
8							TELP VOCs	
9							TELP VOCs	
10							TELP VOCs	

LAB USE ONLY BELOW THIS LINE

Sample Condition: Per NELAC/EIAP 210/241/242/243/244

Receipt Parameter		NELAC Compliance	
Container Type:	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>		
Preservation:	Y <input type="checkbox"/> N <input type="checkbox"/>		
Holding Time:	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>		
Temperature:	Y <input type="checkbox"/> N <input checked="" type="checkbox"/>		

Sampled By: A. Honch	Date/Time: 6-24-09 14:45	Total Cost:
Received By: A. Honch	Date/Time: 6-24-09 14:45	
Received @ Lab By: A. Honch	Date/Time: 6/25/09 1050	

ALL JARS (TELP labeled and TELP labeled) are the same sample.

ALL tests below are done on one sample. Per JD as per client 6/25

TELP Labeled "Bottle"

TELP VOCs + STARS

TELP VOCs

TELP VOCs

TELP VOCs

TELP VOCs

TELP VOCs

TELP VOCs

Analytical Report Cover Page

SJB Services

For Lab Project # 09-2254

Issued July 13, 2009

This report contains a total of 9 pages

The reported results relate only to the samples as they have been received by the laboratory.

Any noncompliant QC parameters having impact on the data are flagged or documented on the final report.

All soil/sludge samples have been reported on a dry weight basis, unless qualified "reported as received". Other solids are reported as received.

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The Chain of Custody provides additional information, including compliance with sample condition requirements upon receipt. Sample condition requirements are defined under the 2003 NELAC Standard, sections 5.5.8.3.1 and 5.5.8.3.2.

NYSDOH ELAP does not certify for all parameters. Paradigm Environmental Services or the indicated subcontracted laboratory does hold certification for all analytes where certification is offered by ELAP unless otherwise specified.

Data qualifiers are used, when necessary, to provide additional information about the data. This information may be communicated as a flag or as text at the bottom of the report. Please refer to the following list of frequently used data flags and their meaning:

"ND" = analyzed for but not detected.

"E" = Result has been estimated, calibration limit exceeded.

"D" = Duplicate results outside QC limits. May indicate a non-homogenous matrix.

"M" = Matrix spike recoveries outside QC limits. Matrix bias indicated.

"B" = Method blank contained trace levels of analyte. Refer to included method blank report.

Client: SJB Services
Client Job Site: Buffalo Aud Site
Client Job No.: N/A
Field Location: B-3A (0-24')
Field ID No.: N/A

Lab Project No.: 09-2254
Lab Sample No.: 7286
Sample Type: Soil
Date Sampled: 06/23/2009
Date Received: 06/25/2009

Laboratory Report for TAL Metals Analysis in Solid

Parameter	Date Analyzed	Analytical Method	Result (mg/kg)
Aluminum	06/29/2009	SW846 6010	7250
Antimony	06/29/2009	SW846 6010	<6.11
Arsenic	06/29/2009	SW846 6010	5.87
Barium	06/29/2009	SW846 6010	76.8
Beryllium	06/29/2009	SW846 6010	<0.509
Cadmium	06/29/2009	SW846 6010	<0.509
Calcium	06/29/2009	SW846 6010	46300
Chromium	06/29/2009	SW846 6010	11.1
Cobalt	06/29/2009	SW846 6010	5.43
Copper	06/29/2009	SW846 6010	28.4
Iron	06/29/2009	SW846 6010	13500
Lead	06/29/2009	SW846 6010	133
Magnesium	06/29/2009	SW846 6010	14000
Manganese	06/29/2009	SW846 6010	307
Mercury	06/26/2009	SW846 7471	0.0121
Nickel	06/29/2009	SW846 6010	13.8
Potassium	06/29/2009	SW846 6010	1240
Selenium	06/29/2009	SW846 6010	0.734
Silver	06/29/2009	SW846 6010	<1.02
Sodium	07/01/2009	SW846 6010	430
Thallium	06/29/2009	SW846 6010	<0.611
Vanadium	06/29/2009	SW846 6010	17.6
Zinc	06/29/2009	SW846 6010	119

ELAP ID No.:10958

Comments:

Approved By: Bruce Hoogesteger
 Bruce Hoogesteger, Technical Director

Client: SJB Services

Lab Project No: 09-2254

Client Job Site: Buffalo Aud. Site

Lab Sample No: 7286

Sample Type: Soil

Client Job No: N/A

Date Sampled: 6/23/2009

Field Location: B-3A (0-24")

Date Received: 6/25/2009

Date Analyzed: 7/10/2009

Laboratory Report for Herbicides Analysis

Parameter	Result (ug/kg)	Reporting Limit (ug/kg)
2,4-D	ND	200
Dinoseb	ND	200
Dicamba	ND	200
2,4,5-T	ND	200
2,4,5-TP (Silvex)	ND	200

Analytical Method: SW 8151A

ELAP ID: 10709

Comments: ND denotes Non Detect.

Approved By Technical Director: _____

Bruce Hoogesteger
Bruce Hoogesteger

PCB Analysis Report for Soils/Solids/SludgesClient: **SJB Services**

Client Job Site: Buffalo Aud Site

Lab Project Number: 09-2254

Lab Sample Number: 7286

Client Job Number: N/A

Field Location: B-3A (0-24")

Date Sampled: 06/23/2009

Field ID Number: N/A

Date Received: 06/25/2009

Sample Type: Soil

Date Analyzed: 06/25/2009

PCB Identification	Results in mg / Kg
Aroclor 1016	ND< 0.343
Aroclor 1221	ND< 0.343
Aroclor 1232	ND< 0.343
Aroclor 1242	ND< 0.343
Aroclor 1248	ND< 0.343
Aroclor 1254	ND< 0.343
Aroclor 1260	ND< 0.343

ELAP Number 10958

Method: EPA 8082

Comments: ND denotes Non Detect

mg / Kg = milligram per Kilogram

Signature: _____

Bruce Hoogesteger: Technical Director

Pesticide Analysis Report for Soils/Solids/SludgesClient: **SJB Services**

Client Job Site: Buffalo Aud Site

Lab Project Number: 09-2254

Lab Sample Number: 7286

Client Job Number: N/A

Field Location: B-3A (0-24')

Date Sampled: 06/23/2009

Field ID Number: N/A

Date Received: 06/25/2009

Sample Type: Soil

Date Analyzed: 06/29/2009


Pesticide Identification	Results in ug / Kg
Aldrin	ND< 3.33
alpha-BHC	ND< 3.33
beta-BHC	13.9
delta-BHC	ND< 3.33
gamma-BHC	4.40
alpha-Chlordane	ND< 3.33
gamma-Chlordane	ND< 3.33
4,4'-DDD	ND< 3.33
4,4'-DDE	ND< 3.33
4,4'-DDT	ND< 3.33
Dieldrin	ND< 3.33
Endosulfan I	ND< 3.33
Endosulfan II	ND< 3.33
Endosulfan Sulfate	ND< 3.33
Endrin	ND< 3.33
Endrin Aldehyde	ND< 3.33
Heptachlor	ND< 3.33
Heptachlor Epoxide	ND< 3.33
Methoxychlor	ND< 3.33
Toxaphene	ND< 167

ELAP Number 10958

Method: EPA 8081

Comments: ND denotes Non Detect

ug / Kg = microgram per Kilogram

Signature: 

Bruce Hoogesteger: Technical Director

Semi-Volatile Analysis Report for Soils/Solids/Sludges

 Client: **SJB Services**

Client Job Site: Buffalo Aud Site

Lab Project Number: 09-2254

Lab Sample Number: 7286

Client Job Number: N/A

Field Location: B-3A (0-24')

Date Sampled: 06/23/2009

Field ID Number: N/A

Date Received: 06/25/2009

Sample Type: Soil

Date Analyzed: 06/29/2009

Base / Neutrals	Results in ug / Kg	Base / Neutrals	Results in ug / Kg
Acenaphthene	ND< 332	Dibenz (a,h) anthracene	ND< 332
Anthracene	ND< 332	Fluoranthene	345
Benzo (a) anthracene	ND< 332	Fluorene	ND< 332
Benzo (a) pyrene	ND< 332	Indeno (1,2,3-cd) pyrene	ND< 332
Benzo (b) fluoranthene	ND< 332	Naphthalene	ND< 332
Benzo (g,h,i) perylene	ND< 332	Phenanthrene	ND< 332
Benzo (k) fluoranthene	ND< 332	Pyrene	ND< 332
Chrysene	ND< 332	Acenaphthylene	ND< 332
Diethyl phthalate	ND< 332	1,2-Dichlorobenzene	ND< 332
Dimethyl phthalate	ND< 831	1,3-Dichlorobenzene	ND< 332
Butylbenzylphthalate	ND< 332	1,4-Dichlorobenzene	ND< 332
Di-n-butyl phthalate	ND< 332	1,2,4-Trichlorobenzene	ND< 332
Di-n-octylphthalate	ND< 332	Nitrobenzene	ND< 332
Bis (2-ethylhexyl) phthalate	ND< 332	2,4-Dinitrotoluene	ND< 332
2-Chloronaphthalene	ND< 332	2,6-Dinitrotoluene	ND< 332
Hexachlorobenzene	ND< 332	Bis (2-chloroethyl) ether	ND< 332
Hexachloroethane	ND< 332	Bis (2-chloroisopropyl) ether	ND< 332
Hexachlorocyclopentadiene	ND< 332	Bis (2-chloroethoxy) methan	ND< 332
Hexachlorobutadiene	ND< 332	4-Bromophenyl phenyl ether	ND< 332
N-Nitroso-di-n-propylamine	ND< 332	4-Chlorophenyl phenyl ether	ND< 332
N-Nitrosodiphenylamine	ND< 332	Benzidine	ND< 831
N-Nitrosodimethylamine	ND< 332	3,3'-Dichlorobenzidine	ND< 332
Isophorone	ND< 332	4-Chloroaniline	ND< 332
Benzyl alcohol	ND< 831	2-Nitroaniline	ND< 831
Dibenzofuran	ND< 332	3-Nitroaniline	ND< 831
2-Methylnaphthalene	ND< 332	4-Nitroaniline	ND< 831

Acids	Results in ug / Kg	Acids	Results in ug / Kg
Phenol	ND< 332	2-Methylphenol	ND< 332
2-Chlorophenol	ND< 332	3&4-Methylphenol	ND< 332
2,4-Dichlorophenol	ND< 332	2,4-Dimethylphenol	ND< 332
2,6-Dichlorophenol	ND< 332	2-Nitrophenol	ND< 332
2,4,5-Trichlorophenol	ND< 831	4-Nitrophenol	ND< 831
2,4,6-Trichlorophenol	ND< 332	2,4-Dinitrophenol	ND< 831
Pentachlorophenol	ND< 831	4,6-Dinitro-2-methylphenol	ND< 831
4-Chloro-3-methylphenol	ND< 332	Benzoic acid	ND< 831

ELAP Number 10958

Method: EPA 8270C

Data File: S45920.D

Comments: ND denotes Non Detect

ug / Kg = microgram per Kilogram

Surrogate outliers indicate probable matrix interference

Signature:



Bruce Hoogesteger: Technical Director

**Volatile Analysis Report for Soils/Solids/Sludges**Client: **SJB Services**

Client Job Site: Buffalo Aud Site

Lab Project Number: 09-2254

Lab Sample Number: 7286

Client Job Number: N/A

Field Location: B-3A (0-24')

Date Sampled: 06/23/2009

Field ID Number: N/A

Date Received: 06/25/2009

Sample Type: Soil

Date Analyzed: 06/29/2009

Halocarbons	Results in ug / Kg
Bromodichloromethane	ND< 9.28
Bromomethane	ND< 9.28
Bromoform	ND< 23.2
Carbon Tetrachloride	ND< 23.2
Chloroethane	ND< 9.28
Chloromethane	ND< 9.28
2-Chloroethyl vinyl Ether	ND< 46.4
Chloroform	ND< 9.28
Dibromochloromethane	ND< 9.28
1,1-Dichloroethane	ND< 9.28
1,2-Dichloroethane	ND< 9.28
1,1-Dichloroethene	ND< 9.28
cis-1,2-Dichloroethene	ND< 9.28
trans-1,2-Dichloroethene	ND< 9.28
1,2-Dichloropropane	ND< 9.28
cis-1,3-Dichloropropene	ND< 9.28
trans-1,3-Dichloropropene	ND< 9.28
Methylene chloride	ND< 23.2
1,1,2,2-Tetrachloroethane	ND< 9.28
Tetrachloroethene	ND< 9.28
1,1,1-Trichloroethane	ND< 9.28
1,1,2-Trichloroethane	ND< 9.28
Trichloroethene	ND< 9.28
Trichlorofluoromethane	ND< 9.28
Vinyl chloride	ND< 9.28

Aromatics	Results in ug / Kg
Benzene	ND< 9.28
Chlorobenzene	ND< 9.28
Ethylbenzene	ND< 9.28
Toluene	ND< 9.28
m,p-Xylene	ND< 9.28
o-Xylene	ND< 9.28
Styrene	ND< 23.2
1,2-Dichlorobenzene	ND< 23.2
1,3-Dichlorobenzene	ND< 23.2
1,4-Dichlorobenzene	ND< 9.28

Ketones	Results in ug / Kg
Acetone	ND< 46.4
2-Butanone	ND< 46.4
2-Hexanone	ND< 23.2
4-Methyl-2-pentanone	ND< 23.2

Miscellaneous	Results in ug / Kg
Carbon disulfide	ND< 9.28
Vinyl acetate	ND< 23.2

ELAP Number 10958

Method: EPA 8260B

Data File: V66743.D

Comments: ND denotes Non Detect

ug / Kg = microgram per Kilogram

Surrogate outliers indicate probable matrix interference

Signature: _____

Bruce Hoogesteger: Technical Director

Volatile Analysis Report for Soils/Solids/Sludges (Additional STARS Compounds)Client: **SJB Services**

Client Job Site: Buffalo Aud Site

Lab Project Number: 09-2254

Lab Sample Number: 7286

Client Job Number: N/A

Field Location: B-3A (0-24")

Date Sampled: 06/23/2009

Field ID Number: N/A

Date Received: 06/25/2009

Sample Type: Soil

Date Analyzed: 06/29/2009

Aromatics	Results in ug / Kg	Aromatics	Results in ug / Kg
n-Butylbenzene	ND< 46.4	1,2,4-Trimethylbenzene	ND< 9.28
sec-Butylbenzene	ND< 9.28	1,3,5-Trimethylbenzene	ND< 9.28
tert-Butylbenzene	ND< 23.2		
n-Propylbenzene	ND< 9.28	Miscellaneous	
Isopropylbenzene	ND< 46.4	Methyl tert-butyl Ether	ND< 9.28
p-Isopropyltoluene	ND< 46.4		
Naphthalene	ND< 23.2		

ELAP Number 10958

Method: EPA 8260B

Data File: V66743.D

Comments: ND denotes Non Detect

ug / Kg = microgram per Kilogram

Surrogate outliers indicate probable matrix interference

Signature:


Bruce Hoogesteger: Technical Director

PARADIGM

CHAIN OF CUSTODY

ENVIRONMENTAL SERVICES, INC.

179 Lake Avenue
Rochester, NY 14608
(585) 647-2530 • (800) 724-1997
FAX: (585) 647-3311

REPORT TO:

INVOICE TO:

COMPANY: **SJB Services**
ADDRESS: **5167 South Parker**
CITY: **Hempburg** STATE: **NY** ZIP: **14075**
PHONE: FAX:

COMPANY: ADDRESS: CITY: STATE: ZIP: PHONE: FAX:

LAB PROJECT #: **09.2254** CLIENT PROJECT #:
TURNAROUND TIME: (WORKING DAYS)

PROJECT NAME/SITE NAME:

ATTN: **Dave Steiner**

ATTN:

QUOTE #: ☐ 1 ☐ 2 ☐ 3 ☒ 5 ☐ OTHER

B, Bello And Site

COMMENTS: **Please Email Results To dsteiner@sibegs.com**

REQUESTED ANALYSIS

DATE	TIME	COMMENTS	G R A B	SAMPLE LOCATION/FIELD ID	M A T R I X	C O N T A I N E R S	REMARKS	PARADIGM LAB SAMPLE NUMBER
16-23-09	1455	X		B-3A (D-24')	Sal Z	X	Total Analysis:	7 286
2							• TCL VOCs + STARS	
3							• VOCs + MTBE	
4							• TCL SNOCs	
5							• TAL Metals + Hg	
6							• Pesticides	
7							• Herbicides	
8							• PCBs	
9								
10								

LAB USE ONLY BELOW THIS LINE

Sample Condition: Per NELAC/ELAP 210/241/242/243/244

Receipt Parameter	NELAC Compliance
Container Type:	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>
Preservation:	Y <input type="checkbox"/> N <input type="checkbox"/>
Holding Time:	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>
Temperature:	Y <input type="checkbox"/> N <input checked="" type="checkbox"/>

Comments: **kg. iced**
6/26/24

Received By: **[Signature]** Date/Time: **6-23-09**

Relinquished By: **[Signature]** Date/Time: **6-24-09 14:40**

Received By: **[Signature]** Date/Time: **6-24-09 14:40**

Received By: **Elizabeth A. Honck** Date/Time: **6/25/09 1040**

Received @ Lab By: **[Signature]** Date/Time: **6/25/09 1040**

P.I.F. ☐

Total Cost:

Analytical Report Cover Page

SJB Services

For Lab Project # 09-2283

Issued July 13, 2009

This report contains a total of 25 pages

The reported results relate only to the samples as they have been received by the laboratory.

Any noncompliant QC parameters having impact on the data are flagged or documented on the final report.

All soil/sludge samples have been reported on a dry weight basis, unless qualified "reported as received". Other solids are reported as received.

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NYSDOH ELAP does not certify for all parameters. Paradigm Environmental Services or the indicated subcontracted laboratory does hold certification for all analytes where certification is offered by ELAP unless otherwise specified.

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"ND" = analyzed for but not detected.

"E" = Result has been estimated, calibration limit exceeded.

"D" = Duplicate results outside QC limits. May indicate a non-homogenous matrix.

"M" = Matrix spike recoveries outside QC limits. Matrix bias indicated.

"B" = Method blank contained trace levels of analyte. Refer to included method blank report.



Client: SJB Services

Lab Project No.: 09-2283

Client Job Site: Buffalo Aud Site

Sample Type: Soil
Method: SW846 9045C

Client Job No.: N/A

Date(s) Sampled: 06/24/2009
Date Received: 06/26/2009
Date Analyzed: 06/26/2009

Laboratory Report for pH Analysis

Lab Sample No.	Field ID No.	Field Location	pH Results (S.U.)
7371	N/A	B-5 (0-16")	8.03

ELAP ID No.: 10958

Comments:

Approved By: 
Bruce Hoogesteger, Technical Director

This report is part of a multipage document and should only be evaluated in its entirety. Chain of Custody provides additional sample information, including compliance with sample condition requirements upon receipt.

File ID:092283.xls



PARADIGM

ENVIRONMENTAL SERVICES, INC.

179 Lake Avenue, Rochester, NY 14608 (585) 647-2530 FAX (585) 647-3311

Client: SJB Services

Lab Project No.: 09-2283

Client Job Site: Buffalo Aud Site

Sample Type: Soil

Method: SW846 1010

Client Job No.: N/A

Date(s) Sampled: 06/24/2009

Date Received: 06/26/2009

Date Analyzed: 06/30/2009

Laboratory Report for Flashpoint Analysis

Lab Sample No.	Field ID No.	Field Location	Flashpoint Results (°C)
7371	N/A	B-5 (0-16')	>70.0

ELAP ID No.: 10958

Comments:

Approved By: _____

Bruce Hoogesteger, Technical Director



Client: **SJB Services**

Lab Project No.: 09-2283

Client Job Site: Buffalo Aud Site

Sample Type: Soil

Method: SW846 9095

Client Job No.: N/A

Date(s) Sampled: 06/24/2009

Date Received: 06/26/2009

Date Analyzed: 06/26/2009

Laboratory Report for Paint Filter Analysis

Lab Sample No.	Field ID No.	Field Location	Paint Filter Test Result (Pass/Fail)
7371	N/A	B-5 (0-16')	Pass

ELAP ID No.: 10958

Comments: Pass = No Free Liquids

Approved By: 
Bruce Hoogsteder, Technical Director

Client: **SJB Services**
 Client Job Site: Buffalo Aud Site
 Client Job No.: N/A
 Field Location: B-5 (0-16")
 Field ID No.: N/A

Lab Project No.: 09-2283
 Lab Sample No.: 7371
 Sample Type: Soil
 Date Sampled: 06/24/2009
 Date Received: 06/26/2009

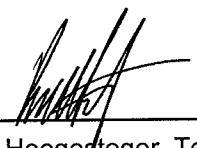
Laboratory Report for TAL Metals Analysis in Solid

Parameter	Date Analyzed	Analytical Method	Result (mg/kg)
Aluminum	06/29/2009	SW846 6010	8760
Antimony	06/29/2009	SW846 6010	<5.81
Arsenic	06/29/2009	SW846 6010	5.28
Barium	06/29/2009	SW846 6010	47.9
Beryllium	06/29/2009	SW846 6010	<0.485
Cadmium	06/29/2009	SW846 6010	<0.485
Calcium	06/29/2009	SW846 6010	47100
Chromium	06/29/2009	SW846 6010	21.0
Cobalt	06/29/2009	SW846 6010	5.86
Copper	06/29/2009	SW846 6010	26.4
Iron	06/29/2009	SW846 6010	16200
Lead	06/29/2009	SW846 6010	65.6
Magnesium	06/29/2009	SW846 6010	23600
Manganese	06/29/2009	SW846 6010	366
Mercury	06/29/2009	SW846 7471	0.136
Nickel	06/29/2009	SW846 6010	17.2
Potassium	06/29/2009	SW846 6010	1810
Selenium	06/29/2009	SW846 6010	<0.485
Silver	06/29/2009	SW846 6010	<0.969
Sodium	07/01/2009	SW846 6010	126
Thallium	06/29/2009	SW846 6010	<0.581
Vanadium	06/29/2009	SW846 6010	20.1
Zinc	06/29/2009	SW846 6010	75.0

ELAP ID No.:10958

Comments:

Approved By:


 Bruce Hoogesteger, Technical Director



PARADIGM

ENVIRONMENTAL SERVICES, INC.

