



151 Martin  
Birmingham, MI 48009  
248.530.1800

**BIRMINGHAM BROWNFIELD REDEVELOPMENT AUTHORITY AGENDA**

**Thursday, September 22, 2016 at 8:30 a.m.**

Birmingham City Hall (151 Martin Street)  
City Commission Room

- 
1. Call to Order
  2. Approval of minutes of March 10, 2016 meeting.
  3. Request for reimbursement on Brownfield Plan approved for **34901 – 34953 Woodward:**

Request additional information regarding the reimbursement request for environmental expenses incurred for the previously approved brownfield project at 34901 – 34953 Woodward Avenue;

OR

Resolution approving the TIF reimbursement for the previously approved brownfield project at **34901 - 34953 Woodward Avenue** (The Balmoral Building) and directing the Brownfield Redevelopment Authority to reimburse the applicant for expenses up to \$618,325.33 as covered under their Reimbursement Agreement dated October 4, 2011, as listed in the reimbursement request dated April 1, 2016, to the extent of property taxes captured to date for 34901 - 34953 Woodward.

4. Brownfield Plan Application for **856 N. Old Woodward:**

Resolution approving the Brownfield Plan and associated Reimbursement Agreement pertaining to the Brownfield Plan for **856 N. Old Woodward** (currently vacant land) and requesting the City Clerk to forward the Brownfield Plan and Reimbursement Agreement to the Birmingham City Commission for their review and consideration.

5. Project Updates
6. Open to the public for items not on the Agenda
7. Adjournment

*Approved minutes of the meeting are available in the Community Development Office or online at [www.bhamgov.org](http://www.bhamgov.org).*

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**Notice: Due to Building Security, public entrance during non-business hours is through the Police Department—Pierce St. Entrance only.** Individuals with disabilities requiring assistance to enter the building should request aid via the intercom system at the parking lot entrance gate on Henrietta St.

Persons with disabilities that may require assistance for effective participation in this public meeting should contact the City Clerk's Office at the number (248) 530-1880, or (248) 644-5115 (for the hearing impaired) at least one day before the meeting to request help in mobility, visual, hearing, or other assistance.

Las personas con incapacidad que requieren algún tipo de ayuda para la participación en esta sesión pública deben ponerse en contacto con la oficina del escribano de la ciudad en el número (248) 530-1800 o al (248) 644-5115 (para las personas con incapacidad auditiva) por lo menos un día antes de la reunión para solicitar ayuda a la movilidad, visual, auditiva, o de otras asistencias. (Title VI of the Civil Rights Act of 1964).

**Brownfield Redevelopment Authority  
MINUTES  
City Commission Room of the Municipal Building  
151 Martin Street, Birmingham, Michigan**

**Thursday, March 10, 2016  
8:30 a.m.**

1. Acting Chairperson Robert Runco welcomed everyone and convened the meeting at 8:45 a.m.

Members Present: Paul Robertson, Jr.  
Robert Runco  
Wendy Zabriskie

Member Absent: Chairperson Beth Gotthelf; Board Member Dani Torcolacci

Also Present: Dan Cassidy, Vice President of SME  
Arthur Siegel, SME  
Brett Stuntz, AKT Peerless Environmental Services, City  
Brownfield Consultant

Administration: Shawn Campbell, Asst. City Planner  
Jana Ecker, Community Development Director  
Mark Gerber, Asst. Finance Director  
Jeffrey Haynes, Beier Howlett, City Attorney  
Carole Salutes, Recording Secretary

2. Approval of February 18, 2016 Minutes

Ms. Zabriskie: Replace Matthew Shiffman with Gary Shiffman.

**Motion by Mr. Robertson**

**Seconded by Ms. Zabriskie to approve the February 18, 2016 minutes as corrected.**

**Voice**

**Vote: Yeas, Robertson, Zabriskie, Runco  
Nays, 0  
Absent, Gotthelf, Torcolacci**

**Motion carried, 3-0.**

3. Resolution approving the Brownfield Plan and associated Reimbursement Agreement pertaining to the Brownfield Plan for 34965 Woodward Ave. (Peabody's Restaurant) and requesting the city clerk to forward the Brownfield Plan and Reimbursement Agreement to the Birmingham City Commission for their review and consideration.

Ms. Ecker recalled at the last meeting the board had asked for a summary chart of the other Brownfield plans that have been approved along that block of Woodward Ave. They wanted to be consistent with costs that were paid in the past. The chart has been completed and it includes the Balmoral Place property and the Greenleaf Trust Building that are on each side of the Peabody's site. Also included is a table of actual costs that were in each Brownfield Plan.

Mr. Robertson noted the board paid for sealed sheet piles and a vapor barrier on the Greenleaf Building. Mr. Cassidy responded that with the Greenleaf Building they were concerned about groundwater contamination from JAX Car Wash migrating back into their property. One way to prevent that was to seal the steel sheeting and install a vapor barrier on all four sides and underneath the building. With Balmoral they did not think a vapor barrier was necessary.

Mr. Robertson continued. Under Soil Management, soil will not be hauled away for free under the Brownfield because a Greenfield would have a haul away cost anyway.

Mr. Cassidy said there is evidence on the Peabody's site that a vapor barrier will be necessary on all four sides and the bottom, especially with what happened on Greenleaf. They will work to see how the cost can be minimized. Mr. Siegel added the banks and the State have been pushing for the installation of vapor barriers in many instances as a proactive measure when there is evidence contamination may be present.

Mr. Cassidy went on to note that the excavation on the Peabody's site was discounted because there was recognition the second level down would come out anyway. There is a \$3 discount/cubic yd. which equates to ton. Acting Chairperson Runco verified there are some sites in town that are looking for clay. Mr. Cassidy indicated they always make those inquiries for projects they work on.

Discussion followed as to when construction might start. Ms. Ecker estimated it will take them three to six months to get through the approval and the permitting process. Therefore construction might start in late Summer.

**Motion by Mr. Robertson**

**Seconded by Mr. Zabriskie to approve the Brownfield Redevelopment Plan for 34965 Woodward Ave. subject to changing the Soil Management number to an adjustment on the Greenfield side of \$3/ton for hauling away Greenfield dirt.**

**Voice**

**Vote: Yeas, Robertson, Zabriskie, Runco**  
**Nays, 0**  
**Absent, Gotthelf, Torcolacci**

**Motion carried, 3-0.**

Mr. Siegel emphasized their goal is to minimize costs so as not to run up a big bill.

Mr. Cassidy inquired whether the board has considered interest to be included in this Plan. Board members encouraged them to skip it. Acting Chairman Runco noted that might be something to add to the application.

4. Project Updates (none)

7. Open to the public for items not on the Agenda (no public comments)

6. Adjournment

No further business being evident, the board passed a motion to adjourn at 9:08 a.m.

Respectfully submitted,

Carole Salutes  
Recording Secretary



The Kramer Building  
43980 Plymouth Oaks Blvd.  
Plymouth, MI 48170-2584

T (734) 454-9900

[www.sme-usa.com](http://www.sme-usa.com)

April 1, 2016

Ms. Jana Ecker  
Director of Planning  
City of Birmingham, Michigan  
151 Martin Street  
P.O. Box 3001  
Birmingham, Michigan 48012

RE: TIF Reimbursement Request No. 1  
The Balmoral  
34901-34953 Woodward Avenue  
Birmingham, Michigan

Dear Ms. Ecker:

We prepared this letter on behalf of the developer, Woodward Brown Associates, LLC, to request reimbursement of eligible brownfield costs related to the above referenced project. The terms for reimbursement of eligible brownfield costs were set forth in the Brownfield Reimbursement Agreement executed by The City of Birmingham's Brownfield Redevelopment Authority and the developer on October 14, 2011. The specific eligible brownfield activities and associated costs were summarized in the Brownfield Plan approved by Birmingham's City Commission on September 16, 2011, (Resolution 09-253-11) and the Act 381 Work Plan approved by the Michigan Department of Environmental Quality (DEQ) on December 19, 2011.

The attached Brownfield Request for Cost Reimbursement form and spreadsheet summarize the costs incurred on the project that are eligible for reimbursement in accordance with the Reimbursement Agreement. Documentation of the costs incurred, in the form of invoices and costs summaries, is also attached. If you have questions regarding this letter or the attached information, please contact Daniel R. Cassidy at (734) 454-9900.

Very truly yours,

**SME**

Daniel R. Cassidy, CPG  
Principal/Vice President

Attached: TIF Reimbursement Request Form  
TIF Reimbursement Request No. 1 Summary Table  
Documentation of Eligible Costs (invoices)  
Documentation of Due Care Compliance

## TIF REIMBURSEMENT REQUEST FORM

**Brownfield Request for Cost Reimbursement  
For Eligible Activities**

Date: April 1, 2016

Listed below are the total costs expended for each eligible activity category for the expenses being submitted with this request. Attached is evidence of each cost item, including proof of payment and detailed invoices.

	<b>Eligible Activity Category</b>	<b>Total Cost</b>
1.	Due Care Activities	\$595,588.73
2.	Brownfield Plan/Work Plan preparation and agency review	\$22,736.59
	<b>Total Cost Reimbursement Request</b>	<b>\$618,325.32</b>

I certify that the information submitted on and with this Request for Cost Reimbursement is accurate and is an eligible cost described in the Brownfield Plan for this project approved by the City Council of the City of Birmingham.

**Developer:** Woodward Brown Associates, LLC

**Signature:** \_\_\_\_\_

**Title:** \_\_\_\_\_

**Address:** 32820 Woodward Avenue

Suite 200

Royal Oak, MI 48073

## TIF REIMBURSEMENT REQUEST NO. 1 SUMMARY TABLE





TABLE 1  
COSTS TRACKING FOR ELIGIBLE ACTIVITIES  
Proposed Mixed Use Development  
34901-34953 Woodward Avenue  
Birmingham, Michigan

REDEVELOPMENT ACTIVITY		APPROVED WORK PLAN BUDGET	TOTAL INVOICE AMOUNT	REMAINING WORK PLAN BUDGET	INVOICES						Reimbursement Source		
					SME			Ronnisch			Tax Increment Financing		
					Invoice No.	Invoice Date	Amount	Invoice No.	Invoice Date	Amount	TIF Local Only (Before 09/26/11)	TIF Local and State (After 09/26/11)	Not Eligible
(13)	Brownfield Site and Financial Management	\$17,000.00	\$23,832.82	-\$6,832.82	26407	5/24/11	\$2,324.58	7/14 Billings	7/27/2014	\$560.00		\$2,884.58	
					26987	6/17/11	\$1,110.87				\$1,110.87		
					33561	3/9/12	\$971.81				\$971.81		
					34264	4/19/12	\$808.55				\$808.55		
					34514	5/14/12	\$1,355.74				\$1,355.74		
					35551	6/27/12	\$4,123.36				\$4,123.36		
					35936	7/17/12	\$3,454.36				\$3,454.36		
					36802	8/24/12	\$1,564.31				\$1,564.31		
					37251	9/12/12	\$2,135.34				\$2,135.34		
					38007	10/15/12	\$1,360.54				\$1,360.54		
					39776	1/9/12	\$718.43				\$718.43		
					40883	3/12/13	\$1,277.20				\$1,277.20		
					43786	8/12/13	\$1,109.83				\$1,109.83		
					45266	10/4/13	\$957.90				\$957.90		
(14)	Summary Report Preparation	\$10,000.00	\$0.00	\$10,000.00									
Due Care (Total)		\$607,100.00	\$595,588.73	\$91,026.27							\$0.00	\$595,588.73	\$0.00
15% contingency		\$79,515.00								\$0.00	\$79,645.36	\$0.00	
Work Plans													
(15)	Brownfield Plan	\$4,000.00	\$11,050.76	-\$7,050.76	19370	5/21/10	\$770.32				\$770.32		
					19658	6/9/10	\$729.68				\$729.68		
					22142	9/21/10	\$647.62				\$647.62		
					23232	11/16/10	\$309.96				\$309.96		
					20673	7/22/10	\$1,121.84				\$1,121.84		
					32250	12/22/11	\$5,760.32				\$5,760.32		
					31156	11/11/11	\$646.33				\$646.33		
					28501	8/4/11	\$966.91				\$966.91		
					43114	7/15/13	\$97.79				\$97.79		
(16)	Work Plan	\$6,000.00	\$11,685.83	-\$5,685.83	32250	12/22/11	\$10,697.73					\$10,697.73	
					32762	1/19/12	\$806.49				\$806.49		
					43114	7/15/13	\$181.60				\$181.60		
Work Plans (Total)		\$10,000.00	\$22,736.59	-\$12,736.59							\$4,546.33	\$18,190.26	\$0.00
GRAND TOTAL		\$696,615.00	\$618,325.32	\$78,289.68	\$69,499.69			\$548,825.63			\$4,546.33	\$613,778.99	\$0.00

\*\*     Hauling (net from dump fees) from Aielli - arbitration #

## **DOCUMENTATION OF ELIGIBLE COSTS (INVOICES)**

11:33 AM

07/09/14

**Ronnisch Construction Group**  
**Job Estimates vs. Actuals Detail for AWARDED:13-0041 Balmoral**  
 All Transactions

**ITEM # 1**

Service	Est. Cost	Act. Cost	(\$ ) Diff.
01-000 (General Conditions)			
01-110 (Supervision)			
01-120 (Project Management)	96,992.00	13,650.00	-83,342.00
01-125 (Project Estimator)			
01-128 (Contract Administrator)	33,254.00	1,805.22	-31,448.78
01-130 (Office Administration)			
01-135 (Project Accountant)			
01-136 (Accounting Clerk)			
01-140 (Project Engineer)			
01-145 (Project Executive)			
01-151 (Laborer)			
01-160 (Business Development)			
01-203 (Office Supplies)			
01-205 (Gas)			
01-209 (Temporary Power)			
01-210 (Temporary Office Trailer)			
01-230 (Temporary Toilet)			
01-246 (Cellular Phone/Air Card)			
01-250 (Drinking Water)			
01-260 (Job Signage)			
01-280 (Rubbish Removal/Dumpsters)			
01-410 (Permits)			
01-510 (Insurance-General Liability)			
01-710 (Final Clean Up)			
01-720 (Cleanup (not final cleaning))			
01-830 (Misc. Materials)			
01-832 (Postage)			
01-850 (Reproduction)			
01-861 (Meals & Entertainment)			
01-862 (Notice of Commencement)			
01-863 (Meals Supt, PM's)			
01-910 (Safety Barricades)			
01-930 (First Aid Kits)			
Total 01-000 (General Conditions)			

5:01 PM

05/26/15

**Ronnisch Construction Group**  
**Job Estimates vs. Actuals Detail for AWARDED:13-0041 Balmoral**  
 July 12 through August 16, 2014

	Est. Cost	Act. Cost	(\$ ) Diff.
<b>Service</b>			
01-000 (General Conditions)			
01-110 (Supervision)			
01-120 (Project Management)			
01-128 (Contract Administrator)			
01-130 (Office Administration)			
01-135 (Project Accountant)			
01-136 (Accounting Clerk)			
01-145 (Project Executive)			
01-151 (Laborer)			
01-160 (Business Development)			
01-210 (Temporary Office Trailer)		1,408.96	
01-230 (Temporary Toilet)		396.42	
01-260 (Job Signage)		101.76	
01-270 (Temporary Protection)		4,811.25	
01-280 (Rubbish Removal/Dumpst		28.25	
01-320 (Layout / Surveys)		3,440.25	
01-410 (Permits)			
01-720 (Cleanup (not final cleaning		720.00	
01-830 (Misc. Materials)		2,691.80	
01-850 (Reproduction)		302.96	
01-910 (Safety Barricades)		11,430.00	
01-920 (Temporary Enclosures)		5,000.00	
01-000 (General Conditions) - Other			
<b>Total 01-000 (General Conditions)</b>			
01-825 (Legal Fees)			
02-200 (Earthwork)			
02-500 (Paving & Surfacing)			
03-150 (Special Foundations)			
16-520 (Traffic Control)			
17-100			
<b>Total Service</b>			
<b>TOTAL</b>			

ITEM # 3

ITEM # 2 (1)  
 ITEM # 2 (2)



Soil and Materials Engineers, Inc.  
43980 Plymouth Oaks Blvd.  
Plymouth, MI 48170-2584  
Phone: 734-454-9900 Fax: 734-454-7685

**INVOICE**

REMIT TO:  
Soil and Materials Engineers, Inc.  
PO BOX 673166  
DETROIT, MI 48267-3166

Harvey Weiss  
Weiss Samona  
32820 Woodward Ave  
Suite 200  
Royal Oak, MI 48009

December 13, 2013  
Invoice No: 47027

Project 061377.02 Balmoral Mixed-Use TERS Boring

Fees for project coordination and set up, drilling, lab testing, and report preparation for TERS permit boring.

**Professional Services from October 28, 2013 to November 24, 2013**

Lump Sum Fee	2,000.00
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<b>Total this Invoice</b>	<b>\$2,000.00</b>
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Thank you for the opportunity to be of service.  
Project Manager Kevin Wilk

# Billing Backup

Friday, December 13, 2013

Soil and Materials Engineers, Inc.

Invoice 47027 Dated 12/13/2013

11:21:02 AM

Project	061377.02	Balmoral Mixed-Use TERS Boring
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## Personnel

			Hours	Rate	Amount
Principal Consultant					
Principal Consultant					
1010 - Jedelee, Larry	11/26/2013		.25	210.00	52.50
Senior Consultant					
Senior Consultant					
1030 - Cassidy, Daniel	11/14/2013		.75	165.00	123.75
1030 - Cassidy, Daniel	11/15/2013		.25	165.00	41.25
Senior Project Engineer					
Senior Project Engineer					
1050 - Wilk, Kevin	11/14/2013		1.50	145.00	217.50
1050 - Wilk, Kevin	11/18/2013		.25	145.00	36.25
1050 - Wilk, Kevin	11/21/2013		1.00	145.00	145.00
1050 - Wilk, Kevin	11/26/2013		1.50	145.00	217.50
Project Geologist					
Project Geologist					
1095 - Cassidy, Daniel	11/18/2013		.50	120.00	60.00
CAD Operator					
CAD Operator					
1200 - Mandrila, Gabriela	11/26/2013		1.00	80.00	80.00
Log Processor					
Log Processor					
1280 - Shelton, Rhonda	11/25/2013		.50	60.00	30.00
Administrative Assistant					
Administrative Assistant					
1310 - Shelton, Rhonda	11/14/2013		.50	55.00	27.50
1310 - Shelton, Rhonda	11/26/2013		.50	55.00	27.50
Driller					
Driller					
1350 - Belian, Jared	11/22/2013		.50		0.00
1350 - Rochford, James	11/22/2013		3.50		0.00
Assistant Driller					
Assistant Driller					
1360 - Blackburn, Derek	11/22/2013		3.50		0.00
Soils Lab					
Soils Lab					
1380 - Atkins, Nicholas	11/25/2013		.25		0.00
1380 - Atkins, Nicholas	11/26/2013		.50		0.00
Advance Labor					
Advance Labor					
9999 - Billing, Advance	11/24/2013		-21.86	1.00	-21.86
Totals			-5.11		1,036.89
<b>Total Labor</b>					<b>1,036.89</b>

Project	061377.02	Balmoral Mixed-Use TERS Boring	Invoice	<Draft>
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# Unit Billing

## CALIBRATED PENETROMETER TEST

11/25/2013	6.0 EACH @ 4.00	24.00
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## DRILLING 0' TO 20'

11/22/2013	20.0 FEET @ 13.00	260.00
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## DRILLING 20' TO 40'

11/22/2013	5.0 FEET @ 14.00	70.00
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## MOBILIZATION-DRILL RIG

11/22/2013	1.0 EACH @ 500.00	500.00
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## MOISTURE DETERMINATION

11/25/2013	6.0 EACH @ 6.00	36.00
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## VISUAL ENGRG CLASSIFICATION- SOIL

11/25/2013	7.0 SAMPLES @ 6.00	42.00
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## Total Units

932.00

932.00

## Total this Project

\$1,968.89

## Total this Report

\$1,968.89



Soil and Materials Engineers, Inc.  
43980 Plymouth Oaks Blvd.  
Plymouth, MI 48170-2584  
Phone: 734-454-9900 Fax: 734-454-7685

**INVOICE**

REMIT TO:  
Soil and Materials Engineers, Inc.  
PO BOX 673166  
DETROIT, MI 48267-3166

Harvey Weiss  
Weiss Samona  
32820 Woodward Ave  
Suite 200  
Royal Oak, MI 48009

April 16, 2014  
Invoice No: 49157

Project 061377.02 Balmoral Mixed-Use TERS Boring

Fees for project kick-off meeting March 11, 2014, attended by Mr. Dan Cassidy, CPG of SME.

**Professional Services from February 24, 2014 to March 23, 2014**

Lump Sum Fee \$595.00

**Total this Invoice \$595.00**

Thank you for the opportunity to be of service.  
Project Manager Kevin Wilk





43980 Plymouth Oaks Blvd.  
Plymouth, MI 48170-2584  
Phone: 734-454-9900 Fax: 734-454-7685

**INVOICE**  
Remit to:  
SME  
P.O. Box 673166  
Detroit, MI 48267-3166

Harvey Weiss  
Weiss Samona  
32820 Woodward Ave  
Suite 200  
Royal Oak, MI 48009

September 19, 2014  
Invoice No: 52878

Project 070535.00 The Balmoral

CMS including two visits by the SME project manager to review the T.E.R.S. conditions (Aug 6) and attend a meeting w/owner on 8/14.

An SME field engineer provided foundation, resteel, and concrete services (8 visits).

**Professional Services from July 28, 2014 to August 24, 2014**

**Personnel**

	Hours	Rate	Amount
Senior Project Engineer	7.00	150.00	1,050.00
Materials Consultant	2.00	125.00	250.00
Staff Engineer	2.00	90.00	180.00
Field Engineer	56.00	80.00	4,480.00
Administrative Assistant	3.00	60.00	180.00
Totals	70.00		6,140.00
<b>Total Labor</b>			<b>6,140.00</b>

**Unit Billing**

**CONCRETE CYLINDERS- SME**

8/8/2014	RPT 1	10.0 EACH @ 14.00	140.00
8/14/2014	RPT 2-7	40.0 EACH @ 14.00	560.00

**TRANSPORTATION**

8/7/2014	50.0 MILES @ 0.75	37.50
8/8/2014	29.0 MILES @ 0.75	21.75
8/14/2014	48.0 MILES @ 0.75	36.00
8/15/2014	27.0 MILES @ 0.75	20.25
8/18/2014	48.0 MILES @ 0.75	36.00
8/19/2014	50.0 MILES @ 0.75	37.50
8/21/2014	31.0 MILES @ 0.75	23.25

<b>Total Units</b>	<b>912.25</b>	<b>912.25</b>
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<b>Total this Invoice</b>	<b>\$7,052.25</b>
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Thank you for the opportunity to be of service.  
Project Manager Paul Schmeisl

Terms: Invoice is due upon receipt. Amount not paid within 30 days are subject to 1.5% per month late charge.  
Fed ID#: 38-1738670

# Billing Backup

Tuesday, March 29, 2016

SME

Invoice 52878 Dated 9/19/2014

12:52:25 PM

Project	070535.00	The Balmoral
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## Personnel

			Hours	Rate	Amount
Senior Project Engineer					
Senior Project Engineer					
1050 - Schmeisl, Paul	8/5/2014		.50	150.00	75.00
1050 - Schmeisl, Paul	8/6/2014		3.50	150.00	525.00
1050 - Schmeisl, Paul	8/7/2014		1.00	150.00	150.00
1050 - Schmeisl, Paul	8/14/2014		2.00	150.00	300.00
Materials Consultant					
Materials Consultant					
1100 - Shaheen, Trevor	8/6/2014		.25	125.00	31.25
1100 - Shaheen, Trevor	8/13/2014		.50	125.00	62.50
1100 - Shaheen, Trevor	8/15/2014		1.00	125.00	125.00
1100 - Shaheen, Trevor	8/21/2014		.25	125.00	31.25
Staff Engineer					
Staff Engineer					
1150 - Bernard, Bryan	8/5/2014		2.00	90.00	180.00
Field Engineer					
Field Engineer					
1210 - Schiber, Meghan	8/7/2014		5.50	80.00	440.00
1210 - Schiber, Meghan	8/8/2014		5.75	80.00	460.00
1210 - Schiber, Meghan	8/14/2014		9.00	80.00	720.00
1210 - Schiber, Meghan	8/15/2014		9.75	80.00	780.00
1210 - Schiber, Meghan	8/18/2014		9.50	80.00	760.00
1210 - Schiber, Meghan	8/19/2014		7.25	80.00	580.00
1210 - Schiber, Meghan	8/20/2014		3.75	80.00	300.00
1210 - Schiber, Meghan	8/21/2014		5.50	80.00	440.00
Administrative Assistant					
Administrative Assistant					
1310 - Pipia, Katherine	8/12/2014		1.50	60.00	90.00
1310 - Pipia, Katherine	8/15/2014		1.50	60.00	90.00
Totals			70.00		6,140.00
<b>Total Labor</b>					<b>6,140.00</b>

## Unit Billing

### CONCRETE CYLINDERS- SME

8/8/2014	RPT 1	10.0 EACH @ 14.00	140.00
8/14/2014	RPT 2-7	40.0 EACH @ 14.00	560.00

### TRANSPORTATION

8/7/2014	50.0 MILES @ 0.75	37.50
8/8/2014	29.0 MILES @ 0.75	21.75
8/14/2014	48.0 MILES @ 0.75	36.00
8/15/2014	27.0 MILES @ 0.75	20.25
8/18/2014	48.0 MILES @ 0.75	36.00
8/19/2014	50.0 MILES @ 0.75	37.50

Project	070535.00	The Balmoral - CMS	Invoice	52878
8/21/2014		31.0 MILES @ 0.75	23.25	
	<b>Total Units</b>		<b>912.25</b>	<b>912.25</b>
		<b>Total this Project</b>		<b>\$7,052.25</b>
		<b>Total this Report</b>		<b>\$7,052.25</b>



Ronnisch Construction Group  
248.549.1800 T  
248.723.8080 F  
4327 Delemere Court

## SUBCONTRACT REVISION

Original Date	P.O. Number
7/28/2014	0403

Vendor
Royal Restoration & Waterproofing LLC 33050 Industrial Livonia, MI 48150

Date Contract Returned	Insurance Exp. Date

This is to confirm our mutual agreement to revise the scope of the original Purchase Order/Subcontract.

Item	Description	Project Name	Amount
07-100	Waterproofing	13-0041 Balmoral	63,058.00
07-100	Subcontract Revision 1 - 8/06/14: Please sign & return confirming receipt of the attached Project Schedule, Exhibit 'C' of your subcontract. This revision has no cost impact.	13-0041 Balmoral	0.00
<p>NOTE! SCHEDULE WILL BE BASED ON APPROVAL OF SUBMITTED MATERIALS ALONG W/ LEAD TIME FOR DELIVERY OF SUCH TO THE PROJECT</p> <p><i>[Signature]</i></p>			

All other purchase order & subcontract terms shall apply.

<b>Total</b>	<b>\$63,058.00</b>
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RONNISCH CONSTRUCTION GROUP

General Contractor

ROYAL RESTORATION & WATERPROOFING

Subcontractor



43980 Plymouth Oaks Blvd.  
Plymouth, MI 48170-2584  
Phone: 734-454-9900 Fax: 734-454-7685

**INVOICE**  
Remit to:  
SME  
P.O. Box 673166  
Detroit, MI 48267-3166

Harvey Weiss  
Weiss Samona  
32820 Woodward Ave  
Suite 200  
Royal Oak, MI 48009

August 14, 2014  
Invoice No: 51745

Project 061377.03 Balmoral Construction Phase Services

Partial invoice for Environmental Consulting Services including:

1. Solid waste characterization / disposal
2. Waste water characterization / permit consulting; and
3. Excavation observation / verification sampling / testing.