179 Lake Avenue, Rochester, NY 14608 (585) 647-2530 FAX (585) 647-3311

Client: **SJB Services**
Client Job Site: Buffalo Aud Site
Client Job No.: N/A
Field Location: B-4 (0-22')
Field ID No.: N/A

Lab Project No.: 09-2283
Lab Sample No.: 7372
Sample Type: Soil
Date Sampled: 06/24/2009
Date Received: 06/26/2009

Laboratory Report for TAL Metals Analysis in Solid

Parameter	Date Analyzed	Analytical Method	Result (mg/kg)
Aluminum	06/29/2009	SW846 6010	6340
Antimony	06/29/2009	SW846 6010	<5.17
Arsenic	06/29/2009	SW846 6010	5.25
Barium	06/29/2009	SW846 6010	82.2
Beryllium	06/29/2009	SW846 6010	<0.431
Cadmium	06/29/2009	SW846 6010	<0.431
Calcium	06/29/2009	SW846 6010	42800
Chromium	06/29/2009	SW846 6010	9.42
Cobalt	06/29/2009	SW846 6010	4.45
Copper	06/29/2009	SW846 6010	21.4
Iron	06/29/2009	SW846 6010	11000
Lead	06/29/2009	SW846 6010	122
Magnesium	06/29/2009	SW846 6010	10100
Manganese	06/29/2009	SW846 6010	301
Mercury	06/29/2009	SW846 7471	0.327
Nickel	06/29/2009	SW846 6010	9.86
Potassium	06/29/2009	SW846 6010	1080
Selenium	06/29/2009	SW846 6010	<0.431
Silver	06/29/2009	SW846 6010	<0.862
Sodium	07/01/2009	SW846 6010	178
Thallium	06/29/2009	SW846 6010	<0.517
Vanadium	06/29/2009	SW846 6010	15.3
Zinc	06/29/2009	SW846 6010	94.5

ELAP ID No.:10958

Comments:

Approved By: _____

Bruce Hoogseeger, Technical Director

This report is part of a multipage document and should only be evaluated in its entirety. Chain of Custody provides additional sample information, including compliance with sample condition requirements upon receipt.

File ID:092283.xls



Client: SJB Services
Client Job Site: Buffalo Aud Site
Client Job No.: N/A
Field Location: B-5 (0-16')
Field ID No.: N/A

Lab Project No.: 09-2283
Lab Sample No.: 7371
Sample Type: TCLP Extract
Date Sampled: 06/24/2009
Date Received: 06/26/2009

Laboratory Report for TCLP Metals Analysis

Parameter	Date Analyzed	Analytical Method	Result (mg/L)	Regulatory Limit (mg/L)
TCLP Metal Series				
Arsenic	06/30/2009	EPA 6010	<0.100	5.0
Barium	06/30/2009	EPA 6010	1.65	100.0
Cadmium	06/30/2009	EPA 6010	<0.025	1.0
Chromium	06/30/2009	EPA 6010	<0.050	5.0
Lead	06/30/2009	EPA 6010	<0.100	5.0
Mercury	06/30/2009	EPA 7470	<0.0020	0.2
Selenium	06/30/2009	EPA 6010	<0.100	1.0
Silver	06/30/2009	EPA 6010	<0.050	5.0

ELAP ID No.: 10958

Comments: The LCS and LCS duplicate percent difference was outside QC limits for barium.

Approved By: 
Bruce Hoogesteger, Technical Director

Client: SJB Services
Client Job Site: Buffalo Aud Site
Client Job No.: N/A
Field Location: B-5 (0-16')

Lab Project No.: 09-2283
Lab Sample No.: 7371
Sample Type: Soil
Date Sampled: 6/24/2009
Date Received: 6/26/2009

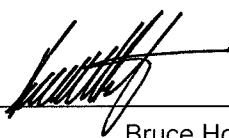
Laboratory Report for Reactivity

Parameter	Date Analyzed	Analytical Method	Results (mg/kg)
Cyanide Reactivity	6/30/2009	SW846, 7.3.3.2	ND<1.0
Sulfide Reactivity	6/30/2009	SW846, 7.3.4.2	16

ELAP ID. No.: 10709

Comments: ND denotes Non Detect.
Hazardous Waste Regulatory Levels for Reactivity are as follows:
Sulfide - 500 mg/kg, Cyanide - 250 mg/kg.

Approved By Technical Director: _____


Bruce Hoogesteger



Client: SJB Services

Lab Project No: 09-2283

Client Job Site: Buffalo Aud. Site

Lab Sample No: 7371

Sample Type: Soil

Client Job No: N/A

Date Sampled: 6/24/2009

Date Received: 6/26/2009

Field Location: B-5 (0-16')

Date Analyzed: 7/10/2009

Laboratory Report for Herbicides Analysis


Parameter	Result (ug/kg)	Reporting Limit (ug/kg)
2,4-D	ND	200
Dinoseb	ND	200
Dicamba	ND	200
2,4,5-T	ND	200
2,4,5-TP (Silvex)	ND	200

Analytical Method: SW 8151A

ELAP ID: 10709

Comments: ND denotes Non Detect.

Approved By Technical Director: _____


Bruce Hoogesteger



Client: SJB Services

Lab Project No: 09-2283

Client Job Site: Buffalo Aud. Site

Lab Sample No: 7372

Sample Type: Soil

Client Job No: N/A

Date Sampled: 6/24/2009

Date Received: 6/26/2009

Field Location: B-4 (0-22')

Date Analyzed: 7/10/2009

Laboratory Report for Herbicides Analysis

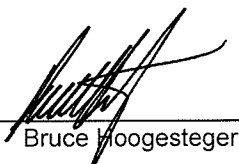
Parameter	Result (ug/kg)	Reporting Limit (ug/kg)
2,4-D	ND	200
Dinoseb	ND	200
Dicamba	ND	200
2,4,5-T	ND	200
2,4,5-TP (Silvex)	ND	200

Analytical Method: SW 8151A

ELAP ID: 10709

Comments: ND denotes Non Detect.

Approved By Technical Director: _____


Bruce Hoogesteger

Client:	<u>SJB Services</u>	Lab Project No:	09-2283
Client Job Site:	Buffalo Aud. Site	Lab Sample No:	7371
Client Job No:	N/A	Sample Type:	TCLP Extract
Field Location:	B-5 (0-16')	Date Sampled:	6/24/2009
		Date Received:	6/26/2009
		Date Analyzed:	7/8/2009

Herbicide Analysis Report for TCLP Extract


Parameter	Result (mg/L)	Regulatory Limit (mg/L)
2,4,5-TP (Silvex)	ND<0.05	1.0
2,4-D	ND<0.50	10.0

Analytical Method: SW1311/8151

ELAP ID: 10709

Comments: ND denotes Non Detect.

Approved By Technical Director: _____


Bruce Hoggsteger

PCB Analysis Report for Soils/Solids/Sludges

Client: **SJB Services**

Client Job Site: Buffalo Aud Site

Lab Project Number: 09-2283

Lab Sample Number: 7371

Client Job Number: N/A

Field Location: B-5 (0-16')

Date Sampled: 06/24/2009

Field ID Number: N/A

Date Received: 06/26/2009

Sample Type: Soil

Date Analyzed: 06/29/2009

PCB Identification	Results in mg / Kg
Aroclor 1016	ND< 0.350
Aroclor 1221	ND< 0.350
Aroclor 1232	ND< 0.350
Aroclor 1242	ND< 0.350
Aroclor 1248	ND< 0.350
Aroclor 1254	ND< 0.350
Aroclor 1260	ND< 0.350

ELAP Number 10958

Method: EPA 8082

Comments: ND denotes Non Detect

mg / Kg = milligram per Kilogram

Signature: _____

Bruce Hoogesteger: Technical Director

PCB Analysis Report for Soils/Solids/Sludges

Client: SJB Services

Client Job Site: Buffalo Aud Site

Lab Project Number: 09-2283

Lab Sample Number: 7372

Client Job Number: N/A

Field Location: B-4 9 (0-22')

Date Sampled: 06/24/2009

Field ID Number: N/A

Date Received: 06/26/2009

Sample Type: Soil

Date Analyzed: 06/29/2009

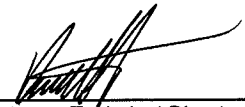
PCB Identification	Results in mg / Kg
Aroclor 1016	ND< 0.339
Aroclor 1221	ND< 0.339
Aroclor 1232	ND< 0.339
Aroclor 1242	ND< 0.339
Aroclor 1248	ND< 0.339
Aroclor 1254	ND< 0.339
Aroclor 1260	ND< 0.339

ELAP Number 10958

Method: EPA 8082

Comments: ND denotes Non Detect
mg / Kg = milligram per Kilogram

Signature: _____


Bruce Hoogesteger: Technical Director

Pesticide Analysis Report for Soils/Solids/Sludges

Client: SJB Services

Client Job Site: Buffalo Aud Site

Lab Project Number: 09-2283

Lab Sample Number: 7371

Client Job Number: N/A

Field Location: B-5 (0-16')

Date Sampled: 06/24/2009

Field ID Number: N/A

Date Received: 06/26/2009

Sample Type: Soil

Date Analyzed: 06/29/2009

Pesticide Identification	Results in ug / Kg
Aldrin	ND< 3.31
alpha-BHC	ND< 3.31
beta-BHC	7.94
delta-BHC	ND< 3.31
gamma-BHC	4.30
alpha-Chlordane	ND< 3.31
gamma-Chlordane	ND< 3.31
4,4'-DDD	ND< 3.31
4,4'-DDE	ND< 3.31
4,4'-DDT	ND< 3.31
Dieldrin	ND< 3.31
Endosulfan I	ND< 3.31
Endosulfan II	ND< 3.31
Endosulfan Sulfate	ND< 3.31
Endrin	ND< 3.31
Endrin Aldehyde	ND< 3.31
Heptachlor	ND< 3.31
Heptachlor Epoxide	ND< 3.31
Methoxychlor	ND< 3.31
Toxaphene	ND< 166

ELAP Number 10958

Method: EPA 8081

Comments: ND denotes Non Detect

ug / Kg = microgram per Kilogram

Signature: _____

Bruce Hoogesteger, Technical Director

Pesticide Analysis Report for Soils/Solids/Sludges

Client: **SJB Services**

Client Job Site: Buffalo Aud Site

Lab Project Number: 09-2283

Lab Sample Number: 7372

Client Job Number: N/A

Field Location: B-4 (0-22')

Date Sampled: 06/24/2009

Field ID Number: N/A

Date Received: 06/26/2009

Sample Type: Soil

Date Analyzed: 06/29/2009

Pesticide Identification	Results in ug / Kg
Aldrin	ND< 3.24
alpha-BHC	ND< 3.24
beta-BHC	ND< 3.24
delta-BHC	ND< 3.24
gamma-BHC	ND< 3.24
alpha-Chlordane	ND< 3.24
gamma-Chlordane	ND< 3.24
4,4'-DDD	ND< 3.24
4,4'-DDE	ND< 3.24
4,4'-DDT	ND< 3.24
Dieldrin	ND< 3.24
Endosulfan I	ND< 3.24
Endosulfan II	ND< 3.24
Endosulfan Sulfate	ND< 3.24
Endrin	ND< 3.24
Endrin Aldehyde	ND< 3.24
Heptachlor	ND< 3.24
Heptachlor Epoxide	ND< 3.24
Methoxychlor	ND< 3.24
Toxaphene	ND< 162

ELAP Number 10958

Method: EPA 8081

Comments: ND denotes Non Detect

ug / Kg = microgram per Kilogram

Signature: _____

Bruce Hoogesteger: Technical Director

Pesticide Analysis Report for TCLP Extract

Client: **SJB Services**

Client Job Site: Buffalo Aud Site

Lab Project Number: 09-2283

Lab Sample Number: 7371

Client Job Number: N/A

Field Location: B-5 (0-16')

Date Sampled: 06/24/2009

Field ID Number: N/A

Date Received: 06/26/2009

Sample Type: TCLP Extract

Date Analyzed: 06/30/2009

Pesticide Identification	Results in ug / L	Regulatory Limits in ug / L
gamma-BHC	ND< 1.00	400
Chlordane	ND< 1.00	30.0
Endrin	ND< 1.00	20.0
Heptachlor	ND< 1.00	8.00
Heptachlor Epoxide	ND< 1.00	8.00
Methoxychlor	ND< 1.00	10000
Toxaphene	ND< 50.0	500

ELAP Number 10958

Method: EPA 8081

Comments: ND denotes Non Detect
ug / L = microgram per Liter

Signature: _____

Bruce Hoogesteger: Technical Director

**Semi-Volatile Analysis Report for Soils/Solids/Sludges**Client: **SJB Services**

Client Job Site: Buffalo Aud Site

Lab Project Number: 09-2283

Lab Sample Number: 7371

Client Job Number: N/A

Field Location: B-5 (0-16')

Date Sampled: 06/24/2009

Field ID Number: N/A

Date Received: 06/26/2009

Sample Type: Soil

Date Analyzed: 06/29/2009

Base / Neutrals	Results in ug / Kg	Base / Neutrals	Results in ug / Kg
Acenaphthene	ND< 332	Dibenz (a,h) anthracene	ND< 332
Anthracene	ND< 332	Fluoranthene	ND< 332
Benzo (a) anthracene	ND< 332	Fluorene	ND< 332
Benzo (a) pyrene	ND< 332	Indeno (1,2,3-cd) pyrene	ND< 332
Benzo (b) fluoranthene	ND< 332	Naphthalene	ND< 332
Benzo (g,h,i) perylene	ND< 332	Phenanthrene	ND< 332
Benzo (k) fluoranthene	ND< 332	Pyrene	ND< 332
Chrysene	ND< 332	Acenaphthylene	ND< 332
Diethyl phthalate	ND< 332	1,2-Dichlorobenzene	ND< 332
Dimethyl phthalate	ND< 831	1,3-Dichlorobenzene	ND< 332
Butylbenzylphthalate	ND< 332	1,4-Dichlorobenzene	ND< 332
Di-n-butyl phthalate	ND< 332	1,2,4-Trichlorobenzene	ND< 332
Di-n-octylphthalate	ND< 332	Nitrobenzene	ND< 332
Bis (2-ethylhexyl) phthalate	ND< 332	2,4-Dinitrotoluene	ND< 332
2-Chloronaphthalene	ND< 332	2,6-Dinitrotoluene	ND< 332
Hexachlorobenzene	ND< 332	Bis (2-chloroethyl) ether	ND< 332
Hexachloroethane	ND< 332	Bis (2-chloroisopropyl) ether	ND< 332
Hexachlorocyclopentadiene	ND< 332	Bis (2-chloroethoxy) methan	ND< 332
Hexachlorobutadiene	ND< 332	4-Bromophenyl phenyl ether	ND< 332
N-Nitroso-di-n-propylamine	ND< 332	4-Chlorophenyl phenyl ether	ND< 332
N-Nitrosodiphenylamine	ND< 332	Benzidine	ND< 831
N-Nitrosodimethylamine	ND< 332	3,3'-Dichlorobenzidine	ND< 332
Isophorone	ND< 332	4-Chloroaniline	ND< 332
Benzyl alcohol	ND< 831	2-Nitroaniline	ND< 831
Dibenzofuran	ND< 332	3-Nitroaniline	ND< 831
2-Methylnaphthalene	ND< 332	4-Nitroaniline	ND< 831

Acids	Results in ug / Kg	Acids	Results in ug / Kg
Phenol	ND< 332	2-Methylphenol	ND< 332
2-Chlorophenol	ND< 332	3&4-Methylphenol	ND< 332
2,4-Dichlorophenol	ND< 332	2,4-Dimethylphenol	ND< 332
2,6-Dichlorophenol	ND< 332	2-Nitrophenol	ND< 332
2,4,5-Trichlorophenol	ND< 831	4-Nitrophenol	ND< 831
2,4,6-Trichlorophenol	ND< 332	2,4-Dinitrophenol	ND< 831
Pentachlorophenol	ND< 831	4,6-Dinitro-2-methylphenol	ND< 831
4-Chloro-3-methylphenol	ND< 332	Benzoic acid	ND< 831

ELAP Number 10958

Method: EPA 8270C

Data File: S45924.D

Comments: ND denotes Non Detect

ug / Kg = microgram per Kilogram

Signature: _____

Bruce Hoogesteger: Technical Director

**Semi-Volatile Analysis Report for Soils/Solids/Sludges**Client: **SJB Services**

Client Job Site: Buffalo Aud Site

Lab Project Number: 09-2283

Lab Sample Number: 7372

Client Job Number: N/A

Field Location: B-4 9 (0-22')

Date Sampled: 06/24/2009

Field ID Number: N/A

Date Received: 06/26/2009

Sample Type: Soil

Date Analyzed: 06/29/2009

Base / Neutrals	Results in ug / Kg	Base / Neutrals	Results in ug / Kg
Acenaphthene	529	Dibenz (a,h) anthracene	608
Anthracene	1,700	Fluoranthene	5,840
Benzo (a) anthracene	2,880	Fluorene	803
Benzo (a) pyrene	2,270	Indeno (1,2,3-cd) pyrene	1,310
Benzo (b) fluoranthene	2,230	Naphthalene	325
Benzo (g,h,i) perylene	1,310	Phenanthrene	4,720
Benzo (k) fluoranthene	2,100	Pyrene	4,290
Chrysene	2,630	Acenaphthylene	ND< 324
Diethyl phthalate	ND< 324	1,2-Dichlorobenzene	ND< 324
Dimethyl phthalate	ND< 810	1,3-Dichlorobenzene	ND< 324
Butylbenzylphthalate	ND< 324	1,4-Dichlorobenzene	ND< 324
Di-n-butyl phthalate	ND< 324	1,2,4-Trichlorobenzene	ND< 324
Di-n-octylphthalate	ND< 324	Nitrobenzene	ND< 324
Bis (2-ethylhexyl) phthalate	ND< 324	2,4-Dinitrotoluene	ND< 324
2-Chloronaphthalene	ND< 324	2,6-Dinitrotoluene	ND< 324
Hexachlorobenzene	ND< 324	Bis (2-chloroethyl) ether	ND< 324
Hexachloroethane	ND< 324	Bis (2-chloroisopropyl) ether	ND< 324
Hexachlorocyclopentadiene	ND< 324	Bis (2-chloroethoxy) methan	ND< 324
Hexachlorobutadiene	ND< 324	4-Bromophenyl phenyl ether	ND< 324
N-Nitroso-di-n-propylamine	ND< 324	4-Chlorophenyl phenyl ether	ND< 324
N-Nitrosodiphenylamine	ND< 324	Benzidine	ND< 810
N-Nitrosodimethylamine	ND< 324	3,3'-Dichlorobenzidine	ND< 324
Isophorone	ND< 324	4-Chloroaniline	ND< 324
Benzyl alcohol	ND< 810	2-Nitroaniline	ND< 810
Dibenzofuran	516	3-Nitroaniline	ND< 810
2-Methylnaphthalene	ND< 324	4-Nitroaniline	ND< 810

Acids	Results in ug / Kg	Acids	Results in ug / Kg
Phenol	ND< 324	2-Methylphenol	ND< 324
2-Chlorophenol	ND< 324	3&4-Methylphenol	ND< 324
2,4-Dichlorophenol	ND< 324	2,4-Dimethylphenol	ND< 324
2,6-Dichlorophenol	ND< 324	2-Nitrophenol	ND< 324
2,4,5-Trichlorophenol	ND< 810	4-Nitrophenol	ND< 810
2,4,6-Trichlorophenol	ND< 324	2,4-Dinitrophenol	ND< 810
Pentachlorophenol	ND< 810	4,6-Dinitro-2-methylphenol	ND< 810
4-Chloro-3-methylphenol	ND< 324	Benzoic acid	ND< 810

ELAP Number 10958

Method: EPA 8270C

Data File: S45925.D

Comments: ND denotes Non Detect

ug / Kg = microgram per Kilogram

Surrogate outliers indicate probable matrix interference

Signature: _____

Bruce Hoogesteger, Technical Director

Semi-Volatile Analysis Report for TCLP Extract

Client: **SJB Services**

Client Job Site: Buffalo Aud Site

Lab Project Number: 09-2283

Lab Sample Number: 7371

Client Job Number: N/A

Field Location: B-5 (0-16')

Date Sampled: 06/24/2009

Field ID Number: N/A

Date Received: 06/26/2009

Sample Type: TCLP Extract

Date Analyzed: 07/01/2009

Base / Neutrals	Results in ug / L	Regulatory Limits in ug / L
1,4-Dichlorobenzene	ND< 40.0	7,500
2,4-Dinitrotoluene	ND< 40.0	130
Hexachlorobenzene	ND< 40.0	3000
Hexachlorobutadiene	ND< 40.0	500
Hexachloroethane	ND< 40.0	130
Nitrobenzene	ND< 40.0	2000
Pyridine	ND< 40.0	5000

Acids	Results in ug / L	Regulatory Limits in ug / L
Cresols (as m,p,o-Cresol)	ND< 80.0	200,000
Pentachlorophenol	ND< 100	100,000
2,4,5-Trichlorophenol	ND< 100	400,000
2,4,6-Trichlorophenol	ND< 40.0	2000

ELAP Number 10958

Method: EPA 8270C

Data File: S45958.D

Comments: ND denotes Non Detect
 ug / L = microgram per Liter

Signature: _____

Bruce Hoogesteger: Technical Director

**Volatile Analysis Report for Soils/Solids/Sludges**Client: **SJB Services**

Client Job Site: Buffalo Aud Site

Lab Project Number: 09-2283

Lab Sample Number: 7371

Client Job Number: N/A

Field Location: B-5 (0-16')

Date Sampled: 06/24/2009

Field ID Number: N/A

Date Received: 06/26/2009

Sample Type: Soil

Date Analyzed: 06/30/2009

Halocarbons	Results in ug / Kg
Bromodichloromethane	ND< 8.13
Bromomethane	ND< 8.13
Bromoform	ND< 20.3
Carbon Tetrachloride	ND< 20.3
Chloroethane	ND< 8.13
Chloromethane	ND< 8.13
2-Chloroethyl vinyl Ether	ND< 40.7
Chloroform	ND< 8.13
Dibromochloromethane	ND< 8.13
1,1-Dichloroethane	ND< 8.13
1,2-Dichloroethane	ND< 8.13
1,1-Dichloroethene	ND< 8.13
cis-1,2-Dichloroethene	ND< 8.13
trans-1,2-Dichloroethene	ND< 8.13
1,2-Dichloropropane	ND< 8.13
cis-1,3-Dichloropropene	ND< 8.13
trans-1,3-Dichloropropene	ND< 8.13
Methylene chloride	ND< 20.3
1,1,2,2-Tetrachloroethane	ND< 8.13
Tetrachloroethene	ND< 8.13
1,1,1-Trichloroethane	ND< 8.13
1,1,2-Trichloroethane	ND< 8.13
Trichloroethene	ND< 8.13
Trichlorofluoromethane	ND< 8.13
Vinyl chloride	ND< 8.13

Aromatics	Results in ug / Kg
Benzene	ND< 8.13
Chlorobenzene	ND< 8.13
Ethylbenzene	ND< 8.13
Toluene	ND< 8.13
m,p-Xylene	ND< 8.13
o-Xylene	ND< 8.13
Styrene	ND< 20.3
1,2-Dichlorobenzene	ND< 20.3
1,3-Dichlorobenzene	ND< 20.3
1,4-Dichlorobenzene	ND< 8.13

Ketones	Results in ug / Kg
Acetone	ND< 40.7
2-Butanone	ND< 40.7
2-Hexanone	ND< 20.3
4-Methyl-2-pentanone	ND< 20.3

Miscellaneous	Results in ug / Kg
Carbon disulfide	ND< 8.13
Vinyl acetate	ND< 20.3

ELAP Number 10958

Method: EPA 8260B

Data File: V66754.D

Comments: ND denotes Non Detect

ug / Kg = microgram per Kilogram

Surrogate outliers indicate probable matrix interference

Signature: _____

Bruce Hoogesteger, Technical Director

**Volatile Analysis Report for Soils/Solids/Sludges (Additional STARS Compounds)**Client: **SJB Services**

Client Job Site: Buffalo Aud Site

Lab Project Number: 09-2283

Lab Sample Number: 7371

Client Job Number: N/A

Field Location: B-5 (0-16')

Date Sampled: 06/24/2009

Field ID Number: N/A

Date Received: 06/26/2009

Sample Type: Soil

Date Analyzed: 06/30/2009

Aromatics	Results in ug / Kg	Aromatics	Results in ug / Kg
n-Butylbenzene	ND< 40.7	1,2,4-Trimethylbenzene	ND< 8.13
sec-Butylbenzene	ND< 8.13	1,3,5-Trimethylbenzene	ND< 8.13
tert-Butylbenzene	ND< 20.3		
n-Propylbenzene	ND< 8.13	Miscellaneous	
Isopropylbenzene	ND< 40.7	Methyl tert-butyl Ether	ND< 8.13
p-Isopropyltoluene	ND< 40.7		
Naphthalene	ND< 20.3		

ELAP Number 10958

Method: EPA 8260B

Data File: V66754.D

Comments: ND denotes Non Detect

ug / Kg = microgram per Kilogram

Surrogate outliers indicate probable matrix interference

Signature: _____

Bruce Hoogesteger, Technical Director

**Volatile Analysis Report for Soils/Solids/Sludges**Client: **SJB Services**

Client Job Site: Buffalo Aud Site

Lab Project Number: 09-2283

Lab Sample Number: 7372

Client Job Number: N/A

Field Location: B-4 (0-22')

Date Sampled: 06/24/2009

Field ID Number: N/A

Date Received: 06/26/2009

Sample Type: Soil

Date Analyzed: 06/30/2009

Halocarbons	Results in ug / Kg
Bromodichloromethane	ND< 7.30
Bromomethane	ND< 7.30
Bromoform	ND< 18.2
Carbon Tetrachloride	ND< 18.2
Chloroethane	ND< 7.30
Chloromethane	ND< 7.30
2-Chloroethyl vinyl Ether	ND< 36.5
Chloroform	ND< 7.30
Dibromochloromethane	ND< 7.30
1,1-Dichloroethane	ND< 7.30
1,2-Dichloroethane	ND< 7.30
1,1-Dichloroethene	ND< 7.30
cis-1,2-Dichloroethene	ND< 7.30
trans-1,2-Dichloroethene	ND< 7.30
1,2-Dichloropropane	ND< 7.30
cis-1,3-Dichloropropene	ND< 7.30
trans-1,3-Dichloropropene	ND< 7.30
Methylene chloride	ND< 18.2
1,1,2,2-Tetrachloroethane	ND< 7.30
Tetrachloroethene	ND< 7.30
1,1,1-Trichloroethane	ND< 7.30
1,1,2-Trichloroethane	ND< 7.30
Trichloroethene	ND< 7.30
Trichlorofluoromethane	ND< 7.30
Vinyl chloride	ND< 7.30

Aromatics	Results in ug / Kg
Benzene	ND< 7.30
Chlorobenzene	ND< 7.30
Ethylbenzene	ND< 7.30
Toluene	ND< 7.30
m,p-Xylene	ND< 7.30
o-Xylene	ND< 7.30
Styrene	ND< 18.2
1,2-Dichlorobenzene	ND< 18.2
1,3-Dichlorobenzene	ND< 18.2
1,4-Dichlorobenzene	ND< 7.30

Ketones	Results in ug / Kg
Acetone	ND< 36.5
2-Butanone	ND< 36.5
2-Hexanone	ND< 18.2
4-Methyl-2-pentanone	ND< 18.2

Miscellaneous	Results in ug / Kg
Carbon disulfide	ND< 7.30
Vinyl acetate	ND< 18.2

ELAP Number 10958

Method: EPA 8260B

Data File: V66755.D

Comments: ND denotes Non Detect

ug / Kg = microgram per Kilogram

Surrogate outliers indicate probable matrix interference

Signature: _____

Bruce Hoogesteger, Technical Director

**Volatile Analysis Report for Soils/Solids/Sludges (Additional STARS Compounds)**Client: **SJB Services**

Client Job Site: Buffalo Aud Site

Lab Project Number: 09-2283

Lab Sample Number: 7372

Client Job Number: N/A

Field Location: B-4 (0-22')

Date Sampled: 06/24/2009

Field ID Number: N/A

Date Received: 06/26/2009

Sample Type: Soil

Date Analyzed: 06/30/2009

Aromatics	Results in ug / Kg	Aromatics	Results in ug / Kg
n-Butylbenzene	ND< 36.5	1,2,4-Trimethylbenzene	ND< 7.30
sec-Butylbenzene	ND< 7.30	1,3,5-Trimethylbenzene	ND< 7.30
tert-Butylbenzene	ND< 18.2		
n-Propylbenzene	ND< 7.30	Miscellaneous	
Isopropylbenzene	ND< 36.5	Methyl tert-butyl Ether	ND< 7.30
p-Isopropyltoluene	ND< 36.5		
Naphthalene	ND< 18.2		

ELAP Number 10958

Method: EPA 8260B

Data File: V66755.D

Comments: ND denotes Non Detect

ug / Kg = microgram per Kilogram

Surrogate outliers indicate probable matrix interference

Signature: _____

Bruce Hoogesteger: Technical Director

**Volatile Analysis Report for TCLP Extract****Client:** SJB Services**Client Job Site:** Buffalo Aud Site**Lab Project Number:** 09-2283**Lab Sample Number:** 7371**Client Job Number:** N/A**Field Location:** B-5 (0-16')**Date Sampled:** 06/24/2009**Field ID Number:** N/A**Date Received:** 06/26/2009**Sample Type:** TCLP Extract**Date Analyzed:** 06/30/2009

Compounds	Results in ug / L	Regulatory Limits in ug / L
Benzene	ND< 7.00	500
2-Butanone	ND< 100	200,000
Carbon Tetrachloride	ND< 20.0	500
Chlorobenzene	ND< 20.0	100,000
Chloroform	ND< 20.0	6,000
1,2-Dichloroethane	ND< 20.0	500
1,1-Dichloroethene	ND< 20.0	700
Tetrachloroethene	ND< 20.0	700
Trichloroethene	ND< 20.0	500
Vinyl chloride	ND< 20.0	200

ELAP Number 10958

Method: EPA 8260B

Data File: V66768.D

Comments: ND denotes Non Detect
ug / L = microgram per Liter

Signature: _____

Bruce Hoogesteger: Technical Director

PARADIGM

CHAIN OF CUSTODY

ENVIRONMENTAL SERVICES, INC.

179 Lake Avenue
Rochester, NY 14608
(585) 647-2530 • (800) 724-1997
FAX: (585) 647-3311

PROJECT NAME/SITE NAME:

Bifeld And Site

REPORT TO:

INVOICE TO:

COMPANY: SSB SERVICES

ADDRESS: 5167 South Park Ave

CITY: Henning NY STATE: NY ZIP: 14075

PHONE: 716-649-8110 FAX:

ATTN: Dave Steiner

COMMENTS: Please Email Results to: dstene@ssbcs.com

REQUESTED ANALYSIS

09-2283
09-25-09 1505
Date/Time
Total Cost:

LAB PROJECT #: 09-2283
CLIENT PROJECT #:
TURNAROUND TIME: (WORKING DAYS)
STD 1 2 3 4 5
OTHER

DATE	TIME	C O M P O S I T E	G R A B	SAMPLE LOCATION/FIELD ID	M A T R I X	C O N T A I N E R	REMARKS	PARADIGM LAB SAMPLE NUMBER
16-24-09	0830	X		B-5 (0-16')	Soil	Y	X	7371
26-24-09	1536	X		B-4 (0-22')	Soil	Z	X	7372
3								
4								
5								
6								
7								
8								
9								
10								

LAB USE ONLY BELOW THIS LINE

Sample Condition: Per NELAC/ELAP 210/241/242/243/244

Receipt Parameter NELAC Compliance

Container Type: Y ☒ N ☐

Preservation: N/A Y ☐ N ☐

Holding Time: Y ☒ N ☐

Temperature: 18°C Y ☐ N ☒

Comments:

Received By: [Signature] Date/Time: 6-24-09 1505

Relinquished By: [Signature] Date/Time: 6-25-09 1405

Received By: [Signature] Date/Time: 6-25-09 1405

Received @ Lab By: [Signature] Date/Time: 6-25-09 1405

Total Cost: [Box]

P.I.F. [Box]



PARADIGM
ENVIRONMENTAL SERVICES, INC.

Analytical Report Cover Page

SJB Services

For Lab Project # 09-3635
Issued October 13, 2009
This report contains a total of 9 pages

The reported results relate only to the samples as they have been received by the laboratory.

Any noncompliant QC parameters having impact on the data are flagged or documented on the final report.

All soil/sludge samples have been reported on a dry weight basis, unless qualified "reported as received". Other solids are reported as received.

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The Chain of Custody provides additional information, including compliance with sample condition requirements upon receipt. Sample condition requirements are defined under the 2003 NELAC Standard, sections 5.5.8.3.1 and 5.5.8.3.2.

NYSDOH ELAP does not certify for all parameters. Paradigm Environmental Services or the indicated subcontracted laboratory does hold certification for all analytes where certification is offered by ELAP unless otherwise specified.

Data qualifiers are used, when necessary, to provide additional information about the data. This information may be communicated as a flag or as text at the bottom of the report. Please refer to the following list of frequently used data flags and their meaning:

"ND" = analyzed for but not detected.

"E" = Result has been estimated, calibration limit exceeded.

"D" = Duplicate results outside QC limits. May indicate a non-homogenous matrix.

"M" = Matrix spike recoveries outside QC limits. Matrix bias indicated.

"B" = Method blank contained trace levels of analyte. Refer to included method blank report.

Client: **SJB Services**
 Client Job Site: Buffalo Aud Site
 Client Job No.: BE-09-094A
 Field Location: B-7, 0'-8'
 Field ID No.: N/A

Lab Project No.: 09-3635
 Lab Sample No.: 11220
 Sample Type: Soil
 Date Sampled: 10/01/2009
 Date Received: 10/05/2009

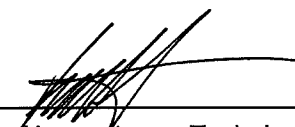
Laboratory Report for TAL Metals Analysis in Solid

Parameter	Date Analyzed	Analytical Method	Result (mg/kg)
Aluminum	10/13/2009	SW846 6010	9640
Antimony	10/13/2009	SW846 6010	<4.45
Arsenic	10/13/2009	SW846 6010	9.32
Barium	10/13/2009	SW846 6010	402
Beryllium	10/13/2009	SW846 6010	0.457
Cadmium	10/13/2009	SW846 6010	2.46
Calcium	10/13/2009	SW846 6010	31200
Chromium	10/13/2009	SW846 6010	25.5
Cobalt	10/13/2009	SW846 6010	5.86
Copper	10/13/2009	SW846 6010	149
Iron	10/13/2009	SW846 6010	19200
Lead	10/13/2009	SW846 6010	1650
Magnesium	10/13/2009	SW846 6010	8900
Manganese	10/14/2009	SW846 6010	317
Mercury	10/12/2009	SW846 7471	1.52
Nickel	10/13/2009	SW846 6010	19.2
Potassium	10/13/2009	SW846 6010	1870
Selenium	10/13/2009	SW846 6010	<0.371
Silver	10/13/2009	SW846 6010	<0.740
Sodium	10/14/2009	SW846 6010	487
Thallium	10/13/2009	SW846 6010	<0.793
Vanadium	10/13/2009	SW846 6010	23.2
Zinc	10/14/2009	SW846 6010	1250

ELAP ID No.:10958

Comments:

Approved By:


 Bruce Hoogesteger, Technical Director



Client: **SJB Services**

Client Job Site: Buffalo Aud Site

Client Job No: N/A

Field Location: B-7 (0'-8')

Lab Project No: 09-3635

Lab Sample No: 11220

Sample Type: Soil

Date Sampled: 10/1/2009

Date Received: 10/5/2009

Date Analyzed: 10/7/2009

Laboratory Report for Herbicides Analysis


Parameter	Result (ug/kg)	Reporting Limit (ug/kg)
2,4-D	ND	272
2,4,5-T	ND	272
2,4,5-TP (Silvex)	ND	272

Analytical Method: 8151

ELAP ID: 10709

Comments: ND denotes Non Detect.

Approved By Technical Director: _____


Bruce Hoogesteger



ENVIRONMENTAL SERVICES, INC.

179 Lake Avenue Rochester, New York 14608 (585) 647 - 2530 FAX (585) 647 - 3311

PCB Analysis Report for Soils/Solids/SludgesClient: **SJB Services**

Client Job Site: Buffalo Aud. Site

Lab Project Number: 09-3635

Lab Sample Number: 11220

Client Job Number: BE-09-094A

Field Location: B-7, 0'-8'

Date Sampled: 10/01/2009

Field ID Number: N/A

Date Received: 10/05/2009

Sample Type: Soil

Date Analyzed: 10/08/2009

PCB Identification	Results in mg / Kg
Aroclor 1016	ND< 0.348
Aroclor 1221	ND< 0.348
Aroclor 1232	ND< 0.348
Aroclor 1242	ND< 0.348
Aroclor 1248	ND< 0.348
Aroclor 1254	ND< 0.348
Aroclor 1260	ND< 0.348

ELAP Number 10958

Method: EPA 8082

Comments: ND denotes Non Detect

mg / Kg = milligram per Kilogram

Signature: _____

Bruce Hoogesteger: Technical Director

Pesticide Analysis Report for Soils/Solids/Sludges

Client: **SJB Services**

Client Job Site: Buffalo Aud Site

Lab Project Number: 09-3635

Lab Sample Number: 11220

Client Job Number: BE-09-094A

Field Location: B-7. 0'-8'

Date Sampled: 10/01/2009

Field ID Number: N/A

Date Received: 10/05/2009

Sample Type: Soil

Date Analyzed: 10/07/2009

Pesticide Identification	Results in ug / Kg
Aldrin	ND< 4.50
alpha-BHC	ND< 4.50
beta-BHC	ND< 4.50
delta-BHC	ND< 4.50
gamma-BHC	ND< 4.50
alpha-Chlordane	ND< 4.50
gamma-Chlordane	ND< 4.50
4,4'-DDD	ND< 4.50
4,4'-DDE	ND< 4.50
4,4'-DDT	ND< 4.50
Dieldrin	ND< 4.50
Endosulfan I	ND< 4.50
Endosulfan II	ND< 4.50
Endosulfan Sulfate	ND< 4.50
Endrin	ND< 4.50
Endrin Aldehyde	ND< 4.50
Heptachlor	ND< 4.50
Heptachlor Epoxide	ND< 4.50
Methoxychlor	ND< 23.0
Toxaphene	ND< 230

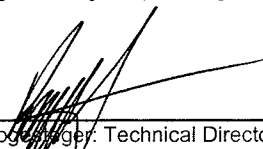
ELAP Number 10709

Method: EPA 8081

Comments: ND denotes Non Detect

ug / Kg = microgram per Kilogram

Signature: _____


Bruce Hooper, Technical Director



ENVIRONMENTAL SERVICES, INC.

179 Lake Avenue Rochester, New York 14608 (585) 647 - 2530 FAX (585) 647 - 3311

Semi-Volatile Analysis Report for Soils/Solids/SludgesClient: **SJB Services**

Client Job Site: Buffalo Aud. Site

Lab Project Number: 09-3635

Lab Sample Number: 11220

Client Job Number: BE-09-094A

Field Location: B-7, 0'-8'

Date Sampled: 10/01/2009

Field ID Number: N/A

Date Received: 10/05/2009

Sample Type: Soil

Date Analyzed: 10/09/2009

Base / Neutrals	Results in ug / Kg	Base / Neutrals	Results in ug / Kg
Acenaphthene	ND< 330	Dibenz (a,h) anthracene	ND< 330
Anthracene	444	Fluoranthene	2,020
Benzo (a) anthracene	890	Fluorene	ND< 330
Benzo (a) pyrene	812	Indeno (1,2,3-cd) pyrene	623
Benzo (b) fluoranthene	758	Naphthalene	ND< 330
Benzo (g,h,i) perylene	577	Phenanthrene	1,800
Benzo (k) fluoranthene	592	Pyrene	1,640
Chrysene	895	Acenaphthylene	ND< 330
Diethyl phthalate	ND< 330	1,2-Dichlorobenzene	ND< 330
Dimethyl phthalate	ND< 825	1,3-Dichlorobenzene	ND< 330
Butylbenzylphthalate	ND< 330	1,4-Dichlorobenzene	ND< 330
Di-n-butyl phthalate	ND< 330	1,2,4-Trichlorobenzene	ND< 330
Di-n-octylphthalate	ND< 330	Nitrobenzene	ND< 330
Bis (2-ethylhexyl) phthalate	ND< 330	2,4-Dinitrotoluene	ND< 330
2-Chloronaphthalene	ND< 330	2,6-Dinitrotoluene	ND< 330
Hexachlorobenzene	ND< 330	Bis (2-chloroethyl) ether	ND< 330
Hexachloroethane	ND< 330	Bis (2-chloroisopropyl) ether	ND< 330
Hexachlorocyclopentadiene	ND< 330	Bis (2-chloroethoxy) methan	ND< 330
Hexachlorobutadiene	ND< 330	4-Bromophenyl phenyl ether	ND< 330
N-Nitroso-di-n-propylamine	ND< 330	4-Chlorophenyl phenyl ether	ND< 330
N-Nitrosodiphenylamine	ND< 330	Benzidine	ND< 825
N-Nitrosodimethylamine	ND< 330	3,3'-Dichlorobenzidine	ND< 330
Isophorone	ND< 330	4-Chloroaniline	ND< 330
Benzyl alcohol	ND< 825	2-Nitroaniline	ND< 825
Dibenzofuran	ND< 330	3-Nitroaniline	ND< 825
2-Methylnaphthalene	ND< 330	4-Nitroaniline	ND< 825

Acids	Results in ug / Kg	Acids	Results in ug / Kg
Phenol	ND< 330	2-Methylphenol	ND< 330
2-Chlorophenol	ND< 330	3&4-Methylphenol	ND< 330
2,4-Dichlorophenol	ND< 330	2,4-Dimethylphenol	ND< 330
2,6-Dichlorophenol	ND< 330	2-Nitrophenol	ND< 330
2,4,5-Trichlorophenol	ND< 825	4-Nitrophenol	ND< 825
2,4,6-Trichlorophenol	ND< 330	2,4-Dinitrophenol	ND< 825
Pentachlorophenol	ND< 825	4,6-Dinitro-2-methylphenol	ND< 825
4-Chloro-3-methylphenol	ND< 330	Benzoic acid	ND< 825

ELAP Number 10958

Method: EPA 8270C

Data File: S47143.D

Comments: ND denotes Non Detect

ug / Kg = microgram per Kilogram

Surrogate outliers indicate probable matrix interference

Signature: _____

Bruce Hoogesteger: Technical Director



Volatile Analysis Report for Soils/Solids/Sludges

Client: **SJB Services**

Client Job Site: Buffalo Aud Site

Lab Project Number: 09-3635

Lab Sample Number: 11220

Client Job Number: BE-09-094A

Field Location: B-7, 0'-8'

Date Sampled: 10/01/2009

Field ID Number: N/A

Date Received: 10/05/2009

Sample Type: Soil

Date Analyzed: 10/08/2009

Halocarbons	Results in ug / Kg
Bromodichloromethane	ND< 8.10
Bromomethane	ND< 8.10
Bromoform	ND< 20.3
Carbon Tetrachloride	ND< 20.3
Chloroethane	ND< 8.10
Chloromethane	ND< 8.10
2-Chloroethyl vinyl Ether	ND< 40.5
Chloroform	ND< 8.10
Dibromochloromethane	ND< 8.10
1,1-Dichloroethane	ND< 8.10
1,2-Dichloroethane	ND< 8.10
1,1-Dichloroethene	ND< 8.10
cis-1,2-Dichloroethene	ND< 8.10
trans-1,2-Dichloroethene	ND< 8.10
1,2-Dichloropropane	ND< 8.10
cis-1,3-Dichloropropene	ND< 8.10
trans-1,3-Dichloropropene	ND< 8.10
Methylene chloride	ND< 20.3
1,1,2,2-Tetrachloroethane	ND< 8.10
Tetrachloroethene	ND< 8.10
1,1,1-Trichloroethane	ND< 8.10
1,1,2-Trichloroethane	ND< 8.10
Trichloroethene	ND< 8.10
Trichlorofluoromethane	ND< 8.10
Vinyl chloride	ND< 8.10