**Professional Services from April 15, 2014 to July 27, 2014**

**Personnel**

	Hours	Rate	Amount	
Senior Consultant	18.50	165.00	3,052.50	
Project Consultant	14.75	120.00	1,770.00	
Environmental Specialist	10.50	85.00	892.50	
Administrative Assistant	.25	55.00	13.75	
Totals	44.00		5,728.75	
<b>Total Labor</b>				<b>5,728.75</b>

Communication Fee		171.86	
		<b>171.86</b>	<b>171.86</b>

**Subconsultants/Subcontractors**

Reimbursed Subcontract			
7/15/2014	FIBERTEC ANALYTICAL	671.70	
	ENVIRONMENTAL SERVICES, INC.		
<b>Total Subconsultants/Subcontractors</b>		<b>671.70</b>	<b>671.70</b>

**Unit Billing**

ENVIRONMENTAL SAMPLING KIT		
6/24/2014	1.0 DAY @ 60.00	60.00
7/17/2014	1.0 DAY @ 60.00	60.00
HAND AUGER		
6/24/2014	1.0 DAY @ 25.00	25.00

Terms: Invoice is due upon receipt. Amount not paid within 30 days are subject to 1.5% per month late charge.  
Fed ID#: 38-1738670

Project	061377.03	Balmoral Construction Phase Services	Invoice	51745
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TRANSPORTATION

6/24/2014	72.0 MILES @ 0.75	54.00	
7/11/2014	6.0 MILES @ 0.75	4.50	
7/17/2014	54.0 MILES @ 0.75	40.50	
	<b>Total Units</b>	<b>244.00</b>	<b>244.00</b>
	<b>Total this Invoice</b>		<b>\$6,816.31</b>

Thank you for the opportunity to be of service.  
 Project Manager Daniel Cassidy

# Billing Backup

Tuesday, March 29, 2016

SME

Invoice 51745 Dated 8/14/2014

12:53:38 PM

Project	061377.03	Balmoral Construction Phase Services
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## Personnel

		Hours	Rate	Amount
Senior Consultant				
Senior Consultant				
1030 - Cassidy, Daniel	4/15/2014	.75	165.00	123.75
1030 - Cassidy, Daniel	6/12/2014	.50	165.00	82.50
1030 - Cassidy, Daniel	6/19/2014	.50	165.00	82.50
1030 - Cassidy, Daniel	6/20/2014	.50	165.00	82.50
1030 - Cassidy, Daniel	6/23/2014	4.00	165.00	660.00
1030 - Cassidy, Daniel	6/24/2014	2.00	165.00	330.00
1030 - Cassidy, Daniel	6/25/2014	1.50	165.00	247.50
1030 - Cassidy, Daniel	6/30/2014	.50	165.00	82.50
1030 - Cassidy, Daniel	7/1/2014	2.00	165.00	330.00
1030 - Cassidy, Daniel	7/3/2014	.50	165.00	82.50
1030 - Cassidy, Daniel	7/8/2014	1.00	165.00	165.00
1030 - Cassidy, Daniel	7/9/2014	1.00	165.00	165.00
1030 - Cassidy, Daniel	7/15/2014	.50	165.00	82.50
1030 - Cassidy, Daniel	7/16/2014	.50	165.00	82.50
1030 - Cassidy, Daniel	7/18/2014	.75	165.00	123.75
1030 - Cassidy, Daniel	7/23/2014	1.00	165.00	165.00
1030 - Cassidy, Daniel	7/24/2014	.50	165.00	82.50
1030 - Cassidy, Daniel	7/25/2014	.50	165.00	82.50
Project Consultant				
Project Consultant				
1090 - Lafayette, Jason	6/17/2014	.50	120.00	60.00
1090 - Lafayette, Jason	6/23/2014	.75	120.00	90.00
1090 - Lafayette, Jason	7/2/2014	1.00	120.00	120.00
1090 - Lafayette, Jason	7/3/2014	1.00	120.00	120.00
1090 - Lafayette, Jason	7/9/2014	1.00	120.00	120.00
1090 - Lafayette, Jason	7/10/2014	3.00	120.00	360.00
1090 - Lafayette, Jason	7/11/2014	2.50	120.00	300.00
1090 - Lafayette, Jason	7/16/2014	.50	120.00	60.00
1090 - Lafayette, Jason	7/18/2014	2.25	120.00	270.00
1090 - Lafayette, Jason	7/22/2014	1.25	120.00	150.00
1090 - Lafayette, Jason	7/23/2014	.50	120.00	60.00
1090 - Lafayette, Jason	7/24/2014	.50	120.00	60.00
Environmental Specialist				
Environmental Specialist				
1170 - McLeskey, Darin	6/24/2014	4.50	85.00	382.50
1170 - McLeskey, Darin	6/25/2014	.50	85.00	42.50
1170 - McLeskey, Darin	6/27/2014	.75	85.00	63.75
1170 - McLeskey, Darin	7/17/2014	3.25	85.00	276.25
1170 - McLeskey, Darin	7/22/2014	1.50	85.00	127.50

Project	061377.03	Balmoral Construction Phase Services	Invoice	51745
Administrative Assistant				
Administrative Assistant				
1310 - Stopper, Pamela	7/10/2014	.25	55.00	13.75
Totals		44.00		5,728.75
<b>Total Labor</b>				<b>5,728.75</b>
<b>Subconsultants/Subcontractors</b>				
Reimbursed Subcontract				
AP 16750	7/15/2014	FIBERTEC ENVIRONMENTAL SERVICES, INC. / ANALYTICAL / Invoice: 110755, 6/30/2014		671.70
<b>Total Subconsultants/Subcontractors</b>			<b>671.70</b>	<b>671.70</b>
<b>Unit Billing</b>				
ENVIRONMENTAL SAMPLING KIT				
6/24/2014		1.0 DAY @ 60.00		60.00
7/17/2014		1.0 DAY @ 60.00		60.00
HAND AUGER				
6/24/2014		1.0 DAY @ 25.00		25.00
TRANSPORTATION				
6/24/2014		72.0 MILES @ 0.75		54.00
7/11/2014		6.0 MILES @ 0.75		4.50
7/17/2014		54.0 MILES @ 0.75		40.50
<b>Total Units</b>			<b>244.00</b>	<b>244.00</b>
			<b>Total this Project</b>	<b>\$6,644.45</b>
			<b>Total this Report</b>	<b>\$6,644.45</b>



43980 Plymouth Oaks Blvd.  
Plymouth, MI 48170-2584  
Phone: 734-454-9900 Fax: 734-454-7685

**INVOICE**  
Remit to:  
SME  
P.O. Box 673166  
Detroit, MI 48267-3166

Harvey Weiss  
Weiss Samona  
32820 Woodward Ave  
Suite 200  
Royal Oak, MI 48009

August 14, 2014  
Invoice No: 51746

Project 061377.03 Balmoral Construction Phase Services

Partial invoice for Construction Materials Services including: site visits, consulting, compaction testing, and temporary earth retention consulting.

**Professional Services from April 15, 2014 to July 27, 2014**

**Personnel**

	Hours	Rate	Amount
Principal Consultant			
Madej, Gerard	.50	210.00	105.00
Senior Consultant			
Cassidy, Daniel	2.75	165.00	453.75
Senior Project Engineer			
Schmeisl, Paul	.75	145.00	108.75
Project Engineer			
Barton, Kevin	.75	120.00	90.00
Materials Consultant			
Shaheen, Trevor	.50	120.00	60.00
Field Engineer			
Bernard, Bryan	3.00	75.00	225.00
Technician II			
Hasenbusch, Ronald	2.00	50.00	100.00
Hasenbusch, Ronald	Ovt 3.25	75.00	243.75
Thorn, Brennan	8.50	50.00	425.00
Thorn, Brennan	Ovt 11.50	75.00	862.50
Administrative Assistant			
Schuett, Kailee	.50	55.00	27.50
Stopper, Pamela	.50	55.00	27.50
Totals	34.50		2,728.75
<b>Total Labor</b>			<b>2,728.75</b>

Communication Fee	81.86	
	<b>81.86</b>	<b>81.86</b>

Terms: Invoice is due upon receipt. Amount not paid within 30 days are subject to 1.5% per month late charge.  
Fed ID#: 38-1738670

**Unit Billing**

## LABORATORY PROCTOR- 4 INCH MOLD

7/10/2014	RPT 1	1.0 EACH @ 140.00	140.00
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## NUCLEAR DENSITY- MOISTURE METER-DAY

7/7/2014	7/9/14, 7/10/14	2.0 DAYS @ 50.00	100.00
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7/14/2014	7/14/14	1.0 DAY @ 50.00	50.00
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7/21/2014	7/23/14	1.0 DAY @ 50.00	50.00
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## PENETROMETER-DYNAMIC CONE/HOUSEL

7/14/2014	RPT 1	1.0 DAY @ 30.00	30.00
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## TRANSPORTATION

7/9/2014		39.0 MILES @ 0.75	29.25
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7/10/2014		50.0 MILES @ 0.75	37.50
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7/14/2014		45.0 MILES @ 0.75	33.75
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7/23/2014		25.0 MILES @ 0.75	18.75
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<b>Total Units</b>		<b>489.25</b>	<b>489.25</b>
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<b>Total this Invoice</b>	<b>\$3,299.86</b>
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Thank you for the opportunity to be of service.

Project Manager Daniel Cassidy

# Billing Backup

Tuesday, March 29, 2016

SME

Invoice 51746 Dated 8/14/2014

12:54:01 PM

Project	061377.03	Balmoral Construction Phase Services
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## Personnel

			Hours	Rate	Amount
Principal Consultant					
Principal Consultant					
1010 - Madej, Gerard	7/22/2014		.25	210.00	52.50
1010 - Madej, Gerard	7/25/2014		.25	210.00	52.50
Senior Consultant					
Senior Consultant					
1030 - Cassidy, Daniel	7/21/2014		2.75	165.00	453.75
Senior Project Engineer					
Senior Project Engineer					
1050 - Schmeisl, Paul	6/23/2014		.50	145.00	72.50
1050 - Schmeisl, Paul	7/24/2014		.25	145.00	36.25
Project Engineer					
Project Engineer					
1080 - Barton, Kevin	7/14/2014		.25	120.00	30.00
1080 - Barton, Kevin	7/18/2014		.50	120.00	60.00
Materials Consultant					
Materials Consultant					
1100 - Shaheen, Trevor	6/25/2014		.25	120.00	30.00
1100 - Shaheen, Trevor	7/23/2014		.25	120.00	30.00
Field Engineer					
Field Engineer					
1210 - Bernard, Bryan	6/25/2014		3.00	75.00	225.00
Technician II					
Technician II					
1300 - Hasenbusch, Ronald	7/23/2014		2.00	50.00	100.00
1300 - Hasenbusch, Ronald	7/23/2014 Ovt		3.25	75.00	243.75
1300 - Thorn, Brennan	7/9/2014		3.50	50.00	175.00
1300 - Thorn, Brennan	7/9/2014 Ovt		3.25	75.00	243.75
1300 - Thorn, Brennan	7/10/2014		2.50	50.00	125.00
1300 - Thorn, Brennan	7/10/2014 Ovt		3.75	75.00	281.25
1300 - Thorn, Brennan	7/14/2014		2.50	50.00	125.00
1300 - Thorn, Brennan	7/14/2014 Ovt		4.50	75.00	337.50
Administrative Assistant					
Administrative Assistant					
1310 - Schuett, Kailee	7/17/2014		.25	55.00	13.75
1310 - Schuett, Kailee	7/22/2014		.25	55.00	13.75
1310 - Stopper, Pamela	6/23/2014		.50	55.00	27.50
Totals			34.50		2,728.75
<b>Total Labor</b>					<b>2,728.75</b>

## Unit Billing

LABORATORY PROCTOR- 4 INCH MOLD

7/10/2014	RPT 1	1.0 EACH @ 140.00	140.00
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Project	061377.03	Balmoral Construction Phase Services	Invoice	51746
NUCLEAR DENSITY- MOISTURE METER-DAY				
7/7/2014	7/9/14, 7/10/14	2.0 DAYS @ 50.00	100.00	
7/14/2014	7/14/14	1.0 DAY @ 50.00	50.00	
7/21/2014	7/23/14	1.0 DAY @ 50.00	50.00	
PENETROMETER-DYNAMIC CONE/HOUSEL				
7/14/2014	RPT 1	1.0 DAY @ 30.00	30.00	
TRANSPORTATION				
7/9/2014		39.0 MILES @ 0.75	29.25	
7/10/2014		50.0 MILES @ 0.75	37.50	
7/14/2014		45.0 MILES @ 0.75	33.75	
7/23/2014		25.0 MILES @ 0.75	18.75	
<b>Total Units</b>			<b>489.25</b>	<b>489.25</b>
<b>Total this Project</b>			<b>\$3,218.00</b>	
<b>Total this Report</b>			<b>\$3,218.00</b>	



43980 Plymouth Oaks Blvd.  
Plymouth, MI 48170-2584  
Phone: 734-454-9900 Fax: 734-454-7685

**INVOICE**  
Remit to:  
SME  
P.O. Box 673166  
Detroit, MI 48267-3166

Harvey Weiss  
Weiss Samona  
32820 Woodward Ave  
Suite 200  
Royal Oak, MI 48009

September 10, 2014  
Invoice No: 52499

Project 061377.03 Balmoral Construction Phase Services

Partial invoice for Environmental Consulting Services including:

1. Solid waste characterization / disposal
2. Waste water characterization / permit consulting; and
3. Excavation observation / verification sampling / testing.

**Professional Services from July 28, 2014 to August 24, 2014**

**Personnel**

	Hours	Rate	Amount
Principal Consultant			
Bedenis, Timothy	1.50	210.00	315.00
Madej, Gerard	.50	210.00	105.00
Senior Consultant			
Cassidy, Daniel	10.50	165.00	1,732.50
Senior Project Engineer			
Schmeisl, Paul	1.00	145.00	145.00
Project Engineer			
Barton, Kevin	.25	120.00	30.00
Project Consultant			
Lafayette, Jason	6.25	120.00	750.00
Materials Consultant			
Shaheen, Trevor	.50	120.00	60.00
Technician II			
Hasenbusch, Ronald	4.25	50.00	212.50
Hasenbusch, Ronald	Ovt 4.50	75.00	337.50
Administrative Assistant			
Kameg, Christie	.75	55.00	41.25
Pipia, Katherine	.25	55.00	13.75
Tobin, Renee	.25	55.00	13.75

Terms: Invoice is due upon receipt. Amount not paid within 30 days are subject to 1.5% per month late charge.  
Fed ID#: 38-1738670

Project	061377.03	Balmoral Construction Phase Services	Invoice	52499
Technician I				
	Giordano, Shayne	1.25	42.00	52.50
	Totals	31.75		3,808.75
	<b>Total Labor</b>			<b>3,808.75</b>
Communication Fee				
			114.26	
			<b>114.26</b>	<b>114.26</b>
<b>Subconsultants/Subcontractors</b>				
Reimbursed Subcontract				
8/12/2014	FIBERTEC ENVIRONMENTAL SERVICES, INC.	ANALYTICAL	300.00	
8/20/2014	FIBERTEC ENVIRONMENTAL SERVICES, INC.	ANALYTICAL	300.00	
8/26/2014	FIBERTEC ENVIRONMENTAL SERVICES, INC.	ANALYTICAL	1,200.00	
	<b>Total Subconsultants/Subcontractors</b>		<b>1,800.00</b>	<b>1,800.00</b>
<b>Unit Billing</b>				
LABORATORY PROCTOR TEST- 6 INCH MOLD				
8/5/2014	RPT 2	1.0 EACH @ 160.00	160.00	
NUCLEAR DENSITY- MOISTURE METER-DAY				
7/28/2014	7/30/14	1.0 DAY @ 50.00	50.00	
TRANSPORTATION				
7/29/2014		52.0 MILES @ 0.75	39.00	
7/29/2014		42.0 MILES @ 0.75	31.50	
7/30/2014		54.0 MILES @ 0.75	40.50	
8/5/2014		52.0 MILES @ 0.75	39.00	
8/11/2014		22.0 MILES @ 0.75	16.50	
	<b>Total Units</b>		<b>376.50</b>	<b>376.50</b>
<b>Total this Invoice</b>				<b>\$6,099.51</b>

Thank you for the opportunity to be of service.  
Project Manager Daniel Cassidy

# Billing Backup

Tuesday, March 29, 2016

SME Invoice 52499 Dated 9/10/2014

12:54:24 PM

Project	061377.03	Balmoral Construction Phase Services
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## Personnel

		Hours	Rate	Amount
Principal Consultant				
Principal Consultant				
1010 - Bedenis, Timothy	8/5/2014	1.00	210.00	210.00
1010 - Bedenis, Timothy	8/7/2014	.50	210.00	105.00
1010 - Madej, Gerard	7/28/2014	.25	210.00	52.50
1010 - Madej, Gerard	8/18/2014	.25	210.00	52.50
Senior Consultant				
Senior Consultant				
1030 - Cassidy, Daniel	7/28/2014	.50	165.00	82.50
1030 - Cassidy, Daniel	7/29/2014	.50	165.00	82.50
1030 - Cassidy, Daniel	7/30/2014	.50	165.00	82.50
1030 - Cassidy, Daniel	8/4/2014	1.25	165.00	206.25
1030 - Cassidy, Daniel	8/5/2014	1.75	165.00	288.75
1030 - Cassidy, Daniel	8/11/2014	.50	165.00	82.50
1030 - Cassidy, Daniel	8/11/2014	.75	165.00	123.75
1030 - Cassidy, Daniel	8/14/2014	2.50	165.00	412.50
1030 - Cassidy, Daniel	8/18/2014	.75	165.00	123.75
1030 - Cassidy, Daniel	8/19/2014	.50	165.00	82.50
1030 - Cassidy, Daniel	8/20/2014	1.00	165.00	165.00
Senior Project Engineer				
Senior Project Engineer				
1050 - Schmeisl, Paul	7/30/2014	1.00	145.00	145.00
Project Engineer				
Project Engineer				
1080 - Barton, Kevin	8/11/2014	.25	120.00	30.00
Project Consultant				
Project Consultant				
1090 - Lafayette, Jason	7/29/2014	2.00	120.00	240.00
1090 - Lafayette, Jason	7/31/2014	.50	120.00	60.00
1090 - Lafayette, Jason	8/5/2014	2.50	120.00	300.00
1090 - Lafayette, Jason	8/8/2014	1.00	120.00	120.00
1090 - Lafayette, Jason	8/21/2014	.25	120.00	30.00
Materials Consultant				
Materials Consultant				
1100 - Shaheen, Trevor	7/29/2014	.25	120.00	30.00
1100 - Shaheen, Trevor	8/4/2014	.25	120.00	30.00
Technician II				
Technician II				
1300 - Hasenbusch, Ronald	7/29/2014	3.50	50.00	175.00
1300 - Hasenbusch, Ronald	7/30/2014	.75	50.00	37.50
1300 - Hasenbusch, Ronald	7/30/2014 Ovt	4.50	75.00	337.50

Project	061377.03	Balmoral Construction Phase Services			Invoice	52499
Administrative Assistant						
Administrative Assistant						
1310 - Kameg, Christie	8/4/2014	.25	55.00	13.75		
1310 - Kameg, Christie	8/6/2014	.50	55.00	27.50		
1310 - Pipia, Katherine	7/25/2014	.25	55.00	13.75		
1310 - Tobin, Renee	7/29/2014	.25	55.00	13.75		
Technician I						
Technician I						
1320 - Giordano, Shayne	8/11/2014	1.25	42.00	52.50		
Totals		31.75		3,808.75		
Total Labor					3,808.75	
Subconsultants/Subcontractors						
Reimbursed Subcontract						
AP 17184	8/12/2014	FIBERTEC ENVIRONMENTAL SERVICES, INC. / ANALYTICAL / Invoice: 111353, 8/4/2014			300.00	
AP 17251	8/20/2014	FIBERTEC ENVIRONMENTAL SERVICES, INC. / ANALYTICAL / Invoice: 111360, 8/4/2014			300.00	
AP 17376	8/26/2014	FIBERTEC ENVIRONMENTAL SERVICES, INC. / ANALYTICAL / Invoice: 111596, 8/13/2014			1,200.00	
Total Subconsultants/Subcontractors					1,800.00	1,800.00
Unit Billing						
LABORATORY PROCTOR TEST- 6 INCH MOLD						
8/5/2014	RPT 2	1.0 EACH @ 160.00		160.00		
NUCLEAR DENSITY- MOISTURE METER-DAY						
7/28/2014	7/30/14	1.0 DAY @ 50.00		50.00		
TRANSPORTATION						
7/29/2014		52.0 MILES @ 0.75		39.00		
7/29/2014		42.0 MILES @ 0.75		31.50		
7/30/2014		54.0 MILES @ 0.75		40.50		
8/5/2014		52.0 MILES @ 0.75		39.00		
8/11/2014		22.0 MILES @ 0.75		16.50		
Total Units					376.50	376.50
Total this Project					\$5,985.25	
Total this Report					\$5,985.25	

## INCLUDED IN OUR PRICE

Safety  
Customer Service  
Proactive Communication  
Professional Drivers-On time Deliveries

**Lou's Transport, Inc.**

1780 E. Highwood  
Pontiac, MI 48340  
(248) 332-5687  
FAX (248) 334-9566

INVOICE NO.: T0040100

ACCOUNT NO.: AIE366

INVOICE DATE: 7/12/2014

TO: BALMORAL, BIRMINGHAM

BILL TO: Aielli Construction Company Inc.  
8152 Twenty Five Mile Rd  
Suite A  
Shelby Twp, MI 48316

CUSTOMER JOB:

CUSTOMER PO:

JOB # 14-0514 JCA

DELIVERY DATE	DELIVERY TICKET	MATERIAL TICKET	TRUCK NO.	COMMODITY DESCRIPTION	LOT	TONS/YDS	BILL RATE	SALES TAX	TOTAL BILLING
7/8/2014	696481		846	PIT: CONCRETE OUT  C/O 1-WAY -S Trucking PIT TOTAL: CONCRETE OUT  INVOICE TOTALS:		24.00 Yard  24.00  Hourly Load 24.00 Yard Ton	\$6.75		\$162.00 \$162.00

PLEASE MAKE YOUR  
CHECK PAYABLE TO:

**Lou's Transport, Inc.****Terms:**

Net 30 From  
Date of Invoice

**TOTALS >****Total Invoice:****Fuel Surcharge:****New Total Owed:**

\$0.00

0.00%

\$162.00

\$0.00

\$162.00

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INCLUDED IN OUR PRICE

Safety  
Customer Service  
Proactive Communication  
Professional Drivers-On time Deliveries



**Lou's Transport, Inc.**

1780 E. Highwood  
Pontiac, MI 48340  
(248) 332-5687  
FAX (248) 334-9566

INVOICE NO.: T0040361 ✓

ACCOUNT NO.: AIE366

INVOICE DATE: 7/26/2014

TO: BALMORAL, BIRMINGHAM

BILL TO: Aielli Construction Company Inc.  
8152 Twenty Five Mile Rd  
Suite A  
Shelby Twp, MI 48316

CUSTOMER JOB:

CUSTOMER PO:

JOB # 14-0514 JCA

DELIVERY DATE	DELIVERY TICKET	MATERIAL TICKET	TRUCK NO.	COMMODITY DESCRIPTION	LOT	TONS/ YDS	BILL RATE	SALES TAX	TOTAL BILLING
7/21/2014	694013		22	PIT: CONCRETE OUT C/O 1-WAY -S Trucking		24.00 Yard	\$6.75		\$162.00
7/21/2014	694377		934	C/O 1-WAY -S Trucking		24.00 Yard	\$6.75		\$162.00
				PIT TOTAL: CONCRETE OUT		48.00			\$324.00
				INVOICE TOTALS:		Hourly Load 48.00 Yard Ton			

PLEASE MAKE YOUR  
CHECK PAYABLE TO:

**Lou's Transport, Inc.**

**Terms:**  
Net 30 From  
Date of Invoice

**TOTALS >**

**Total Invoice:**  
**Fuel Surcharge:**  
**New Total Owed:**

\$0.00	\$324.00
0.00%	\$0.00
	\$324.00

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Professional Drivers-On time Deliveries



## Lou's Transport, Inc.

1780 E. Highwood

Pontiac, MI 48340

(248) 332-5687

FAX (248) 334-9566

INVOICE NO.: T0040494

ACCOUNT NO.: AIE366

INVOICE DATE: 8/2/2014

TO: BALMORAL, BIRMINGHAM

BILL TO: Aielli Construction Company Inc.  
8152 Twenty Five Mile Rd  
Suite A  
Shelby Twp, MI 48316

CUSTOMER JOB:

CUSTOMER PO:

JOB # 14-0514 JCA

DELIVERY DATE	DELIVERY TICKET	MATERIAL TICKET	TRUCK NO.	COMMODITY DESCRIPTION	LOT	TONS/ YDS	BILL RATE	SALES TAX	TOTAL BILLING
				PIT: HOLLY DISPOSAL					
7/29/2014	692200	77879	837	CLASS II -S		27.93 Ton	\$2.30	\$3.85	\$68.09
				Trucking			\$7.56		\$211.15
7/31/2014	694438	78002	934	CLASS II -S		28.26 Ton	\$2.30	\$3.90	\$68.90
				Trucking			\$7.56		\$213.65
				PIT TOTAL: HOLLY DISPOSAL		56.19		\$7.75	\$561.79
				INVOICE TOTALS:		Hourly			
						Load			
						Yard			
						56.19 Ton			

PLEASE MAKE YOUR  
CHECK PAYABLE TO:

**Lou's Transport, Inc.**

Terms:

Net 30 From  
Date of Invoice

**TOTALS >**

Total Invoice:

Fuel Surcharge:

New Total Owed:

\$7.75

0.00%

\$561.79

\$0.00

\$561.79

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## INCLUDED IN OUR PRICE

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Proactive Communication  
Professional Drivers-On time Deliveries



## Lou's Transport, Inc.

1780 E. Highwood  
Pontiac, MI 48340  
(248) 332-5687  
FAX (248) 334-9566

INVOICE NO.: T0040495

ACCOUNT NO.: AIE366

VOICE DATE: 8/2/2014

ALL TO: Aielli Construction Company Inc.  
8152 Twenty Five Mile Rd  
Suite A  
Shelby Twp, MI 48316

JOB # 14-0514 JCAL

TO: BALMORAL (WOODWARD &amp; BROW

CUSTOMER JOB:

CUSTOMER PO:

DELIVERY DATE	DELIVERY TICKET	MATERIAL TICKET	TRUCK NO.	COMMODITY DESCRIPTION	LOT	TONS/ YDS	BILL RATE	SALES TAX	TOTAL BILLING
				PIT: EAGLE VALLEY					
7/31/2014	694112	322604	845	C-SOIL OUT 1-WAY -S Trucking		32.84 Ton	\$9.50 \$9.00		\$311.98 \$295.56
7/31/2014	694439	322430	934	C-SOIL OUT 1-WAY -S Trucking		25.90 Ton	\$9.50 \$9.00		\$246.05 \$233.10
7/31/2014	694440	322470	934	C-SOIL OUT 1-WAY -S Trucking		29.09 Ton	\$9.50 \$9.00		\$276.36 \$261.81
7/31/2014	694441	322517	934	C-SOIL OUT 1-WAY -S Trucking		27.54 Ton	\$9.50 \$9.00		\$261.63 \$247.86
7/31/2014	694442	322556	934	C-SOIL OUT 1-WAY -S Trucking		27.22 Ton	\$9.50 \$9.00		\$258.59 \$244.98
7/31/2014	694443	322590	934	C-SOIL OUT 1-WAY -S Trucking		28.18 Ton	\$9.50 \$9.00		\$267.71 \$253.62
7/31/2014	694444	322624	934	C-SOIL OUT 1-WAY -S Trucking		28.50 Ton	\$9.50 \$9.00		\$270.75 \$256.50
8/1/2014	686035	322667	652	C-SOIL OUT 1-WAY -S		30.22 Ton	\$9.50		\$287.09

## INCLUDED IN OUR PRICE

Safety  
Customer Service  
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Professional Drivers-On time Deliveries



## Lou's Transport, Inc.

1780 E. Highwood  
Pontiac, MI 48340  
(248) 332-5687  
FAX (248) 334-9566

INVOICE NO.: T0040495

ACCOUNT NO.: AIE366

INVOICE DATE: 8/2/2014

TO: BALMORAL (WOODWARD &amp; BROW

LL TO: Aielli Construction Company Inc.  
8152 Twenty Five Mile Rd  
Suite A  
Shelby Twp, MI 48316

JOB # 14-0514 JCAL

CUSTOMER JOB:

CUSTOMER PO:

DELIVERY DATE	DELIVERY TICKET	MATERIAL TICKET	TRUCK NO.	COMMODITY DESCRIPTION	LOT	TONS/ YDS	BILL RATE	SALES TAX	TOTAL BILLING
				Trucking			\$9.00		\$271.98
8/1/2014	686036	322700	652	C-SOIL OUT 1-WAY -S		27.10 Ton	\$9.50		\$257.45
				Trucking			\$9.00		\$243.90
8/1/2014	686037	322731	652	C-SOIL OUT 1-WAY -S		26.58 Ton	\$9.50		\$252.51
				Trucking			\$9.00		\$239.22
8/1/2014	686038	322759	652	C-SOIL OUT 1-WAY -S		28.64 Ton	\$9.50		\$272.08
				Trucking			\$9.00		\$257.76
8/1/2014	686039	322795	652	C-SOIL OUT 1-WAY -S		27.26 Ton	\$9.50		\$258.97
				Trucking			\$9.00		\$245.34
8/1/2014	686040	322817	652	C-SOIL OUT 1-WAY -S		30.99 Ton	\$9.50		\$294.41
				Trucking			\$9.00		\$278.91
8/1/2014	692224	322671	837	C-SOIL OUT 1-WAY -S		27.58 Ton	\$9.50		\$262.01
				Trucking			\$9.00		\$248.22
8/1/2014	692226	322716	837	C-SOIL OUT 1-WAY -S		27.96 Ton	\$9.50		\$265.62
				Trucking			\$9.00		\$251.64
8/1/2014	692227	322748	837	C-SOIL OUT 1-WAY -S		26.16 Ton	\$9.50		\$248.52
				Trucking			\$9.00		\$235.44
8/1/2014	692228	322785	837	C-SOIL OUT 1-WAY -S		27.08 Ton	\$9.50		\$257.26

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# Lou's Transport, Inc.