Aromatics	Results in ug / Kg
Benzene	ND< 8.10
Chlorobenzene	ND< 8.10
Ethylbenzene	ND< 8.10
Toluene	ND< 8.10
m,p-Xylene	ND< 8.10
o-Xylene	ND< 8.10
Styrene	ND< 20.3
1,2-Dichlorobenzene	ND< 20.3
1,3-Dichlorobenzene	ND< 20.3
1,4-Dichlorobenzene	ND< 8.10

Ketones	Results in ug / Kg
Acetone	ND< 40.5
2-Butanone	ND< 40.5
2-Hexanone	ND< 20.3
4-Methyl-2-pentanone	ND< 20.3

Miscellaneous	Results in ug / Kg
Carbon disulfide	ND< 8.10
Vinyl acetate	ND< 20.3

ELAP Number 10958

Method: EPA 8260B

Data File: V69323.D

Comments: ND denotes Non Detect

ug / Kg = microgram per Kilogram

Surrogate outliers indicate probable matrix interference

Internal standard outliers indicate probable matrix interference

Signature: _____

Bruce Hoogesteger: Technical Director

**Volatile Analysis Report for Soils/Solids/Sludges (Additional STARS Compounds)**Client: **SJB Services**

Client Job Site: Buffalo Aud Site

Lab Project Number: 09-3635

Lab Sample Number: 11220

Client Job Number: BE-09-094A

Field Location: B-7, 0'-8'

Date Sampled: 10/01/2009

Field ID Number: N/A

Date Received: 10/05/2009

Sample Type: Soil

Date Analyzed: 10/08/2009

Aromatics	Results in ug / Kg	Aromatics	Results in ug / Kg
n-Butylbenzene	ND< 40.5	1,2,4-Trimethylbenzene	ND< 8.10
sec-Butylbenzene	ND< 8.10	1,3,5-Trimethylbenzene	ND< 8.10
tert-Butylbenzene	ND< 20.3		
n-Propylbenzene	ND< 8.10	Miscellaneous	
Isopropylbenzene	ND< 40.5	Methyl tert-butyl Ether	ND< 8.10
p-Isopropyltoluene	ND< 40.5		
Naphthalene	ND< 20.3		

ELAP Number 10958

Method: EPA 8260B

Data File: V69323.D

Comments: ND denotes Non Detect

ug / Kg = microgram per Kilogram

Surrogate outliers indicate probable matrix interference

Internal standard outliers indicate probable matrix interference

Signature: _____

Bruce Hoogesteger: Technical Director



179 Lake Avenue, Rochester, NY 14608 Office (585) 647-2630 Fax (585) 647-3311

Client is sub services.
per D. Steiner Rpt 10/12/09

CHAIN OF CUSTODY

REPORT TO:

INVOICE TO:

COMPANY: STEINER GEC	COMPANY: Same	LAB PROJECT #: 09-3635	CLIENT PROJECT #: BE-09-094A
ADDRESS: 5167 SOUTH PARK AVE,	ADDRESS:	TURNAROUND TIME: (WORKING DAYS)	
CITY: HAMBURG,	STATE: NY	STATE:	ZIP: 14075
PHONE: 716-649-8116	FAX:	PHONE:	FAX:
ATTN: STEVE BOCHNER / DAVE STEINER	ATTN: Steiner	STANDARD <input checked="" type="checkbox"/> OTHER <input type="checkbox"/>	
COMMENTS: PLEASE EMAIL RESULTS TO bochner@sjbegs.com	Quotation #		

REQUESTED ANALYSIS

DATE	TIME	C O M P O S I T E	G R A B	SAMPLE LOCATION/FIELD ID	M A T R I X	C O N T A I N E R	REMARKS	PARADIGM LAB SAMPLE NUMBER
10-1-09	0950			B-7, 0'-8'	Soil	2	ITCL & STARS VOCs & MTBE	11220
2							ITCL SVOCs	
3							ITCL METALS & Hg	
4							PERNUIDES	
5							HERBICIDES	
6							PCBs	
7								
8								
9								
10								

LAB USE ONLY BELOW THIS LINE

Sample Condition: Per NELAC/ELAP 210/241/242/243/244

Receipt Parameter	NELAC Compliance
Container Type:	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>
Comments:	
Preservation:	Y <input type="checkbox"/> N <input type="checkbox"/>
Comments:	
Holding Time:	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>
Comments:	
Temperature:	Y <input type="checkbox"/> N <input checked="" type="checkbox"/>
Comments:	

Received By: Dave R. Steiner	Date/Time: 10-1-09/0950
Relinquished By: Dave R. Steiner	Date/Time:
Total Cost:	

Received By: Elizabeth A. Homan	Date/Time: 10/2/09 3:30
Relinquished By: Elizabeth A. Homan	Date/Time: 10/5/09 1430
P.I.F. <input type="checkbox"/>	



PARADIGM
ENVIRONMENTAL SERVICES, INC.

Analytical Report Cover Page

SJB Services

For Lab Project # 09-3579

Issued October 13, 2009

This report contains a total of 18 pages

The reported results relate only to the samples as they have been received by the laboratory.

Any noncompliant QC parameters having impact on the data are flagged or documented on the final report.

All soil/sludge samples have been reported on a dry weight basis, unless qualified "reported as received". Other solids are reported as received.

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NYSDOH ELAP does not certify for all parameters. Paradigm Environmental Services or the indicated subcontracted laboratory does hold certification for all analytes where certification is offered by ELAP unless otherwise specified.

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"E" = Result has been estimated, calibration limit exceeded.

"D" = Duplicate results outside QC limits. May indicate a non-homogenous matrix.

"M" = Matrix spike recoveries outside QC limits. Matrix bias indicated.

"B" = Method blank contained trace levels of analyte. Refer to included method blank report.

pH Analysis Report

Client: **SJB Services**

Client Job Site: Buffalo Aud. Site

Lab Project Number: 09-3579

Client Job Number: N/A

Date Sampled: 9/28/2009

Time Sampled: 10:51 AM

Date Received: 10/1/2009

Sample Type: Soil

Time Received: 3:05 PM

Location: Laboratory

Date Analyzed: 10/6/2009

Time Analyzed: 3:20 PM


Lab Sample Number	Field Number	Field Location	Result (pH)
11058	N/A	B-8 (0-9') TCLP	7.82

ELAP Number 10958

Method: EPA 9045C

Comments:

Signature: _____


Bruce Hoogesteger: Technical Director



Client: SJB Services

Lab Project No.: 09-3579

Client Job Site: Buffalo Aud. Site

Sample Type: Soil
Method: SW846 1010

Client Job No.: N/A

Date(s) Sampled: 09/28/2009
Date Received: 10/01/2009
Date Analyzed: 10/07/2009

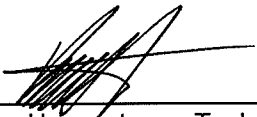
Laboratory Report for Flashpoint Analysis

Lab Sample No.	Field ID No.	Field Location	Flashpoint Results (°C)
11058	N/A	B-8 (0-9') TCLP	>70

ELAP ID No.: 10958

Comments:

Approved By: _____


Bruce Hoogesteger, Technical Director

Paint Filter Analysis Report

Client: SJB Services

Client Job Site: Buffalo Aud. Site

Lab Project Number: 09-3579

Client Job Number: N/A

Date Sampled: 9/28/2009

Date Received: 10/1/2009

Sample Type: Soil

Date Analyzed: 10/1/2009

Lab Sample Number	Field Number	Field Location	Result
11058	N/A	B-8 (0-9') TCLP	Pass

ELAP Number 10958

Method: SW846 9095

Comments:

Signature:


Bruce Hoogesteger, Technical Director

Client: **SJB Services**
 Client Job Site: Buffalo Aud. Site
 Client Job No.: N/A
 Field Location: B-8 (0-9') TCLP
 Field ID No.: N/A

Lab Project No.: 09-3579
 Lab Sample No.: 11058
 Sample Type: TCLP Extract
 Date Sampled: 09/28/2009
 Date Received: 10/01/2009

Laboratory Report for TCLP Metals Analysis

Parameter	Date Analyzed	Analytical Method	Result (mg/L)	Regulatory Limit (mg/L)
TCLP Metal Series				
Arsenic	10/06/2009	EPA 6010	<0.100	5.0
Barium	10/06/2009	EPA 6010	0.512	100.0
Cadmium	10/06/2009	EPA 6010	<0.025	1.0
Chromium	10/06/2009	EPA 6010	<0.050	5.0
Lead	10/06/2009	EPA 6010	<0.100	5.0
Mercury	10/05/2009	EPA 7470	<0.0020	0.2
Selenium	10/06/2009	EPA 6010	<0.100	1.0
Silver	10/06/2009	EPA 6010	<0.050	5.0

ELAP ID No.: 10958

Comments:

Approved By: 
 Bruce Hoogesteger, Technical Director

Client: SJB Services
Client Job Site: Buffalo Aud. Site
Client Job No.: N/A
Field Location: B-8 (0-9') TCL
Field ID No.: N/A

Lab Project No.: 09-3579
Lab Sample No.: 11059
Sample Type: Soil
Date Sampled: 09/28/2009
Date Received: 10/01/2009

Laboratory Report for TAL Metals Analysis in Solid

Parameter	Date Analyzed	Analytical Method	Result (mg/kg)
Aluminum	10/13/2009	SW846 6010	8170
Antimony	10/07/2009	SW846 6010	<6.60
Arsenic	10/07/2009	SW846 6010	3.83
Barium	10/07/2009	SW846 6010	55.0
Beryllium	10/07/2009	SW846 6010	<0.550
Cadmium	10/07/2009	SW846 6010	<0.550
Calcium	10/13/2009	SW846 6010	64500
Chromium	10/07/2009	SW846 6010	13.0
Cobalt	10/07/2009	SW846 6010	5.07
Copper	10/07/2009	SW846 6010	23.7
Iron	10/07/2009	SW846 6010	13500
Lead	10/07/2009	SW846 6010	66.4
Magnesium	10/07/2009	SW846 6010	11100
Manganese	10/07/2009	SW846 6010	327
Mercury	10/05/2009	SW846 7471	0.109 D,M
Nickel	10/07/2009	SW846 6010	12.1
Potassium	10/12/2009	SW846 6010	1220
Selenium	10/07/2009	SW846 6010	<0.550
Silver	10/07/2009	SW846 6010	<1.10
Sodium	10/07/2009	SW846 6010	461
Thallium	10/07/2009	SW846 6010	<0.660
Vanadium	10/07/2009	SW846 6010	13.3
Zinc	10/07/2009	SW846 6010	53.2

ELAP ID No.:10958

Comments: The laboratory control spike percent difference was outside QC limits for Ba, Cr, Fe, and Zn.

Approved By: _____

Bruce Hoogesteger, Technical Director

Client: SJB Services
Client Job Site: Buffalo Aud Site
Client Job No.: N/A
Field Location: B-8 (0-9") TCLP

Lab Project No.: 09-3579
Lab Sample No.: 11058
Sample Type: Soil
Date Sampled: 9/28/2009
Date Received: 10/1/2009

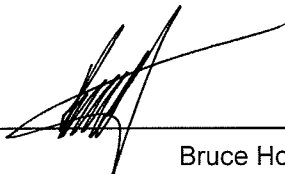
Laboratory Report for Reactivity

Parameter	Date Analyzed	Analytical Method	Results (mg/kg)
Cyanide Reactivity	10/7/2009	SW846, 7.3.3.2	ND<1.0
Sulfide Reactivity	10/8/2009	SW846, 7.3.4.2	12

ELAP ID. No.: 10709

Comments: ND denotes Non Detect.
Hazardous Waste Regulatory Levels for Reactivity are as follows:
Sulfide - 500 mg/kg, Cyanide - 250 mg/kg.

Approved By Technical Director: _____



Bruce Hoogesteger

Client:	<u>SJB Services</u>	Lab Project No:	09-3579
Client Job Site:	Buffalo Aud Site	Lab Sample No:	11058
Client Job No:	N/A	Sample Type:	TCLP Extract
Field Location:	B-8 (0-9") TCLP	Date Sampled:	9/28/2009
		Date Received:	10/1/2009
		Date Analyzed:	10/7/2009

Herbicide Analysis Report for TCLP Extract


Parameter	Result (mg/L)	Regulatory Limit (mg/L)
2,4,5-TP (Silvex)	ND<1.0	ND<0.05 H
2,4-D	ND<10.0	ND<0.50 H

Analytical Method: SW1311/8151

ELAP ID: 10709

Comments: ND denotes Non Detect.
H denotes sample analyzed outside of holding time.

Approved By Technical Director: _____


Bruce Hoogesteger



Client: **SJB Services**

Client Job Site: Buffalo Aud Site

Client Job No: N/A

Field Location: B-8 (0-9") TCL

Lab Project No: 09-3579

Lab Sample No: 11059

Sample Type: Soil

Date Sampled: 9/28/2009

Date Received: 10/1/2009

Date Analyzed: 10/7/2009

Laboratory Report for Chlorinated Herbicides

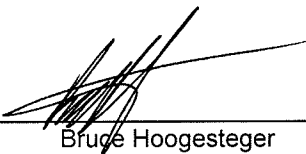
Parameter	Result (mg/kg)	Reporting Limit (mg/kg)
2,4-D	ND	200
2,4,5-T	ND	200
2,4,5-TP (Silvex)	ND	200

Analytical Method: 8151

ELAP ID: 10709

Comments: ND denotes Non Detect.

Approved By Technical Director: _____


Bruce Hoogesteger

**PCB Analysis Report for Soils/Solids/Sludges****Client:** SJB Services**Client Job Site:** Buffalo Aud Site**Lab Project Number:** 09-3579**Lab Sample Number:** 11059**Client Job Number:** N/A**Field Location:** B-8 (0-9') TCL**Date Sampled:** 09/28/2009**Field ID Number:** N/A**Date Received:** 10/01/2009**Sample Type:** Soil**Date Analyzed:** 10/06/2009

PCB Identification	Results in mg / Kg
Aroclor 1016	ND< 0.329
Aroclor 1221	ND< 0.329
Aroclor 1232	ND< 0.329
Aroclor 1242	ND< 0.329
Aroclor 1248	ND< 0.329
Aroclor 1254	ND< 0.329
Aroclor 1260	ND< 0.329

ELAP Number 10958

Method: EPA 8082

Comments: ND denotes Non Detect

mg / Kg = milligram per Kilogram

Signature: _____

Bruce Hoogesteger, Technical Director

Pesticide Analysis Report for TCLP Extract

Client: **SJB Services**

Client Job Site: Buffalo Aud Site

Lab Project Number: 09-3579

Lab Sample Number: 11058

Client Job Number: N/A

Field Location: B-8 (0-9') TCLP

Date Sampled: 09/28/2009

Field ID Number: N/A

Date Received: 10/01/2009

Sample Type: TCLP Extract

Date Analyzed: 10/01/2009

Pesticide Identification	Results in ug / L	Regulatory Limits in ug / L
gamma-BHC	ND< 1.00	400
Chlordane	ND< 1.00	30.0
Endrin	ND< 1.00	20.0
Heptachlor	ND< 1.00	8.00
Heptachlor Epoxide	ND< 1.00	8.00
Methoxychlor	ND< 1.00	10000
Toxaphene	ND< 50.0	500

ELAP Number 10709

Method: EPA 8081

Comments: ND denotes Non Detect
ug / L = microgram per Liter

Signature: _____


Bruce Hoogesteger, Technical Director



ENVIRONMENTAL SERVICES, INC.

179 Lake Avenue Rochester, New York 14608 (585) 647 - 2530 FAX (585) 647 - 3311

Pesticide Analysis Report for Soils/Solids/Sludges**Client:** SJB Services**Client Job Site:** Buffalo Aud Site**Lab Project Number:** 09-3579**Lab Sample Number:** 11059**Client Job Number:** N/A**Field Location:** B-8 (0-9") TCL**Date Sampled:** 09/28/2009**Field ID Number:** N/A**Date Received:** 10/01/2009**Sample Type:** Soil**Date Analyzed:** 10/01/2009

Pesticide Identification	Results in ug / Kg
Aldrin	ND< 1.6
alpha-BHC	ND< 1.6
beta-BHC	ND< 1.6
delta-BHC	ND< 1.6
gamma-BHC	ND< 1.6
alpha-Chlordane	ND< 1.6
gamma-Chlordane	ND< 1.6
4,4'-DDD	ND< 3.2
4,4'-DDE	ND< 3.2
4,4'-DDT	ND< 3.2
Dieldrin	ND< 1.6
Endosulfan I	ND< 1.6
Endosulfan II	ND< 3.2
Endosulfan Sulfate	ND< 3.2
Endrin	ND< 3.2
Endrin Aldehyde	ND< 3.2
Heptachlor	ND< 1.6
Heptachlor Epoxide	ND< 1.6
Methoxychlor	ND< 16
Toxaphene	ND< 160

ELAP Number 10709

Method: SW 8081A

Comments: ND denotes Non Detect

ug / Kg = microgram per Kilogram

Signature: _____

Bruce Hoogesleger, Technical Director

**Semi-Volatile Analysis Report for TCLP Extract**Client: **SJB Services**

Client Job Site: Buffalo Aud. Site

Lab Project Number: 09-3579

Lab Sample Number: 11058

Client Job Number: N/A

Field Location: B-8 (0-9') TCLP

Date Sampled: 09/28/2009

Field ID Number: N/A

Date Received: 10/01/2009

Sample Type: TCLP Extract

Date Analyzed: 10/05/2009

Base / Neutrals	Results in ug / L	Regulatory Limits in ug / L
1,4-Dichlorobenzene	ND< 40.0	7,500
2,4-Dinitrotoluene	ND< 40.0	130
Hexachlorobenzene	ND< 40.0	3000
Hexachlorobutadiene	ND< 40.0	500
Hexachloroethane	ND< 40.0	130
Nitrobenzene	ND< 40.0	2000
Pyridine	ND< 40.0	5000

Acids	Results in ug / L	Regulatory Limits in ug / L
Cresols (as m,p,o-Cresol)	ND< 80.0	200,000
Pentachlorophenol	ND< 100	100,000
2,4,5-Trichlorophenol	ND< 100	400,000
2,4,6-Trichlorophenol	ND< 40.0	2000

ELAP Number 10958

Method: EPA 8270C

Data File: S47116.D

Comments: ND denotes Non Detect
ug / L = microgram per Liter

Signature: _____

Bruce Hoogesteger, Technical Director

**Semi-Volatile Analysis Report for Soils/Solids/Sludges****Client:** SJB Services**Client Job Site:** Buffalo Aud. Site**Lab Project Number:** 09-3579**Lab Sample Number:** 11059**Client Job Number:** N/A**Field Location:** B-8 (0-9') TCL**Date Sampled:** 09/28/2009**Field ID Number:** N/A**Date Received:** 10/01/2009**Sample Type:** Soil**Date Analyzed:** 10/02/2009

Base / Neutrals	Results in ug / Kg	Base / Neutrals	Results in ug / Kg
Acenaphthene	ND< 320	Dibenz (a,h) anthracene	ND< 320
Anthracene	ND< 320	Fluoranthene	409
Benzo (a) anthracene	ND< 320	Fluorene	ND< 320
Benzo (a) pyrene	ND< 320	Indeno (1,2,3-cd) pyrene	ND< 320
Benzo (b) fluoranthene	ND< 320	Naphthalene	ND< 320
Benzo (g,h,i) perylene	ND< 320	Phenanthrene	ND< 320
Benzo (k) fluoranthene	ND< 320	Pyrene	355
Chrysene	ND< 320	Acenaphthylene	ND< 320
Diethyl phthalate	ND< 320	1,2-Dichlorobenzene	ND< 320
Dimethyl phthalate	ND< 800	1,3-Dichlorobenzene	ND< 320
Butylbenzylphthalate	ND< 320	1,4-Dichlorobenzene	ND< 320
Di-n-butyl phthalate	ND< 320	1,2,4-Trichlorobenzene	ND< 320
Di-n-octylphthalate	ND< 320	Nitrobenzene	ND< 320
Bis (2-ethylhexyl) phthalate	822	2,4-Dinitrotoluene	ND< 320
2-Chloronaphthalene	ND< 320	2,6-Dinitrotoluene	ND< 320
Hexachlorobenzene	ND< 320	Bis (2-chloroethyl) ether	ND< 320
Hexachloroethane	ND< 320	Bis (2-chloroisopropyl) ether	ND< 320
Hexachlorocyclopentadiene	ND< 320	Bis (2-chloroethoxy) methan	ND< 320
Hexachlorobutadiene	ND< 320	4-Bromophenyl phenyl ether	ND< 320
N-Nitroso-di-n-propylamine	ND< 320	4-Chlorophenyl phenyl ether	ND< 320
N-Nitrosodiphenylamine	ND< 320	Benzidine	ND< 800
N-Nitrosodimethylamine	ND< 320	3,3'-Dichlorobenzidine	ND< 320
Isophorone	ND< 320	4-Chloroaniline	ND< 320
Benzyl alcohol	ND< 800	2-Nitroaniline	ND< 800
Dibenzofuran	ND< 320	3-Nitroaniline	ND< 800
2-Methylnapthalene	ND< 320	4-Nitroaniline	ND< 800

Acids	Results in ug / Kg	Acids	Results in ug / Kg
Phenol	ND< 320	2-Methylphenol	ND< 320
2-Chlorophenol	ND< 320	3&4-Methylphenol	ND< 320
2,4-Dichlorophenol	ND< 320	2,4-Dimethylphenol	ND< 320
2,6-Dichlorophenol	ND< 320	2-Nitrophenol	ND< 320
2,4,5-Trichlorophenol	ND< 800	4-Nitrophenol	ND< 800
2,4,6-Trichlorophenol	ND< 320	2,4-Dinitrophenol	ND< 800
Pentachlorophenol	ND< 800	4,6-Dinitro-2-methylphenol	ND< 800
4-Chloro-3-methylphenol	ND< 320	Benzoic acid	ND< 800