1780 E. Highwood  
Pontiac, MI 48340  
(248) 332-5687  
FAX (248) 334-9566

INVOICE NO.: T0040495

ACCOUNT NO.: AIE366

VOICE DATE: 8/2/2014

TO: Aielli Construction Company Inc.  
8152 Twenty Five Mile Rd  
Suite A  
Shelby Twp, MI 48316

JOB # 14-0514 JCAL

TO: BALMORAL (WOODWARD & BROW

CUSTOMER JOB:

CUSTOMER PO:

DELIVERY DATE	DELIVERY TICKET	MATERIAL TICKET	TRUCK NO.	COMMODITY DESCRIPTION	LOT	TONS/ YDS	BILL RATE	SALES TAX	TOTAL BILLING
1/2014	692229	322813	837	Trucking C-SOIL OUT 1-WAY -S		27.22 Ton	\$9.00 \$9.50		\$243.72 \$258.59
1/2014	692230	322824	837	Trucking C-SOIL OUT 1-WAY -S		26.88 Ton	\$9.00 \$9.50		\$244.98 \$255.36
				Trucking PIT TOTAL: EAGLE VALLEY		532.94	\$9.00		\$241.92 \$9,859.40
				INVOICE TOTALS:		Hourly Load Yard 532.94 Ton			

PLEASE MAKE YOUR  
CHECK PAYABLE TO:

**Lou's Transport, Inc.**

## Terms:

Net 30 From  
Date of Invoice

## TOTALS >

Total Invoice:

Fuel Surcharge:

New Total Owed:

\$0.00

0.00%

\$9,859.40

\$0.00

\$9,859.40

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## Lou's Transport, Inc.

1780 E. Highwood

Pontiac, MI 48340

(248) 332-5687

FAX (248) 334-9566

INVOICE NO.: T0040613

ACCOUNT NO.: AIE366

INVOICE DATE: 8/9/2014

TO: BALMORAL (WOODWARD &amp; BROW

BILL TO: Aielli Construction Company Inc.  
8152 Twenty Five Mile Rd  
Suite A  
Shelby Twp, MI 48316

CUSTOMER JOB:

CUSTOMER PO:

JOB # 14-0514 JCAL

DELIVERY DATE	DELIVERY TICKET	MATERIAL TICKET	TRUCK NO.	COMMODITY DESCRIPTION	LOT	TONS/ YDS	BILL RATE	SALES TAX	TOTAL BILLING
				PIT: EAGLE VALLEY					
8/4/2014	693974	322929	51	C-SOIL OUT 1-WAY -S Trucking		26.26 Ton	\$9.50 \$9.00		\$249.47 \$236.34
8/4/2014	693975	322961	51	C-SOIL OUT 1-WAY -S Trucking		23.03 Ton	\$9.50 \$9.00		\$218.79 \$207.27
8/4/2014	693976	322993	51	C-SOIL OUT 1-WAY -S Trucking		27.37 Ton	\$9.50 \$9.00		\$260.02 \$246.33
8/4/2014	693977	323026	51	C-SOIL OUT 1-WAY -S Trucking		25.70 Ton	\$9.50 \$9.00		\$244.15 \$231.30
8/4/2014	693980	323104	51	C-SOIL OUT 1-WAY -S Trucking		22.14 Ton	\$9.50 \$9.00		\$210.33 \$199.26
8/4/2014	693981	323128	51	C-SOIL OUT 1-WAY -S Trucking		24.24 Ton	\$9.50 \$9.00		\$230.28 \$218.16
8/4/2014	711072	323072	652	C-SOIL OUT 1-WAY -S Trucking		27.49 Ton	\$9.50 \$9.00		\$261.16 \$247.41
8/4/2014	711073	323113	652	C-SOIL OUT 1-WAY -S		28.48 Ton	\$9.50		\$270.56

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**Lou's Transport, Inc.**

1780 E. Highwood  
Pontiac, MI 48340  
(248) 332-5687  
FAX (248) 334-9566

INVOICE NO.: T0040613

ACCOUNT NO.: AIE366

INVOICE DATE: 8/9/2014

TO: BALMORAL (WOODWARD &amp; BROW

BILL TO: Aielli Construction Company Inc.  
8152 Twenty Five Mile Rd  
Suite A  
Shelby Twp, MI 48316

CUSTOMER JOB:

CUSTOMER PO:

JOB # 14-0514 JCAL

DELIVERY DATE	DELIVERY TICKET	MATERIAL TICKET	TRUCK NO.	COMMODITY DESCRIPTION	LOT	TONS/ YDS	BILL RATE	SALES TAX	TOTAL BILLING
8/4/2014	711082	322931	652	Trucking C-SOIL OUT 1-WAY -S		26.82 Ton	\$9.00 \$9.50		\$256.32 \$254.79
8/4/2014	711083	322967	652	Trucking C-SOIL OUT 1-WAY -S		25.58 Ton	\$9.00 \$9.50		\$241.38 \$243.01
8/4/2014	711084	323000	652	Trucking C-SOIL OUT 1-WAY -S		24.57 Ton	\$9.00 \$9.50		\$230.22 \$233.42
8/4/2014	711085	323035	652	Trucking C-SOIL OUT 1-WAY -S		27.13 Ton	\$9.00 \$9.50		\$221.13 \$257.74
8/5/2014	675514	323289	216	Trucking C-SOIL OUT 1-WAY -S		25.42 Ton	\$9.00 \$9.50		\$244.17 \$241.49
8/5/2014	675522	323326	216	Trucking C-SOIL OUT 1-WAY -S		27.66 Ton	\$9.00 \$9.50		\$228.78 \$262.77
8/5/2014	691505	323184	215	Trucking C-SOIL OUT 1-WAY -S		25.19 Ton	\$9.00 \$9.50		\$248.94 \$239.31
8/5/2014	691506	323223	215	Trucking C-SOIL OUT 1-WAY -S		26.29 Ton	\$9.00 \$9.50		\$226.71 \$249.76
8/5/2014	692244	323240	837	Trucking C-SOIL OUT 1-WAY -S		25.82 Ton	\$9.00 \$9.50		\$236.61 \$245.29

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**Lou's Transport, Inc.**

1780 E. Highwood  
Pontiac, MI 48340  
(248) 332-5687  
FAX (248) 334-9566

INVOICE NO.: T0040613

ACCOUNT NO.: AIE366

INVOICE DATE: 8/9/2014

TO: BALMORAL (WOODWARD &amp; BROW

BILL TO: Aielli Construction Company Inc.  
8152 Twenty Five Mile Rd  
Suite A  
Shelby Twp, MI 48316

CUSTOMER JOB:

CUSTOMER PO:

JOB # 14-0514 JCAL

DELIVERY DATE	DELIVERY TICKET	MATERIAL TICKET	TRUCK NO.	COMMODITY DESCRIPTION	LOT	TONS/YDS	BILL RATE	SALES TAX	TOTAL BILLING
8/5/2014	692245	323267	837	Trucking C-SOIL OUT 1-WAY -S		25.34 Ton	\$9.00 \$9.50		\$232.38 \$240.73
8/5/2014	692246	323300	837	Trucking C-SOIL OUT 1-WAY -S		24.94 Ton	\$9.00 \$9.50		\$228.06 \$236.93
8/5/2014	693194	323333	113	Trucking C-SOIL OUT 1-WAY -S		30.18 Ton	\$9.00 \$9.50		\$224.46 \$286.71
8/5/2014	693245	323285	848	Trucking C-SOIL OUT 1-WAY -S		28.09 Ton	\$9.00 \$9.50		\$271.62 \$266.86
8/5/2014	693246	323330	848	Trucking C-SOIL OUT 1-WAY -S		18.88 Ton	\$9.00 \$9.50		\$252.81 \$179.36
8/5/2014	693327	323308	371	Trucking C-SOIL OUT 1-WAY -S		28.29 Ton	\$9.00 \$9.50		\$169.92 \$268.76
8/5/2014	711077	323210	652	Trucking C-SOIL OUT 1-WAY -S		28.33 Ton	\$9.00 \$9.50		\$254.61 \$269.14
8/5/2014	711078	323305	652	Trucking C-SOIL OUT 1-WAY -S		26.44 Ton	\$9.00 \$9.50		\$254.97 \$251.18
8/5/2014	711087	323171	652	Trucking C-SOIL OUT 1-WAY -S		25.62 Ton	\$9.00 \$9.50		\$237.96 \$243.39

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## Lou's Transport, Inc.

1780 E. Highwood  
Pontiac, MI 48340  
(248) 332-5687  
FAX (248) 334-9566

INVOICE NO.: T0040613

ACCOUNT NO.: AIE366

INVOICE DATE: 8/9/2014

TO: BALMORAL (WOODWARD &amp; BROW

BILL TO: Aielli Construction Company Inc.  
8152 Twenty Five Mile Rd  
Suite A  
Shelby Twp, MI 48316

CUSTOMER JOB:

CUSTOMER PO:

JOB # 14-0514 JCAL

DELIVERY DATE	DELIVERY TICKET	MATERIAL TICKET	TRUCK NO.	COMMODITY DESCRIPTION	LOT	TONS/ YDS	BILL RATE	SALES TAX	TOTAL BILLING
8/5/2014	711088	323245	652	Trucking C-SOIL OUT 1-WAY -S		28.39 Ton	\$9.00 \$9.50		\$230.58 \$269.71
8/5/2014	711089	323271	652	Trucking C-SOIL OUT 1-WAY -S		24.63 Ton	\$9.00 \$9.50		\$255.51 \$233.99
8/8/2014	681099	322653	PON	Trucking C-SOIL OUT 1-WAY -S	8/1/14	30.04 Ton	\$9.00 \$9.50		\$221.67 \$285.38
8/8/2014	681100	322683	PON	Trucking C-SOIL OUT 1-WAY -S	8/1/14	27.87 Ton	\$9.00 \$9.50		\$270.36 \$264.77
8/8/2014	681101	322708	PON	Trucking C-SOIL OUT 1-WAY -S	8/1/14	25.97 Ton	\$9.00 \$9.50		\$250.83 \$246.72
8/8/2014	681102	322739	PON	Trucking C-SOIL OUT 1-WAY -S	8/1/14	25.97 Ton	\$9.00 \$9.50		\$233.73 \$246.72
8/8/2014	681103	322777	PON	Trucking C-SOIL OUT 1-WAY -S	8/1/14	31.97 Ton	\$9.00 \$9.50		\$233.73 \$303.72
8/8/2014	681104	322810	PON	Trucking C-SOIL OUT 1-WAY -S	8/1/14	27.15 Ton	\$9.00 \$9.50		\$287.73 \$257.93
				Trucking PIT TOTAL: EAGLE VALLEY		897.29	\$9.00		\$244.35 \$16,599.95

## INCLUDED IN OUR PRICE

Safety  
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Professional Drivers-On time Deliveries

**Lou's Transport, Inc.**

1780 E. Highwood  
Pontiac, MI 48340  
(248) 332-5687  
FAX (248) 334-9566

INVOICE NO.: T0040613

ACCOUNT NO.: AIE366

INVOICE DATE: 8/9/2014

TO: BALMORAL (WOODWARD &amp; BROW

BILL TO: Aielli Construction Company Inc.  
8152 Twenty Five Mile Rd  
Suite A  
Shelby Twp, MI 48316

CUSTOMER JOB:

CUSTOMER PO:

JOB # 14-0514 JCAL

DELIVERY DATE	DELIVERY TICKET	MATERIAL TICKET	TRUCK NO.	COMMODITY DESCRIPTION	LOT	TONS/ YDS	BILL RATE	SALES TAX	TOTAL BILLING
				INVOICE TOTALS:		Hourly Load Yard 897.29 Ton			
PLEASE MAKE YOUR CHECK PAYABLE TO:				<b>Lou's Transport, Inc.</b>		<b>Terms:</b>		<b>TOTALS &gt;</b>	
						Net 30 From Date of Invoice		Total Invoice:	
								Fuel Surcharge:	
								New Total Owed:	
								\$0.00	\$16,599.95
								0.00%	\$0.00
									\$16,599.95

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 Safety  
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 Professional Drivers-On time Deliveries



**Lou's Transport, Inc.**  
 1780 E. Highwood  
 Pontiac, MI 48340  
 (248) 332-5687  
 FAX (248) 334-9566

INVOICE NO.: T0040735  
 ACCOUNT NO.: AIE366

VOICE DATE: 8/16/2014

TO: BALMORAL, BIRMINGHAM

DEL TO: Aielli Construction Company Inc.  
 8152 Twenty Five Mile Rd  
 Suite A  
 Shelby Twp, MI 48316

CUSTOMER JOB:  
 CUSTOMER PO:

JOB # 14-0514 JCA

LIVERY DATE	DELIVERY TICKET	MATERIAL TICKET	TRUCK NO.	COMMODITY DESCRIPTION	LOT	TONS/ YDS	BILL RATE	SALES TAX	TOTAL BILLING
13/2014	682530	175769	PON	PIT: STATE CRUSH	8/6/14				
				C.C. 1X3" -S		35.64 Ton	\$7.50	\$16.04	\$283.34
				Trucking			\$6.00		\$213.84
				PIT TOTAL: STATE CRUSH		35.64		\$16.04	\$497.18
13/2014	682529	175751	PON	PIT: STATE CRUSH EAST	8/6/14				
				C.C. 1X3" -S		29.84 Ton	\$7.50	\$13.43	\$237.23
				Trucking			\$6.00		\$179.04
				PIT TOTAL: STATE CRUSH EAST		29.84		\$13.43	\$416.27
INVOICE TOTALS:						Hourly Load Yard 65.48 Ton			

PLEASE MAKE YOUR CHECK PAYABLE TO:

**Lou's Transport, Inc.**

Terms:  
 Net 30 From  
 Date of Invoice

**TOTALS >**

Total Invoice:	\$29.47	\$913.45
Fuel Surcharge:	0.00%	\$0.00
New Total Owed:		\$913.45

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INCLUDED IN OUR PRICE  
Safety  
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Proactive Communication  
Professional Drivers - On Time Deliveries



**T.K.M.S.**  
1780 E HIGHWOOD  
PONTIAC, MI 48340  
Phone: (248) 628-2551  
Fax: (248) 334-9566

INVOICE NO.: T0050268  
ACCOUNT NO.: AIE366

INVOICE DATE: 7/12/2014

TO: BALMORAL, BIRMINGHAM

BILL TO: Aielli Construction Company Inc.  
8152 Twenty Five Mile Rd  
Suite A  
Shelby Twp, MI 48316

CUSTOMER JOB:  
CUSTOMER PO:

JOB # 14-9755 JCA

DELIVERY DATE	DELIVERY TICKET	MATERIAL TICKET	TRUCK NO.	COMMODITY DESCRIPTION	LOT	TONS/ YDS	BILL RATE	SALES TAX	TOTAL BILLING
				PIT: DIRT OUT					
7/11/2014	528150		392	D/O 1-WAY -T Trucking		40.00 Yard	\$6.25		\$250.00
7/11/2014	528865		017	D/O 1-WAY -T Trucking		40.00 Yard	\$6.25		\$250.00
				PIT TOTAL: DIRT OUT		80.00			\$500.00
				PIT: FIORE					
7/8/2014	494685	83350	391	C.C. 1X3" -T Trucking		46.58 Ton	\$7.26 \$5.25	\$20.29	\$358.46 \$244.55
				PIT TOTAL: FIORE		46.58		\$20.29	\$603.01
				PIT: HOLLY DISPOSAL					
7/9/2014	527211	77333	34	FILL SAND -T Trucking		49.76 Ton	\$2.07 \$6.25	\$6.18	\$109.18 \$311.00

INCLUDED IN OUR PRICE  
Safety  
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Professional Drivers-On Time Deliveries



**T.K.M.S.**  
1780 E HIGHWOOD  
PONTIAC, MI 48340  
Phone (248) 628-2551  
FAX (248) 334-9566

INVOICE NO.: T0050268  
ACCOUNT NO.: AIE366

INVOICE DATE: 7/12/2014

TO: BALMORAL, BIRMINGHAM

BILL TO: Aielli Construction Company Inc.  
8152 Twenty Five Mile Rd  
Suite A  
Shelby Twp, MI 48316

CUSTOMER JOB:

CUSTOMER PO:

JOB # 14-9755 JCA

DELIVERY DATE	DELIVERY TICKET	MATERIAL TICKET	TRUCK NO.	COMMODITY DESCRIPTION	LOT	TONS/ YDS	BILL RATE	SALES TAX	TOTAL BILLING
7/10/2014	528834	77339	608	CLASS II -T		49.29 Ton	\$2.30	\$6.80	\$120.17
				Trucking			\$6.25		\$308.06
				PIT TOTAL: HOLLY DISPOSAL		99.05		\$12.98	\$848.41
				PIT: MCCOIG/7 MILE					
7/10/2014	528405	1107360	528	C.C. 21AA -S		27.00 Ton	\$4.90	\$7.94	\$140.24
				Trucking			\$9.00		\$243.00
				PIT TOTAL: MCCOIG/7 MILE		27.00		\$7.94	\$383.24
				PIT: STONECO NEWPORT					
7/8/2014	527309	338308	29	L/S 6A -T		50.14 Ton	\$8.80	\$26.47	\$467.70
				Trucking			\$7.00		\$350.98
				PIT TOTAL: STONECO NEWPORT		50.14		\$26.47	\$818.68
				INVOICE TOTALS:		Hourly Load 80.00 Yard			

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**T.K.M.S.**  
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PONTIAC, MI 48340  
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INVOICE NO.: T0050268  
ACCOUNT NO.: AIE366

INVOICE DATE: 7/12/2014

TO: BALMORAL, BIRMINGHAM

BILL TO: Aielli Construction Company Inc.  
8152 Twenty Five Mile Rd  
Suite A  
Shelby Twp, MI 48316

JOB # 14-9755 JCA

CUSTOMER JOB:  
CUSTOMER PO:

DELIVERY DATE	DELIVERY TICKET	MATERIAL TICKET	TRUCK NO.	COMMODITY DESCRIPTION	LOT	TONS/YDS	BILL RATE	SALES TAX	TOTAL BILLING
						222.77 Ton			
PLEASE MAKE YOUR CHECK PAYABLE TO: <b>T.K.M.S.</b>								<b>Terms:</b> Net 30 From Date of Invoice	<b>TOTALS &gt;</b>
								Total Invoice: \$67.68 Fuel Surcharge: 0.00% New Total Owed:	\$3,153.34 \$0.00 \$3,153.34

Payments not received within 30 days of this invoice are subject to a late fee of 5% of the amount due during that period. In the event of Customer's failure to timely pay this invoice amount, TKMS reserves the right to recover from Customer all expenses associated with enforcement of the payment terms including reasonable attorney's fees and costs incurred by it to enforce its rights under this invoice and/or applicable law.

INCLUDED IN OUR PRICE  
Safety  
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Professional Drivers - On Time Deliveries



**T.K.M.S.**  
1780 E HIGHWOOD  
PONTIAC, MI 48340  
Phone: (248) 628-2551  
Fax: (248) 334-9566

INVOICE NO.: T0050269  
ACCOUNT NO.: AIE366

INVOICE DATE: 7/12/2014

TO: BALMORAL, BIRMINGHAM

BILL TO: Aielli Construction Company Inc.  
8152 Twenty Five Mile Rd  
Suite A  
Shelby Twp, MI 48316

CUSTOMER JOB:

CUSTOMER PO:

JOB # 14-9755 JCAL

DELIVERY DATE	DELIVERY TICKET	MATERIAL TICKET	TRUCK NO.	COMMODITY DESCRIPTION	LOT	TONS/ YDS	BILL RATE	SALES TAX	TOTAL BILLING
				PIT: EAGLE VALLEY					
7/8/2014	494683	318255	391	C-SOIL OUT 1-WAY - T Trucking		48.39 Ton	\$9.50 \$7.00		\$459.71 \$338.73
7/8/2014	526249	318290	004	C-SOIL OUT 1-WAY - T Trucking		50.32 Ton	\$9.50 \$7.00		\$478.04 \$352.24
7/8/2014	527310	318299	29	C-SOIL OUT 1-WAY - T Trucking		55.13 Ton	\$9.50 \$7.00		\$523.74 \$385.91
7/8/2014	527780	318274	017	C-SOIL OUT 1-WAY - T Trucking		48.88 Ton	\$9.50 \$7.00		\$464.36 \$342.16
7/9/2014	489126	318632	280	C-SOIL OUT 1-WAY - T Trucking		47.27 Ton	\$9.50 \$7.00		\$449.07 \$330.89
7/9/2014	489231	318600	30	C-SOIL OUT 1-WAY - T Trucking		43.16 Ton	\$9.50 \$7.00		\$410.02 \$302.12
7/9/2014	495377	318530	528	C-SOIL OUT 1-WAY - T Trucking		54.29 Ton	\$9.50 \$7.00		\$515.76 \$380.03
7/9/2014	496082	318455	017	C-SOIL OUT 1-WAY - T Trucking		51.47 Ton	\$9.50 \$7.00		\$488.97 \$360.29

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PONTIAC, MI 48340  
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INVOICE NO.: T0050269  
ACCOUNT NO.: AIE366

INVOICE DATE: 7/12/2014

TO: BALMORAL, BIRMINGHAM

BILL TO: Aielli Construction Company Inc.  
8152 Twenty Five Mile Rd  
Suite A  
Shelby Twp, MI 48316

JOB # 14-9755 JCAL

CUSTOMER JOB:

CUSTOMER PO:

DELIVERY DATE	DELIVERY TICKET	MATERIAL TICKET	TRUCK NO.	COMMODITY DESCRIPTION	LOT	TONS/ YDS	BILL RATE	SALES TAX	TOTAL BILLING
7/9/2014	526721	318460	000	C-SOIL OUT 1-WAY - T Trucking		52.13 Ton	\$9.50 \$7.00		\$495.24 \$364.91
7/9/2014	526722	318499	000	C-SOIL OUT 1-WAY - T Trucking		51.97 Ton	\$9.50 \$7.00		\$493.72 \$363.79
7/9/2014	526723	318533	000	C-SOIL OUT 1-WAY - T Trucking		47.73 Ton	\$9.50 \$7.00		\$453.44 \$334.11
7/9/2014	527212	311099	34	C-SOIL OUT 1-WAY - T Trucking		45.40 Ton	\$9.50 \$7.00		\$431.30 \$317.80
7/9/2014	527962	318625	997	C-SOIL OUT 1-WAY - T Trucking		47.04 Ton	\$9.50 \$7.00		\$446.88 \$329.28
7/9/2014	527963	318579	997	C-SOIL OUT 1-WAY - T Trucking		47.43 Ton	\$9.50 \$7.00		\$450.59 \$332.01
7/9/2014	528301	318557	953	C-SOIL OUT 1-WAY - T Trucking		50.18 Ton	\$9.50 \$7.00		\$476.71 \$351.26
7/9/2014	528302	318602	953	C-SOIL OUT 1-WAY - T Trucking		36.41 Ton	\$9.50 \$7.00		\$345.90 \$254.87
7/9/2014	528848	318495	017	C-SOIL OUT 1-WAY - T Trucking		62.19 Ton	\$9.50 \$7.00		\$590.81 \$435.33
7/9/2014	528849	318528	017	C-SOIL OUT 1-WAY - T		47.78 Ton	\$9.50		\$453.91

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INVOICE NO.: T0050269  
ACCOUNT NO.: AIE366

INVOICE DATE: 7/12/2014

TO: BALMORAL, BIRMINGHAM

BILL TO: Aielli Construction Company Inc.  
8152 Twenty Five Mile Rd  
Suite A  
Shelby Twp, MI 48316

CUSTOMER JOB:

CUSTOMER PO:

JOB # 14-9755 JCAL

DELIVERY DATE	DELIVERY TICKET	MATERIAL TICKET	TRUCK NO.	COMMODITY DESCRIPTION	LOT	TONS/ YDS	BILL RATE	SALES TAX	TOTAL BILLING
7/10/2014	489235	318765	30	Trucking C-SOIL OUT 1-WAY - T		45.23 Ton	\$7.00 \$9.50		\$334.46 \$429.69
7/10/2014	489236	318818	30	Trucking C-SOIL OUT 1-WAY - T		55.34 Ton	\$7.00 \$9.50		\$316.61 \$525.73
7/10/2014	496475	318725	002	Trucking C-SOIL OUT 1-WAY - T		44.79 Ton	\$7.00 \$9.50		\$387.38 \$425.51
7/10/2014	496476	318767	002	Trucking C-SOIL OUT 1-WAY - T		49.67 Ton	\$7.00 \$9.50		\$313.53 \$471.87
7/10/2014	526403	318729	33	Trucking C-SOIL OUT 1-WAY - T		39.83 Ton	\$7.00 \$9.50		\$347.69 \$378.39
7/10/2014	527324	318743	29	Trucking C-SOIL OUT 1-WAY - T		44.95 Ton	\$7.00 \$9.50		\$278.81 \$427.03
7/10/2014	527325	318790	29	Trucking C-SOIL OUT 1-WAY - T		54.17 Ton	\$7.00 \$9.50		\$314.65 \$514.62
7/10/2014	527326	318847	29	Trucking C-SOIL OUT 1-WAY - T		53.17 Ton	\$7.00 \$9.50		\$379.19 \$505.12
7/10/2014	528401	318675	528	Trucking C-SOIL OUT 1-WAY - T		60.48 Ton	\$7.00 \$9.50		\$372.19 \$574.56
				Trucking			\$7.00		\$423.36

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INVOICE NO.: T0050269  
ACCOUNT NO.: AIE366

INVOICE DATE: 7/12/2014

TO: BALMORAL, BIRMINGHAM

BILL TO: Aielli Construction Company Inc.  
8152 Twenty Five Mile Rd  
Suite A  
Shelby Twp, MI 48316

CUSTOMER JOB:  
CUSTOMER PO:

JOB # 14-9755 JCAL

DELIVERY DATE	DELIVERY TICKET	MATERIAL TICKET	TRUCK NO.	COMMODITY DESCRIPTION	LOT	TONS/ YDS	BILL RATE	SALES TAX	TOTAL BILLING
7/10/2014	528402	318714	528	C-SOIL OUT 1-WAY - T Trucking		49.56 Ton	\$9.50 \$7.00		\$470.82 \$346.92
7/10/2014	528406	318856	528	C-SOIL OUT 1-WAY - T Trucking		57.22 Ton	\$9.50 \$7.00		\$543.59 \$400.54
7/10/2014	528832	318696	608	C-SOIL OUT 1-WAY - T Trucking		49.76 Ton	\$9.50 \$7.00		\$472.72 \$348.32
7/10/2014	528833	318668	608	C-SOIL OUT 1-WAY - T Trucking		51.51 Ton	\$9.50 \$7.00		\$489.35 \$360.57
7/10/2014	528860	318854	017	C-SOIL OUT 1-WAY - T Trucking		58.22 Ton	\$9.50 \$7.00		\$553.09 \$407.54
7/11/2014	526911	318935	279	C-SOIL OUT 1-WAY - T Trucking		43.00 Ton	\$9.50 \$7.00		\$408.50 \$301.00
7/11/2014	526912	318980	279	C-SOIL OUT 1-WAY - T Trucking		49.54 Ton	\$9.50 \$7.00		\$470.63 \$346.78
7/11/2014	527952	318913	997	C-SOIL OUT 1-WAY - T Trucking		52.42 Ton	\$9.50 \$7.00		\$497.99 \$366.94
				PIT TOTAL: EAGLE VALLEY		1,746.03			\$28,809.59
				INVOICE TOTALS:		Hourly			

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1780 E HIGHWOOD  
PONTIAC, MI 48340  
Phone (248) 628-2551  
FAX (248) 334-9566

INVOICE NO.: T0050269  
ACCOUNT NO.: AIE366

INVOICE DATE: 7/12/2014

TO: BALMORAL, BIRMINGHAM

BILL TO: Aielli Construction Company Inc.  
8152 Twenty Five Mile Rd  
Suite A  
Shelby Twp, MI 48316

CUSTOMER JOB:  
CUSTOMER PO:

JOB # 14-9755 JCAL

DELIVERY DATE	DELIVERY TICKET	MATERIAL TICKET	TRUCK NO.	COMMODITY DESCRIPTION	LOT	TONS/ YDS	BILL RATE	SALES TAX	TOTAL BILLING
						Load Yard 1,746.03 Ton			

PLEASE MAKE YOUR  
CHECK PAYABLE TO:

**T.K.M.S.**

**Terms:**  
Net 30 From  
Date of Invoice

**TOTALS >**

**Total Invoice:**  
**Fuel Surcharge:**  
**New Total Owed:**

\$0.00	\$28,809.59
0.00%	\$0.00
	\$28,809.59

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**T.K.M.S.**  
1780 E HIGHWOOD  
PONTIAC, MI 48340  
Phone: (248) 628-2551  
Fax: (248) 334-9566

INVOICE NO.: T0050427  
ACCOUNT NO.: AIE366

INVOICE DATE: 7/19/2014

TO: BALMORAL, BIRMINGHAM

BILL TO: Aielli Construction Company Inc.  
8152 Twenty Five Mile Rd  
Suite A  
Shelby Twp, MI 48316

CUSTOMER JOB:

CUSTOMER PO:

JOB # 14-9755 JCA

DELIVERY DATE	DELIVERY TICKET	MATERIAL TICKET	TRUCK NO.	COMMODITY DESCRIPTION	LOT	TONS/ YDS	BILL RATE	SALES TAX	TOTAL BILLING
				PIT: DIRT OUT					
7/16/2014	526487		33	D/O 1-WAY -T Trucking		40.00 Yard	\$6.25		\$250.00
7/16/2014	527649		015	D/O 1-WAY -T Trucking		40.00 Yard	\$6.25		\$250.00
7/18/2014	520983		26	D/O 1-WAY -T Trucking		40.00 Yard	\$6.25		\$250.00
7/18/2014	528209		392	D/O 1-WAY -T Trucking		40.00 Yard	\$6.25		\$250.00
				PIT TOTAL: DIRT OUT		160.00			\$1,000.00
				PIT: HOLLY DISPOSAL					
7/14/2014	526919	77455	279	CLASS II -T Trucking		49.23 Ton	\$2.30 \$6.25	\$6.79	\$120.02 \$307.69
7/17/2014	527187	77571	DLA	CLASS II -T Trucking		48.24 Ton	\$2.30 \$6.25	\$6.66	\$117.61 \$301.50

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Safety  
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**T.K.M.S.**  
1780 E HIGHWOOD  
PONTIAC, MI 48340  
Phone (248) 628-2551  
FAX (248) 334-9566

INVOICE NO.: T0050427  
ACCOUNT NO.: AIE366

INVOICE DATE: 7/19/2014

TO: BALMORAL, BIRMINGHAM

BILL TO: Aielli Construction Company Inc.  
8152 Twenty Five Mlle Rd  
Suite A  
Shelby Twp, MI 48316

JOB # 14-9755 JCA

CUSTOMER JOB:  
CUSTOMER PO:

DELIVERY DATE	DELIVERY TICKET	MATERIAL TICKET	TRUCK NO.	COMMODITY DESCRIPTION	LOT	TONS/ YDS	BILL RATE	SALES TAX	TOTAL BILLING
7/17/2014	528751	77570	DLA	CLASS II -T Trucking PIT TOTAL: HOLLY DISPOSAL		48.90 Ton  146.37	\$2.30 \$6.25	\$6.75 \$20.20	\$119.22 \$305.63 \$1,271.67
				INVOICE TOTALS:		Hourly Load 160.00 Yard 146.37 Ton			

PLEASE MAKE YOUR  
CHECK PAYABLE TO:

**T.K.M.S.**

**Terms:**  
Net 30 From  
Date of Invoice

**TOTALS >**

Total Invoice:  
Fuel Surcharge:  
New Total Owed:

\$20.20	\$2,271.67
0.00%	\$0.00
	\$2,271.67

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**T.K.M.S.**  
1780 E HIGHWOOD  
PONTIAC, MI 48340  
Phone: (248) 628-2551  
Fax: (248) 334-9566

INVOICE NO.: T0050428  
ACCOUNT NO.: AIE366

INVOICE DATE: 7/19/2014

TO: BALMORAL, BIRMINGHAM

BILL TO: Aielli Construction Company Inc.  
8152 Twenty Five Mile Rd  
Suite A  
Shelby Twp, MI 48316

JOB # 14-9755 JCAL

CUSTOMER JOB:

CUSTOMER PO:

DELIVERY DATE	DELIVERY TICKET	MATERIAL TICKET	TRUCK NO.	COMMODITY DESCRIPTION	LOT	TONS/ YDS	BILL RATE	SALES TAX	TOTAL BILLING
				PIT: EAGLE VALLEY					
7/15/2014	526272	319688	004	C-SOIL OUT 1-WAY - T Trucking		45.25 Ton	\$9.50 \$7.00		\$429.88 \$316.75
7/15/2014	527939	319680	997	C-SOIL OUT 1-WAY - T Trucking		54.31 Ton	\$9.50 \$7.00		\$515.95 \$380.17
7/16/2014	488872	319786	121	C-SOIL OUT 1-WAY - T Trucking		54.85 Ton	\$9.50 \$7.00		\$521.08 \$383.95
7/16/2014	494015	319743	218	C-SOIL OUT 1-WAY - T Trucking		52.25 Ton	\$9.50 \$7.00		\$496.38 \$365.75
7/16/2014	526926	319738	279	C-SOIL OUT 1-WAY - T Trucking		62.46 Ton	\$9.50 \$7.00		\$593.37 \$437.22
7/16/2014	527522	319928	374	C-SOIL OUT 1-WAY - T Trucking		54.23 Ton	\$9.50 \$7.00		\$515.19 \$379.61
7/16/2014	528195	319937	392	C-SOIL OUT 1-WAY - T Trucking		48.92 Ton	\$9.50 \$7.00		\$464.74 \$342.44
7/16/2014	528196	319868	392	C-SOIL OUT 1-WAY - T Trucking		51.37 Ton	\$9.50 \$7.00		\$488.02 \$359.59

**INCLUDED IN OUR PRICE**

Safety  
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SAND GRAVEL TRUCKING

**T.K.M.S.**

1780 E HIGHWOOD  
PONTIAC, MI 48340  
Phone (248) 628-2551  
FAX (248) 334-9566

INVOICE NO.: T0050428

ACCOUNT NO.: AIE366

INVOICE DATE: 7/19/2014

TO: BALMORAL, BIRMINGHAM

BILL TO: Aielli Construction Company Inc.  
8152 Twenty Five Mile Rd  
Suite A  
Shelby Twp, MI 48316

JOB # 14-9755 JCAL

CUSTOMER JOB:

CUSTOMER PO:

DELIVERY DATE	DELIVERY TICKET	MATERIAL TICKET	TRUCK NO.	COMMODITY DESCRIPTION	LOT	TONS/ YDS	BILL RATE	SALES TAX	TOTAL BILLING
7/16/2014	528742	319870	DLA	C-SOIL OUT 1-WAY - T Trucking		52.32 Ton	\$9.50 \$7.00		\$497.04 \$366.24
7/16/2014	528743	319923	DLA	C-SOIL OUT 1-WAY - T Trucking		48.26 Ton	\$9.50 \$7.00		\$458.47 \$337.82
7/17/2014	520973	320015	26	C-SOIL OUT 1-WAY - T Trucking		55.37 Ton	\$9.50 \$7.00		\$526.02 \$387.59
7/17/2014	520975	320103	26	C-SOIL OUT 1-WAY - T Trucking		50.77 Ton	\$9.50 \$7.00		\$482.32 \$355.39
7/17/2014	521728	320141	079	C-SOIL OUT 1-WAY - T Trucking		56.20 Ton	\$9.50 \$7.00		\$533.90 \$393.40
7/17/2014	526934	320032	279	C-SOIL OUT 1-WAY - T Trucking		60.62 Ton	\$9.50 \$7.00		\$575.89 \$424.34
7/17/2014	527927	320055	997	C-SOIL OUT 1-WAY - T Trucking		52.14 Ton	\$9.50 \$7.00		\$495.33 \$364.98
7/17/2014	528202	320016	392	C-SOIL OUT 1-WAY - T Trucking		59.59 Ton	\$9.50 \$7.00		\$566.11 \$417.13
7/17/2014	528204	320108	392	C-SOIL OUT 1-WAY - T Trucking		47.14 Ton	\$9.50 \$7.00		\$447.83 \$329.98
7/18/2014	491212	320255	010	C-SOIL OUT 1-WAY - T		42.68 Ton	\$9.50		\$405.46

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INVOICE NO.: T0050428  
ACCOUNT NO.: AIE366

INVOICE DATE: 7/19/2014

TO: BALMORAL, BIRMINGHAM

BILL TO: Aielli Construction Company Inc.  
8152 Twenty Five Mile Rd  
Suite A  
Shelby Twp, MI 48316

CUSTOMER JOB:

CUSTOMER PO:

JOB # 14-9755 JCAL

DELIVERY DATE	DELIVERY TICKET	MATERIAL TICKET	TRUCK NO.	COMMODITY DESCRIPTION	LOT	TONS/ YDS	BILL RATE	SALES TAX	TOTAL BILLING
7/18/2014	495563	320346	391	Trucking C-SOIL OUT 1-WAY - T		55.42 Ton	\$7.00 \$9.50		\$298.76 \$526.49
7/18/2014	495565	320274	391	Trucking C-SOIL OUT 1-WAY - T		50.90 Ton	\$7.00 \$9.50		\$387.94 \$483.55
7/18/2014	520981	320219	26	Trucking C-SOIL OUT 1-WAY - T		53.05 Ton	\$7.00 \$9.50		\$356.30 \$503.98
7/18/2014	521773	320366	010	Trucking C-SOIL OUT 1-WAY - T		52.38 Ton	\$7.00 \$9.50		\$371.35 \$497.61
7/18/2014	526282	320204	004	Trucking C-SOIL OUT 1-WAY - T		48.02 Ton	\$7.00 \$9.50		\$366.66 \$456.19
7/18/2014	526286	320361	004	Trucking C-SOIL OUT 1-WAY - T		51.00 Ton	\$7.00 \$9.50		\$336.14 \$484.50
7/18/2014	527027	320283	393	Trucking C-SOIL OUT 1-WAY - T		50.62 Ton	\$7.00 \$9.50		\$357.00 \$480.89
7/18/2014	527360	320230	29	Trucking C-SOIL OUT 1-WAY - T		56.19 Ton	\$7.00 \$9.50		\$354.34 \$533.81
7/18/2014	527363	320341	29	Trucking C-SOIL OUT 1-WAY - T		49.12 Ton	\$7.00 \$9.50		\$393.33 \$466.64
				Trucking			\$7.00		\$343.84

INCLUDED IN OUR PRICE  
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Proactive Communicaton  
Professional Drivers-On Time Deliveries



**T.K.M.S.**  
1780 E HIGHWOOD  
PONTIAC, MI 48340  
Phone (248) 628-2551  
FAX (248) 334-9566

INVOICE NO.: T0050428  
ACCOUNT NO.: AIE366

INVOICE DATE: 7/19/2014

TO: BALMORAL, BIRMINGHAM

BILL TO: Aielli Construction Company Inc.,  
8152 Twenty Five Mile Rd  
Suite A  
Shelby Twp, MI 48316

JOB # 14-9755 JCAL

CUSTOMER JOB:  
CUSTOMER PO:

DELIVERY DATE	DELIVERY TICKET	MATERIAL TICKET	TRUCK NO.	COMMODITY DESCRIPTION	LOT	TONS/ YDS	BILL RATE	SALES TAX	TOTAL BILLING
7/18/2014	527730	320343	005	C-SOIL OUT 1-WAY - T Trucking		59.53 Ton	\$9.50		\$565.54
							\$7.00		\$416.71
7/18/2014	528207	320215	392	C-SOIL OUT 1-WAY - T Trucking		50.16 Ton	\$9.50		\$476.52
							\$7.00		\$351.12
				PIT TOTAL: EAGLE VALLEY		1,525.12			\$25,164.54
				INVOICE TOTALS:		Hourly Load Yard 1,525.12 Ton			

PLEASE MAKE YOUR  
CHECK PAYABLE TO:

**T.K.M.S.**

Terms:  
Net 30 From  
Date of Invoice

**TOTALS >**

Total Invoice:  
Fuel Surcharge:  
New Total Owed:

\$0.00	\$25,164.54
0.00%	\$0.00
	\$25,164.54

Payments not received within 30 days of this invoice are subject to a late fee of 5% of the amount due during that period. In the event of Customer's failure to timely pay this invoice amount, TKMS reserves the right to recover from Customer all expenses associated with enforcement of the payment terms including reasonable attorney's fees and costs incurred by it to enforce its rights under this invoice and/or applicable law.

INCLUDED IN OUR PRICE  
Safety  
Customer Service  
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**T.K.M.S.**  
1780 E HIGHWOOD  
PONTIAC, MI 48340  
Phone: (248) 628-2551  
Fax: (248) 334-9566

INVOICE NO.: T0050578  
ACCOUNT NO.: AIE366

INVOICE DATE: 7/26/2014

TO: BALMORAL, BIRMINGHAM

BILL TO: Aielli Construction Company Inc.  
8152 Twenty Five Mile Rd  
Suite A  
Shelby Twp, MI 48316

CUSTOMER JOB:

CUSTOMER PO:

JOB # 14-9755 JCA

DELIVERY DATE	DELIVERY TICKET	MATERIAL TICKET	TRUCK NO.	COMMODITY DESCRIPTION	LOT	TONS/ YDS	BILL RATE	SALES TAX	TOTAL BILLING
				PIT: DIRT OUT					
7/22/2014	496375		391	D/O 1-WAY -T Trucking		40.00 Yard	\$6.25		\$250.00
7/24/2014	414757		30	D/O 1-WAY -T Trucking		40.00 Yard	\$6.25		\$250.00
7/24/2014	527549		374	D/O 1-WAY -T Trucking		40.00 Yard	\$6.25		\$250.00
7/25/2014	522704		34	D/O 1-WAY -T Trucking		40.00 Yard	\$6.25		\$250.00
7/25/2014	522993		087	D/O 1-WAY -T Trucking		40.00 Yard	\$6.25		\$250.00
7/25/2014	526942		279	D/O 1-WAY -T Trucking		40.00 Yard	\$6.25		\$250.00
7/25/2014	527558		374	D/O 1-WAY -T Trucking		40.00 Yard	\$6.25		\$250.00
7/25/2014	528480		30	D/O 1-WAY -T Trucking		40.00 Yard	\$6.25		\$250.00

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ACCOUNT NO.: AIE366

INVOICE DATE: 7/26/2014

TO: BALMORAL, BIRMINGHAM

BILL TO: Aielli Construction Company Inc.  
8152 Twenty Five Mile Rd  
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Shelby Twp, MI 48316

CUSTOMER JOB:  
CUSTOMER PO:

JOB # 14-9755 JCA

DELIVERY DATE	DELIVERY TICKET	MATERIAL TICKET	TRUCK NO.	COMMODITY DESCRIPTION	LOT	TONS/ YDS	BILL RATE	SALES TAX	TOTAL BILLING
7/25/2014	528789		DLA	D/O 1-WAY -T Trucking		40.00 Yard	\$6.25		\$250.00
7/26/2014	522177		997	D/O 1-WAY -T Trucking		40.00 Yard	\$6.25		\$250.00
7/26/2014	522611		609	D/O 1-WAY -T Trucking		40.00 Yard	\$6.25		\$250.00
				PIT TOTAL: DIRT OUT		440.00			\$2,750.00
				PIT: HOLLY DISPOSAL					
7/21/2014	489268	77658	30	CLASS II -T Trucking		48.76 Ton	\$2.30 \$6.25	\$6.73	\$118.88 \$304.75
7/24/2014	522983	77742	087	CLASS II -T Trucking		49.35 Ton	\$2.30 \$6.25	\$6.81	\$120.32 \$308.44
7/24/2014	526795	77741	000	CLASS II -T Trucking		49.52 Ton	\$2.30 \$6.25	\$6.83	\$120.73 \$309.50
				PIT TOTAL: HOLLY DISPOSAL		147.63		\$20.37	\$1,282.62
				PIT: TRI CITY					

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JOB # 14-9755 JCA

DELIVERY DATE	DELIVERY TICKET	MATERIAL TICKET	TRUCK NO.	COMMODITY DESCRIPTION	LOT	TONS/YDS	BILL RATE	SALES TAX	TOTAL BILLING
7/21/2014	527533	6504	374	CLASS II -T		50.51 Ton	\$2.30	\$6.97	\$123.14
				Trucking			\$6.25		\$315.69
				PIT TOTAL: TRI CITY		50.51		\$6.97	\$438.83
				INVOICE TOTALS:		Hourly Load 440.00 Yard 198.14 Ton			

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**TOTALS >**

Total Invoice:  
Fuel Surcharge:  
New Total Owed:

\$27.34	\$4,471.45
0.00%	\$0.00
	<b>\$4,471.45</b>

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Phone: (248) 628-2551  
Fax: (248) 334-9566

INVOICE NO.: T0050579  
ACCOUNT NO.: AIE366

INVOICE DATE: 7/26/2014

TO: BALMORAL, BIRMINGHAM

BILL TO: Aielli Construction Company Inc.  
8152 Twenty Five Mile Rd  
Suite A  
Shelby Twp, MI 48316

CUSTOMER JOB:  
CUSTOMER PO:

JOB # 14-9755 JCAL

DELIVERY DATE	DELIVERY TICKET	MATERIAL TICKET	TRUCK NO.	COMMODITY DESCRIPTION	LOT	TONS/YDS	BILL RATE	SALES TAX	TOTAL BILLING
				PIT: EAGLE VALLEY					
7/21/2014	489267	320490	30	C-SOIL OUT 1-WAY - T Trucking		63.21 Ton	\$9.50 \$7.00		\$600.50 \$442.47
7/21/2014	489269	320583	30	C-SOIL OUT 1-WAY - T Trucking		52.07 Ton	\$9.50 \$7.00		\$494.67 \$364.49
7/21/2014	494039	320642	218	C-SOIL OUT 1-WAY - T Trucking		52.05 Ton	\$9.50 \$7.00		\$494.48 \$364.35
7/21/2014	496365	320617	392	C-SOIL OUT 1-WAY - T Trucking		57.26 Ton	\$9.50 \$7.00		\$543.97 \$400.82
7/21/2014	496396	320622	391	C-SOIL OUT 1-WAY - T Trucking		55.28 Ton	\$9.50 \$7.00		\$525.16 \$386.96
7/21/2014	520896	320501	121	C-SOIL OUT 1-WAY - T Trucking		57.71 Ton	\$9.50 \$7.00		\$548.25 \$403.97
7/21/2014	520899	320631	121	C-SOIL OUT 1-WAY - T Trucking		51.73 Ton	\$9.50 \$7.00		\$491.44 \$362.11
7/21/2014	521299	320517	35	C-SOIL OUT 1-WAY - T Trucking		50.13 Ton	\$9.50 \$7.00		\$476.24 \$350.91

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DELIVERY DATE	DELIVERY TICKET	MATERIAL TICKET	TRUCK NO.	COMMODITY DESCRIPTION	LOT	TONS/YDS	BILL RATE	SALES TAX	TOTAL BILLING
7/21/2014	521713	320527	079	C-SOIL OUT 1-WAY - T Trucking		53.93 Ton	\$9.50 \$7.00		\$512.34 \$377.51
7/21/2014	521904	320653	DLA	C-SOIL OUT 1-WAY - T Trucking		54.84 Ton	\$9.50 \$7.00		\$520.98 \$383.88
7/21/2014	522076	320652	017	C-SOIL OUT 1-WAY - T Trucking		51.57 Ton	\$9.50 \$7.00		\$489.92 \$360.99
7/21/2014	522752	320541	527	C-SOIL OUT 1-WAY - T Trucking		51.77 Ton	\$9.50 \$7.00		\$491.82 \$362.39
7/21/2014	526292	320471	004	C-SOIL OUT 1-WAY - T Trucking		58.41 Ton	\$9.50 \$7.00		\$554.90 \$408.87
7/21/2014	526294	320543	004	C-SOIL OUT 1-WAY - T Trucking		51.38 Ton	\$9.50 \$7.00		\$488.11 \$359.66
7/21/2014	526840	312467	014	C-SOIL OUT 1-WAY - T Trucking		51.99 Ton	\$9.50 \$7.00		\$493.91 \$363.93
7/21/2014	527531	320481	374	C-SOIL OUT 1-WAY - T Trucking		63.07 Ton	\$9.50 \$7.00		\$599.17 \$441.49
7/21/2014	527534	320575	374	C-SOIL OUT 1-WAY - T Trucking		49.69 Ton	\$9.50 \$7.00		\$472.06 \$347.83
7/21/2014	527536	320663	374	C-SOIL OUT 1-WAY - T		55.78 Ton	\$9.50		\$529.91

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				Trucking			\$7.00		\$390.46
7/21/2014	528569	320537	123	C-SOIL OUT 1-WAY - T		54.49 Ton	\$9.50		\$517.66
				Trucking			\$7.00		\$381.43
7/22/2014	496499	320717	121	C-SOIL OUT 1-WAY - T		54.57 Ton	\$9.50		\$518.42
				Trucking			\$7.00		\$381.99
7/22/2014	521039	320725	018	C-SOIL OUT 1-WAY - T		47.20 Ton	\$9.50		\$448.40
				Trucking			\$7.00		\$330.40
7/22/2014	521040	320783	018	C-SOIL OUT 1-WAY - T		53.23 Ton	\$9.50		\$505.69
				Trucking			\$7.00		\$372.61
7/22/2014	521333	320706	280	C-SOIL OUT 1-WAY - T		46.79 Ton	\$9.50		\$444.51
				Trucking			\$7.00		\$327.53
7/22/2014	521334	320755	280	C-SOIL OUT 1-WAY - T		50.94 Ton	\$9.50		\$483.93
				Trucking			\$7.00		\$356.58
7/22/2014	521351	320919	392	C-SOIL OUT 1-WAY - T		55.06 Ton	\$9.50		\$523.07
				Trucking			\$7.00		\$385.42
7/22/2014	521908	320800	DLA	C-SOIL OUT 1-WAY - T		54.96 Ton	\$9.50		\$522.12
				Trucking			\$7.00		\$384.72
7/22/2014	521910	320889	DLA	C-SOIL OUT 1-WAY - T		49.99 Ton	\$9.50		\$474.91
				Trucking			\$7.00		\$349.93

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7/22/2014	526301	320891	004	C-SOIL OUT 1-WAY - T Trucking		51.29 Ton	\$9.50 \$7.00		\$487.26 \$359.03
7/22/2014	526434	320881	33	C-SOIL OUT 1-WAY - T Trucking		45.23 Ton	\$9.50 \$7.00		\$429.69 \$316.61
7/22/2014	527538	320707	374	C-SOIL OUT 1-WAY - T Trucking		52.67 Ton	\$9.50 \$7.00		\$500.37 \$368.69
7/22/2014	527539	320752	374	C-SOIL OUT 1-WAY - T Trucking		55.01 Ton	\$9.50 \$7.00		\$522.60 \$385.07
7/22/2014	527671	320704	015	C-SOIL OUT 1-WAY - T Trucking		45.20 Ton	\$9.50 \$7.00		\$429.40 \$316.40
7/22/2014	527672	320760	015	C-SOIL OUT 1-WAY - T Trucking		43.67 Ton	\$9.50 \$7.00		\$414.87 \$305.69
7/22/2014	528575	320788	123	C-SOIL OUT 1-WAY - T Trucking		56.21 Ton	\$9.50 \$7.00		\$534.00 \$393.47
7/22/2014	528772	320791	DLA	C-SOIL OUT 1-WAY - T Trucking		52.79 Ton	\$9.50 \$7.00		\$501.51 \$369.53
7/22/2014	528774	320887	DLA	C-SOIL OUT 1-WAY - T Trucking		56.81 Ton	\$9.50 \$7.00		\$539.70 \$397.67
7/23/2014	494047	320992	218	C-SOIL OUT 1-WAY - T		51.56 Ton	\$9.50		\$489.82