ELAP Number 10958

Method: EPA 8270C

Data File: S47100.D

Comments: ND denotes Non Detect

ug / Kg = microgram per Kilogram

Surrogate outliers indicate probable matrix interference

Signature: _____

Bruce Hoogseeger: Technical Director

**Volatile Analysis Report for Soils/Solids/Sludges**Client: **SJB Services**

Client Job Site: Buffalo Aud Site

Lab Project Number: 09-3579

Lab Sample Number: 11059

Client Job Number: N/A

Field Location: B-8 (0-9') TCL

Date Sampled: 09/28/2009

Field ID Number: N/A

Date Received: 10/01/2009

Sample Type: Soil

Date Analyzed: 10/08/2009

Halocarbons	Results in ug / Kg
Bromodichloromethane	ND< 7.87
Bromomethane	ND< 7.87
Bromoform	ND< 19.7
Carbon Tetrachloride	ND< 19.7
Chloroethane	ND< 7.87
Chloromethane	ND< 7.87
2-Chloroethyl vinyl Ether	ND< 39.3
Chloroform	ND< 7.87
Dibromochloromethane	ND< 7.87
1,1-Dichloroethane	ND< 7.87
1,2-Dichloroethane	ND< 7.87
1,1-Dichloroethene	ND< 7.87
cis-1,2-Dichloroethene	ND< 7.87
trans-1,2-Dichloroethene	ND< 7.87
1,2-Dichloropropane	ND< 7.87
cis-1,3-Dichloropropene	ND< 7.87
trans-1,3-Dichloropropene	ND< 7.87
Methylene chloride	ND< 19.7
1,1,2,2-Tetrachloroethane	ND< 7.87
Tetrachloroethene	ND< 7.87
1,1,1-Trichloroethane	ND< 7.87
1,1,2-Trichloroethane	ND< 7.87
Trichloroethene	ND< 7.87
Trichlorofluoromethane	ND< 7.87
Vinyl chloride	ND< 7.87

ELAP Number 10958

Method: EPA 8260B

Aromatics	Results in ug / Kg
Benzene	ND< 7.87
Chlorobenzene	ND< 7.87
Ethylbenzene	ND< 7.87
Toluene	11.9
m,p-Xylene	13.8
o-Xylene	ND< 7.87
Styrene	ND< 19.7
1,2-Dichlorobenzene	ND< 19.7
1,3-Dichlorobenzene	ND< 19.7
1,4-Dichlorobenzene	ND< 7.87

Ketones	Results in ug / Kg
Acetone	ND< 39.3
2-Butanone	ND< 39.3
2-Hexanone	ND< 19.7
4-Methyl-2-pentanone	ND< 19.7

Miscellaneous	Results in ug / Kg
Carbon disulfide	ND< 7.87
Vinyl acetate	ND< 19.7

Data File: V69293.D

Comments: ND denotes Non Detect

ug / Kg = microgram per Kilogram

Surrogate outliers indicate probable matrix interference

Internal Standard outliers indicate probable matrix interference

Signature: _____

Bruce Hodge: Technical Director

**Volatile Analysis Report for Soils/Solids/Sludges (Additional STARS Compounds)**Client: **SJB Services**

Client Job Site: Buffalo Aud Site

Lab Project Number: 09-3579

Lab Sample Number: 11059

Client Job Number: N/A

Field Location: B-8 (0-9') TCL

Date Sampled: 09/28/2009

Field ID Number: N/A

Date Received: 10/01/2009

Sample Type: Soil

Date Analyzed: 10/08/2009

Aromatics	Results in ug / Kg	Aromatics	Results in ug / Kg
n-Butylbenzene	ND< 39.3	1,2,4-Trimethylbenzene	ND< 7.87
sec-Butylbenzene	ND< 7.87	1,3,5-Trimethylbenzene	ND< 7.87
tert-Butylbenzene	ND< 19.7		
n-Propylbenzene	ND< 7.87	Miscellaneous	
Isopropylbenzene	ND< 39.3	Methyl tert-butyl Ether	ND< 7.87
p-Isopropyltoluene	ND< 39.3		
Naphthalene	ND< 19.7		

ELAP Number 10958

Method: EPA 8260B

Data File: V69293.D

Comments: ND denotes Non Detect

ug / Kg = microgram per Kilogram

Surrogate outliers indicate probable matrix interference

Internal Standard outliers indicate probable matrix interference

Signature: _____

Bruce Hoogesteger, Technical Director

**Volatile Analysis Report for TCLP Extract****Client:** SJB Services**Client Job Site:** Buffalo Aud. Site**Lab Project Number:** 09-3579**Lab Sample Number:** 11058**Client Job Number:** N/A**Field Location:** B-8 (0-9') TCLP**Date Sampled:** 09/28/2009**Field ID Number:** N/A**Date Received:** 10/01/2009**Sample Type:** TCLP Extract**Date Analyzed:** 10/05/2009

Compounds	Results in ug / L	Regulatory Limits in ug / L
Benzene	ND< 20.0	500
2-Butanone	ND< 100	200,000
Carbon Tetrachloride	ND< 20.0	500
Chlorobenzene	ND< 20.0	100,000
Chloroform	ND< 20.0	6,000
1,2-Dichloroethane	ND< 20.0	500
1,1-Dichloroethene	ND< 20.0	700
Tetrachloroethene	ND< 20.0	700
Trichloroethene	ND< 20.0	500
Vinyl chloride	ND< 20.0	200

ELAP Number 10958

Method: EPA 8260B

Data File: V69180.D

Comments: ND denotes Non Detect
ug / L = microgram per Liter

Signature: _____

Bruce Hoogesteger, Technical Director

CHAIN OF CUSTODY

PARADIGM ENVIRONMENTAL SERVICES, INC.

179 Lake Avenue
Rochester, NY 14608
(585) 647-2530 • (800) 724-1997
FAX: (585) 647-3311

REPORT TO:

INVOICE TO:

PROJECT NAME/SITE NAME:
Buttalo And Site

COMPANY: SSB Services		COMPANY: _____		LAB PROJECT #:		CLIENT PROJECT #:	
ADDRESS: 5167 South Park Avenue		ADDRESS: _____		09-3579			
CITY: Hamburg	STATE: NY	ZIP: 14075	CITY: _____	STATE: _____	ZIP: _____	TURNAROUND TIME: (WORKING DAYS)	
PHONE: 716-649-8110	FAX: _____	PHONE: _____	FAX: _____	STD		OTHER	
ATTN: _____	ATTN: _____	QUOTE #:		1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input checked="" type="checkbox"/> 5 <input type="checkbox"/>			
COMMENTS: Email Results To: dskene@ssbegs.com				REQUESTED ANALYSIS			

DATE	TIME	C O M P O S I T E	G R A B	SAMPLE LOCATION/FIELD ID	M A T R I X	C O N T A I N E R	REMARKS	PARADIGM LAB SAMPLE NUMBER
19/28/09	1051	X		B-80-9' TCLP	Soil	X		11058
2	↓	↓		↓ TCL		X		11059
3				TCLP "Labeled" Bottles				
4				TCLP VOCs, TCLP SVOCs,				
5				TCLP Metals, TCLP Pesticides,				
6				TCLP Herbicides,				
7				Ignitibility, Corrosivity,				
8				Reactivity & Part				
9				Filter Test				
10								

LAB USE ONLY BELOW THIS LINE

Sample Condition: Per NELAP/CLAP 210/241/242/243/244

Receipt Parameter		NEAAC Compliance	
Container Type:		Y <input checked="" type="checkbox"/>	N <input type="checkbox"/>
Preservation:	N/A	Y <input type="checkbox"/>	N <input type="checkbox"/>
Holding Time:		Y <input checked="" type="checkbox"/>	N <input type="checkbox"/>
Temperature:	80Ciced	Y <input type="checkbox"/>	N <input checked="" type="checkbox"/>

Sampled By: Bob	Date/Time: 9-28-09	Total Cost:
Relinquished By: [Signature]	Date/Time: 9/28/09	
Received By: [Signature]	Date/Time: 9/30/09	
Received @ Lab By: [Signature]	Date/Time: 10/1/09 1505	P.L.F.



PARADIGM
ENVIRONMENTAL SERVICES, INC.

Analytical Report Cover Page

SJB Services

For Lab Project # 09-3634
Issued October 13, 2009
This report contains a total of 9 pages

The reported results relate only to the samples as they have been received by the laboratory.

Any noncompliant QC parameters having impact on the data are flagged or documented on the final report.

All soil/sludge samples have been reported on a dry weight basis, unless qualified "reported as received". Other solids are reported as received.

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The Chain of Custody provides additional information, including compliance with sample condition requirements upon receipt. Sample condition requirements are defined under the 2003 NELAC Standard, sections 5.5.8.3.1 and 5.5.8.3.2.

NYSDOH ELAP does not certify for all parameters. Paradigm Environmental Services or the indicated subcontracted laboratory does hold certification for all analytes where certification is offered by ELAP unless otherwise specified.

Data qualifiers are used, when necessary, to provide additional information about the data. This information may be communicated as a flag or as text at the bottom of the report. Please refer to the following list of frequently used data flags and their meaning:

"ND" = analyzed for but not detected.

"E" = Result has been estimated, calibration limit exceeded.

"D" = Duplicate results outside QC limits. May indicate a non-homogenous matrix.

"M" = Matrix spike recoveries outside QC limits. Matrix bias indicated.

"B" = Method blank contained trace levels of analyte. Refer to included method blank report.

**PARADIGM**

ENVIRONMENTAL SERVICES, INC.

179 Lake Avenue, Rochester, NY 14608 (585) 647-2530 FAX (585) 647-3311

Client: **SJB Services**
Client Job Site: Buffalo Aud Site
Client Job No.: N/A
Field Location: B-10 (0-8')
Field ID No.: N/A

Lab Project No.: 09-3634
Lab Sample No.: 11219
Sample Type: Soil
Date Sampled: 09/29/2009
Date Received: 10/05/2009


Laboratory Report for TAL Metals Analysis in Solid

Parameter	Date Analyzed	Analytical Method	Result (mg/kg)
Aluminum	10/13/2009	SW846 6010	13900
Antimony	10/13/2009	SW846 6010	<5.56
Arsenic	10/13/2009	SW846 6010	4.66
Barium	10/13/2009	SW846 6010	106
Beryllium	10/13/2009	SW846 6010	0.689
Cadmium	10/13/2009	SW846 6010	0.697
Calcium	10/13/2009	SW846 6010	64200
Chromium	10/13/2009	SW846 6010	20.0
Cobalt	10/13/2009	SW846 6010	8.38
Copper	10/13/2009	SW846 6010	31.3
Iron	10/13/2009	SW846 6010	21500
Lead	10/13/2009	SW846 6010	161
Magnesium	10/13/2009	SW846 6010	16600
Manganese	10/14/2009	SW846 6010	288
Mercury	10/12/2009	SW846 7471	0.388
Nickel	10/13/2009	SW846 6010	19.7
Potassium	10/13/2009	SW846 6010	3440
Selenium	10/13/2009	SW846 6010	<0.463
Silver	10/13/2009	SW846 6010	<0.927
Sodium	10/14/2009	SW846 6010	886
Thallium	10/13/2009	SW846 6010	<0.556
Vanadium	10/13/2009	SW846 6010	29.1
Zinc	10/13/2009	SW846 6010	102

ELAP ID No.:10958

Comments:

Approved By: _____


Bruce Hoogesteger, Technical Director



Client: **SJB Services**

Client Job Site: Buffalo Aud Site

Client Job No: N/A

Field Location: B-10 (0-8')

Lab Project No: 09-3634

Lab Sample No: 11219

Sample Type: Soil

Date Sampled: 9/29/2009

Date Received: 10/5/2009

Date Analyzed: 10/7/2009

Laboratory Report for Herbicides Analysis

Parameter	Result (ug/kg)	Reporting Limit (ug/kg)
2,4-D	ND	260
2,4,5-T	ND	260
2,4,5-TP (Silvex)	ND	260

Analytical Method: 8151

ELAP ID: 10709

Comments: ND denotes Non Detect.

Approved By Technical Director: _____


Bruce Hoogesteger

PCB Analysis Report for Soils/Solids/SludgesClient: **SJB Services**

Client Job Site: Buffalo Aud. Site

Lab Project Number: 09-3634

Lab Sample Number: 11219

Client Job Number: N/A

Field Location: B-10 (0-8')

Date Sampled: 09/29/2009

Field ID Number: N/A

Date Received: 10/05/2009

Sample Type: Soil

Date Analyzed: 10/08/2009

PCB Identification	Results in mg / Kg
Aroclor 1016	ND< 0.368
Aroclor 1221	ND< 0.368
Aroclor 1232	ND< 0.368
Aroclor 1242	ND< 0.368
Aroclor 1248	ND< 0.368
Aroclor 1254	ND< 0.368
Aroclor 1260	ND< 0.368

ELAP Number 10958

Method: EPA 8082

Comments: ND denotes Non Detect
mg / Kg = milligram per Kilogram

Signature: _____

Bruce Hoogesteger: Technical Director

Pesticide Analysis Report for Soils/Solids/Sludges

Client: **SJB Services**

Client Job Site: Buffalo Aud Site

Lab Project Number: 09-3634

Lab Sample Number: 11219

Client Job Number: N/A

Field Location: B-10 (0-8')

Date Sampled: 09/29/2009

Field ID Number: N/A

Date Received: 10/05/2009

Sample Type: Soil

Date Analyzed: 10/07/2009

Pesticide Identification	Results in ug / Kg
Aldrin	ND< 4.30
alpha-BHC	ND< 4.30
beta-BHC	ND< 4.30
delta-BHC	ND< 4.30
gamma-BHC	ND< 4.30
alpha-Chlordane	ND< 4.30
gamma-Chlordane	ND< 4.30
4,4'-DDD	ND< 4.30
4,4'-DDE	ND< 4.30
4,4'-DDT	ND< 4.30
Dieldrin	ND< 4.30
Endosulfan I	ND< 4.30
Endosulfan II	ND< 4.30
Endosulfan Sulfate	ND< 4.30
Endrin	ND< 4.30
Endrin Aldehyde	ND< 4.30
Heptachlor	ND< 4.30
Heptachlor Epoxide	ND< 4.30
Methoxychlor	ND< 22.0
Toxaphene	ND< 220

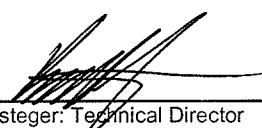
ELAP Number 10709

Method: EPA 8081

Comments: ND denotes Non Detect

ug / Kg = microgram per Kilogram

Signature: _____


Bruce Hoogesteger: Technical Director



ENVIRONMENTAL SERVICES, INC.

179 Lake Avenue Rochester, New York 14608 (585) 647 - 2530 FAX (585) 647 - 3311

Semi-Volatile Analysis Report for Soils/Solids/SludgesClient: **SJB Services**

Client Job Site: Buffalo Aud. Site

Lab Project Number: 09-3634

Lab Sample Number: 11219

Client Job Number: N/A

Field Location: B-10 (0-8')

Date Sampled: 09/29/2009

Field ID Number: N/A

Date Received: 10/05/2009

Sample Type: Soil

Date Analyzed: 10/09/2009

Base / Neutrals	Results in ug / Kg	Base / Neutrals	Results in ug / Kg
Acenaphthene	ND< 349	Dibenz (a,h) anthracene	ND< 349
Anthracene	ND< 349	Fluoranthene	722
Benzo (a) anthracene	ND< 349	Fluorene	ND< 349
Benzo (a) pyrene	ND< 349	Indeno (1,2,3-cd) pyrene	ND< 349
Benzo (b) fluoranthene	ND< 349	Naphthalene	ND< 349
Benzo (g,h,i) perylene	ND< 349	Phenanthrene	607
Benzo (k) fluoranthene	ND< 349	Pyrene	533
Chrysene	ND< 349	Acenaphthylene	ND< 349
Diethyl phthalate	ND< 349	1,2-Dichlorobenzene	ND< 349
Dimethyl phthalate	ND< 872	1,3-Dichlorobenzene	ND< 349
Butylbenzylphthalate	ND< 349	1,4-Dichlorobenzene	ND< 349
Di-n-butyl phthalate	ND< 349	1,2,4-Trichlorobenzene	ND< 349
Di-n-octylphthalate	ND< 349	Nitrobenzene	ND< 349
Bis (2-ethylhexyl) phthalate	ND< 349	2,4-Dinitrotoluene	ND< 349
2-Chloronaphthalene	ND< 349	2,6-Dinitrotoluene	ND< 349
Hexachlorobenzene	ND< 349	Bis (2-chloroethyl) ether	ND< 349
Hexachloroethane	ND< 349	Bis (2-chloroisopropyl) ether	ND< 349
Hexachlorocyclopentadiene	ND< 349	Bis (2-chloroethoxy) methan	ND< 349
Hexachlorobutadiene	ND< 349	4-Bromophenyl phenyl ether	ND< 349
N-Nitroso-di-n-propylamine	ND< 349	4-Chlorophenyl phenyl ether	ND< 349
N-Nitrosodiphenylamine	ND< 349	Benzidine	ND< 872
N-Nitrosodimethylamine	ND< 349	3,3'-Dichlorobenzidine	ND< 349
Isophorone	ND< 349	4-Chloroaniline	ND< 349
Benzyl alcohol	ND< 872	2-Nitroaniline	ND< 872
Dibenzofuran	ND< 349	3-Nitroaniline	ND< 872
2-Methylnaphthalene	ND< 349	4-Nitroaniline	ND< 872

Acids	Results in ug / Kg	Acids	Results in ug / Kg
Phenol	ND< 349	2-Methylphenol	ND< 349
2-Chlorophenol	ND< 349	3&4-Methylphenol	ND< 349
2,4-Dichlorophenol	ND< 349	2,4-Dimethylphenol	ND< 349
2,6-Dichlorophenol	ND< 349	2-Nitrophenol	ND< 349
2,4,5-Trichlorophenol	ND< 872	4-Nitrophenol	ND< 872
2,4,6-Trichlorophenol	ND< 349	2,4-Dinitrophenol	ND< 872
Pentachlorophenol	ND< 872	4,6-Dinitro-2-methylphenol	ND< 872
4-Chloro-3-methylphenol	ND< 349	Benzoic acid	ND< 872

ELAP Number 10958

Method: EPA 8270C

Data File: S47142.D

Comments: ND denotes Non Detect

ug / Kg = microgram per Kilogram

Surrogate outliers indicate probable matrix interference

Signature: _____

Bruce Hoogesteger: Technical Director

**Volatile Analysis Report for Soils/Solids/Sludges**Client: **SJB Services**

Client Job Site: Buffalo Aud Site

Lab Project Number: 09-3634

Lab Sample Number: 11219

Client Job Number: N/A

Field Location: B-10 (0-8')

Date Sampled: 09/29/2009

Field ID Number: N/A

Date Received: 10/05/2009

Sample Type: Soil

Date Analyzed: 10/08/2009

Halocarbons	Results in ug / Kg
Bromodichloromethane	ND< 9.11
Bromomethane	ND< 9.11
Bromoform	ND< 22.8
Carbon Tetrachloride	ND< 22.8
Chloroethane	ND< 9.11
Chloromethane	ND< 9.11
2-Chloroethyl vinyl Ether	ND< 45.6
Chloroform	ND< 9.11
Dibromochloromethane	ND< 9.11
1,1-Dichloroethane	ND< 9.11
1,2-Dichloroethane	ND< 9.11
1,1-Dichloroethene	ND< 9.11
cis-1,2-Dichloroethene	ND< 9.11
trans-1,2-Dichloroethene	ND< 9.11
1,2-Dichloropropane	ND< 9.11
cis-1,3-Dichloropropene	ND< 9.11
trans-1,3-Dichloropropene	ND< 9.11
Methylene chloride	ND< 22.8
1,1,2,2-Tetrachloroethane	ND< 9.11
Tetrachloroethene	ND< 9.11
1,1,1-Trichloroethane	ND< 9.11
1,1,2-Trichloroethane	ND< 9.11
Trichloroethene	ND< 9.11
Trichlorofluoromethane	ND< 9.11
Vinyl chloride	ND< 9.11

Aromatics	Results in ug / Kg
Benzene	ND< 9.11
Chlorobenzene	ND< 9.11
Ethylbenzene	ND< 9.11
Toluene	ND< 9.11
m,p-Xylene	ND< 9.11
o-Xylene	ND< 9.11
Styrene	ND< 22.8
1,2-Dichlorobenzene	ND< 22.8
1,3-Dichlorobenzene	ND< 22.8
1,4-Dichlorobenzene	ND< 9.11

Ketones	Results in ug / Kg
Acetone	ND< 45.6
2-Butanone	ND< 45.6
2-Hexanone	ND< 22.8
4-Methyl-2-pentanone	ND< 22.8

Miscellaneous	Results in ug / Kg
Carbon disulfide	ND< 9.11
Vinyl acetate	ND< 22.8

ELAP Number 10958

Method: EPA 8260B

Data File: V69322.D

Comments: ND denotes Non Detect

ug / Kg = microgram per Kilogram

Surrogate outliers indicate probable matrix interference

Signature: _____

Bruce Hoogesteger: Technical Director

**Volatile Analysis Report for Soils/Solids/Sludges (Additional STARS Compounds)**Client: **SJB Services**

Client Job Site: Buffalo Aud Site

Lab Project Number: 09-3634

Lab Sample Number: 11219

Client Job Number: N/A

Field Location: B-10 (0-8')

Date Sampled: 09/29/2009

Field ID Number: N/A

Date Received: 10/05/2009

Sample Type: Soil

Date Analyzed: 10/08/2009

Aromatics	Results in ug / Kg	Aromatics	Results in ug / Kg
n-Butylbenzene	ND< 45.6	1,2,4-Trimethylbenzene	ND< 9.11
sec-Butylbenzene	ND< 9.11	1,3,5-Trimethylbenzene	ND< 9.11
tert-Butylbenzene	ND< 22.8		
n-Propylbenzene	ND< 9.11	Miscellaneous	
Isopropylbenzene	ND< 45.6	Methyl tert-butyl Ether	ND< 9.11
p-Isopropyltoluene	ND< 45.6		
Naphthalene	ND< 22.8		

ELAP Number 10958

Method: EPA 8260B

Data File: V69322.D

Comments: ND denotes Non Detect

ug / Kg = microgram per Kilogram

Surrogate outliers indicate probable matrix interference

Signature: _____

Bruce Hoogesteger: Technical Director

PARADIGM

CHAIN OF CUSTODY

ENVIRONMENTAL SERVICES, INC.