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7/23/2014	496380	321071	391	Trucking C-SOIL OUT 1-WAY - T		49.92 Ton	\$7.00 \$9.50		\$360.92 \$474.24
7/23/2014	521137	320993	608	Trucking C-SOIL OUT 1-WAY - T		50.88 Ton	\$7.00 \$9.50		\$349.44 \$483.36
7/23/2014	521707	320981	079	Trucking C-SOIL OUT 1-WAY - T		54.90 Ton	\$7.00 \$9.50		\$356.16 \$521.55
7/23/2014	521912	320989	DLA	Trucking C-SOIL OUT 1-WAY - T		59.97 Ton	\$7.00 \$9.50		\$384.30 \$569.72
7/23/2014	521914	321063	DLA	Trucking C-SOIL OUT 1-WAY - T		52.04 Ton	\$7.00 \$9.50		\$419.79 \$494.38
7/23/2014	521916	321142	DLA	Trucking C-SOIL OUT 1-WAY - T		48.25 Ton	\$7.00 \$9.50		\$364.28 \$458.38
7/23/2014	522196	321161	997	Trucking C-SOIL OUT 1-WAY - T		57.05 Ton	\$7.00 \$9.50		\$337.75 \$541.98
7/23/2014	522198	321057	997	Trucking C-SOIL OUT 1-WAY - T		52.77 Ton	\$7.00 \$9.50		\$399.35 \$501.32
7/23/2014	522825	320984	26	Trucking C-SOIL OUT 1-WAY - T		48.72 Ton	\$7.00 \$9.50		\$369.39 \$462.84
				Trucking			\$7.00		\$341.04

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7/23/2014	526438	321046	33	C-SOIL OUT 1-WAY - T Trucking		48.35 Ton	\$9.50 \$7.00		\$459.33 \$338.45
7/23/2014	526441	321136	33	C-SOIL OUT 1-WAY - T Trucking		47.41 Ton	\$9.50 \$7.00		\$450.40 \$331.87
7/23/2014	527389	321157	29	C-SOIL OUT 1-WAY - T Trucking		55.25 Ton	\$9.50 \$7.00		\$524.88 \$386.75
7/23/2014	527754	321006	005	C-SOIL OUT 1-WAY - T Trucking		59.21 Ton	\$9.50 \$7.00		\$562.50 \$414.47
7/23/2014	527987	320975	015	C-SOIL OUT 1-WAY - T Trucking		49.57 Ton	\$9.50 \$7.00		\$470.92 \$346.99
7/23/2014	528588	321033	123	C-SOIL OUT 1-WAY - T Trucking		54.54 Ton	\$9.50 \$7.00		\$518.13 \$381.78
7/23/2014	528646	321035	121	C-SOIL OUT 1-WAY - T Trucking		45.62 Ton	\$9.50 \$7.00		\$433.39 \$319.34
7/23/2014	528776	320978	DLA	C-SOIL OUT 1-WAY - T Trucking		55.08 Ton	\$9.50 \$7.00		\$523.26 \$385.56
7/23/2014	528778	321051	DLA	C-SOIL OUT 1-WAY - T Trucking		51.88 Ton	\$9.50 \$7.00		\$492.86 \$363.16
7/23/2014	528780	321138	DLA	C-SOIL OUT 1-WAY - T		50.63 Ton	\$9.50		\$480.99

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7/24/2014	459043	320768	RIC	Trucking C-SOIL OUT 1-WAY - T	7/22/14	56.00 Ton	\$7.00 \$9.50		\$354.41 \$532.00
7/24/2014	496996	320773	RIC	Trucking C-SOIL OUT 1-WAY - T	7/22/14	49.48 Ton	\$7.00 \$9.50		\$392.00 \$470.06
7/24/2014	498971	320762	RIC	Trucking C-SOIL OUT 1-WAY - T	7/22/14	54.67 Ton	\$7.00 \$9.50		\$346.36 \$519.37
7/24/2014	500628	320804	RIC	Trucking C-SOIL OUT 1-WAY - T	7/22/14	54.22 Ton	\$7.00 \$9.50		\$382.69 \$515.09
7/24/2014	521348	321351	280	Trucking C-SOIL OUT 1-WAY - T		46.42 Ton	\$7.00 \$9.50		\$379.54 \$440.99
7/24/2014	521918	321217	DLA	Trucking C-SOIL OUT 1-WAY - T		49.78 Ton	\$7.00 \$9.50		\$324.94 \$472.91
7/24/2014	521920	321292	DLA	Trucking C-SOIL OUT 1-WAY - T		58.28 Ton	\$7.00 \$9.50		\$348.46 \$553.66
7/24/2014	521922	321369	DLA	Trucking C-SOIL OUT 1-WAY - T		55.28 Ton	\$7.00 \$9.50		\$407.96 \$525.16
7/24/2014	522288	321213	079	Trucking C-SOIL OUT 1-WAY - T		50.95 Ton	\$7.00 \$9.50		\$386.96 \$484.03
				Trucking			\$7.00		\$356.65

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ACCOUNT NO.: AIE366

INVOICE DATE: 7/26/2014

TO: BALMORAL, BIRMINGHAM

BILL TO: Aielli Construction Company Inc.  
8152 Twenty Five Mile Rd  
Suite A  
Shelby Twp, MI 48316

CUSTOMER JOB:

CUSTOMER PO:

JOB # 14-9755 JCAL

DELIVERY DATE	DELIVERY TICKET	MATERIAL TICKET	TRUCK NO.	COMMODITY DESCRIPTION	LOT	TONS/ YDS	BILL RATE	SALES TAX	TOTAL BILLING
7/24/2014	522772	321372	527	C-SOIL OUT 1-WAY - T Trucking		46.51 Ton	\$9.50 \$7.00		\$441.85 \$325.57
7/24/2014	522984	321244	087	C-SOIL OUT 1-WAY - T Trucking		60.11 Ton	\$9.50 \$7.00		\$571.05 \$420.77
7/24/2014	526796	321210	000	C-SOIL OUT 1-WAY - T Trucking		51.61 Ton	\$9.50 \$7.00		\$490.30 \$361.27
7/24/2014	528373	321376	953	C-SOIL OUT 1-WAY - T Trucking		49.94 Ton	\$9.50 \$7.00		\$474.43 \$349.58
7/24/2014	528782	321216	DLA	C-SOIL OUT 1-WAY - T Trucking		46.44 Ton	\$9.50 \$7.00		\$441.18 \$325.08
7/24/2014	528784	321284	DLA	C-SOIL OUT 1-WAY - T Trucking		52.12 Ton	\$9.50 \$7.00		\$495.14 \$364.84
7/24/2014	528787	321365	DLA	C-SOIL OUT 1-WAY - T Trucking		47.56 Ton	\$9.50 \$7.00		\$451.82 \$332.92
7/24/2014	5213245	321215	280	C-SOIL OUT 1-WAY - T Trucking		46.04 Ton	\$9.50 \$7.00		\$437.38 \$322.28
7/25/2014	459039	320605	RIC	C-SOIL OUT 1-WAY - T Trucking	7/21/14	58.39 Ton	\$9.50 \$7.00		\$554.71 \$408.73
7/25/2014	469970	320574	RIC	C-SOIL OUT 1-WAY - T	7/21/14	52.91 Ton	\$9.50		\$502.65

INCLUDED IN OUR PRICE  
Safety  
Customer Service  
Proactive Communicaton  
Professional Drivers-On Time Deliveries



**T.K.M.S.**  
1780 E HIGHWOOD  
PONTIAC, MI 48340  
Phone (248) 628-2551  
FAX (248) 334-9566

INVOICE NO.: T0050579  
ACCOUNT NO.: AIE366

INVOICE DATE: 7/26/2014

TO: BALMORAL, BIRMINGHAM

BILL TO: Aielli Construction Company Inc.  
8152 Twenty Five Mile Rd  
Suite A  
Shelby Twp, MI 48316

CUSTOMER JOB:

CUSTOMER PO:

JOB # 14-9755 JCAL

DELIVERY DATE	DELIVERY TICKET	MATERIAL TICKET	TRUCK NO.	COMMODITY DESCRIPTION	LOT	TONS/YDS	BILL RATE	SALES TAX	TOTAL BILLING
				Trucking			\$7.00		\$370.37
7/25/2014	496992	320607	RIC	C-SOIL OUT 1-WAY - T	7/21/14	49.19 Ton	\$9.50		\$467.31
				Trucking			\$7.00		\$344.33
7/25/2014	498871	320602	RIC	C-SOIL OUT 1-WAY - T	7/21/14	58.02 Ton	\$9.50		\$551.19
				Trucking			\$7.00		\$406.14
7/25/2014	521924	321459	DLA	C-SOIL OUT 1-WAY - T		63.45 Ton	\$9.50		\$602.78
				Trucking			\$7.00		\$444.15
7/25/2014	521926	321549	DLA	C-SOIL OUT 1-WAY - T		55.37 Ton	\$9.50		\$526.02
				Trucking			\$7.00		\$387.59
7/25/2014	521928	321598	DLA	C-SOIL OUT 1-WAY - T		49.40 Ton	\$9.50		\$469.30
				Trucking			\$7.00		\$345.80
7/25/2014	521929	321636	DLA	C-SOIL OUT 1-WAY - T		54.87 Ton	\$9.50		\$521.27
				Trucking			\$7.00		\$384.09
7/25/2014	522775	321473	527	C-SOIL OUT 1-WAY - T		57.75 Ton	\$9.50		\$548.63
				Trucking			\$7.00		\$404.25
7/25/2014	522778	321646	527	C-SOIL OUT 1-WAY - T		52.02 Ton	\$9.50		\$494.19
				Trucking			\$7.00		\$364.14
7/25/2014	522838	321655	26	C-SOIL OUT 1-WAY - T		54.73 Ton	\$9.50		\$519.94
				Trucking			\$7.00		\$383.11

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INVOICE NO.: T0050579  
ACCOUNT NO.: AIE366

INVOICE DATE: 7/26/2014

TO: BALMORAL, BIRMINGHAM

BILL TO: Aielli Construction Company Inc.  
8152 Twenty Five Mile Rd  
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JOB # 14-9755 JCAL

DELIVERY DATE	DELIVERY TICKET	MATERIAL TICKET	TRUCK NO.	COMMODITY DESCRIPTION	LOT	TONS/ YDS	BILL RATE	SALES TAX	TOTAL BILLING
7/25/2014	522989	321447	087	C-SOIL OUT 1-WAY - T Trucking		56.88 Ton	\$9.50 \$7.00		\$540.36 \$398.16
7/25/2014	526940	321441	279	C-SOIL OUT 1-WAY - T Trucking		54.02 Ton	\$9.50 \$7.00		\$513.19 \$378.14
7/25/2014	528377	321470	953	C-SOIL OUT 1-WAY - T Trucking		48.99 Ton	\$9.50 \$7.00		\$465.41 \$342.93
7/25/2014	528380	321648	953	C-SOIL OUT 1-WAY - T Trucking		49.31 Ton	\$9.50 \$7.00		\$468.45 \$345.17
7/25/2014	528478	321446	30	C-SOIL OUT 1-WAY - T Trucking		55.17 Ton	\$9.50 \$7.00		\$524.12 \$386.19
7/25/2014	528791	321543	DLA	C-SOIL OUT 1-WAY - T Trucking		49.18 Ton	\$9.50 \$7.00		\$467.21 \$344.26
7/25/2014	528792	321591	DLA	C-SOIL OUT 1-WAY - T Trucking		53.20 Ton	\$9.50 \$7.00		\$505.40 \$372.40
7/25/2014	528793	321634	DLA	C-SOIL OUT 1-WAY - T Trucking		42.90 Ton	\$9.50 \$7.00		\$407.55 \$300.30
7/26/2014	521602	321676	391	C-SOIL OUT 1-WAY - T Trucking		43.01 Ton	\$9.50 \$7.00		\$408.60 \$301.07
7/26/2014	521603	321707	391	C-SOIL OUT 1-WAY - T		50.75 Ton	\$9.50		\$482.13

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INVOICE NO.: T0050579  
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INVOICE DATE: 7/26/2014

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JOB # 14-9755 JCAL

DELIVERY DATE	DELIVERY TICKET	MATERIAL TICKET	TRUCK NO.	COMMODITY DESCRIPTION	LOT	TONS/YDS	BILL RATE	SALES TAX	TOTAL BILLING
				Trucking			\$7.00		\$355.25
7/26/2014	521820	321671	010	C-SOIL OUT 1-WAY - T		39.74 Ton	\$9.50		\$377.53
				Trucking			\$7.00		\$278.18
7/26/2014	521821	321695	010	C-SOIL OUT 1-WAY - T		45.70 Ton	\$9.50		\$434.15
				Trucking			\$7.00		\$319.90
7/26/2014	522279	321711	079	C-SOIL OUT 1-WAY - T		49.43 Ton	\$9.50		\$469.59
				Trucking			\$7.00		\$346.01
7/26/2014	522610	9432869	609	C-SOIL OUT 1-WAY - T		48.52 Ton	\$9.50		\$460.94
				Trucking			\$7.00		\$339.64
7/26/2014	522941	321666	000	C-SOIL OUT 1-WAY - T		54.09 Ton	\$9.50		\$513.86
				Trucking			\$7.00		\$378.63
7/26/2014	522942	321690	000	C-SOIL OUT 1-WAY - T		43.54 Ton	\$9.50		\$413.63
				Trucking			\$7.00		\$304.78
7/26/2014	522995	321669	087	C-SOIL OUT 1-WAY - T		41.76 Ton	\$9.50		\$396.72
				Trucking			\$7.00		\$292.32
7/26/2014	522996	321694	087	C-SOIL OUT 1-WAY - T		44.96 Ton	\$9.50		\$427.12
				Trucking			\$7.00		\$314.72
7/26/2014	526322	321714	004	C-SOIL OUT 1-WAY - T		48.92 Ton	\$9.50		\$464.74
				Trucking			\$7.00		\$342.44

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INVOICE NO.: T0050579  
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INVOICE DATE: 7/26/2014

TO: BALMORAL, BIRMINGHAM

BILL TO: Aielli Construction Company Inc.  
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CUSTOMER JOB:  
CUSTOMER PO:

JOB # 14-9755 JCAL

DELIVERY DATE	DELIVERY TICKET	MATERIAL TICKET	TRUCK NO.	COMMODITY DESCRIPTION	LOT	TONS/ YDS	BILL RATE	SALES TAX	TOTAL BILLING
7/26/2014	527404	321674	29	C-SOIL OUT 1-WAY - T Trucking		40.96 Ton	\$9.50 \$7.00		\$389.12 \$286.72
7/26/2014	527405	321703	29	C-SOIL OUT 1-WAY - T Trucking		50.75 Ton	\$9.50 \$7.00		\$482.13 \$355.25
				PIT TOTAL: EAGLE VALLEY		5,444.87			\$89,840.64
				INVOICE TOTALS:		Hourly Load Yard 5,444.87 Ton			

PLEASE MAKE YOUR  
CHECK PAYABLE TO:

**T.K.M.S.**

Terms:  
Net 30 From  
Date of Invoice

**TOTALS >**

Total Invoice:  
Fuel Surcharge:  
New Total Owed:

\$0.00	\$89,840.64
0.00%	\$0.00
	\$89,840.64

Payments not received within 30 days of this invoice are subject to a late fee of 5% of the amount due during that period. In the event of Customer's failure to timely pay this invoice amount, TKMS reserves the right to recover from Customer all expenses associated with enforcement of the payment terms including reasonable attorney's fees and costs incurred by it to enforce its rights under this invoice and/or applicable law.

INCLUDED IN OUR PRICE  
Safety  
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**T.K.M.S.**  
1780 E HIGHWOOD  
PONTIAC, MI 48340  
Phone: (248) 628-2551  
Fax: (248) 334-9566

INVOICE NO.: T0050716  
ACCOUNT NO.: AIE366

INVOICE DATE: 8/2/2014

TO: BALMORAL, BIRMINGHAM

BILL TO: Aielli Construction Company Inc.  
8152 Twenty Five Mile Rd  
Suite A  
Shelby Twp, MI 48316

JOB # 14-9755 JCA

CUSTOMER JOB:

CUSTOMER PO:

DELIVERY DATE	DELIVERY TICKET	MATERIAL TICKET	TRUCK NO.	COMMODITY DESCRIPTION	LOT	TONS/ YDS	BILL RATE	SALES TAX	TOTAL BILLING
				PIT: DIRT OUT					
7/29/2014	522558		218	D/O 1-WAY -T Trucking		40.00 Yard	\$6.25		\$250.00
7/29/2014	526509		33	D/O 1-WAY -T Trucking		40.00 Yard	\$6.25		\$250.00
7/30/2014	522058		018	D/O 1-WAY -T Trucking		40.00 Yard	\$6.25		\$250.00
7/30/2014	529002		35	D/O 1-WAY -T Trucking		40.00 Yard	\$6.25		\$250.00
				PIT TOTAL: DIRT OUT		160.00			\$1,000.00
				INVOICE TOTALS:		Hourly Load 160.00 Yard Ton			

PLEASE MAKE YOUR  
CHECK PAYABLE TO:

**T.K.M.S.**

Terms:  
Net 30 From  
Date of Invoice

**TOTALS >**

Total Invoice:  
Fuel Surcharge:  
New Total Owed:

\$0.00	\$1,000.00
0.00%	\$0.00
	\$1,000.00

Payments not received within 30 days of this invoice are subject to a late fee of 5% of the amount due during that period. In the event of Customer's failure to timely pay this invoice amount, TKMS reserves the right to recover from Customer all expenses associated with enforcement of the payment terms including reasonable attorney's fees and costs incurred by it to enforce its rights under this invoice and/or applicable law.

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**T.K.M.S.**  
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PONTIAC, MI 48340  
Phone: (248) 628-2551  
Fax: (248) 334-9566

INVOICE NO.: T0050717V  
ACCOUNT NO.: AIE366

INVOICE DATE: 8/2/2014

TO: BALMORAL, BIRMINGHAM

BILL TO: Aielli Construction Company Inc.  
8152 Twenty Five Mile Rd  
Suite A  
Shelby Twp, MI 48316

CUSTOMER JOB:

CUSTOMER PO:

JOB # 14-9755 JCAL

DELIVERY DATE	DELIVERY TICKET	MATERIAL TICKET	TRUCK NO.	COMMODITY DESCRIPTION	LOT	TONS/ YDS	BILL RATE	SALES TAX	TOTAL BILLING
				PIT: EAGLE VALLEY					
7/28/2014	489141	321852	280	C-SOIL OUT 1-WAY - T Trucking		52.38 Ton	\$9.50 \$7.00		\$497.61 \$366.66
7/28/2014	521612	321959	391	C-SOIL OUT 1-WAY - T Trucking		53.04 Ton	\$9.50 \$7.00		\$503.88 \$371.28
7/28/2014	521932	321816	DLA	C-SOIL OUT 1-WAY - T Trucking		52.54 Ton	\$9.50 \$7.00		\$499.13 \$367.78
7/28/2014	521934	321899	DLA	C-SOIL OUT 1-WAY - T Trucking		51.88 Ton	\$9.50 \$7.00		\$492.86 \$363.16
7/28/2014	522047	321855	018	C-SOIL OUT 1-WAY - T Trucking		45.57 Ton	\$9.50 \$7.00		\$432.92 \$318.99
7/28/2014	522294	321952	004	C-SOIL OUT 1-WAY - T Trucking		43.68 Ton	\$9.50 \$7.00		\$414.96 \$305.76
7/28/2014	523067	321932	121	C-SOIL OUT 1-WAY - T Trucking		52.95 Ton	\$9.50 \$7.00		\$503.03 \$370.65
7/28/2014	526503	321944	33	C-SOIL OUT 1-WAY - T Trucking		46.87 Ton	\$9.50 \$7.00		\$445.27 \$328.09

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INVOICE NO.: T0050717V  
ACCOUNT NO.: AIE366

INVOICE DATE: 8/2/2014

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DELIVERY DATE	DELIVERY TICKET	MATERIAL TICKET	TRUCK NO.	COMMODITY DESCRIPTION	LOT	TONS/ YDS	BILL RATE	SALES TAX	TOTAL BILLING
7/28/2014	527565	321861	374	C-SOIL OUT 1-WAY - T Trucking		56.65 Ton	\$9.50 \$7.00		\$538.18 \$396.55
7/28/2014	527566	321916	374	C-SOIL OUT 1-WAY - T Trucking		49.55 Ton	\$9.50 \$7.00		\$470.73 \$346.85
7/28/2014	528493	321964	30	C-SOIL OUT 1-WAY - T Trucking		51.42 Ton	\$9.50 \$7.00		\$488.49 \$359.94
7/28/2014	528796	321811	DLA	C-SOIL OUT 1-WAY - T Trucking		51.82 Ton	\$9.50 \$7.00		\$492.29 \$362.74
7/28/2014	528798	321892	DLA	C-SOIL OUT 1-WAY - T Trucking		52.03 Ton	\$9.50 \$7.00		\$494.29 \$364.21
7/28/2014	529803	321866	35	C-SOIL OUT 1-WAY - T Trucking		44.43 Ton	\$9.50 \$7.00		\$422.09 \$311.01
7/28/2014	529804	321912	35	C-SOIL OUT 1-WAY - T Trucking		48.01 Ton	\$9.50 \$7.00		\$456.10 \$336.07
7/28/2014	530805	321956	002	C-SOIL OUT 1-WAY - T Trucking		54.13 Ton	\$9.50 \$7.00		\$514.24 \$378.91
7/28/2014	3973821	321891	561	C-SOIL OUT 1-WAY - T Trucking		53.18 Ton	\$9.50 \$7.00		\$505.21 \$372.26
7/29/2014	459049	321019	RIC	C-SOIL OUT 1-WAY - T	7/23/2014	55.88 Ton	\$9.50		\$530.86

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INVOICE NO.: T0050717V  
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7/29/2014	497263	321020	RIC	Trucking C-SOIL OUT 1-WAY - T	7/23/2014	58.88 Ton	\$7.00 \$9.50		\$391.16 \$559.36
7/29/2014	500633	321027	RIC	Trucking C-SOIL OUT 1-WAY - T	7/23/2014	60.53 Ton	\$7.00 \$9.50		\$412.16 \$575.04
7/29/2014	521268	322196	34	Trucking C-SOIL OUT 1-WAY - T		50.93 Ton	\$7.00 \$9.50		\$423.71 \$483.84
7/29/2014	521617	322163	391	Trucking C-SOIL OUT 1-WAY - T		61.21 Ton	\$7.00 \$9.50		\$356.51 \$581.50
7/29/2014	521937	322018	DLA	Trucking C-SOIL OUT 1-WAY - T		56.19 Ton	\$7.00 \$9.50		\$428.47 \$533.81
7/29/2014	521938	322063	DLA	Trucking C-SOIL OUT 1-WAY - T		58.95 Ton	\$7.00 \$9.50		\$393.33 \$560.03
7/29/2014	521940	322152	DLA	Trucking C-SOIL OUT 1-WAY - T		64.32 Ton	\$7.00 \$9.50		\$412.65 \$611.04
7/29/2014	521941	322194	DLA	Trucking C-SOIL OUT 1-WAY - T		56.89 Ton	\$7.00 \$9.50		\$450.24 \$540.46
7/29/2014	528503	322179	30	Trucking C-SOIL OUT 1-WAY - T		62.62 Ton	\$7.00 \$9.50		\$398.23 \$594.89
				Trucking			\$7.00		\$438.34

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**T K M S**  
SAND GRAVEL TRUCKING

**T.K.M.S.**  
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DELIVERY DATE	DELIVERY TICKET	MATERIAL TICKET	TRUCK NO.	COMMODITY DESCRIPTION	LOT	TONS/ YDS	BILL RATE	SALES TAX	TOTAL BILLING
7/29/2014	528505	322070	30	C-SOIL OUT 1-WAY - T Trucking		53.62 Ton	\$9.50 \$7.00		\$509.39 \$375.34
7/29/2014	529815	322026	393	C-SOIL OUT 1-WAY - T Trucking		57.18 Ton	\$9.50 \$7.00		\$543.21 \$400.26
7/30/2014	206326	322014	DLA	C-SOIL OUT 1-WAY - T Trucking		59.89 Ton	\$9.50 \$7.00		\$568.96 \$419.23
7/30/2014	469986	321249	RIC	C-SOIL OUT 1-WAY - T Trucking	7/24/14	51.92 Ton	\$9.50 \$7.00		\$493.24 \$363.44
7/30/2014	497268	321279	RIC	C-SOIL OUT 1-WAY - T Trucking	7/24/14	51.12 Ton	\$9.50 \$7.00		\$485.64 \$357.84
7/30/2014	498885	321261	RIC	C-SOIL OUT 1-WAY - T Trucking	7/24/14	52.23 Ton	\$9.50 \$7.00		\$496.19 \$365.61
7/30/2014	520201	322059	DLA	C-SOIL OUT 1-WAY - T Trucking		59.82 Ton	\$9.50 \$7.00		\$568.29 \$418.74
7/30/2014	521945	322293	DLA	C-SOIL OUT 1-WAY - T Trucking		59.54 Ton	\$9.50 \$7.00		\$565.63 \$416.78
7/30/2014	521947	322360	DLA	C-SOIL OUT 1-WAY - T Trucking		60.98 Ton	\$9.50 \$7.00		\$579.31 \$426.86
7/30/2014	522061	322386	018	C-SOIL OUT 1-WAY - T		52.68 Ton	\$9.50		\$500.46

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7/30/2014	522158	322363	997	Trucking C-SOIL OUT 1-WAY - T		58.07 Ton	\$7.00 \$9.50		\$368.76 \$551.67
7/30/2014	522566	322391	218	Trucking C-SOIL OUT 1-WAY - T		54.57 Ton	\$7.00 \$9.50		\$406.49 \$518.42
7/30/2014	522869	322326	123	Trucking C-SOIL OUT 1-WAY - T		58.43 Ton	\$7.00 \$9.50		\$381.99 \$555.09
7/30/2014	523100	322147	DLA	Trucking C-SOIL OUT 1-WAY - T		53.12 Ton	\$7.00 \$9.50		\$409.01 \$504.64
7/30/2014	523101	322192	DLA	Trucking C-SOIL OUT 1-WAY - T		57.23 Ton	\$7.00 \$9.50		\$371.84 \$543.69
7/30/2014	523105	322288	DLA	Trucking C-SOIL OUT 1-WAY - T		56.09 Ton	\$7.00 \$9.50		\$400.61 \$532.86
7/30/2014	523107	322357	DLA	Trucking C-SOIL OUT 1-WAY - T		54.14 Ton	\$7.00 \$9.50		\$392.63 \$514.33
7/30/2014	526865	322249	014	Trucking C-SOIL OUT 1-WAY - T		61.82 Ton	\$7.00 \$9.50		\$378.98 \$587.29
7/30/2014	526868	322320	014	Trucking C-SOIL OUT 1-WAY - T		56.20 Ton	\$7.00 \$9.50		\$432.74 \$533.90
				Trucking			\$7.00		\$393.40

INCLUDED IN OUR PRICE  
Safety  
Customer Service  
Proactive Communication  
Professional Drivers-On Time Deliveries



**T.K.M.S.**  
1780 E HIGHWOOD  
PONTIAC, MI 48340  
Phone (248) 628-2551  
FAX (248) 334-9566

INVOICE NO.: T0050717V  
ACCOUNT NO.: AIE366

INVOICE DATE: 8/2/2014

TO: BALMORAL, BIRMINGHAM

BILL TO: Aielli Construction Company Inc.  
8152 Twenty Five Mile Rd  
Suite A  
Shelby Twp, MI 48316

CUSTOMER JOB:

CUSTOMER PO:

JOB # 14-9755 JCAL

DELIVERY DATE	DELIVERY TICKET	MATERIAL TICKET	TRUCK NO.	COMMODITY DESCRIPTION	LOT	TONS/ YDS	BILL RATE	SALES TAX	TOTAL BILLING
7/30/2014	527424	322350	29	C-SOIL OUT 1-WAY - T Trucking		57.58 Ton	\$9.50 \$7.00		\$547.01 \$403.06
7/30/2014	527575	322252	374	C-SOIL OUT 1-WAY - T Trucking		61.54 Ton	\$9.50 \$7.00		\$584.63 \$430.78
7/30/2014	529007	322337	35	C-SOIL OUT 1-WAY - T Trucking		52.40 Ton	\$9.50 \$7.00		\$497.80 \$366.80
7/30/2014	529822	322259	393	C-SOIL OUT 1-WAY - T Trucking		59.00 Ton	\$9.50 \$7.00		\$560.50 \$413.00
7/30/2014	530791	322251	280	C-SOIL OUT 1-WAY - T Trucking		57.65 Ton	\$9.50 \$7.00		\$547.68 \$403.55
7/31/2014	469991	321479	RIC	C-SOIL OUT 1-WAY - T Trucking	7/25/14	50.05 Ton	\$9.50 \$7.00		\$475.48 \$350.35
7/31/2014	469993	321557	RIC	C-SOIL OUT 1-WAY - T Trucking	7/25/14	50.11 Ton	\$9.50 \$7.00		\$476.05 \$350.77
7/31/2014	497273	321509	RIC	C-SOIL OUT 1-WAY - T Trucking	7/25/14	53.69 Ton	\$9.50 \$7.00		\$510.06 \$375.83
7/31/2014	499079	321483	RIC	C-SOIL OUT 1-WAY - T Trucking	7/25/14	50.66 Ton	\$9.50 \$7.00		\$481.27 \$354.62
7/31/2014	499081	321561	RIC	C-SOIL OUT 1-WAY - T	7/25/14	54.00 Ton	\$9.50		\$513.00

INCLUDED IN OUR PRICE  
Safety  
Customer Service  
Proactive Communication  
Professional Drivers-On Time Deliveries



**T.K.M.S.**  
1780 E HIGHWOOD  
PONTIAC, MI 48340  
Phone (248) 628-2551  
FAX (248) 334-9566

INVOICE NO.: T0050717V  
ACCOUNT NO.: AIE366

INVOICE DATE: 8/2/2014

TO: BALMORAL, BIRMINGHAM

BILL TO: Aielli Construction Company Inc.  
8152 Twenty Five Mile Rd  
Suite A  
Shelby Twp, MI 48316

CUSTOMER JOB:

CUSTOMER PO:

JOB # 14-9755 JCAL

DELIVERY DATE	DELIVERY TICKET	MATERIAL TICKET	TRUCK NO.	COMMODITY DESCRIPTION	LOT	TONS/ YDS	BILL RATE	SALES TAX	TOTAL BILLING
7/31/2014	499121	321587	RIC	Trucking C-SOIL OUT 1-WAY - T	7/25/14	48.21 Ton	\$7.00		\$378.00
				Trucking			\$9.50		\$458.00
				PIT TOTAL: EAGLE VALLEY		3,110.07	\$7.00		\$337.47
				INVOICE TOTALS:					\$51,316.29
						Hourly Load Yard 3,110.07 Ton			
PLEASE MAKE YOUR CHECK PAYABLE TO:				<b>T.K.M.S.</b>			<b>TOTALS &gt;</b>		
				<b>Terms:</b> Net 30 From Date of Invoice			<b>Total Invoice:</b>		\$0.00
							<b>Fuel Surcharge:</b>		0.00%
							<b>New Total Owed:</b>		\$51,316.29

Payments not received within 30 days of this invoice are subject to a late fee of 5% of the amount due during that period. In the event of Customer's failure to timely pay this invoice amount, TKMS reserves the right to recover from Customer all expenses associated with enforcement of the payment terms including reasonable attorney's fees and costs incurred by it to enforce its rights under this invoice and/or applicable law.