179 Lake Avenue
Rochester, NY 14608
(585) 647-2630 • (800) 724-1997
FAX: (585) 647-3311

PROJECT NAME/SITE NAME:

Buffalo Add Site

REPORT TO:

INVOICE TO:

COMPANY: SJB Services

COMPANY:

ADDRESS: 5167 South Park Ave

ADDRESS:

CITY: Honchar STATE: NY ZIP: 14075

CITY:

PHONE: 716-649-8110 FAX:

PHONE:

ATTN: S. Bochenek

ATTN:

COMMENTS: Please Email Results To shodan@sjbcs.com

COMMENTS:

REQUESTED ANALYSIS

LAB PROJECT #: 09-3634 CLIENT PROJECT #:

TURNAROUND TIME: (WORKING DAYS)

QUOTE #: ☐ 1 ☐ 2 ☐ 3 ☒ 5 ☐ OTHER

DATE	TIME	C O M P O S I T E	G R A B	SAMPLE LOCATION/FIELD ID	M A T R I X	C O N T A I N M E N T S	REMARKS	PARADIGM LAB SAMPLE NUMBER
19-25-05	1645	X		B-10(CO-8')	Soil	Z	TOTAL Analysis -	11219
2							TCL NIOCS + STARS	
3							+MTTBE	
4							TCL SNOCs	
5							TAL Metals + Hg	
6							Pesticides	
7							Herbicides	
8							PCBs	
9								
10								

LAB USE ONLY BELOW THIS LINE

Sample Condition: Per NELAC/ELAP 210/241/242/243/244

Receipt Parameter NELAC Compliance

Container Type: Y ☒ N ☐

Preservation: N/A Y ☐ N ☐

Holding Time: Y ☒ N ☐

Temperature: 12°C cooled Y ☐ N ☒

Comments:

Relinquished By

Date/Time

Sampled By

Date/Time

Total Cost:

Received By

Date/Time

P.I.F.

Received @ Lab By

Date/Time

Elizabeth A. Honchar 10/5/09 1425



A SUBSIDIARY OF SJB SERVICES, INC.

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Fax: (585) 359-9668

**Supplemental Environmental Data Report for
Inner Harbor Development, Phase 3A - Canal Side
Public Canal Environments Project
Buffalo, New York**

Prepared For:

Erie Canal Harbor Development Corporation

**c/o C&S Companies
90 Broadway Street
Buffalo, New York, 14203**

Prepared By:

**Empire Geo-Services, Inc.
5167 South Park Avenue
Hamburg, New York, 14075**

**Project No. BE-11-055
August 2011**

MEMBER

ACEC New York

American Council of Engineering Companies of New York

EMPIRE **GEO** SERVICES, INC.

A SUBSIDIARY OF SJB SERVICES, INC.

August 10, 2011
Project No. BE-11-055

Erie Canal Harbor Development Corporation

c/o Mr. Darryl C. Murszewski, Senior Project Engineer
C&S Companies
90 Broadway Street
Buffalo, New York, 14203

Re: Supplemental Environmental Data Report for
Inner Harbor Development, Phase 3A - Canal Side
Public Canal Environments Project
Buffalo, New York

Dear Mr. Murszewski:

Empire Geo-Services, Inc. is pleased to submit three (3) copies of the enclosed Supplemental Environmental Data Report for the Inner Harbor Development, Phase 3A - Canal Side, Public Canal Environments Project (Public Canal Environments Project). We have also included a pdf electronic file copy of this report for use by the project team.

This supplemental report includes the results of additional field explorations, field environmental screening and laboratory environmental analyses, which supplement our November 6, 2009 "Environmental Soil Data Report for the Former Buffalo Memorial Auditorium Site, Proposed Buffalo Canal Side Development". C&S Companies (C&S), on behalf of the Erie Canal Harbor Development Corporation (ECHDC), retained Empire to complete this additional exploration work and supplemental report.

This investigation included a supplemental geotechnical evaluation and environmental field screening of the soil samples recovered from the additional explorations and environmental laboratory analysis of selected soil samples collected from supplemental test boring B-15. This letter report summarizes the environmental field screening and laboratory data. This report also presents the supplemental subsurface exploration logs (Appendix A), and an updated subsurface exploration location plan (Figure 1). Empire will submit the supplemental geotechnical evaluation report to C&S under a separate cover.

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MEMBER

ACEC New York

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SUPPLEMENTAL SUBSURFACE INVESTIGATION

Four (4) additional test borings, designated as borings B-15, B-16, B-17 and B-18/18A and the installation of groundwater observation well B-16 were completed by Empire / SJB in the area of the proposed Public Canal Environments Project. These explorations were completed between June 2nd and 7th, 2011 and their locations are shown on Figure 2.

The test boring locations were established in the field jointly by Empire and C&S, at mutually agreed upon locations. Following completion of the drilling, Foit Albert Associates obtained the “as-drilled” locations of the test borings and monitoring well, and determined the ground surface elevations. This data was provided to Empire for inclusion with this report.

The test borings were made using a Central Mine Equipment (CME) model 75 truck mounted drill rig. The test borings were advanced in the overburden soils using hollow stem auger and split spoon sampling techniques. If significant running sands were encountered during the advancement of the test borings, the augers were replaced with three-inch casing.

Split spoon samples and Standard Penetration Tests (SPTs) were taken continuously from the ground surface to a depth of 30 to 32 feet and in intervals of five feet or less below the zone of continuous sampling. The split spoon sampling and SPTs were completed in general accordance with *ASTM D 1586 - “Standard Test Method for Penetration Test and Split-Barrel Sampling of Soils”*.

Each of these test borings were advanced through the overburden until encountering auger refusal conditions (top of bedrock), which was encountered at depths ranging from about 38.0 feet (B-15) to 46.6 feet (B-18A). After auger refusal was met, approximately 10 feet bedrock was cored in general accordance with *ASTM D 2113 – “Standard Practice for Rock core Drilling and Sampling of Rock for Site Investigation”*.

A Geologist from SJB was present on site during this exploration work and prepared the test boring logs based on visual observation of the recovered soil and bedrock samples and a review of the driller’s field notes. The test boring logs are presented in Appendix A, along with general information and a key of terms and symbols used to prepare the logs.

ENVIRONMENTAL FIELD SCREENING

The recovered soil samples were screened by Empire's field geologist for volatile organic compound (VOC) vapors using an Ion Science PhoCheck 1000 Photoionization Detector (PID) equipped with a 10.6 eV lamp. The PID will detect, if present, the aggregate concentration of many VOCs at a practical threshold of approximately 1-2 parts per million (ppm). In addition, the soils were visually inspected for evidence of environmental degradation (i.e. discoloration, odors, etc.).

In general, the PID readings were at ambient/background levels for the recovered soil samples collected at test borings B-16, B-17 and B-18. Elevated measurements were detected on the soils samples recovered from test boring B-15 from 12 to 26 feet below grade. Generally, the measurements were less than or equal to 2 parts per million (ppm). A detection of 17.2 ppm and 9.8 ppm were recorded at a depth of 16 to 18 feet and 14 to 16 feet, respectively. Staining was also observed on the soil samples collected from 14 to 18 feet below grade in test boring B-15. However, olfactory evidence of petroleum or chemical impacts was not associated with the staining. The results of the PID screenings and noted observations are presented on the subsurface logs in Appendix A.

SAMPLE COLLECTION AND ENVIRONMENTAL LABORATORY ANALYSIS

A soil sample was collected from test boring B-15 for laboratory analysis as requested by C&S. The sample was composited from ground surface to a depth 14 feet. The soil sample was placed into pre-cleaned containers, labeled with the date, time and location of project and placed in an iced cooler at approximately 4-degrees Celsius for transport to Paradigm Environmental Services, Inc. (Paradigm) in Rochester, New York. Paradigm is a New York State Department of Health (NYSDOH) certified analytical testing laboratory. Chain-of-custody documentation accompanied the samples. Paradigm's analytical reports are presented in Appendix B.

The submitted soil sample was analyzed for Target Compound List (TCL) Volatile Organic Compounds (VOCs) including NYSDEC Spill Technology and Remediation Series (STARS) VOCs and Methyl tert-butyl Ether (MTBE), TCL Semi-Volatile Organic Compounds (SVOCs), Target Analyte List (TAL) Metals including Mercury, Pesticide Compounds, Herbicide Compounds, and Polychlorinated Biphenyls (PCBs). In addition, a second set of soil samples was collected and was analyzed for Toxicity Characteristic Leaching Procedure

(TCLP) VOCS, TCLP SVOCs, TCLP Metals, TCLP Pesticide Compounds, TCLP Herbicide Compounds, ignitability, corrosivity, reactivity, and paint filter analysis.

LABORATORY ANALYTICAL RESULTS

Analysis for Total Concentrations

The analytical results for the soil samples were compared to the New York State Department of Environmental Conservation (NYSDEC) Restricted Use Soil Cleanup Objectives (RUSCOs) for Commercial use presented in the NYSDEC 6 New York Code, Rules and Regulations (6NYCRR) Part 375 Environmental Remediation Programs, effective December 2006.

Volatile Organic Compounds: Volatile organic compounds were not detected above the test method limits for the submitted soil sample.

Semi-Volatile Organic Compounds: Semi-volatile organic compounds were not detected above the test method limits for the submitted soil sample.

Metals: Fifteen metals were detected in the collected soil sample. Of these detections, RUSCOs were not issued by the NYSDEC for aluminum, calcium, iron, magnesium, potassium, sodium and vanadium. Arsenic, barium, chromium, copper, lead, manganese, nickel and zinc were detected in the submitted samples at concentration levels well below their respective RUSCOs.

Pesticide Compounds: Pesticide compounds were not detected above the test method limits for the submitted soil sample.

Herbicide Compounds: Herbicide compounds were not detected above the test method limits for the submitted soil sample.

Polychlorinated Biphenyls: Polychlorinated biphenyls were not detected above the test method limits for the submitted soil sample.

Analysis for Leachable Concentrations and Hazardous Waste Testing

The laboratory data resulting from the Toxicity Characteristic Leaching Procedure (TCLP) analysis were compared to the Regulatory Levels included in Table 1, "Contaminant Concentration for Toxicity," of NYSDEC Part 371.2 regarding hazardous waste criteria.

Volatile Organic Compounds: The analysis of the TCLP extract did not detect volatile organic compounds above the method detection limits.

Semi-Volatile Organic Compounds: The analysis of the TCLP extract did not detect semi-volatile organic compounds above the method detection limits.

Metal/Inorganic Compounds: Barium was detected in the TCLP extract at concentration level of 1.52 ppm which is well below the Part 371.2 level of 100 ppm.

Pesticide Compounds: The analysis of the TCLP extract did not detect pesticide compounds above the method detection limits.

Herbicide Compounds: The analysis of the TCLP extract did not detect herbicide compounds above the method detection limits.

Ignitability: The submitted soil sample did not exhibit a flashpoint greater than 70 degrees Celsius and therefore is considered nonhazardous for ignitability.

Reactivity: The submitted soil sample did not exhibit cyanide and sulfide reactivity levels that exceeded regulatory limits and therefore is considered nonhazardous for reactivity.

Corrosivity: The submitted soil sample exhibited pH result of 7.88 standard units and therefore is considered nonhazardous for corrosivity.

Paint Filter Test: The submitted soil samples had acceptable results for the paint filter test.

This report has been prepared for the exclusive use of Erie Canal Harbor Development Corporation c/o C&S Companies for specific application to the Public Canal Environments Project at the Former Buffalo Memorial Auditorium Site in accordance with generally accepted environmental practices. If you have any questions or require further assistance, please contact us.

Respectfully submitted,
EMPIRE GEOSERVICES, INC.

A blue ink signature of Stephen J. Bochenek, written in a cursive style.

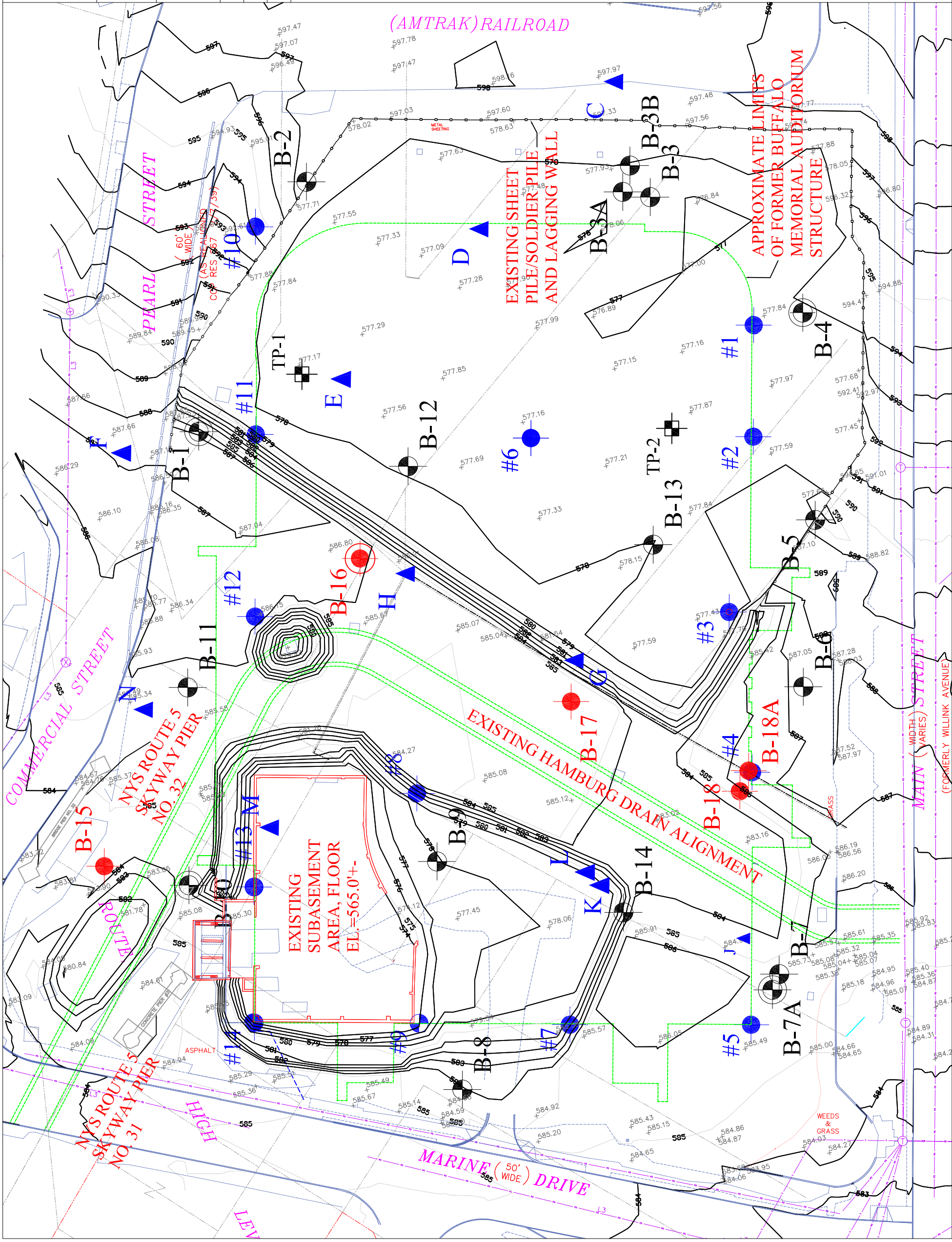
Stephen J. Bochenek
Engineering Geologist

A blue ink signature of David R. Steiner, written in a cursive style.

David R. Steiner
Environmental Services Manager

Attachments as Noted

FIGURE



APPENDIX A

**SUBSURFACE LOGS
2011 SUPPLEMENTAL TEST BORINGS
(BORINGS B-15, B-16, B-17 AND B-18/18A)**

DATE _____

STARTED _____

FINISHED _____

SHEET _____ OF _____



SJB SERVICES, INC. SUBSURFACE LOG

PROJ. No. _____

HOLE No. _____

SURF. ELEV. _____

G.W. DEPTH _____

PROJECT _____ LOCATION _____

DEPTH (ft)	SAMPLES	SAMPLE No.	BLOWS ON SAMPLER						BLOWS ON CASING C	SOIL OR ROCK CLASSIFICATION	NOTES
			0 6	6 12	12 18	18 24	N				
0		1	3	3	4	8	7	10	3" TOPSOIL	Groundwater at 10' upon completion, and 5' 24 hrs. after completion	
								15	Brown SILT, some Sand, trace clay, ML (Moist-Loose)		
								50 / .5			
5									Gray SHALE, medium hard, weathered, thin bedded, some fractures	Run#1, 2.5'-5.0' 95% Recovery 50% RQD	
	①	②	③	④	⑤	⑥	⑦	⑧	⑨	⑩	

⑦ (numbered features explained on reverse)

TABLE I

	Split Spoon Sample
	Shelby Tube Sample
	Geoprobe Macro-Core
	Auger or Test Pit Sample
	Rock Core

TABLE II

Identification of soil type is made on basis of an estimate of particle sizes, and in the case of fine grained soils also on basis of plasticity.		
Soil Type	Soil Particle Size	
Boulder	>12"	
Cobble	3" - 12"	
Gravel - Coarse	3" - 3/4"	Coarse Grained (Granular)
- Fine	3/4" - #4	
Sand - Coarse	#4 - #10	Fine Grained
- Medium	#10 - #40	
- Fine	#40 - #200	
Silt - Non Plastic (Granular)	<#200	
Clay - Plastic (Cohesive)		

TABLE III

The following terms are used in classifying soils consisting of mixtures of two or more soil types. The estimate is based on weight of total sample.	
Term	Percent of Total Sample
"and"	35 - 50
"some"	20 - 35
"little"	10 - 20
"trace"	less than 10
(When sampling gravelly soils with a standard split spoon, the true percentage of gravel is often not recovered due to the relatively small sampler diameter.)	

TABLE IV

The relative compactness or consistency is described in accordance with the following terms:			
Granular Soils		Cohesive Soils	
Term	Blows per Foot, N	Term	Blows per Foot, N
Very Loose	0 - 4	Very Soft	0 - 2
Loose	4 - 10	Soft	2 - 4
Firm	10 - 30	Medium	4 - 8
Compact	30 - 50	Stiff	8 - 15
Very Compact	>50	Very Stiff	15 - 30
		Hard	>30
(Large particles in the soils will often significantly influence the blows per foot recorded during the penetration test)			

TABLE V

Varved	Horizontal uniform layers or seams of soil(s).
Layer	Soil deposit more than 6" thick.
Seam	Soil deposit less than 6" thick.
Parting	Soil deposit less than 1/8" thick.
Laminated	Irregular, horizontal and angled seams and partings of soil(s).


TABLE VI

Rock Classification Term	Meaning	Rock Classification Term	Meaning
Hardness - Soft	Scratched by fingernail	Bedding - Laminated	(<1")
- Medium Hard	Scratched easily by penknife	- Thin Bedded	(1" - 4")
- Hard	Scratched with difficulty by penknife	- Bedded	(4" - 12")
- Very Hard	Cannot be scratched by penknife	- Thick Bedded	(12" - 36")
Weathering - Very Weathered	Judged from the relative amounts of disintegration, iron staining, core recovery, clay seams, etc.	- Massive	(>36")
- Weathered			
- Sound			
		(Fracturing refers to natural breaks in the rock oriented at some angle to the rock layers)	

GENERAL INFORMATION & KEY TO SUBSURFACE LOGS

The Subsurface Logs attached to this report present the observations and mechanical data collected by the driller at the site, supplemented by classification of the material removed from the borings as determined through visual identification by technicians in the laboratory. It is cautioned that the materials removed from the borings represent only a fraction of the total volume of the deposits at the site and may not necessarily be representative of the subsurface conditions between adjacent borings or between the sampled intervals. The data presented on the Subsurface Logs together with the recovered samples provide a basis for evaluating the character of the subsurface conditions relative to the project. The evaluation must consider all the recorded details and their significance relative to each other. Often analyses of standard boring data indicate the need for additional testing or sampling procedures to more accurately evaluate the subsurface conditions. Any evaluation of the contents of this report and recovered samples must be performed by qualified professionals. The following information defines some of the procedures and terms used on the Subsurface Logs to describe the conditions encountered, consistent with the numbered identifiers shown on the Key opposite this page.

1. The figures in the Depth column define the scale of the Subsurface Log.
2. The Samples column shows, graphically, the depth range from which a sample was recovered. See Table I for descriptions of the symbols used to represent the various types of samples.
3. The Sample No. is used for identification on sample containers and/or Laboratory Test Reports.
4. Blows-on Sampler - shows the results of the "Penetration Test", recording the number of blows required to drive a split spoon sampler into the soil. The number of blows required for each six inches is recorded. The first 6 inches of penetration is considered a seating drive. The number of blows required for the second and third 6 inches of penetration is termed the penetration resistance, N.
5. Blows on Casing - Shows the number of blows required to advance the casing a distance of 12 inches. The casing size, hammer weight, and length of drop are noted at the bottom of the Subsurface Log. If the casing is advanced by means other than driving, the method of advancement will be indicated in the Notes column or under the Method of Investigation at the bottom of the Subsurface Log. Alternatively, sample recovery may be shown in this column, or other data consistent with the column heading.
6. All recovered soil samples are reviewed in the laboratory by an engineering technician, geologist or geotechnical engineer, unless noted otherwise. Visual descriptions are made on the basis of a combination of the driller's field descriptions and noted observations together with the sample as received in the laboratory. The method of visual classification is based primarily on the Unified Soil Classification System (ASTM D 2487) with regard to the particle size and plasticity (See Table No. II), and the Unified Soil Classification System group symbols for the soil types are sometimes included with the soil classification. Additionally, the relative portion, by weight, of two or more soil types is described for granular soils in accordance with "Suggested Methods of Test for Identification of Soils" by D.M. Burmister, ASTM Special Technical Publication 479, June 1970. (See Table No. III). Description of the relative soil density or consistency is based upon the penetration records as defined in Table No. IV. The description of the soil moisture is based upon the relative wetness of the soil as recovered and is described as dry, moist, wet and saturated. Water introduced into the boring either naturally or during drilling may have affected the moisture condition of the recovered sample. Special terms are used as required to describe soil deposition in greater detail; several such terms are listed in Table V. When sampling gravelly soils with a standard two inch diameter split spoon, the true percentage of gravel is often not recovered due to the relatively small sampler diameter. The presence of boulders and large gravel is sometimes, but not necessarily, detected by an evaluation of the casing and sampler blows or through the "action" of the drill rig as reported by the driller.
7. Rock description is based on review of the recovered rock core and the driller's notes. Frequently used rock classification terms are included in Table VI.
8. The stratification lines represent the approximate boundary between soil types and the transition may be gradual. Solid stratification lines delineate apparent changes in soil type, based upon review of recovered soil samples and the driller's notes. Dashed lines convey a lesser degree of certainty with respect to either a change in soil type or where such change may occur.
9. Miscellaneous observations and procedures noted by the driller are shown in this column, including water level observations. It is important to realize the reliability of the water level observations depends upon the soil type (water does not readily stabilize in a hole through fine grained soils), and that any drill water used to advance the boring may have influenced the observations. The ground water level will fluctuate seasonally, typically. One or more perched or trapped water levels may exist in the ground seasonally. All the available readings should be evaluated. If definite conclusions cannot be made, it is often prudent to examine the conditions more thoroughly through test pit excavations or groundwater observation wells.
10. The length of core run is defined as the length of penetration of the core barrel. Core recovery is the length of core recovered divided by the core run. The RQD (Rock Quality Designation) is the total length of pieces of NX core exceeding 4 inches divided by the core run. The size core barrel used is also noted in the Method of Investigation at the bottom of the Subsurface Log.

DATE START 6/2/2011 FINISH 6/3/2011 SHEET 1 OF 2		SJB SERVICES, INC. SUBSURFACE LOG				HOLE NO. B-15 SURF. ELEV 584.4' +/- G.W. DEPTH See Notes	
PROJECT: Proposed Buffalo Canal Side Development				LOCATION: Former Buffalo Memorial Auditorium Site			
PROJ. NO.: BE-11-055				Buffalo, New York			

DEPTH FT.	SMPL NO.	BLOWS ON SAMPLER					SOIL OR ROCK CLASSIFICATION	NOTES
		0/6	6/12	12/18	N	PID		
	1	1	2				Brown Fine SAND, little Silt, tr.gravel, tr.brick, tr.cinders (moist, FILL)	PID = Photoionization Detector, measures in parts per million
		4	7		6	BG		
	2	14	7					
		7	4		14	BG		
5	3	2	2				Red-Brown Clayey SILT, tr.gravel, tr.sand (moist, FILL)	
		2	3		4	BG		
	4	4	3					Contains little f-c Sand, tr.brick
		3	4		6	BG		
	5	2	2				Red-Brown Clayey SILT, some f-c Sand (moist, FILL, possible canal deposit)	
10		1	2		3	BG		
	6	WOH	WOH					Collect Composite Soil from 0' - 14' for analytical testing
		1	6		1	BG		
	7	4	2				Contains occasional Cinder seams	
		4	9		6	3.8		
15	8	4	6					Dark Grey to Grey f-m SAND, some Silt (wet, FILL, possible canal deposit)
		4	3		10	9.8		
	9	3	2				Poor Recovery Sample #8	
		3	3		5	17.2		
	10	1	1					Becomes Black f-c Sand, little Silt, tr.gravel, tr.brick (wet, FILL, possible canal deposit)
20		1	2		2	1.4		
	11	3	3				Grey SILT, tr.sand, tr.wood (wet, FILL, possible canal deposit)	
		3	2		6	1.8		
	12	2	2					Contains occasional f-m Gravel seam
		2	6		4	2.0		
25	13	3	3				Light Brown to Grey f-m SAND, little Silt, tr.gravel (wet, loose, SM)	
		2	5		5	1.7		
	14	7	10					Becomes Light Brown, contains some Silt (firm)
		9	10		19	BG		
	15	2	2				Contains little Silt (loose)	
30		2	3		4	BG		
	16	1	1					Driller notes Auger Refusal at 38'
		3	6		4	BG		
							Due to "Running Sands", and Installed 3" Casing prior to Rock coring	
35								
	17	3	3					Becomes Brown
		5	6		8	BG		
							Light Grey to Grey LIMESTONE, sound, laminated to thickly bedded, v.hard, occasional horizontal fractures,	
40								

N = NO. BLOWS TO DRIVE 2-INCH SPOON 12-INCHES WITH A 140 LB. PIN WT. FALLING 30-INCHES PER BLOW
 DRILLER: A. KOSKE
 METHOD OF INVESTIGATION ASTM D-1586 USING HOLLOW STEM AUGERS

CLASSIFIED BY: Geologist
 DRILL RIG TYPE : CME-75

N = NO. BLOWS TO DRIVE 2-INCH SPOON 12-INCHES WITH A 140 LB. PIN WT. FALLING 30-INCHES PER BLOW CLASSIFIED BY: Geologist

DRILLER: A. KOSKE DRILL RIG TYPE : CME-75

METHOD OF INVESTIGATION ASTM D-1586 USING HOLLOW STEM AUGERS

N = NO. BLOWS TO DRIVE 2-INCH SPOON 12-INCHES WITH A 140 LB. PIN WT. FALLING 30-INCHES PER BLOW CLASSIFIED BY: Geologist

DRILLER: A. KOSKE DRILL RIG TYPE : CME-75

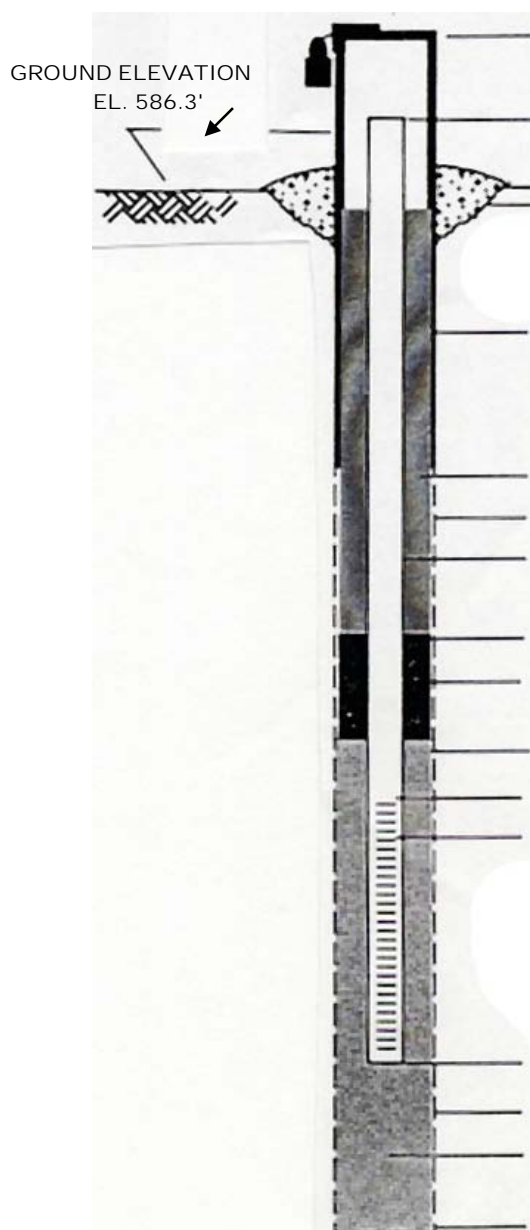
METHOD OF INVESTIGATION ASTM D-1586 USING HOLLOW STEM AUGERS

N = NO. BLOWS TO DRIVE 2-INCH SPOON 12-INCHES WITH A 140 LB. PIN WT. FALLING 30-INCHES PER BLOW CLASSIFIED BY: Geologist
 DRILLER: A. KOSKE DRILL RIG TYPE : CME-75
 METHOD OF INVESTIGATION ASTM D-1586 USING HOLLOW STEM AUGERS

MONITORING WELL COMPLETION RECORD



PROJECT: PROPOSED BUFFALO CANAL SIDE DEV.	
PROJECT NUMBER: BE-11-055	DRILLING METHOD: ASTM D-1586
WELL NUMBER: B-16	GEOLOGIST: S. BOCHENEK
DRILLER: A. KOSKE	INSTALLATION DATE(S): 6/2/2011




ELEVATIONS/ TOP OF SURFACE CASING:	EL. 588.85'
STICK- UP/ TOP OF SURFACE CASING:	2.6'
ELEVATION/ TOP OF RISER PIPE:	EL 588.71'
STICK- UP/ TOP OF RISER PIPE:	2.4'
TYPE OF SURFACE SEAL:	CONCRETE
I.D. OF SURFACE CASING:	4.0"
TYPE OF SURFACE CASING:	LOCKING STEEL CASING
TYPE OF BACKFILL:	AUGER CUTTINGS
BOREHOLE DIAMETER:	9" +/-
I.D. OF RISER PIPE:	2.0"
TYPE OF RISER PIPE:	PVC
DEPTH OF SEAL:	11.0' EL. 575.3'
TYPE OF SEAL:	BENTONITE CHIPS
DEPTH OF SAND PACK:	14.0' EL. 572.3'
DEPTH TOP OF SCREEN:	37.2' EL. 548.4'
TYPE OF SCREEN:	PVC
SLOT SIZE X LENGTH:	0.10" X 15'
I.D. OF SCREEN:	2.0"
TYPE OF SAND PACK:	No. 1 SILICA SAND
DEPTH BOTTOM OF SCREEN:	52.9' EL. 533.4'
DEPTH BOTTOM OF SAND PACK:	52.9' EL. 533.4'
TYPE OF BACKFILL BELOW OBSERVATION WELL:	Bedrock Fragments
ELEVATION/ DEPTH OF HOLE:	53.6' EL. 532.7'

N = NO. BLOWS TO DRIVE 2-INCH SPOON 12-INCHES WITH A 140 LB. PIN WT. FALLING 30-INCHES PER BLOW CLASSIFIED BY: Geologist


DRILLER: A. KOSKE DRILL RIG TYPE : CME-75

METHOD OF INVESTIGATION ASTM D-1586 USING HOLLOW STEM AUGERS

DATE START <u>6/3/2011</u> FINISH <u>6/3/2011</u> SHEET <u>2</u> OF <u>2</u>		SJB SERVICES, INC. SUBSURFACE LOG				HOLE NO. <u>B-17</u> SURF. ELEV <u>585.3' +/-</u> G.W. DEPTH <u>See Notes</u>	
PROJECT: <u>Proposed Buffalo Canal Side Development</u> PROJ. NO.: <u>BE-11-055</u>				LOCATION: <u>Former Buffalo Memorial Auditorium Site</u> <u>Buffalo, New York</u>			

DEPTH FT.	SMPL NO.	BLOWS ON SAMPLER					SOIL OR ROCK CLASSIFICATION	NOTES
		0/6	6/12	12/18	N	PID		
								Driller notes Casing Refusal at 43.6'
	18	2	50/0.4		REF	BG	Contains little Silt, occasional Silt (wet)	
45							Light Grey to Grey LIMESTONE, sound, hard to v.hard	NQ '2' Size Rock Core
							thickly bedded, occasional horizontal fractures,	Run #1: 43.6' - 48.5'
							occasional stylolites and fossils, occasional calcite	REC = 100%
							partings	RQD = 98%
50							Becomes massively bedded	Run #2: 48.5' - 53.5'
								REC = 100%
								RQD = 100%
55							Boring Complete at 53.5'	Free standing water measured at 14.2' after spinning casing.
								Free standing water measured at 10.9' after coring.
60								Water Loss at 46'
								REF = Sample Spoon Refusal
65								
70								
75								
80								

N = NO. BLOWS TO DRIVE 2-INCH SPOON 12-INCHES WITH A 140 LB. PIN WT. FALLING 30-INCHES PER BLOW		CLASSIFIED BY: <u>Geologist</u>
DRILLER: <u>A. KOSKE</u>	DRILL RIG TYPE: <u>CME-75</u>	
METHOD OF INVESTIGATION <u>ASTM D-1586 USING HOLLOW STEM AUGERS</u>		

DATE START 6/6/2011 FINISH 6/6/2011 SHEET 1 OF 1		SJB SERVICES, INC. SUBSURFACE LOG				HOLE NO. B-18 SURF. ELEV 586.0' +/- G.W. DEPTH See Notes	
PROJECT: Proposed Buffalo Canal Side Development				LOCATION: Former Buffalo Memorial Auditorium Site			
PROJ. NO.: BE-11-055				Buffalo, New York			


DEPTH FT.	SMPL NO.	BLOWS ON SAMPLER					SOIL OR ROCK CLASSIFICATION	NOTES
		0/6	6/12	12/18	N	PID		
5	1	5	5				Brown to Dark Brown f-c SAND, some Silt, little f-m Gravel, tr.slag, tr.cinders, tr.wood (moist, FILL)	PID = Photoionization Detector, measures in parts per million BG = Background REF = Sample Spoon Refusal
		4	6		9	BG		
	2	5	6				Contains tr.clay, tr.brick	
		9	4		15	BG		
	3	11	10					
		7	10		17	BG		
10	4	11	9				Brown Silty CLAY, tr.sand, tr.gravel, tr.brick (moist, FILL)	No Recovery Sample #7 No Recovery Sample #10 Pushed Gravel
		9	12		18	BG		
	5	7	4				Contains some f-c Sand	
		4	4		8	BG		
	6	6	5					
		4	6		9	BG		
15	7	8	9				Black f-m, Gravel size CINDERS, some f-c Sand size Cinders, tr.silt, tr.wood (wet, FILL)	No Recovery Sample #11 Slow Drilling noted at 20' - 24'; Weld broke left 10' of Augers.
		7	7		16			
	8	20	16				Black Clayey SILT, little f-c Sand, tr.gravel, little wood (moist, FILL, possible canal deposits)	
		7	9		23	BG		
	9	2	2					
		3	2		5	BG		
20	10	6	4				Contains tr.sand	Moved location 6.5' North, Auger Refusal @ 10.5' Moved location 4' North, Resumed Sampling at 24' See Boring B-18A
		7	7		11			
	11	13	6				Boring Terminated at 24.0' After Augers Broke Off	
		4	2		6	BG		
	12	4	3					
		5	8		14	BG		
25								
30								
35								
40								

N = NO. BLOWS TO DRIVE 2-INCH SPOON 12-INCHES WITH A 140 LB. PIN WT. FALLING 30-INCHES PER BLOW	CLASSIFIED BY: <u>Geologist</u>
DRILLER: <u>A. KOSKE</u>	DRILL RIG TYPE : <u>CME-75</u>
METHOD OF INVESTIGATION <u>ASTM D-1586 USING HOLLOW STEM AUGERS</u>	

N = NO. BLOWS TO DRIVE 2-INCH SPOON 12-INCHES WITH A 140 LB. PIN WT. FALLING 30-INCHES PER BLOW CLASSIFIED BY: Geologist

DRILLER: A. KOSKE DRILL RIG TYPE : CME-75

METHOD OF INVESTIGATION ASTM D-1586 USING HOLLOW STEM AUGERS

DATE START 6/6/2011 FINISH 6/7/2011 SHEET 2 OF 2	SJB SERVICES, INC. SUBSURFACE LOG		HOLE NO. B-18A SURF. ELEV 587.0' +/- G.W. DEPTH See Notes
PROJECT: Proposed Buffalo Canal Side Development PROJ. NO.: BE-11-055		LOCATION: Former Buffalo Memorial Auditorium Site Buffalo, New York	

DEPTH FT.	SMPL NO.	BLOWS ON SAMPLER						SOIL OR ROCK CLASSIFICATION	NOTES
		0/6	6/12	12/18	N	PID			
45	19	3	9				Contains little Silt, occasional Silt (wet)	Driller notes Casing Refusal at 47.4'	
		12	14		21	BG			
50							Light Grey to Grey LIMESTONE, v.hard, slightly weathered to sound, thinly bedded to thickly bedded, occasional horizontal fractures, occasional stylolites and fossils 46.8' - 47.0' Zone of broken core Becomes massively bedded, approx. 51'	Run #1: 46.6' - 51.8' REC = 94% RQD = 83%	
								Driller notes small void at 49.2' below ground surface	
55								Run #2: 51.8' - 56.8' REC = 102% RQD = 100%	
								Recovered part of core from previous run	
60							Boring Complete at 56.8'	Free standing water encountered at 20.4' after spinning casing.	
65									Free standing water reading at 13.5' after casing removed.
70									
75									
80									

N = NO. BLOWS TO DRIVE 2-INCH SPOON 12-INCHES WITH A 140 LB. PIN WT. FALLING 30-INCHES PER BLOW DRILLER: A. KOSKE METHOD OF INVESTIGATION ASTM D-1586 USING HOLLOW STEM AUGERS	CLASSIFIED BY: Geologist
DRILL RIG TYPE: CME-75	

APPENDIX B

ENVIRONMENTAL LABORATORY
TEST RESULTS



PARADIGM
ENVIRONMENTAL SERVICES, INC.

Analytical Report Cover Page

Empire Geo-Services

For Lab Project # 11-2246

Issued June 20, 2011

This report contains a total of 20 pages

The reported results relate only to the samples as they have been received by the laboratory.

Any noncompliant QC parameters having impact on the data are flagged or documented on the final report.

All soil/sludge samples have been reported on a dry weight basis, unless qualified "reported as received". Other solids are reported as received.

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The Chain of Custody provides additional information, including compliance with sample condition requirements upon receipt. Sample condition requirements are defined under the 2003 NELAC Standard, sections 5.5.8.3.1 and 5.5.8.3.2.

NYSDOH ELAP does not certify for all parameters. Paradigm Environmental Services or the indicated subcontracted laboratory does hold certification for all analytes where certification is offered by ELAP unless otherwise specified.

Data qualifiers are used, when necessary, to provide additional information about the data. This information may be communicated as a flag or as text at the bottom of the report. Please refer to the following list of frequently used data flags and their meaning:

"<" = analyzed for but not detected at or above the reporting limit.

"E" = Result has been estimated, calibration limit exceeded.

"Z" = See case narrative.

"D" = Duplicate results outside QC limits. May indicate a non-homogenous matrix.

"M" = Matrix spike recoveries outside QC limits. Matrix bias indicated.

"B" = Method blank contained trace levels of analyte. Refer to included method blank report.



PARADIGM
ENVIRONMENTAL SERVICES, INC.

179 Lake Avenue, Rochester, NY 14608 Office: (585) 647-2530 Fax: (585) 647-3311

LAB REPORT FOR SOIL/SOLID/SLUDGE pH MEASURED IN WATER

Client: Empire Geo-Services

Lab Project No.: 11-2246

Client Job Site: Proposed Canal Side Development

Sample Type: Soil
Method: SW846 9045C

Client Job No.: 112196

Date Sampled: 06/02/2011

Date Received: 06/06/2011

Date Analyzed: 06/07/2011

Lab Sample No.	Field ID No.	Field Location	pH Results (S.U.)
7516	N/A	B-15	7.88 @ 23.5 °C

ELAP ID No.:10958

Comments:

Approved By: _____

Bruce Hoogesteger, Technical Director



PARADIGM
ENVIRONMENTAL SERVICES, INC.

179 Lake Avenue, Rochester, NY 14608 Office: (585) 647-2530 Fax: (585) 647-3311

LAB REPORT FOR FLASHPOINT ANALYSIS

Client: Empire Geo-Services

Lab Project No.: 11-2246

Client Job Site: Proposed Canal Side Development

Sample Type: Soil
Method: SW846 1010

Client Job No.: 112196

Date Sampled: 06/02/2011

Date Received: 06/06/2011

Date Analyzed: 06/09/2011

Lab Sample No.	Field ID No.	Field Location	Flashpoint Results (°C)
7516	N/A	B-15	>70.0

ELAP ID No.:10958

Comments:

Approved By: _____

Bruce Hoogesteger, Technical Director



PARADIGM
ENVIRONMENTAL SERVICES, INC.

179 Lake Avenue, Rochester, NY 14608 Office: (585) 647-2530 Fax: (585) 647-3311

LAB REPORT FOR PAINT FILTER ANALYSIS

Client: Empire Geo-Services

Lab Project No.: 11-2246

Client Job Site: Proposed Canal Side Development

Sample Type: Soil
Method: SW846 9095

Client Job No.: 112196

Date Sampled: 06/02/2011

Date Received: 06/06/2011

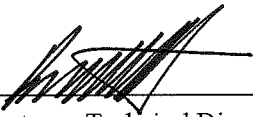
Date Analyzed: 06/07/2011

Lab Sample No.	Field ID No.	Field Location	Paint Filter Test Results (Pass/Fail)
7516	N/A	B-15	Pass

ELAP ID No.:10958

Comments:

Approved By: _____


Bruce Hoogesteger, Technical Director



LABORATORY REPORT FOR REACTIVITY

Client: Empire Geo-Services

Lab Project No.: 11-2246

Lab Sample No.: 7516

Client Job Site: Proposed Canal Side Development

Sample Type: Soil

Client Job No.: 112196

Date Sampled: 6/2/2011

Field Location: B-15

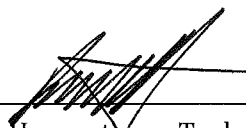
Date Received: 6/6/2011

Parameter	Date Analyzed	Method Reference	Results (mg/kg)
Reactive Cyanide	6/10/2011	SW 7.3.3.2	<100
Reactive Sulfide	6/10/2011	SW 7.3.4.2	<100

ELAP ID.No.: 10478

Comments: Reactivity results are reported as received.

Approved By: _____


Bruce Hoogesteger, Technical Director



PARADIGM
ENVIRONMENTAL SERVICES, INC.

179 Lake Avenue, Rochester, NY 14608 Office: (585) 647-2530 Fax: (585) 647-3311

LAB REPORT FOR TAL METALS ANALYSIS IN SOLIDS

Client: Empire Geo-Service

Lab Project No.: 11-2246

Client Job Site: Proposed Canal Side Development

Lab Sample No.: 7516

Client Job No.: 112196

Sample Type: Soil

Field Location: B-15

Date Sampled: 06/02/2011

Field ID No.: N/A

Date Received: 06/03/2011

Parameter	Date Analyzed	Analytical Method	Result (mg/kg)
Aluminum	06/10/2011	SW846 3050/6010	6570
Antimony	06/10/2011	SW846 3050/6010	< 6.47
Arsenic	06/10/2011	SW846 3050/6010	2.72
Barium	06/10/2011	SW846 3050/6010	50.2
Beryllium	06/10/2011	SW846 3050/6010	< 0.540
Cadmium	06/10/2011	SW846 3050/6010	< 0.540
Calcium	06/10/2011	SW846 3050/6010	30700
Chromium	06/10/2011	SW846 3050/6010	8.44
Cobalt	06/10/2011	SW846 3050/6010	< 5.40
Copper	06/10/2011	SW846 3050/6010	11.2
Iron	06/10/2011	SW846 3050/6010	11200
Lead	06/10/2011	SW846 3050/6010	57.8
Magnesium	06/10/2011	SW846 3050/6010	15100
Manganese	06/10/2011	SW846 3050/6010	417
Mercury	06/09/2011	SW846 7471	< 0.0083
Nickel	06/10/2011	SW846 3050/6010	8.90
Potassium	06/10/2011	SW846 3050/6010	1270
Selenium	06/10/2011	SW846 3050/6010	< 1.08
Silver	06/10/2011	SW846 3050/6010	< 1.08
Sodium	06/10/2011	SW846 3050/6010	425
Thallium	06/10/2011	SW846 3050/6010	< 2.70
Vanadium	06/10/2011	SW846 3050/6010	17.5
Zinc	06/10/2011	SW846 3050/6010	70.6

ELAP ID No.:10958

Comments:

Approved By: _____

Bruce Hoogesteger, Technical Director

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PARADIGM
ENVIRONMENTAL SERVICES, INC.