INCLUDED IN OUR PRICE  
Safety  
Customer Service  
Proactive Communication  
Professional Drivers - On Time Deliveries



**T.K.M.S.**  
1780 E HIGHWOOD  
PONTIAC, MI 48340  
Phone: (248) 628-2551  
Fax: (248) 334-9566

INVOICE NO.: T0050868  
ACCOUNT NO.: AIE366

INVOICE DATE: 8/9/2014

TO: BALMORAL, BIRMINGHAM

BILL TO: Aielli Construction Company Inc.  
8152 Twenty Five Mile Rd  
Suite A  
Shelby Twp, MI 48316

CUSTOMER JOB:  
CUSTOMER PO:

JOB # 14-9755 JCAL

DELIVERY DATE	DELIVERY TICKET	MATERIAL TICKET	TRUCK NO.	COMMODITY DESCRIPTION	LOT	TONS/YDS	BILL RATE	SALES TAX	TOTAL BILLING
				PIT: EAGLE VALLEY					
8/6/2014	469869	322285	RIC	C-SOIL OUT 1-WAY - T	7/30/14	57.97 Ton	\$9.50		\$550.72
				Trucking			\$7.00		\$405.79
8/6/2014	497289	322284	RIC	C-SOIL OUT 1-WAY - T	7/30/14	56.17 Ton	\$9.50		\$533.62
				Trucking			\$7.00		\$393.19
				PIT TOTAL: EAGLE VALLEY		114.14			\$1,883.32
				INVOICE TOTALS:					
						Hourly			
						Load			
						Yard			
						114.14 Ton			
PLEASE MAKE YOUR CHECK PAYABLE TO:									
<b>T.K.M.S.</b>									
Terms:									
Net 30 From									
Date of Invoice									
<b>TOTALS &gt;</b>									
Total Invoice:								\$0.00	\$1,883.32
Fuel Surcharge:								0.00%	\$0.00
New Total Owed:									\$1,883.32

Payments not received within 30 days of this invoice are subject to a late fee of 5% of the amount due during that period. In the event of Customer's failure to timely pay this invoice amount, TKMS reserves the right to recover from Customer all expenses associated with enforcement of the payment terms including reasonable attorney's fees and costs incurred by it to enforce its rights under this invoice and/or applicable law.

# CLARK HILL

---

Kevin S. Hendrick  
T 313.965.8315  
F 313.309.6915  
Email: khendrick@clarkhill.com

Clark Hill PLC  
500 Woodward Avenue  
Suite 3500  
Detroit, MI 48226  
T 313.965.8300  
F 313.965.8252  
  
clarkhill.com

November 30, 2015

Mark D. Sassak  
Deneweth, Dugan Parfitt  
1175 West Long Lake Road, Suite 202  
Troy, MI 48098

Ryan Jezdimir  
Blevins Sanborn Jezdimir Zack PLC  
1842 Michigan Avenue  
Detroit, MI 48216

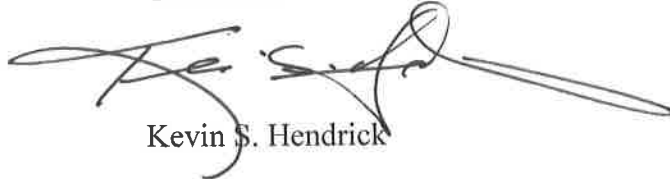
***Re: Ronnisch Construction Group, Inc. and Aielli Construction Company -  
Arbitration***

Dear Counsel:

Enclosed is the Arbitrator's Award in connection with the above-captioned matter.  
Please contact me should you have any questions or concerns regarding same.

Very truly yours,

CLARK HILL PLC



Kevin S. Hendrick

KSH:jams  
Enclosure

## IN PRIVATE ARBITRATION

### In the Matter of:

AIELLI CONSTRUCTION COMPANY, INC.,  
a Michigan corporation,

Plaintiff,

vs.

RONNISCH CONSTRUCTION GROUP, INC., and  
NORTH AMERICAN SPECIALTY INSURANCE,  
COMPANY,

Defendants,

**-and-**

RONNISCH CONSTRUCTION GROUP, INC.,

Counter-Plaintiff,

vs.

AIELLI CONSTRUCTION COMPANY, INC.

Counter-Defendant.

Arbitrator:  
**Kevin S. Hendrick**

Oakland County Circuit Court  
Case No. 14-144624-CK  
Hon. James M. Alexander

---

### ARBITRATION AWARD

Aielli Construction Company, Inc. ("Aielli"), Ronnisch Construction Group, Inc. ("Ronnisch") and North American Specialty Insurance Company ("NAS"), collectively "The Parties", having submitted this matter to private arbitration in accordance with the Stipulated Order Staying Case Pending Arbitration entered by the Oakland County Circuit Court on March 19, 2015; hearings having been conducted on October 14 and 15, 2015 in Birmingham, Michigan; the Arbitrator having heard the testimony by the witnesses and having considered the documentary evidence offered by the Parties; and the Arbitrator having considered the Parties' pleadings, briefs, and arguments, and otherwise being fully advised in the premises; the following Award is hereby rendered;

**A. As to the Claims of Aielli Against Ronnisch and NAS, the Arbitrator Awards the Following:**

The Subcontract Price:	\$ 142,936.00
Change Orders:	\$ 17,619.06
Equitable Adjustment Per Article VI For Contaminated Soils:	
Contaminated Soils:	\$ 381,744.62
Credit for Value of Duplicate Work:	\$(111,600.00)
Net Add to Contract:	\$ 270,144.62
Total Contract Price:	\$ 430,699.68
Less Payment to TKMS/Lou's:	\$(236,331.43)
Less Paid to Date:	\$ (83,459.03)
Value Incomplete Work:	\$ (48,162.00)
<u>Balance Due on Contract:</u>	<u>\$ 62,747.22</u>
<u>Attorney Fees:</u>	<u>\$ 22,631.00</u>
<u>Costs:</u>	<u>\$ 1,040.47</u>
<u>Pre-Award Interest:</u>	<u>\$ 2,130.00</u>

Aielli is hereby awarded **\$88,548.69** jointly and severally against Ronnisch Construction Group, Inc. and North American Specialty Insurance.

**B. As to the Claims of Ronnisch Against Aielli:**

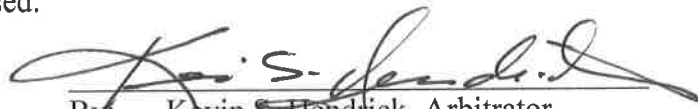
Ronnisch is awarded nothing.

C. The Arbitrator expressly finds that Aielli is the prevailing party under the Michigan Construction Lien Act for the purposes of recovering attorney fees, but also expressly finds that the Aielli Claim of Lien was significantly overstated and in some manners misstated, and for these reasons and based on all of the facts and evidence submitted, the Arbitrator finds that the attorney fees awarded above are reasonable.

C. This Award includes all claims made at the Arbitration by the Parties (including interest, attorney fees, arbitrator fees, and other statutory costs and costs under the Subcontract between Ronnisch and Aielli and under MCL § 570.1118(2)). The Arbitrator finds that

all other costs of the arbitration, and the compensation of the Arbitrator, shall be borne one-half by Aielli and one-half by Ronnisch/NAS. Any claims not expressly addressed in the Award are denied.

- D. The Award in favor of Aielli shall accrue interest at the interest rate upon judgments as calculated pursuant to MCL § 600.6013 from November 30, 2015, until it is paid in full.
- E. The arbitration hearings are closed.

  
By: Kevin S. Hendrick, Arbitrator  
Date: 11-30-2015

PACKING LIST

SOLD TO ACCOUNT <b>844524157</b> RONNISCH CONSTRUCTION 4327 DELEMERE CT ROYAL OAK MI 48073-1809		PURCHASE ORDER NUMBER 13-0041		DELIVERY DATE AND TIME 08/20/2014 14:23		EMPLOYEE BR3AJD		PAGE 1 OF 1	
CALLER PAT HAVERN		DEPARTMENT NUMBER		DOT/CRO CODE Z001		SALES ORDER NUMBER 1215704461		DELIVERY 6268542830	
TELEPHONE NUMBER 2485491800		PROJECT/JOB NUMBER		BRANCH ADDRESS 6874 MIDDLEBELT RD. ROMULUS MI 48174-2041 734-728-7891					
SHIP TO  RONNISCH CONSTRUCTION 4327 DELEMERE CT ROYAL OAK MI 48073-1809		PO RELEASE NUMBER		CHECK NUMBER		CHECK AMOUNT		CASH REC'D/PAID	
ATTENTION		SPECIAL INSTRUCTIONS		INVOICE WILL FOLLOW SALES TERMS AND CONDITIONS ON REVERSE SIDE <b>THANK YOU FOR YOUR ORDER</b>		TRANS TYPE SH			
		CARRIER NAME UPS GROUND		# OF BOXES 1		FREIGHT TERMS PPA		DATE SHIPPED/PICKED UP 08/20	

ITEM DESCRIPTION	ITEM NUMBER	SHIP QTY	BACKORDER MESSAGE	TAX	UNIT PRICE	TOTAL
Discharge Hose, 3 In x 50 ft, Blue	1FYR5	1		T	154.50	154.50
Adapter, Male, 3 In	3LX42	1		T	27.05	27.05
Coupler, Female, 3 In	3LX44	1		T	51.55	51.55

Upon the return for credit and/or replacement of the above listed Grainger product(s), customer warrants and represents that no property damage or personal injury has resulted from use of returned product(s) and customer further agrees that it will not assert any claim against W.W. Grainger, Inc., its subsidiaries and divisions or its suppliers in any way involving the above listed product(s).



I certify that if I am purchasing the material(s) as "materials of trade" as defined in the Hazardous Materials Regulations Title 40 of the Code of Federal Regulations, I intend to use the material(s) in direct support of my principal business (which is not transportation), and I do not intend to resell the material, or transport them in a vehicle other than my own.

FREIGHT	16.54
TAX	13.98
<b>TOTAL</b>	<b>263.62</b>

These items are sold for domestic consumption in the United States. If exported, purchaser assumes full responsibility for compliance with US export controls.

SAP DELIVERY

6268542830



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<b>GRAINGER</b> FOR THE ONES WHO GET IT DONE		08/20/2014	
6874 MIDDLEBELT RD. ROMULUS MI 48174-2041		Delivery # 6268542830	
TO: RONNISCH CONSTRUCTION 4327 DELEMERE CT ROYAL OAK MI 48073-1809			
TELEPHONE #	2485491800		
PO NUMBER	13-0041		
ATTENTION			
PROJECT/JOB #			
DEPARTMENT #			
PO RELEASE			
CALLER		PAT HAVERN	

<b>GRAINGER</b> FOR THE ONES WHO GET IT DONE		08/20/2014	
6874 MIDDLEBELT RD. ROMULUS MI 48174-2041		Delivery # 6268542830	
TO: RONNISCH CONSTRUCTION 4327 DELEMERE CT ROYAL OAK MI 48073-1809			
TELEPHONE #	2485491800		
PO NUMBER	13-0041		
ATTENTION			
PROJECT/JOB #			
DEPARTMENT #			
PO RELEASE			
CALLER		PAT HAVERN	



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MADISON HEIGHTS, MI 48071-1415  
www.grainger.com

PAGE 1 OF 1

## ORIGINAL INVOICE

GRAINGER ACCOUNT NUMBER 844524157  
INVOICE NUMBER 9731125879  
INVOICE DATE 05/01/2015  
DUE DATE 05/31/2015  
AMOUNT DUE 367.61

Ship to information is listed below  
in the description section

BILL TO  
MDG2015 00000414 1 AT 0406

RONNISCH CONSTRUCTION  
4327 DELEMERE CT  
ROYAL OAK, MI 48073-1809

PO NUMBER: 13-0041  
CALLER: PAT HAVERN  
CUSTOMER PHONE: (248) 549-1800  
ORDER NUMBER: 1234173480  
INCO TERMS: FOB ORIGIN



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[www.grainger.com/paperlessinvoicing](http://www.grainger.com/paperlessinvoicing)

THANK YOU!

FEI NUMBER 36-1150280

FOR ANY QUESTIONS ABOUT THIS INVOICE OR ACCOUNT CALL 1-800-472-4643

PO LINE #	ITEM #	DESCRIPTION	QUANTITY	UNIT PRICE	TOTAL
		The following items were shipped to: RONNISCH CONSTRUCTION 4327 DELEMERE CT ROYAL OAK MI 48073-1809			
	1FYR3	DISCHARGE HOSE, 2 IN X 50 FT, BLUE MANUFACTURER # DP200-50MF-G	2	82.15	164.30
	1FYR5	DISCHARGE HOSE, 3 IN X 50 FT, BLUE MANUFACTURER # DP300-50MF-G Delivery # 6290458650 Date shipped: 05/01/2015 Carrier: UPS GROUND No. of pkgs: 0 Wt: 50.70 Trk #: 123018W70306089027	1	160.75	160.75
<div>Entity <u>PH</u> Job# <u>13-0041</u> Job Name/ <u>Balmoral</u> Acct # _____ Cost Code <u>01-830</u> Amount <u>367.61</u> Approval _____</div> <div>OK for 5/12/15 Water Discharge</div>					
INVOICE SUB TOTAL					325.05
SHIPPING CHARGE					23.05
TAX					19.51

**GRAINGER**

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MADISON HEIGHTS, MI 48071-1415  
www.grainger.com

PAGE 1 OF 1

**ORIGINAL INVOICE**

GRAINGER ACCOUNT NUMBER 844524157  
INVOICE NUMBER 9718776983  
INVOICE DATE 04/17/2015  
DUE DATE 05/17/2015  
AMOUNT DUE 10.57

Ship to information is listed below  
in the description section

BILL TO  
MDG2015 00000399 1 AT 0406

RONNISCH CONSTRUCTION  
4327 DELEMERE CT  
ROYAL OAK, MI 48073-1809

PO NUMBER: 13-0041  
PROJECT/JOB: 13-0041  
CALLER: PAT HAVERN  
CUSTOMER PHONE: (248) 549-1800  
ORDER NUMBER: 1233130410  
INCO TERMS: FOB ORIGIN

**GRAINGER**

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MADISON HEIGHTS, MI 48071-1415  
www.grainger.com

PAGE 1 OF 1

**ORIGINAL INVOICE**

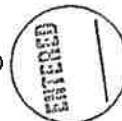
GRAINGER ACCOUNT NUMBER 844524157  
INVOICE NUMBER 9718744445  
INVOICE DATE 04/17/2015  
DUE DATE 05/17/2015  
AMOUNT DUE 70.99

Ship to information is listed below  
in the description section

BILL TO  
MDG2015 00000399 1 AT 0406

RONNISCH CONSTRUCTION  
4327 DELEMERE CT  
ROYAL OAK, MI 48073-1809

PO NUMBER: 13-0041  
PROJECT/JOB: 13-0041  
CALLER: PAT HAVERN  
CUSTOMER PHONE: (248) 549-1800  
ORDER NUMBER: 1233130410  
INCO TERMS: FOB ORIGIN



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[www.grainger.com/paperlessinvoicing](http://www.grainger.com/paperlessinvoicing)

**THANK YOU!**

FEI NUMBER 36-1150280

FOR ANY QUESTIONS ABOUT THIS INVOICE OR ACCOUNT **CALL 1-800-472-4643**

PO LINE #	ITEM #	DESCRIPTION	QUANTITY	UNIT PRICE	TOTAL
		The following items were shipped to: PATRICK HAVERN RONNISCH CONSTRUCTION 4327 DELEMERE CT ROYAL OAK MI 48073-1809			
	9WM99	PENNANTS, POLYETHYLENE, RED, 100 FT. MANUFACTURER # PL-2 R Delivery # 6289228417 Date shipped: 04/17/2015 Carrier: UPS GROUND No. of pkgs: 0 Wt: 2.50 Trk #: 1Z3018W70305285307	5	11.27	56.35
<p>Entity <u>P.H.</u> Job # <u>13-0041</u> Job Name/ <u>Baltimore</u> Acct # _____ Cost Code <u>01-830</u> Amount _____ Approval _____</p> <p><i>OK As Safety 4/28</i></p>					
INVOICE SUB-TOTAL					56.35
SHIPPING CHARGE					11.26
TAX					3.38

Balmora

SEP 16 2014



# INVOICE

24/7 Emergency 800-742-7246  
rainforrent.com

RAIN FOR RENT  
DETROIT  
20101 SIBLEY RD  
BROWNSTOWN, MI 48193-8429  
734-479-1892

## Your sales person

ADAM PHILLIPS  
aphillips@rainforrent.com

## REMIT PAYMENTS TO:

RAIN FOR RENT  
FILE 52541  
LOS ANGELES CA 90074-2541

CONTRACT # 064005244-001  
CUSTOMER RONNISCH CONSTRUCTION  
CUSTOMER # 640692  
NAME RONNISCH CONSTRUCTION  
ADDRESS 4327 DELEMERE CT  
CITY ROYAL OAK, MI 48073  
PHONE 248-549-1800

## SHIPPED TO JOBSITE:

NAME RONNISCH CONSTRUCTION  
ADDRESS 4327 DELEMERE CT  
CITY ROYAL OAK, MI 48073  
PHONE

INVOICE# ☒  
064029779

INVOICE DATE  
09/12/2014

PO or JOB#  
REQUESTED

PAYMENT DUE  
10/12/14

PLEASE PAY

\$490.91

## NOTES:

ORDERED BY PAT HAVERN

QTY	UOM	DESCRIPTION	PRODUCT #	BACK ORDER	DATE OUT	BILLED THRU	DAYS BILLED	PRICE	AMOUNT	TAXABLE
1	EA	WATER METER MF103 FLNGD 3	720803		08/15/14	09/11/14	28	140.00	140.00	Y
2	EA	ADAPT 3" FLGxFIPT STL 150#	720823		08/15/14	09/11/14	28	27.00	54.00	Y
1	EA	3" NIPPLE	MRC		08/15/14	09/11/14	28	27.00	27.00	Y
1	EA	CPLR 3" DIX FEM FNPT 300D AL	323354		08/15/14	09/11/14	28	27.00	27.00	Y
1	EA	3" MALE CAM X MPT	MRC		08/15/14	09/11/14	28	27.00	27.00	Y
1		M110C-DELIVERY HAULG				SERVICES		164.80	164.80	
1		M696-FUEL SURCHARGE				SERVICES		34.61	34.61	

BILLING MONTH  
PM AUTH.

SEP 16 2014

ENTERED

NET DUE \$ 490.21

FOR PROPER CREDIT, PLEASE INCLUDE INVOICE NUMBER ON YOUR PAYMENT.  
TERMS NET 30 - PAST DUE AMOUNTS ARE SUBJECT TO A SERVICE CHARGE OF 1-1/2%  
CUSTOMER, (RENTEE or BUYER as context requires), shall be deemed to accept  
all terms, conditions and provisions hereof upon execution of this agreement;  
ordering; or delivery of equipment to customer, whichever comes first.

SIGNATURE

DATE

TOTAL SALES:	\$0.00
TOTAL RENTALS:	\$275.00
TOTAL SERVICES:	\$199.41
SUBTOTAL:	\$474.41
MI TAX:	\$16.50
<b>TOTAL:</b>	<b>\$490.91</b>



# INVOICE

24/7 Emergency 800-742-7246  
rainforrent.com

RAIN FOR RENT  
DETROIT  
PO BOX 2201  
RIVERVIEW, MI 48193  
734-479-1892

DEC 9 2014

Your sales person:  
ADAM PHILLIPS  
aphillips@rainforrent.com

REMIT PAYMENTS TO:  
RAIN FOR RENT  
FILE 52541  
LOS ANGELES CA 90074-2541

ENTER

CONTRACT # 064005244-004  
CUSTOMER RONNISCH CONSTRUCTION  
CUSTOMER # 640692  
NAME RONNISCH CONSTRUCTION  
ADDRESS 4327 DELEMERE CT  
CITY ROYAL OAK, MI 48073  
PHONE 248-549-1800

SHIPPED TO JOBSITE:  
NAME RONNISCH CONSTRUCTION  
ADDRESS 4327 DELEMERE CT  
CITY ROYAL OAK, MI 48073  
PHONE

INVOICE#	INVOICE DATE	PO or JOB#	PAYMENT DUE
064030347	12/05/2014	REQUESTED	01/04/15
PLEASE PAY			\$291.50

## NOTES:

ORDERED BY PAT HAVERN

QTY	UOM	DESCRIPTION	PRODUCT #	BACK ORDER	DATE OUT	BILLED THRU	DAYS BILLED	PRICE	AMOUNT	TAXABLE
1	EA	WATER METER MF103 FLNGD 3	720803		11/07/14	12/04/14	28	140.00	140.00	Y
2	EA	ADAPT 3" FLGxFIPT STL 150#	720823		11/07/14	12/04/14	28	27.00	54.00	Y
1	EA	3" NIPPLE	MRC		11/07/14	12/04/14	28	27.00	27.00	Y
1	EA	CPLR 3" DIX FEM FNPT 300D AL	323354		11/07/14	12/04/14	28	27.00	27.00	Y
1	EA	3" MALE CAM X MPT	MRC		11/07/14	12/04/14	28	27.00	27.00	Y

FOR PROPER CREDIT, PLEASE INCLUDE INVOICE NUMBER ON YOUR PAYMENT.  
TERMS NET 30 - PAST DUE AMOUNTS ARE SUBJECT TO A SERVICE CHARGE OF 1-1/2%  
CUSTOMER, (RENTÉE or BUYER as context requires), shall be deemed to accept  
all terms, conditions and provisions hereof upon execution of this agreement;  
ordering; or delivery of equipment to customer, whichever comes first.

SIGNATURE

DATE

13-0041 Balmoral  
1-410  
Nov. Billing

TOTAL SALES:	\$0.00
TOTAL RENTALS:	\$275.00
TOTAL SERVICES:	\$0.00
SUBTOTAL:	\$275.00
MI TAX:	\$16.50
<b>TOTAL:</b>	<b>\$291.50</b>



# INVOICE

24/7 Emergency 800-742-7246  
rainforrent.com

RAIN FOR RENT  
DETROIT  
20101 SIBLEY RD  
BROWNSTOWN, MI 48193-8429  
734-479-1892

Your sales person  
ADAM PHILLIPS  
aphillips@rainforrent.com

REMIT PAYMENTS TO: **ENTERED**  
RAIN FOR RENT  
FILE 52541  
LOS ANGELES CA 90074-2541

<b>CONTRACT #</b>	<b>SHIPPED TO JOBSITE:</b>	<b>INVOICE#</b>	<b>INVOICE DATE</b>	<b>PO or JOB#</b>	<b>PAYMENT DUE</b>
<b>CUSTOMER</b> RONNISCH CONSTRUCTION	<b>NAME</b> RONNISCH CONSTRUCTION	064030104	10/31/2014		11/30/14
<b>CUSTOMER #</b> 640692	<b>ADDRESS</b> 4327 DELEMERE CT				
<b>NAME</b> RONNISCH CONSTRUCTION	<b>CITY</b> ROYAL OAK, MI 48073				
<b>ADDRESS</b> 4327 DELEMERE CT	<b>PHONE</b>			<b>PLEASE PAY</b>	<b>\$7.36</b>
<b>CITY</b> ROYAL OAK, MI 48073					
<b>PHONE</b> 248-549-1800					

## NOTES:

QTY	UOM	DESCRIPTION	PRODUCT #	BACK ORDER	DATE OUT	BILLED THRU	DAYS BILLED	PRICE	AMOUNT	TAXABLE
1		LATE CHARGES INVOICE				SERVICES		7.36	7.36	

Finance Charges based on the following unpaid invoices:

Invoice #	Date Due	Unpaid Balance	Cust PO#
064029779	10/12/2014	490.91	REQUESTED

NOV 11 2014

13-0041  
1-410

FOR PROPER CREDIT, PLEASE INCLUDE INVOICE NUMBER ON YOUR PAYMENT.  
TERMS NET 30 - PAST DUE AMOUNTS ARE SUBJECT TO A SERVICE CHARGE OF 1-1/2%  
CUSTOMER, (RENTOR or BUYER as context requires), shall be deemed to accept  
all terms, conditions and provisions hereof upon execution of this agreement;  
ordering; or delivery of equipment to customer, whichever comes first.

SIGNATURE

PATE

<b>TOTAL SALES:</b>	\$0.00
<b>TOTAL RENTALS:</b>	\$0.00
<b>TOTAL SERVICES:</b>	\$7.36
<b>SUBTOTAL:</b>	\$7.36
<b>MI TAX:</b>	\$0.00
<b>TOTAL:</b>	<b>\$7.36</b>



Baltimore

# INVOICE

24/7 Emergency 800-742-7246  
rainforrent.com

RAIN FOR RENT  
DETROIT  
20101 SIBLEY RD  
BROWNSTOWN, MI 48193-8429  
734-479-1892

DEC 9 2014

Your sales person  
ADAM PHILLIPS  
aphillips@rainforrent.com

REMIT PAYMENTS TO:  
RAIN FOR RENT  
FILE 52541  
LOS ANGELES CA 90074-2541

ENTERED

CONTRACT #	SHIPPED TO JOBSITE:	INVOICE#	INVOICE DATE	PO or JOB#	PAYMENT DUE
CUSTOMER RONNISCH CONSTRUCTION	NAME RONNISCH CONSTRUCTION	064030309	11/30/2014		12/30/14
CUSTOMER # 640892	ADDRESS 4327 DELEMERE CT				
NAME RONNISCH CONSTRUCTION	CITY ROYAL OAK, MI 48073				
ADDRESS 4327 DELEMERE CT	PHONE			PLEASE PAY	\$11.73
CITY ROYAL OAK, MI 48073					
PHONE 248-549-1800					

## NOTES:

QTY	UOM	DESCRIPTION	PRODUCT #	BACK ORDER	DATE OUT	BILLED THRU	DAYS BILLED	PRICE	AMOUNT	TAXABLE
1		LATE CHARGES INVOICE				SERVICES		11.73	11.73	

### Finance Charges based on the following unpaid invoices:

Invoice #	Date Due	Unpaid Balance	Cust PO#
064029779	10/12/2014	490.91	REQUESTED
064029977	11/09/2014	291.50	REQUESTED

13-6041  
1-410

FOR PROPER CREDIT, PLEASE INCLUDE INVOICE NUMBER ON YOUR PAYMENT.  
TERMS NET 30 - PAST DUE AMOUNTS ARE SUBJECT TO A SERVICE CHARGE OF 1-1/2%  
CUSTOMER, (RENTEE or BUYER as context requires), shall be deemed to accept  
all terms, conditions and provisions hereof upon execution of this agreement;  
ordering; or delivery of equipment to customer, whichever comes first.

SIGNATURE

DATE

TOTAL SALES:	\$0.00
TOTAL RENTALS:	\$0.00
TOTAL SERVICES:	\$11.73
SUBTOTAL:	\$11.73
MI TAX:	\$0.00
TOTAL:	\$11.73



# INVOICE

24/7 Emergency 800-742-7246  
rainforrent.com

RAIN FOR RENT  
DETROIT  
20101 SIBLEY RD  
BROWNSTOWN, MI 48193-8429  
734-479-1892

Your sales person  
ADAM PHILLIPS  
aphillips@rainforrent.com

REMIT PAYMENTS TO:  
RAIN FOR RENT  
FILE 52541  
LOS ANGELES CA 90074-2541

CONTRACT # 064005244-002  
CUSTOMER RONNISCH CONSTRUCTION  
CUSTOMER # 640692  
NAME RONNISCH CONSTRUCTION  
ADDRESS 4327 DELEMERE CT  
CITY ROYAL OAK, MI 48073  
PHONE 248-549-1800

SHIPPED TO JOBSITE:  
NAME RONNISCH CONSTRUCTION  
ADDRESS 4327 DELEMERE CT  
CITY ROYAL OAK, MI 48073  
PHONE

INVOICE#	INVOICE DATE	PO or JOB#	PAYMENT DUE
064029977	10/10/2014	REQUESTED	11/09/14
PLEASE PAY			\$291.50

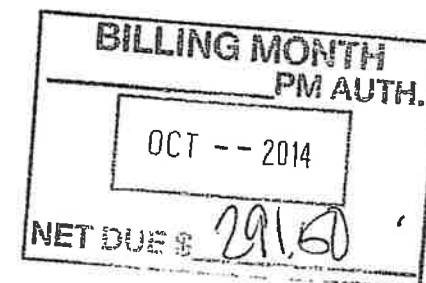
## NOTES:

ORDERED BY PAT HAVERN

QTY	UOM	DESCRIPTION	PRODUCT #	BACK ORDER	DATE OUT	BILLED THRU	DAYS BILLED	PRICE	AMOUNT	TAXABLE
1	EA	WATER METER MF103 FLNGD 3	720803		09/12/14	10/09/14	28	140.00	140.00	Y
2	EA	ADAPT 3" FLGxFIPT STL 150#	720823		09/12/14	10/09/14	28	27.00	54.00	Y
1	EA	3" NIPPLE	MRC		09/12/14	10/09/14	28	27.00	27.00	Y
1	EA	CPLR 3" DIX FEM FNPT 300D AL	323354		09/12/14	10/09/14	28	27.00	27.00	Y
1	EA	3" MALE CAM X MPT	MRC		09/12/14	10/09/14	28	27.00	27.00	Y

01410

1-410 Permits



FOR PROPER CREDIT, PLEASE INCLUDE INVOICE NUMBER ON YOUR PAYMENT.  
TERMS NET 30 - PAST DUE AMOUNTS ARE SUBJECT TO A SERVICE CHARGE OF 1-1/2%  
CUSTOMER, (RENTTEE or BUYER as context requires), shall be deemed to accept  
all terms, conditions and provisions hereof upon execution of this agreement;  
ordering; or delivery of equipment to customer, whichever comes first.

SIGNATURE

DATE

TOTAL SALES:	\$0.00
TOTAL RENTALS:	\$275.00
TOTAL SERVICES:	\$0.00
SUBTOTAL:	\$275.00
MI TAX:	\$16.50
<b>TOTAL:</b>	<b>\$291.50</b>



# INVOICE

24/7 Emergency 800-742-7246  
rainforrent.com

RAIN FOR RENT  
DETROIT  
PO BOX 2201  
RIVERVIEW, MI 48193  
734-479-1892



13-0041 - NO PO -

Your sales person  
ADAM PHILLIPS  
aphillips@rainforrent.com

REMIT PAYMENTS TO:  
RAIN FOR RENT  
FILE 52541  
LOS ANGELES CA 90074-2541

CONTRACT # 064005244-005  
CUSTOMER RONNISCH CONSTRUCTION  
CUSTOMER # 640692  
NAME RONNISCH CONSTRUCTION  
ADDRESS 4327 DELEMERE CT  
CITY ROYAL OAK, MI 48073  
PHONE 248-549-1800

SHIPPED TO JOBSITE:

NAME RONNISCH CONSTRUCTION  
ADDRESS 4327 DELEMERE CT  
CITY ROYAL OAK, MI 48073  
PHONE

INVOICE#	INVOICE DATE	PO or JOB#	PAYMENT DUE
064030499	01/02/2015	REQUESTED	02/01/15
PLEASE PAY			\$291.50

NOTES:

ORDERED BY PAT HAVERN

QTY	UOM	DESCRIPTION	PRODUCT #	BACK ORDER	DATE OUT	BILLED THRU	DAYS BILLED	PRICE	AMOUNT	TAXABLE
1	EA	WATER METER MF103 FLNGD 3	720803		12/05/14	01/01/15	28	140.00	140.00	Y
2	EA	ADAPT 3" FLGxFIPT STL 150#	720823		12/05/14	01/01/15	28	27.00	54.00	Y
1	EA	3" NIPPLE	MRC		12/05/14	01/01/15	28	27.00	27.00	Y
1	EA	CPLR 3" DIX FEM FNPT 300D AL	323354		12/05/14	01/01/15	28	27.00	27.00	Y
1	EA	3" MALE CAM X MPT	MRC		12/05/14	01/01/15	28	27.00	27.00	Y

OK  
1/7/15  
OFF RENT AS OF 1/7

FOR PROPER CREDIT, PLEASE INCLUDE INVOICE NUMBER ON YOUR PAYMENT.  
TERMS NET 30 - PAST DUE AMOUNTS ARE SUBJECT TO A SERVICE CHARGE OF 1-1/2%  
CUSTOMER, (RENTEE or BUYER as context requires), shall be deemed to accept  
all terms, conditions and provisions hereof upon execution of this agreement;  
ordering; or delivery of equipment to customer, whichever comes first.

SIGNATURE

DATE

TOTAL SALES:	\$0.00
TOTAL RENTALS:	\$275.00
TOTAL SERVICES:	\$0.00
SUBTOTAL:	\$275.00
MI TAX:	\$16.50
<b>TOTAL:</b>	<b>\$291.50</b>



# INVOICE

24/7 Emergency 800-742-7246  
rainforrent.com

RAIN FOR RENT  
DETROIT  
20101 SIBLEY RD  
48193, MI 48193  
734-479-1892

Your sales person  
ADAM PHILLIPS  
aphillips@rainforrent.com

REMIT PAYMENTS TO:  
RAIN FOR RENT  
FILE 52541  
LOS ANGELES CA 90074-2541

CONTRACT # 064005244-003  
CUSTOMER RONNISCH CONSTRUCTION  
CUSTOMER # 640692  
NAME RONNISCH CONSTRUCTION  
ADDRESS 4327 DELEMERE CT  
CITY ROYAL OAK, MI 48073  
PHONE 248-548-1800

SHIPPED TO JOBSITE:  
NAME RONNISCH CONSTRUCTION  
ADDRESS 4327 DELEMERE CT  
CITY ROYAL OAK, MI 48073  
PHONE

INVOICE# 064030154	INVOICE DATE 11/07/2014	PO or JOB# REQUESTED	PAYMENT DUE 12/07/14
PLEASE PAY			\$291.50

## NOTES:

ORDERED BY PAT HAVERN

QTY	UOM	DESCRIPTION	PRODUCT #	BACK ORDER	DATE OUT	BILLED THRU	DAYS BILLED	PRICE	AMOUNT	TAXABLE
1	EA	WATER METER MF103 FLNGD 3	720803		10/10/14	11/06/14	28	140.00	140.00	Y
2	EA	ADAPT 3" FLGxFIPT STL 150#	720823		10/10/14	11/06/14	28	27.00	54.00	Y
1	EA	3" NIPPLE	MRC		10/10/14	11/06/14	28	27.00	27.00	Y
1	EA	CPLR 3" DIX FEM FNPT 300D AL	323354		10/10/14	11/06/14	28	27.00	27.00	Y
1	EA	3" MALE CAM X MPT	MRC		10/10/14	11/06/14	28	27.00	27.00	Y

Entity \_\_\_\_\_ Job# 13-0041  
Job Name/ Balmora

Acct # 1-410 Cost Code \_\_\_\_\_  
Amount \_\_\_\_\_ Approval \_\_\_\_\_

FOR PROPER CREDIT, PLEASE INCLUDE INVOICE NUMBER ON YOUR PAYMENT.  
TERMS NET 30 - PAST DUE AMOUNTS ARE SUBJECT TO A SERVICE CHARGE OF 1-1/2%  
CUSTOMER, (RENTEE or BUYER as context requires), shall be deemed to accept  
all terms, conditions and provisions hereof upon execution of this agreement;  
ordering; or delivery of equipment to customer, whichever comes first.

SIGNATURE \_\_\_\_\_

DATE \_\_\_\_\_

TOTAL SALES:	\$0.00
TOTAL RENTALS:	\$275.00
TOTAL SERVICES:	\$0.00
SUBTOTAL:	\$275.00
MI TAX:	\$16.50
TOTAL:	\$291.50

JAN 15 2015



# INVOICE

24/7 Emergency 800-742-7246  
rainforrent.com

RAIN FOR RENT  
DETROIT  
20101 SIBLEY RD  
48193, MI 48193  
734-479-1892

Your sales person  
ADAM PHILLIPS  
aphillips@rainforrent.com

REMIT PAYMENTS TO:  
RAIN FOR RENT  
FILE 52541  
LOS ANGELES CA 90074-2541

CONTRACT # 064005244-006  
CUSTOMER RONNISCH CONSTRUCTION  
CUSTOMER # 640692  
NAME RONNISCH CONSTRUCTION  
ADDRESS 4327 DELEMERE CT  
CITY ROYAL OAK, MI 48073  
PHONE 248-549-1800

SHIPPED TO JOBSITE:  
NAME RONNISCH CONSTRUCTION  
ADDRESS 4327 DELEMERE CT  
CITY ROYAL OAK, MI 48073  
PHONE

INVOICE#	INVOICE DATE	PO or JOB#	PAYMENT DUE
064030534	01/12/2015	REQUESTED	02/11/15
PLEASE PAY			\$288.34

## NOTES:

ORDERED BY PAT HAVERN  
COMPLETE RETURN

QTY	UOM	DESCRIPTION	PRODUCT #	BACK ORDER	DATE OUT	BILLED THRU	DAYS BILLED	PRICE	AMOUNT	TAXABLE
1	EA	WATER METER MF103 FLNGD 3	720803		01/02/15	01/05/15	4	46.67	46.67	Y
2	EA	ADAPT 3" FLGxFIPT STL 150#	720823		01/02/15	01/05/15	4	9.00	18.00	Y
1	EA	3" NIPPLE	MRC		01/02/15	01/05/15	4	9.00	9.00	Y
1	EA	CPLR 3" DIX FEM FNPT 300D AL	323354		01/02/15	01/05/15	4	9.00	9.00	Y
1	EA	3" MALE CAM X MPT	MRC		01/02/15	01/05/15	4	9.00	9.00	Y
1		M108C-RETURN HAULING 01/09/15				SERVICES		164.80	164.80	
1		M696-FUEL SURCHARGE 01/09/15				SERVICES		26.37	26.37	

Entity \_\_\_\_\_ Job# 13-0041

Job Name/ \_\_\_\_\_

Acct # \_\_\_\_\_ Cost Code 01-410

Amount \_\_\_\_\_ Approval 1/16/15



*Handwritten signature*

**FINAL**

FOR PROPER CREDIT, PLEASE INCLUDE INVOICE NUMBER ON YOUR PAYMENT.  
TERMS NET 30 - PAST DUE AMOUNTS ARE SUBJECT TO A SERVICE CHARGE OF 1-1/2%  
CUSTOMER, (RENTEE or BUYER as context requires), shall be deemed to accept  
all terms, conditions and provisions hereof upon execution of this agreement;  
ordering; or delivery of equipment to customer, whichever comes first.

SIGNATURE \_\_\_\_\_

DATE \_\_\_\_\_

TOTAL SALES:	\$0.00
TOTAL RENTALS:	\$91.67
TOTAL SERVICES:	\$191.17
SUBTOTAL:	\$282.84
MI TAX:	\$5.50
<b>TOTAL:</b>	<b>\$288.34</b>



43980 Plymouth Oaks Blvd.  
Plymouth, MI 48170-2584  
Phone: 734-454-9900 Fax: 734-454-7685

**INVOICE**

Remit to:  
SME  
P.O. Box 673166  
Detroit, MI 48267-3166

Harvey Weiss  
Weiss Samona  
32820 Woodward Ave  
Suite 200  
Royal Oak, MI 48009

October 03, 2014  
Invoice No: 53233

Project 061377.03 Balmoral Construction Phase Services

Partial invoice for Environmental Consulting Services including:

Waste water characterization / permit consulting.

**Professional Services from August 25, 2014 to September 21, 2014**

**Subconsultants/Subcontractors**

Reimbursed Subcontract

9/11/2014	FIBERTEC ANALYTICAL	900.00
	ENVIRONMENTAL	
	SERVICES, INC.	

<b>Total Subconsultants/Subcontractors</b>	<b>900.00</b>	<b>900.00</b>
--	---------------	---------------

<b>Total this Invoice</b>	<b>\$900.00</b>
---------------------------	-----------------

Thank you for the opportunity to be of service.

Project Manager Daniel Cassidy

## Billing Backup

Tuesday, March 29, 2016

SME

Invoice 53233 Dated 10/3/2014

1:23:38 PM

Project	061377.03	Balmoral Construction Phase Services
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### Subconsultants/Subcontractors

#### Reimbursed Subcontract

AP 17567	9/11/2014	FIBERTEC ENVIRONMENTAL SERVICES, INC. / ANALYTICAL / Invoice: 111874, 9/2/2014	900.00
----------	-----------	--	--------

<b>Total Subconsultants/Subcontractors</b>	<b>900.00</b>	<b>900.00</b>
--	---------------	---------------

<b>Total this Project</b>	<b>\$900.00</b>
---------------------------	-----------------

<b>Total this Report</b>	<b>\$900.00</b>
--------------------------	-----------------



43980 Plymouth Oaks Blvd.  
Plymouth, MI 48170-2584  
Phone: 734-454-9900 Fax: 734-454-7685

**INVOICE**

Remit to:  
SME  
P.O. Box 673166  
Detroit, MI 48267-3166

Harvey Weiss  
Weiss Samona  
32820 Woodward Ave  
Suite 200  
Royal Oak, MI 48009

November 14, 2014  
Invoice No: 54205

Project 061377.03 Balmoral Construction Phase Services

Partial invoice for Environmental Consulting Services including:

Waste water characterization / permit consulting, due care consulting

**Professional Services from September 22, 2014 to October 26, 2014****Personnel**

	Hours	Rate	Amount	
Senior Consultant				
Cassidy, Daniel	3.25	165.00	536.25	
Project Consultant				
Lafayette, Jason	3.00	120.00	360.00	
Administrative Assistant				
Stopper, Pamela	.50	55.00	27.50	
Totals	6.75		923.75	
<b>Total Labor</b>				<b>923.75</b>

Communication Fee	27.71	
	<b>27.71</b>	<b>27.71</b>

**Subconsultants/Subcontractors**

Reimbursed Subcontract			
10/7/2014 FIBERTEC screening/testing		793.20	
ENVIRONMENTAL SERVICES, INC.			
<b>Total Subconsultants/Subcontractors</b>		<b>793.20</b>	<b>793.20</b>

**Total this Invoice \$1,744.66**

Thank you for the opportunity to be of service.

Terms: Invoice is due upon receipt. Amount not paid within 30 days are subject to 1.5% per month late charge.  
Fed ID#: 38-1738670

Project	061377.03	Balmoral Construction Phase Services	Invoice	54205
Project Manager	Daniel Cassidy			

# Billing Backup

Tuesday, March 29, 2016

SME

Invoice 54205 Dated 11/14/2014

1:24:14 PM

Project	061377.03	Balmoral Construction Phase Services
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## Personnel

			Hours	Rate	Amount	
Senior Consultant						
Senior Consultant						
1030 - Cassidy, Daniel	9/26/2014		.50	165.00	82.50	
1030 - Cassidy, Daniel	10/9/2014		.50	165.00	82.50	
1030 - Cassidy, Daniel	10/10/2014		1.75	165.00	288.75	
1030 - Cassidy, Daniel	10/13/2014		.50	165.00	82.50	
Project Consultant						
Project Consultant						
1090 - Lafayette, Jason	10/1/2014		.75	120.00	90.00	
1090 - Lafayette, Jason	10/6/2014		.25	120.00	30.00	
1090 - Lafayette, Jason	10/13/2014		2.00	120.00	240.00	
Administrative Assistant						
Administrative Assistant						
1310 - Stopper, Pamela	10/14/2014		.50	55.00	27.50	
Totals			6.75		923.75	
<b>Total Labor</b>						<b>923.75</b>

## Subconsultants/Subcontractors

Reimbursed Subcontract						
AP 17997	10/7/2014	FIBERTEC ENVIRONMENTAL SERVICES, INC. / screening/testing / Invoice: 112433, 9/26/2014			793.20	
<b>Total Subconsultants/Subcontractors</b>					<b>793.20</b>	<b>793.20</b>
				<b>Total this Project</b>		<b>\$1,716.95</b>
				<b>Total this Report</b>		<b>\$1,716.95</b>



43980 Plymouth Oaks Blvd.  
Plymouth, MI 48170-2584  
Phone: 734-454-9900 Fax: 734-454-7685

**INVOICE**

Remit to:  
SME  
P.O. Box 673166  
Detroit, MI 48267-3166

Harvey Weiss  
Weiss Samona  
32820 Woodward Ave  
Suite 200  
Royal Oak, MI 48009

December 07, 2014  
Invoice No: 54895

Project 061377.03 Balmoral Construction Phase Services

Partial invoice for Environmental Consulting Services including:

Waste water characterization / permit consulting, due care consulting

**Professional Services from October 27, 2014 to November 23, 2014**

**Personnel**

	Hours	Rate	Amount	
Senior Consultant				
Cassidy, Daniel	5.25	165.00	866.25	
Project Consultant				
Lafayette, Jason	.75	120.00	90.00	
Totals	6.00		956.25	
<b>Total Labor</b>				<b>956.25</b>
 Communication Fee			28.69	
			<b>28.69</b>	<b>28.69</b>
		<b>Total this Invoice</b>		<b>\$984.94</b>

Thank you for the opportunity to be of service.

Project Manager Daniel Cassidy

# Billing Backup

Tuesday, March 29, 2016

SME

Invoice 54895 Dated 12/7/2014

1:24:34 PM

Project	061377.03	Balmoral Construction Phase Services
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## Personnel

			Hours	Rate	Amount	
Senior Consultant						
Senior Consultant						
1030 - Cassidy, Daniel	10/29/2014		1.00	165.00	165.00	
1030 - Cassidy, Daniel	10/30/2014		.75	165.00	123.75	
1030 - Cassidy, Daniel	11/3/2014		.25	165.00	41.25	
1030 - Cassidy, Daniel	11/4/2014		3.00	165.00	495.00	
1030 - Cassidy, Daniel	11/5/2014		.25	165.00	41.25	
Project Consultant						
Project Consultant						
1090 - Lafayette, Jason	10/30/2014		.75	120.00	90.00	
Totals			6.00		956.25	
<b>Total Labor</b>						<b>956.25</b>
				<b>Total this Project</b>		<b>\$956.25</b>
				<b>Total this Report</b>		<b>\$956.25</b>



11:04 AM  
07/27/15

# Ronnisch Construction Group

July 12 through August 16, 2014

Jul 12 - Aug 16, 14



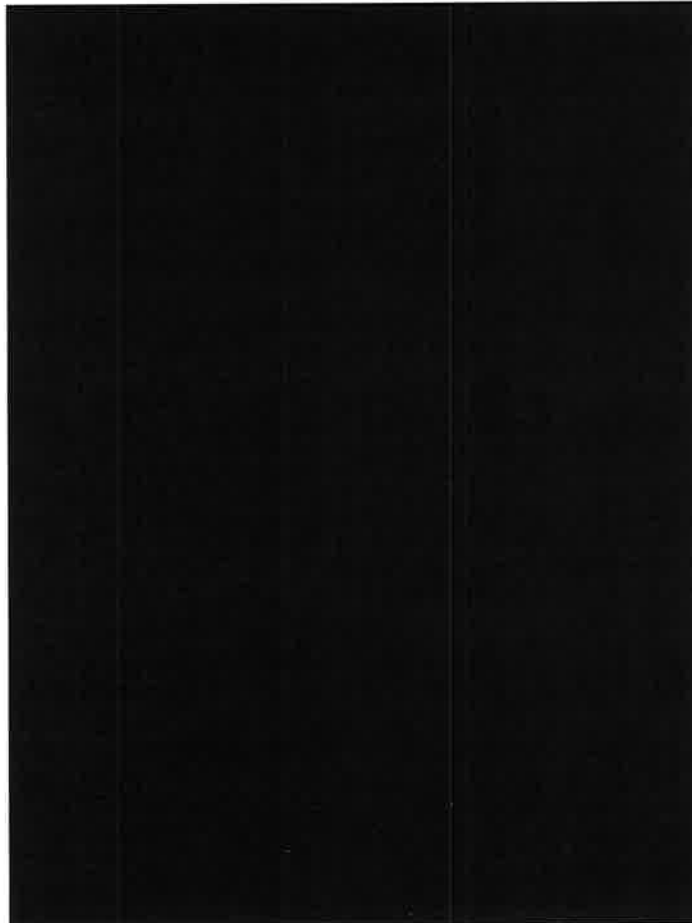
Capo, Zachary  
AWARDED:13-0041 Balmoral  
Total Capo, Zachary

17:00

17:00

@

\$ 53.00 = \$901





soil and materials engineers, inc.

PAGE 1

CORPORATE OFFICE:  
THE KRAMER BUILDING  
43980 PLYMOUTH OAKS BLVD.  
PLYMOUTH, MI 48170-2584

REMIT TO:  
Soil and Materials Engineers, Inc.  
PO BOX 673166  
DETROIT, MI 48267-3166

INVOICE 026407 DATE 5/24/2011  
SME PROJ NO PE61377A

TO: WEISS SAMONA  
32820 WOODWARD AVENUE STE 200  
ROYAL OAK MI 48009

BALMORA BROWNFIELD CONSULTING  
SERVICES - 34901 WOODWARD  
AVE - BIRMINGHAM MI

PLEASE RETURN DUPLICATE COPY WITH YOUR REMITTANCE TO ABOVE REMIT TO ADDRESS

CUST. ORDER NO.

HARVEY WEISS

OPER.

MT

CUST. NO.

W0471

FOR PERIOD:

3/21/2011 - 4/24/2011

**PARTIAL INVOICE FOR BROWNFIELD CONSULTING SERVICES INCLUDING CONSULTING,  
DISCUSSIONS, AND PREPARATION OF A BROWNFIELD MBT CREDIT.**

SR PROJECT ENGINEER/CONSULTA	16.25 HR	\$135.00	\$2,193.75
WORD PROCESSING/ADMIN ASSIST	0.25 HR	48.00	12.00
TRANSPORTATION	81.00 MI	0.65	52.65
COMMUNICATION FEE			66.18

**INVOICE TOTAL** **\$2,324.58**  
=====

THANK YOU FOR THE OPPORTUNITY TO BE OF SERVICE.  
**DAN CASSIDY (Project Manager)**

TERMS: Amount owed is due upon receipt of invoice. Amounts not paid within 30 days after invoice date are subject to 1.5% per month late charge.

Original Copy

PHONE 734-454-9900 FAX 734-454-7685 FED ID# 38-1738670



**soil and materials engineers, inc.**

PAGE 1

CORPORATE OFFICE:  
THE KRAMER BUILDING  
43980 PLYMOUTH OAKS BLVD.  
PLYMOUTH, MI 48170-2584

REMIT TO:  
Soil and Materials Engineers, Inc.  
PO BOX 673166  
DETROIT, MI 48267-3166

INVOICE 026987 DATE 6/17/2011  
SME PROJ NO PE61377A

TO: WEISS SAMONA  
32820 WOODWARD AVENUE STE 200  
ROYAL OAK MI 48009

BALMORA BROWNFIELD CONSULTING  
SERVICES - 34901 WOODWARD  
AVE - BIRMINGHAM MI

PLEASE RETURN DUPLICATE COPY WITH YOUR REMITTANCE TO ABOVE REMIT TO ADDRESS

CUST. ORDER NO. HARVEY WEISS	OPER. EB	CUST. NO. W0471	FOR PERIOD: 04/25/11 - 05/22/2011
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**PARTIAL INVOICE FOR BROWNFIELD CONSULTING SERVICES INCLUDING PREPARATION  
OF BROWNFIELD MBT CREDIT APPLICATION**

SR PROJECT ENGINEER/CONSULTA	6.50 HR	\$135.00	\$877.50
PROJECT ENGINEER/CONSULTANT	1.50 HR	110.00	165.00
WORD PROCESSING/ADMIN ASSIST	0.75 HR	48.00	36.00
COMMUNICATION FEE			32.37

**INVOICE TOTAL** **\$1,110.87**  
=====

THANK YOU FOR THE OPPORTUNITY TO BE OF SERVICE.  
**DAN CASSIDY (Project Manager)**

TERMS: Amount owed is due upon receipt of invoice. Amounts not paid within 30 days after invoice date are subject to 1.5% per month late charge.