179 Lake Avenue, Rochester, NY 14608 Office: (585) 647-2530 Fax: (585) 647-3311

LAB REPORT FOR TCLP RCRA METALS ANALYSIS

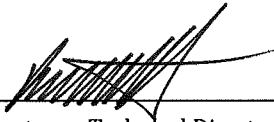
Client: Empire Geo-Services
Client Job Site: Proposed Canal Side Development
Client Job No.: 112196
Field Location: B-15
Field ID No.: N/A

Lab Project No.: 11-2246
Lab Sample No.: 7516
Sample Type: TCLP Extract
Date Sampled: 06/02/2011
Date Received: 06/06/2011

Parameter	Date Analyzed	Analytical Method	Result (mg/L)	Regulatory Limit (mg/L)
Arsenic	06/09/2011	SW846 3005/6010	<0.100	5.0
Barium	06/09/2011	SW846 3005/6010	1.52	100
Cadmium	06/09/2011	SW846 3005/6010	<0.025	1.0
Chromium	06/09/2011	SW846 3005/6010	<0.050	5.0
Lead	06/09/2011	SW846 3005/6010	<0.100	5.0
Mercury	06/09/2011	SW846 7470	<0.0020	0.2
Selenium	06/09/2011	SW846 3005/6010	<0.100	1.0
Silver	06/09/2011	SW846 3005/6010	<0.050	5.0

ELAP ID No.:10958

Comments: The laboratory control spike duplicate was outside QC limits for Ag and Cd.

Approved By: 
Bruce Hoogesteger, Technical Director



PARADIGM
ENVIRONMENTAL SERVICES, INC.

179 Lake Avenue Rochester New York 14608 (585) 647-2530 FAX (585) 647-3311

LABORATORY REPORT FOR CHLORINATED HERBICIDES

Client: Empire Geo-Services

Lab Project No.: 11-2246

Client Job Site: Proposed Canal Side Development

Lab Sample No.: 7516

Client Job No.: 112196

Sample Type: Soil

Field Location: B-15

Date Sampled: 6/2/2011

Date Received: 6/6/2011

Parameter	Date Analyzed	Analytical Method	Herbicides (ug/kg)
Dicamba	6/17/2011	SW8151	<3.6
2,4-D	6/17/2011	SW8151	<12
2,4,5-T	6/17/2011	SW8151	<6.1
2,4,5-TP (Silvex)	6/17/2011	SW8151	<6.1

ELAP ID.No.: 10478

Comments:

Approved By: 
Bruce Hoogesteger, Technical Director

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File ID: Empire Geo 11-2246



PARADIGM
ENVIRONMENTAL SERVICES, INC.

179 Lake Avenue Rochester, New York 14608 (585) 647-2530 FAX (585) 647-3311

LABORATORY ANALYSIS REPORT FOR TCLP HERBICIDES

Client: Empire Geo-Services **Lab Project No:** 11-2246
Client Job Site: Proposed Canal Side Development **Lab Sample No:** 7516
Client Job No: 112196 **Sample Type:** TCLP Extract
Field Location: B-15 **Date Sampled:** 6/2/2011
Date Received: 6/6/2011
Date Analyzed: 6/14/2011

Parameter	Result (mg/L)	Regulatory Limit (mg/L)
2,4,5-TP (Silvex)	<0.0025	1.0
2,4-D	<0.0050	10.0

Analytical Method: SW1311/8151

ELAP ID: 10478

Comments:

Approved By: 
Bruce Hoogesteger, Technical Director

This report is part of a multipage document and should only be evaluated in its entirety. The Chain of Custody provides additional sample information, including compliance with the sample condition requirements upon receipt.

File ID: Empire Geo 11-2246

**PCB Analysis Report for Soils/Solids/Sludges****Client:** Empire Geo-Services**Client Job Site:** Proposed Canal Side
Development**Lab Project Number:** 11-2246**Lab Sample Number:** 7516**Client Job Number:** 112196**Field Location:** B-15**Date Sampled:** 06/02/2011**Field ID Number:** N/A**Date Received:** 06/06/2011**Sample Type:** Soil**Date Analyzed:** 06/13/2011

PCB Identification	Results in mg / Kg
Aroclor 1016	< 0.462
Aroclor 1221	< 0.462
Aroclor 1232	< 0.462
Aroclor 1242	< 0.462
Aroclor 1248	< 0.462
Aroclor 1254	< 0.462
Aroclor 1260	< 0.462

ELAP Number 10958

Analytical Method: EPA 8082A

Prep Method: EPA 3550C

Comments: mg / Kg = milligram per Kilogram

Signature: _____

Bruce Hoogesteger, Technical Director

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112246P1.XLS

**Pesticide Analysis Report for Soils/Solids/Sludges****Client:** Empire Geoservices**Client Job Site:** Proposed Canal Side Development**Lab Project Number:** 11-2246**Lab Sample Number:** 7516**Client Job Number:** 112196**Field Location:** B-15**Date Sampled:** 06/02/2011**Field ID Number:** N/A**Date Received:** 06/06/2011**Sample Type:** Soil**Date Analyzed:** 06/13/2011

Pesticide Identification	Results in ug / Kg
Aldrin	< 3.38
alpha-BHC	< 3.38
beta-BHC	< 3.38
delta-BHC	< 3.38
gamma-BHC	< 3.38
gamma-Chlordane	< 3.38
alpha-Chlordane	< 3.38
4,4'-DDD	< 3.38
4,4'-DDE	< 3.38
4,4'-DDT	< 3.38
Dieldrin	< 3.38
Endosulfan I	< 3.38
Endosulfan II	< 3.38
Endosulfan Sulfate	< 3.38
Endrin	< 3.38
Endrin Aldehyde	< 3.38
Endrin Ketone	< 3.38
Heptachlor	< 3.38
Heptachlor Epoxide	< 3.38
Methoxychlor	< 3.38
Toxaphene	< 16.9

ELAP Number 10958

Analytical Method: EPA 8081B

Prep Method: EPA 3550C

Comments: ug / Kg = microgram per Kilogram

Signature: _____

Bruce Hoogesteger: Technical Director

This report is part of a multipage document and should only be evaluated in its entirety. Chain of Custody provides additional information, including compliance with sample condition requirements upon receipt.

112246C1.XLS

**Pesticide Report for TCLP Extract****Client:** Empire Geoservices**Client Job Site:** Proposed Canal Side Development**Lab Project Number:** 11-2246**Lab Sample Number:** 7516**Client Job Number:** 112196**Field Location:** B-15**Date Sampled:** 06/02/2011**Field ID Number:** N/A**Date Received:** 06/06/2011**Sample Type:** TCLP Extract**Date Analyzed:** 06/13/2011

Pesticide Identification	Results in ug / L	Regulatory Limits in ug / L
gamma-BHC	< 1.00	400
Chlordane	< 1.00	30.0
Endrin	< 1.00	20.0
Heptachlor	< 1.00	8.00
Heptachlor Epoxide	< 1.00	8.00
Methoxychlor	< 1.00	10000
Toxaphene	< 5.00	500

ELAP Number 10958

Analytical Method: EPA 8081B

Prep Method: EPA 1311 & 3510C

Comments: ug / L = microgram per Liter

Signature: _____

Bruce Hoogesteger: Technical Director

This report is part of a multipage document and should only be evaluated in its entirety. Chain of Custody provides additional information, including compliance with sample condition requirements upon receipt.

112246C2.XLS



Semi-Volatile Analysis Report for Soils/Solids/Sludges

Client: Empire Geo-Services

Client Job Site: Proposed Canal Side Development	Lab Project Number: 11-2246	
	Lab Sample Number: 7516	
Client Job Number: 112196	Date Sampled: 06/02/2011	
Field Location: B-15	Date Received: 06/06/2011	
Field ID Number: N/A	Date Analyzed: 06/08/2011	
Sample Type: Soil		

Base / Neutrals	Results in ug / Kg	Base / Neutrals	Results in ug / Kg
Acenaphthene	< 337	Dibenz (a,h) anthracene	< 337
Anthracene	< 337	Fluoranthene	< 337
Benzo (a) anthracene	< 337	Fluorene	< 337
Benzo (a) pyrene	< 337	Indeno (1,2,3-cd) pyrene	< 337
Benzo (b) fluoranthene	< 337	Naphthalene	< 337
Benzo (g,h,i) perylene	< 337	Phenanthrene	< 337
Benzo (k) fluoranthene	< 337	Pyrene	< 337
Chrysene	< 337	Acenaphthylene	< 337
Diethyl phthalate	< 337	1,2-Dichlorobenzene	< 337
Dimethyl phthalate	< 842	1,3-Dichlorobenzene	< 337
Butylbenzylphthalate	< 337	1,4-Dichlorobenzene	< 337
Di-n-butyl phthalate	< 337	1,2,4-Trichlorobenzene	< 337
Di-n-octylphthalate	< 337	Nitrobenzene	< 337
Bis (2-ethylhexyl) phthalate	< 337	2,4-Dinitrotoluene	< 337
2-Chloronaphthalene	< 337	2,6-Dinitrotoluene	< 337
Hexachlorobenzene	< 337	Bis (2-chloroethyl) ether	< 337
Hexachloroethane	< 337	Bis (2-chloroisopropyl) ether	< 337
Hexachlorocyclopentadiene	< 337	Bis (2-chloroethoxy) methane	< 337
Hexachlorobutadiene	< 337	4-Bromophenyl phenyl ether	< 337
N-Nitroso-di-n-propylamine	< 337	4-Chlorophenyl phenyl ether	< 337
N-Nitrosodiphenylamine	< 337	Benzidine	< 842
N-Nitrosodimethylamine	< 337	3,3'-Dichlorobenzidine	< 337
Isophorone	< 337	4-Chloroaniline	< 337
Benzyl alcohol	< 842	2-Nitroaniline	< 842
Dibenzofuran	< 337	3-Nitroaniline	< 842
2-Methylnaphthalene	< 337	4-Nitroaniline	< 842

Acids	Results in ug / Kg	Acids	Results in ug / Kg
Phenol	< 337	2-Methylphenol	< 337
2-Chlorophenol	< 337	3&4-Methylphenol	< 337
2,4-Dichlorophenol	< 337	2,4-Dimethylphenol	< 337
2,6-Dichlorophenol	< 337	2-Nitrophenol	< 337
2,4,5-Trichlorophenol	< 842	4-Nitrophenol	< 842
2,4,6-Trichlorophenol	< 337	2,4-Dinitrophenol	< 842
Pentachlorophenol	< 842	4,6-Dinitro-2-methylphenol	< 842
4-Chloro-3-methylphenol	< 337	Benzoic acid	< 842

ELAP Number 10958

Analytical Method: EPA 8270C

Data File: S57107.D

Prep Method: EPA 3550C

Comments: ug / Kg = microgram per Kilogram

Signature: _____

Bruce Hoogesteger: Technical Director

This report is part of a multipage document and should only be evaluated in its entirety. Chain of Custody provides additional information, including compliance with sample condition requirements upon receipt.

112246S2.XLS

**Semi-Volatile Analysis Report for TCLP Extract****Client:** **Empire Geo-Services**

Client Job Site:	Proposed Canal Side Development	Lab Project Number:	11-2246
Client Job Number:	112196	Lab Sample Number:	7516
Field Location:	B-15	Date Sampled:	06/02/2011
Field ID Number:	N/A	Date Received:	06/06/2011
Sample Type:	TCLP Extract	Date Analyzed:	06/08/2011

Base / Neutrals	Results in ug / L	Regulatory Limits in ug / L
1,4-Dichlorobenzene	< 40.0	7,500
2,4-Dinitrotoluene	< 40.0	130
Hexachlorobenzene	< 40.0	130
Hexachlorobutadiene	< 40.0	500
Hexachloroethane	< 40.0	3000
Nitrobenzene	< 40.0	2000
Pyridine	< 40.0	5000

Acids	Results in ug / L	Regulatory Limits in ug / L
Cresols (as m,p,o-Cresol)	< 40.0	200,000
Pentachlorophenol	< 100	100,000
2,4,5-Trichlorophenol	< 100	400,000
2,4,6-Trichlorophenol	< 40.0	2000

ELAP Number 10958

Analytical Method: EPA 8270C
Prep Method: EPA 1311 & 3510C

Data File: S57104.D

Comments: ug / L = microgram per Liter

Signature: _____

Bruce Hoogesteger: Technical Director

This report is part of a multipage document and should only be evaluated in its entirety. Chain of Custody provides additional information, including compliance with sample condition requirements upon receipt.

112246S1.XLS

**Volatile Analysis Report for Soils/Solids/Sludges****Client:** Empire Geo-Services**Client Job Site:** Proposed Canal Side Development**Lab Project Number:** 11-2246**Lab Sample Number:** 7516**Client Job Number:** 112196**Field Location:** B-15**Date Sampled:** 06/02/2011**Field ID Number:** N/A**Date Received:** 06/06/2011**Sample Type:** Soil**Date Analyzed:** 06/08/2011

Halocarbons	Results in ug / Kg
Bromodichloromethane	< 6.31
Bromomethane	< 6.31
Bromoform	< 15.8
Carbon Tetrachloride	< 6.31
Chloroethane	< 6.31
Chloromethane	< 6.31
2-Chloroethyl vinyl Ether	< 31.5
Chloroform	< 6.31
Dibromochloromethane	< 6.31
1,1-Dichloroethane	< 6.31
1,2-Dichloroethane	< 6.31
1,1-Dichloroethene	< 6.31
cis-1,2-Dichloroethene	< 6.31
trans-1,2-Dichloroethene	< 6.31
1,2-Dichloropropane	< 6.31
cis-1,3-Dichloropropene	< 6.31
trans-1,3-Dichloropropene	< 6.31
Methylene chloride	< 15.8
1,1,2,2-Tetrachloroethane	< 6.31
Tetrachloroethene	< 6.31
1,1,1-Trichloroethane	< 6.31
1,1,2-Trichloroethane	< 6.31
Trichloroethene	< 6.31
Trichlorofluoromethane	< 6.31
Vinyl chloride	< 6.31

Aromatics	Results in ug / Kg
Benzene	< 6.31
Chlorobenzene	< 6.31
Ethylbenzene	< 6.31
Toluene	< 6.31
m,p-Xylene	< 6.31
o-Xylene	< 6.31
Styrene	< 15.8
1,2-Dichlorobenzene	< 6.31
1,3-Dichlorobenzene	< 6.31
1,4-Dichlorobenzene	< 6.31

Ketones	Results in ug / Kg
Acetone	< 31.5
2-Butanone	< 31.5
2-Hexanone	< 15.8
4-Methyl-2-pentanone	< 15.8

Miscellaneous	Results in ug / Kg
Carbon disulfide	< 6.31
Vinyl acetate	< 15.8

ELAP Number 10958

Method: EPA 8260B

Data File: V85372.D

Comments: ug / Kg = microgram per Kilogram

Signature: _____

Bruce Hoogesteger: Technical Director

This report is part of a multipage document and should only be evaluated in its entirety. Chain of Custody provides additional information, including compliance with sample condition requirements upon receipt.

112246V2.XLS

**Volatile Analysis Report for Soils/Solids/Sludges (Additional STARS Compounds)**Client: **Empire Geo-Services**

Client Job Site: Proposed Canal Side Development

Lab Project Number: 11-2246

Client Job Number: 112196

Lab Sample Number: 7516

Field Location: B-15

Date Sampled: 06/02/2011

Field ID Number: N/A

Date Received: 06/06/2011

Sample Type: Soil

Date Analyzed: 06/08/2011

Compound	Results in ug / Kg	Compound	Results in ug / Kg
n-Butylbenzene	< 6.31	1,2,4-Trimethylbenzene	< 6.31
sec-Butylbenzene	< 6.31	1,3,5-Trimethylbenzene	< 6.31
tert-Butylbenzene	< 6.31		
n-Propylbenzene	< 6.31	Miscellaneous	
Isopropylbenzene	< 6.31	Methyl tert-butyl Ether	< 6.31
p-Isopropyltoluene	< 6.31		
Naphthalene	< 15.8		

ELAP Number 10958

Method: EPA 8260B

Data File: V85372.D

Comments: ug / Kg = microgram per Kilogram

Signature: _____

Bruce Hoogesteger: Technical Director

This report is part of a multipage document and should only be evaluated in its entirety. Chain of Custody provides additional information, including compliance with sample condition requirements upon receipt.

112246V2.XLS

**Volatile Analysis Report for TCLP Extract****Client:** Empire Geo-Services**Client Job Site:** Proposed Canal Side Development**Lab Project Number:** 11-2246**Client Job Number:** 112196**Lab Sample Number:** 7516**Field Location:** B-15**Date Sampled:** 06/02/2011**Field ID Number:** N/A**Date Received:** 06/06/2011**Sample Type:** TCLP Extract**Date Analyzed:** 06/08/2011

Compound	Results in ug / L	Regulatory Limits in ug / L
Benzene	< 20.0	500
2-Butanone	< 100	200,000
Carbon Tetrachloride	< 20.0	500
Chlorobenzene	< 20.0	100,000
Chloroform	< 20.0	6,000
1,2-Dichloroethane	< 20.0	500
1,1-Dichloroethene	< 20.0	700
Tetrachloroethene	< 20.0	700
Trichloroethene	< 20.0	500
Vinyl chloride	< 20.0	200

ELAP Number 10958

Method: EPA 8260B

Data File: V85343.D

Comments: ug / L = microgram per Liter

Signature: _____

Bruce Hoogesteger: Technical Director

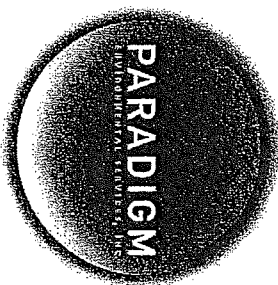
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112246V1.XLS

11-2246

CHAIN OF CUSTODY

H2M 10F1



PROJECT NAME/SITE NAME:

REPORT TO:		INVOICE TO:	
COMPANY: Paradigm Environmental	ADDRESS:	COMPANY: Same	ADDRESS:
CITY:	STATE:	CITY:	STATE:
ZIP:		ZIP:	
PHONE:	FAX:	PHONE:	FAX:
ATTN: Jane Dalioia		ATTN: Meredith Dillman	
COMMENTS: Please email results to khansen@paradigmenv.com and jdaloia@paradigmenv.com		LAB PROJECT #: CLIENT PROJECT #:	
		TURNAROUND TIME: (WORKING DAYS)	
		STD OTHER	
		1 2 3 4 5	
		Date Due: 6/18/11	

DATE	TIME	C O M P O S I T E	G R A B	SAMPLE LOCATION/FIELD ID	M A T R I X	C O N T A I N E R	REACTIVITY	REMARKS	PARADIGM LAB SAMPLE NUMBER
1 6/12/11	1500			11-2246-7516	Soil	1	XX	*Report as dry weight for Herb.	1106288-001
2									
3									
4									
5									
6									
7									
8									
9									
10									

LAB USE ONLY/BELOW THIS LINE**

Sample Condition: Per NELAC/ELAP 210/241/242/243/244

Receipt Parameter NELAC Compliance

Comments: Container Type: ☒ Y ☐ N

Comments: Preservation: ☐ Y ☐ N

Comments: Holding Time: ☐ Y ☐ N

Comments: Temperature: 90c ☐ Y ☒ N

Client

Sampled By Date/Time

Relinquished By Date/Time

Received By Date/Time

Received @ Lab By Date/Time

Total Cost:

P.L.F.

179 Lake Avenue, Rochester, NY 14608 Office (585) 647-2530 Fax (585) 647-3311

CHAIN OF CUSTODY

H&M 10f1



REPORT TO:		INVOICE TO:	
COMPANY: Paradigm Environmental	ADDRESS:	COMPANY: Same	ADDRESS:
CITY:	STATE:	CITY:	STATE:
ZIP:	ZIP:	PHONE:	FAX:
ATTN: Jane Dalola	ATTN: Meredith Dillman	LAB PROJECT #: CLIENT PROJECT #:	
COMMENTS: Please email results to khansen@paradigmenv.com and jdalola@paradigmenv.com		TURNAROUND TIME (WORKING DAYS)	
		1 2 3 4 5	
		OTHER: 4	
PROJECT NAME/SITE NAME:		Date Due: 6/15/11	
		Rush ok per 6/8.	

DATE	TIME	C O M P O S I T E	G R A B	SAMPLE LOCATION/FIELD ID	M A T T R I X	C O N T A I N E R	REMARKS	PARADIGM LAB SAMPLE NUMBER
16/7/11				11-2246 - 7516	extract	X	Spun and filtered at Paradigm. You have the extract.	1106417-001
2								
3								
4								
5								
6								
7								
8								
9								
10								

LAB USE ONLY BELOW THIS LINE

Sample Condition: Per NELAC/ELAP 210/241/242/243/244

Receipt Parameter NELAC Compliance

Container Type: Y ☐ N ☐

Comments: Preservation: Y ☐ N ☐

Comments: Holding Time: Y ☐ N ☐

Comments: Temperature: Y ☒ N ☐

Client

Sampled By: Elizabeth A Honck 6/8/11 1600

Relinquished By: [Signature]

Date/Time: 6/9/11 10:00

Total Cost: [Box]

P.I.F. [Box]

Received @ Lab By: [Signature]

Date/Time: 6/9/11 10:00