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43980 Plymouth Oaks Blvd.  
Plymouth, MI 48170-2584  
Phone: 734-454-9900 Fax: 734-454-7685

**INVOICE**

Remit to:  
SME  
P.O. Box 673166  
Detroit, MI 48267-3166

WEISS SAMONA  
32820 WOODWARD AVENUE STE 200  
ROYAL OAK, MI 48009

March 09, 2012  
Invoice No: 33561

Project 061377.01 BALMORAL BROWNFIELD CONSULTING SERVICES

Partial invoice for Brownfield consulting services including consulting in support of Michigan Brownfield tax credit.

**Professional Services from January 30, 2012 to February 26, 2012****Personnel**

	<b>Hours</b>	<b>Rate</b>	<b>Amount</b>	
Project Manager	5.50	135.00	742.50	
Project Consultant	1.50	110.00	165.00	
Administrative Assistant	.75	48.00	36.00	
Totals	7.75		943.50	
<b>Total Labor</b>				<b>943.50</b>
Communication Fee			28.31	
			<b>28.31</b>	<b>28.31</b>
<b>Total this Invoice</b>				<b>\$971.81</b>

Thank you for the opportunity to be of service.  
Project Manager Daniel Cassidy

## Billing Backup

Tuesday, March 29, 2016

SME

Invoice 33561 Dated 3/9/2012

1:27:07 PM

Project	061377.01	BALMORA BROWNFIELD CONSULTING SERVICES
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### Personnel

		Hours	Rate	Amount	
Project Manager					
Project Manager					
1070 - Cassidy, Daniel	1/9/2012	.50	135.00	67.50	
1070 - Cassidy, Daniel	1/16/2012	.50	135.00	67.50	
1070 - Cassidy, Daniel	1/23/2012	.50	135.00	67.50	
1070 - Cassidy, Daniel	2/1/2012	1.00	135.00	135.00	
1070 - Cassidy, Daniel	2/2/2012	1.00	135.00	135.00	
1070 - Cassidy, Daniel	2/10/2012	.75	135.00	101.25	
1070 - Cassidy, Daniel	2/16/2012	.50	135.00	67.50	
1070 - Cassidy, Daniel	2/20/2012	.75	135.00	101.25	
Project Consultant					
Project Consultant					
1090 - Willobee, Steven	2/20/2012	.50	110.00	55.00	
1090 - Willobee, Steven	2/22/2012	1.00	110.00	110.00	
Administrative Assistant					
Administrative Assistant					
1310 - Stopper, Pamela	12/21/2011	.25	48.00	12.00	
1310 - Stopper, Pamela	1/23/2012	.50	48.00	24.00	
Totals		7.75		943.50	
<b>Total Labor</b>					<b>943.50</b>
			<b>Total this Project</b>		<b>\$943.50</b>
			<b>Total this Report</b>		<b>\$943.50</b>



43980 Plymouth Oaks Blvd.  
Plymouth, MI 48170-2584  
Phone: 734-454-9900 Fax: 734-454-7685

**INVOICE**

Remit to:  
SME  
P.O. Box 673166  
Detroit, MI 48267-3166

WEISS SAMONA  
32820 WOODWARD AVENUE STE 200  
ROYAL OAK, MI 48009

April 19, 2012  
Invoice No: 34264

Project 061377.01 BALMORAL BROWNFIELD CONSULTING SERVICES

Partial invoice for Brownfield consulting services including consulting in support of Michigan Brownfield tax credit.

**Professional Services from February 27, 2012 to March 25, 2012****Personnel**

	<b>Hours</b>	<b>Rate</b>	<b>Amount</b>	
Senior Project Consultant	2.50	135.00	337.50	
Project Manager	2.50	135.00	337.50	
Project Consultant	1.00	110.00	110.00	
Totals	6.00		785.00	
<b>Total Labor</b>				<b>785.00</b>

Communication Fee		23.55	
		<b>23.55</b>	<b>23.55</b>
<b>Total this Invoice</b>			<b>\$808.55</b>

Thank you for the opportunity to be of service.  
Project Manager Daniel Cassidy

# Billing Backup

Tuesday, March 29, 2016

SME

Invoice 34264 Dated 4/19/2012

1:30:23 PM

Project	061377.01	BALMORA BROWNFIELD CONSULTING SERVICES
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## Personnel

			Hours	Rate	Amount	
Senior Project Consultant						
Senior Project Consultant						
1060 - Willobee, Steven	3/13/2012		.50	135.00	67.50	
1060 - Willobee, Steven	3/19/2012		1.00	135.00	135.00	
1060 - Willobee, Steven	3/23/2012		1.00	135.00	135.00	
Project Manager						
Project Manager						
1070 - Cassidy, Daniel	3/6/2012		1.00	135.00	135.00	
1070 - Cassidy, Daniel	3/19/2012		.75	135.00	101.25	
1070 - Cassidy, Daniel	3/20/2012		.50	135.00	67.50	
1070 - Cassidy, Daniel	3/21/2012		.25	135.00	33.75	
Project Consultant						
Project Consultant						
1090 - Willobee, Steven	3/6/2012		1.00	110.00	110.00	
Totals			6.00		785.00	
<b>Total Labor</b>						<b>785.00</b>
				<b>Total this Project</b>		<b>\$785.00</b>
				<b>Total this Report</b>		<b>\$785.00</b>



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**INVOICE**  
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P.O. Box 673166  
Detroit, MI 48267-3166

WEISS SAMONA  
32820 WOODWARD AVENUE STE 200  
ROYAL OAK, MI 48009

May 14, 2012  
Invoice No: 34514

Project 061377.01 BALMORAL BROWNFIELD CONSULTING SERVICES

Partial invoice for Brownfield consulting services including consulting in support of Michigan Community Revitalization Program loan

**Professional Services from March 26, 2012 to April 29, 2012**

**Personnel**

	<b>Hours</b>	<b>Rate</b>	<b>Amount</b>	
Senior Project Consultant	3.00	135.00	405.00	
Project Manager	6.75	135.00	911.25	
Totals	9.75		1,316.25	
<b>Total Labor</b>				<b>1,316.25</b>
Communication Fee			39.49	
			<b>39.49</b>	<b>39.49</b>
<b>Total this Invoice</b>				<b>\$1,355.74</b>

Thank you for the opportunity to be of service.  
Project Manager Daniel Cassidy

# Billing Backup

Tuesday, March 29, 2016

SME

Invoice 34514 Dated 5/14/2012

1:30:42 PM

Project	061377.01	BALMORA BROWNFIELD CONSULTING SERVICES
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## Personnel

		Hours	Rate	Amount	
Senior Project Consultant					
Senior Project Consultant					
1060 - Willobee, Steven	3/26/2012	1.00	135.00	135.00	
1060 - Willobee, Steven	3/27/2012	1.00	135.00	135.00	
1060 - Willobee, Steven	4/11/2012	.50	135.00	67.50	
1060 - Willobee, Steven	4/20/2012	.50	135.00	67.50	
Project Manager					
Project Manager					
1070 - Cassidy, Daniel	3/28/2012	.50	135.00	67.50	
1070 - Cassidy, Daniel	3/30/2012	.50	135.00	67.50	
1070 - Cassidy, Daniel	4/2/2012	1.50	135.00	202.50	
1070 - Cassidy, Daniel	4/6/2012	.50	135.00	67.50	
1070 - Cassidy, Daniel	4/9/2012	.25	135.00	33.75	
1070 - Cassidy, Daniel	4/10/2012	.25	135.00	33.75	
1070 - Cassidy, Daniel	4/11/2012	.50	135.00	67.50	
1070 - Cassidy, Daniel	4/12/2012	.25	135.00	33.75	
1070 - Cassidy, Daniel	4/17/2012	1.00	135.00	135.00	
1070 - Cassidy, Daniel	4/18/2012	1.00	135.00	135.00	
1070 - Cassidy, Daniel	4/23/2012	.50	135.00	67.50	
Totals		9.75		1,316.25	
<b>Total Labor</b>					<b>1,316.25</b>
<b>Total this Project</b>					<b>\$1,316.25</b>
<b>Total this Report</b>					<b>\$1,316.25</b>



43980 Plymouth Oaks Blvd.  
Plymouth, MI 48170-2584  
Phone: 734-454-9900 Fax: 734-454-7685

**INVOICE**

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P.O. Box 673166  
Detroit, MI 48267-3166

WEISS SAMONA  
32820 WOODWARD AVENUE STE 200  
ROYAL OAK, MI 48009

June 27, 2012  
Invoice No: 35551

Project 061377.01 BALMORAL BROWNFIELD CONSULTING SERVICES

Partial invoice for Brownfield consulting services including consulting in support of Michigan Community Revitalization Program loan, including attending meeting on 5/14/12 with MEDC and numerous conference calls with the project team including Plante Moran.

**Professional Services from April 30, 2012 to May 27, 2012****Personnel**

	Hours	Rate	Amount	
Senior Project Manager	2.50	155.00	387.50	
Senior Project Consultant	13.50	135.00	1,822.50	
Project Manager	10.50	135.00	1,417.50	
Project Consultant	2.00	110.00	220.00	
CAD Operator	1.50	75.00	112.50	
Totals	30.00		3,960.00	
<b>Total Labor</b>				<b>3,960.00</b>

Communication Fee	118.80	
	<b>118.80</b>	<b>118.80</b>

**Reimbursable Expenses**

Transportation			
5/4/2012 Cassidy, Daniel	Balmoral project meeting	37.06	
<b>Total Reimbursables</b>		<b>37.06</b>	<b>37.06</b>

**Unit Billing**

PLOTTING/COPIES 11 X 17 COLOR

5/17/2012	1.0 EACH @ 3.75	3.75	
5/18/2012	1.0 EACH @ 3.75	3.75	
<b>Total Units</b>		<b>7.50</b>	<b>7.50</b>

**Total this Invoice \$4,123.36**

Thank you for the opportunity to be of service.  
Project Manager Daniel Cassidy

# Billing Backup

Tuesday, March 29, 2016

SME

Invoice 35551 Dated 6/27/2012

1:31:02 PM

Project	061377.01	BALMORA BROWNFIELD CONSULTING SERVICES
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## Personnel

			Hours	Rate	Amount
Senior Project Manager					
Senior Project Manager					
1040 - Cassidy, Daniel	5/23/2012		1.75	155.00	271.25
1040 - Cassidy, Daniel	5/24/2012		.75	155.00	116.25
Senior Project Consultant					
Senior Project Consultant					
1060 - Willobee, Steven	5/9/2012		1.00	135.00	135.00
1060 - Willobee, Steven	5/11/2012		3.00	135.00	405.00
1060 - Willobee, Steven	5/14/2012		1.00	135.00	135.00
1060 - Willobee, Steven	5/17/2012		1.00	135.00	135.00
1060 - Willobee, Steven	5/18/2012		3.00	135.00	405.00
1060 - Willobee, Steven	5/21/2012		.50	135.00	67.50
1060 - Willobee, Steven	5/22/2012		.50	135.00	67.50
1060 - Willobee, Steven	5/23/2012		1.50	135.00	202.50
1060 - Willobee, Steven	5/24/2012		1.00	135.00	135.00
1060 - Willobee, Steven	5/25/2012		1.00	135.00	135.00
Project Manager					
Project Manager					
1070 - Cassidy, Daniel	5/4/2012		4.00	135.00	540.00
1070 - Cassidy, Daniel	5/7/2012		1.00	135.00	135.00
1070 - Cassidy, Daniel	5/9/2012		1.00	135.00	135.00
1070 - Cassidy, Daniel	5/10/2012		.50	135.00	67.50
1070 - Cassidy, Daniel	5/11/2012		1.25	135.00	168.75
1070 - Cassidy, Daniel	5/14/2012		1.50	135.00	202.50
1070 - Cassidy, Daniel	5/15/2012		.25	135.00	33.75
1070 - Cassidy, Daniel	5/18/2012		1.00	135.00	135.00
Project Consultant					
Project Consultant					
1090 - Willobee, Steven	5/4/2012		2.00	110.00	220.00
CAD Operator					
CAD Operator					
1200 - Blake, Julie	5/17/2012		1.00	75.00	75.00
1200 - Blake, Julie	5/18/2012		.50	75.00	37.50
Totals			30.00		3,960.00
<b>Total Labor</b>					<b>3,960.00</b>

## Reimbursable Expenses

Transportation

EX 000000002715 5/4/2012	Cassidy, Daniel / Balmoral project meeting / Attend project meeting with MEDC / 57.00 miles @ 0.555	37.06
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<b>Total Reimbursables</b>	<b>37.06</b>	<b>37.06</b>
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**Unit Billing**

PLOTING/COPIES 11 X 17 COLOR

5/17/2012

1.0 EACH @ 3.75

3.75

5/18/2012

1.0 EACH @ 3.75

3.75

**Total Units****7.50****7.50****Total this Project****\$4,004.56****Total this Report****\$4,004.56**



43980 Plymouth Oaks Blvd.  
Plymouth, MI 48170-2584  
Phone: 734-454-9900 Fax: 734-454-7685

**INVOICE**  
Remit to:  
SME  
P.O. Box 673166  
Detroit, MI 48267-3166

WEISS SAMONA  
32820 WOODWARD AVENUE STE 200  
ROYAL OAK, MI 48009

July 17, 2012  
Invoice No: 35936

Project 061377.01 BALMORAL BROWNFIELD CONSULTING SERVICES

Partial invoice for Brownfield consulting services including consulting in support of Michigan Community Revitalization Program loan.

**Professional Services from May 28, 2012 to June 24, 2012**

**Personnel**

	<b>Hours</b>	<b>Rate</b>	<b>Amount</b>
Principal Consultant	2.00	185.00	370.00
Senior Project Geologist	8.25	135.00	1,113.75
Senior Project Consultant	13.00	135.00	1,755.00
Project Engineer	.50	110.00	55.00
Administrative Assistant	1.25	48.00	60.00
Totals	25.00		3,353.75
<b>Total Labor</b>			<b>3,353.75</b>

Communication Fee	100.61	
	<b>100.61</b>	<b>100.61</b>

**Total this Invoice \$3,454.36**

Thank you for the opportunity to be of service.  
Project Manager Daniel Cassidy

# Billing Backup

Tuesday, March 29, 2016

SME

Invoice 35936 Dated 7/17/2012

1:31:19 PM

Project	061377.01	BALMORA BROWNFIELD CONSULTING SERVICES
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## Personnel

		Hours	Rate	Amount	
Principal Consultant					
Principal Consultant					
1010 - Bedenis, Timothy	6/14/2012	2.00	185.00	370.00	
Senior Project Geologist					
Senior Project Geologist					
1055 - Cassidy, Daniel	6/4/2012	1.25	135.00	168.75	
1055 - Cassidy, Daniel	6/6/2012	.25	135.00	33.75	
1055 - Cassidy, Daniel	6/7/2012	1.00	135.00	135.00	
1055 - Cassidy, Daniel	6/12/2012	1.50	135.00	202.50	
1055 - Cassidy, Daniel	6/13/2012	2.00	135.00	270.00	
1055 - Cassidy, Daniel	6/14/2012	1.75	135.00	236.25	
1055 - Cassidy, Daniel	6/18/2012	.50	135.00	67.50	
Senior Project Consultant					
Senior Project Consultant					
1060 - Willobee, Steven	5/30/2012	1.50	135.00	202.50	
1060 - Willobee, Steven	5/31/2012	.50	135.00	67.50	
1060 - Willobee, Steven	6/1/2012	.50	135.00	67.50	
1060 - Willobee, Steven	6/6/2012	.50	135.00	67.50	
1060 - Willobee, Steven	6/13/2012	3.00	135.00	405.00	
1060 - Willobee, Steven	6/14/2012	4.00	135.00	540.00	
1060 - Willobee, Steven	6/15/2012	1.00	135.00	135.00	
1060 - Willobee, Steven	6/20/2012	1.00	135.00	135.00	
1060 - Willobee, Steven	6/21/2012	1.00	135.00	135.00	
Project Engineer					
Project Engineer					
1080 - Desjardins, Matthew	6/14/2012	.50	110.00	55.00	
Administrative Assistant					
Administrative Assistant					
1310 - Clark, Lynette	6/15/2012	1.25	48.00	60.00	
Totals		25.00		3,353.75	
<b>Total Labor</b>					<b>3,353.75</b>
			<b>Total this Project</b>		<b>\$3,353.75</b>
			<b>Total this Report</b>		<b>\$3,353.75</b>



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Plymouth, MI 48170-2584  
Phone: 734-454-9900 Fax: 734-454-7685

**INVOICE**

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P.O. Box 673166  
Detroit, MI 48267-3166

WEISS SAMONA  
32820 WOODWARD AVENUE STE 200  
ROYAL OAK, MI 48009

August 24, 2012  
Invoice No: 36802

Project 061377.01 BALMORAL BROWNFIELD CONSULTING SERVICES

Partial invoice for Brownfield consulting services including consulting in support of Michigan Community Revitalization Program loan.

**Professional Services from June 25, 2012 to July 29, 2012**

**Personnel**

	<b>Hours</b>	<b>Rate</b>	<b>Amount</b>	
Senior Project Geologist	2.00	135.00	270.00	
Senior Project Consultant	6.50	135.00	877.50	
Project Manager	2.75	135.00	371.25	
Totals	11.25		1,518.75	
<b>Total Labor</b>				<b>1,518.75</b>

Communication Fee		45.56	
		<b>45.56</b>	<b>45.56</b>
<b>Total this Invoice</b>			<b>\$1,564.31</b>

Thank you for the opportunity to be of service.  
Project Manager Daniel Cassidy

# Billing Backup

Tuesday, March 29, 2016

SME

Invoice 36802 Dated 8/24/2012

1:31:38 PM

Project	061377.01	BALMORA BROWNFIELD CONSULTING SERVICES
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## Personnel

			Hours	Rate	Amount	
Senior Project Geologist						
Senior Project Geologist						
1055 - Cassidy, Daniel	6/26/2012		.50	135.00	67.50	
1055 - Cassidy, Daniel	7/5/2012		1.50	135.00	202.50	
Senior Project Consultant						
Senior Project Consultant						
1060 - Willobee, Steven	6/26/2012		.50	135.00	67.50	
1060 - Willobee, Steven	6/28/2012		1.00	135.00	135.00	
1060 - Willobee, Steven	7/2/2012		.50	135.00	67.50	
1060 - Willobee, Steven	7/12/2012		1.50	135.00	202.50	
1060 - Willobee, Steven	7/17/2012		.50	135.00	67.50	
1060 - Willobee, Steven	7/19/2012		.50	135.00	67.50	
1060 - Willobee, Steven	7/25/2012		.50	135.00	67.50	
1060 - Willobee, Steven	7/26/2012		1.50	135.00	202.50	
Project Manager						
Project Manager						
1070 - Cassidy, Daniel	7/12/2012		.50	135.00	67.50	
1070 - Cassidy, Daniel	7/13/2012		.50	135.00	67.50	
1070 - Cassidy, Daniel	7/18/2012		.50	135.00	67.50	
1070 - Cassidy, Daniel	7/19/2012		.25	135.00	33.75	
1070 - Cassidy, Daniel	7/24/2012		.50	135.00	67.50	
1070 - Cassidy, Daniel	7/25/2012		.50	135.00	67.50	
Totals			11.25		1,518.75	
Total Labor						1,518.75
				Total this Project		\$1,518.75
				Total this Report		\$1,518.75



43980 Plymouth Oaks Blvd.  
Plymouth, MI 48170-2584  
Phone: 734-454-9900 Fax: 734-454-7685

**INVOICE**  
Remit to:  
SME  
P.O. Box 673166  
Detroit, MI 48267-3166

WEISS SAMONA  
32820 WOODWARD AVENUE STE 200  
ROYAL OAK, MI 48009

September 12, 2012  
Invoice No: 37251

Project 061377.01 BALMORAL BROWNFIELD CONSULTING SERVICES

Partial invoice for Brownfield consulting services including consulting in support of Michigan Community Revitalization Program loan.

**Professional Services from July 30, 2012 to August 26, 2012**

**Personnel**

	<b>Hours</b>	<b>Rate</b>	<b>Amount</b>	
Senior Project Manager	5.50	155.00	852.50	
Senior Project Consultant	4.00	135.00	540.00	
Project Manager	4.25	135.00	573.75	
Totals	13.75		1,966.25	
<b>Total Labor</b>				<b>1,966.25</b>

Communication Fee	58.99	
	<b>58.99</b>	<b>58.99</b>

**Reimbursable Expenses**

Reimbursed Expenses			
7/31/2012	Cassidy, Daniel	Parking fees (meters)	4.80
Transportation			
7/31/2012	Cassidy, Daniel	Travel to Lansing	105.30
<b>Total Reimbursables</b>			<b>110.10</b>
			<b>110.10</b>

**Total this Invoice \$2,135.34**

Thank you for the opportunity to be of service.  
Project Manager Daniel Cassidy

## Billing Backup

Tuesday, March 29, 2016

SME

Invoice 37251 Dated 9/12/2012

1:31:53 PM

Project	061377.01	BALMORA BROWNFIELD CONSULTING SERVICES
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### Personnel

		Hours	Rate	Amount
Senior Project Manager				
Senior Project Manager				
1040 - Cassidy, Daniel	7/30/2012	.50	155.00	77.50
1040 - Cassidy, Daniel	7/31/2012	4.00	155.00	620.00
1040 - Cassidy, Daniel	8/3/2012	1.00	155.00	155.00
Senior Project Consultant				
Senior Project Consultant				
1060 - Willobee, Steven	7/31/2012	2.00	135.00	270.00
1060 - Willobee, Steven	8/6/2012	.50	135.00	67.50
1060 - Willobee, Steven	8/20/2012	.50	135.00	67.50
1060 - Willobee, Steven	8/23/2012	1.00	135.00	135.00
Project Manager				
Project Manager				
1070 - Cassidy, Daniel	8/14/2012	1.00	135.00	135.00
1070 - Cassidy, Daniel	8/20/2012	.50	135.00	67.50
1070 - Cassidy, Daniel	8/21/2012	1.00	135.00	135.00
1070 - Cassidy, Daniel	8/23/2012	1.50	135.00	202.50
1070 - Cassidy, Daniel	8/24/2012	.25	135.00	33.75
Totals		13.75		1,966.25
<b>Total Labor</b>				<b>1,966.25</b>

### Reimbursable Expenses

Reimbursed Expenses				
EX 000000003574 7/31/2012	Cassidy, Daniel / Parking fees (meters) / Parking meter fees		4.80	
Transportation				
EX 000000003574 7/31/2012	Cassidy, Daniel / Travel to Lansing / Travel to Lansing (MEDC) and back / 162.00 miles @ 0.555		105.30	
<b>Total Reimbursables</b>			<b>110.10</b>	<b>110.10</b>

**Total this Project      \$2,076.35**

**Total this Report      \$2,076.35**



43980 Plymouth Oaks Blvd.  
Plymouth, MI 48170-2584  
Phone: 734-454-9900 Fax: 734-454-7685

**INVOICE**  
Remit to:  
SME  
P.O. Box 673166  
Detroit, MI 48267-3166

WEISS SAMONA  
32820 WOODWARD AVENUE STE 200  
ROYAL OAK, MI 48009

October 15, 2012  
Invoice No: 38007

Project 061377.01 BALMORAL BROWNFIELD CONSULTING SERVICES

Partial invoice for Brownfield consulting services including consulting in support of Michigan Community Revitalization Program loan.

**Professional Services from August 27, 2012 to September 23, 2012**

**Personnel**

	Hours	Rate	Amount	
Senior Project Manager	6.75	155.00	1,046.25	
Senior Project Consultant	1.00	135.00	135.00	
Project Manager	1.00	135.00	135.00	
Totals	8.75		1,316.25	
<b>Total Labor</b>				<b>1,316.25</b>

Communication Fee	39.49	
	<b>39.49</b>	<b>39.49</b>

**Reimbursable Expenses**

Reimbursed Expenses		
9/11/2012 Cassidy, Daniel	Parking Fee - meeting	4.80
<b>Total Reimbursables</b>		<b>4.80</b>

**Total this Invoice \$1,360.54**

Thank you for the opportunity to be of service.  
Project Manager Daniel Cassidy

# Billing Backup

Tuesday, March 29, 2016

SME

Invoice 38007 Dated 10/15/2012

1:32:11 PM

Project	061377.01	BALMORAL BROWNFIELD CONSULTING SERVICES
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## Personnel

			Hours	Rate	Amount	
Senior Project Manager						
Senior Project Manager						
1040 - Cassidy, Daniel	8/30/2012		1.50	155.00	232.50	
1040 - Cassidy, Daniel	8/31/2012		.25	155.00	38.75	
1040 - Cassidy, Daniel	9/7/2012		.25	155.00	38.75	
1040 - Cassidy, Daniel	9/11/2012		4.00	155.00	620.00	
1040 - Cassidy, Daniel	9/12/2012		.75	155.00	116.25	
Senior Project Consultant						
Senior Project Consultant						
1060 - Willobee, Steven	8/30/2012		1.00	135.00	135.00	
Project Manager						
Project Manager						
1070 - Cassidy, Daniel	9/20/2012		1.00	135.00	135.00	
Totals			8.75		1,316.25	
<b>Total Labor</b>						<b>1,316.25</b>

## Reimbursable Expenses

Reimbursed Expenses						
EX 000000003956 9/11/2012	Cassidy, Daniel / Parking Fee -				4.80	
	meeting / Parking fee - meeting with					
	MEDC in Lansing					
<b>Total Reimbursables</b>					<b>4.80</b>	<b>4.80</b>

<b>Total this Project</b>	<b>\$1,321.05</b>
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<b>Total this Report</b>	<b>\$1,321.05</b>
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43980 Plymouth Oaks Blvd.  
Plymouth, MI 48170-2584  
Phone: 734-454-9900 Fax: 734-454-7685

**INVOICE**  
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SME  
P.O. Box 673166  
Detroit, MI 48267-3166

WEISS SAMONA  
32820 WOODWARD AVENUE STE 200  
ROYAL OAK, MI 48009

January 09, 2013  
Invoice No: 39776

Project 061377.01 BALMORAL BROWNFIELD CONSULTING SERVICES

Partial invoice for Brownfield consulting services including consulting in support of Michigan Community Revitalization Program loan.

**Professional Services from November 26, 2012 to December 23, 2012**

**Personnel**

	<b>Hours</b>	<b>Rate</b>	<b>Amount</b>	
Senior Project Manager	4.50	155.00	697.50	
Totals	4.50		697.50	
<b>Total Labor</b>				<b>697.50</b>

Communication Fee			20.93	
			<b>20.93</b>	<b>20.93</b>

**Total this Invoice \$718.43**

Thank you for the opportunity to be of service.  
Project Manager Daniel Cassidy

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Project	061377.01	BALMORA BROWNFIELD CONSULTING SERVICES	Invoice	39776
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## Billing Backup

Tuesday, March 29, 2016

SME

Invoice 39776 Dated 1/9/2013

1:32:23 PM

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Project	061377.01	BALMORA BROWNFIELD CONSULTING SERVICES
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**Personnel**

		Hours	Rate	Amount	
Senior Project Manager					
Senior Project Manager					
1040 - Cassidy, Daniel	11/6/2012	.75	155.00	116.25	
1040 - Cassidy, Daniel	11/8/2012	.25	155.00	38.75	
1040 - Cassidy, Daniel	12/5/2012	1.00	155.00	155.00	
1040 - Cassidy, Daniel	12/10/2012	.75	155.00	116.25	
1040 - Cassidy, Daniel	12/11/2012	.50	155.00	77.50	
1040 - Cassidy, Daniel	12/12/2012	.25	155.00	38.75	
1040 - Cassidy, Daniel	12/14/2012	1.00	155.00	155.00	
Totals		4.50		697.50	
<b>Total Labor</b>					<b>697.50</b>
			<b>Total this Project</b>		<b>\$697.50</b>
			<b>Total this Report</b>		<b>\$697.50</b>



43980 Plymouth Oaks Blvd.  
Plymouth, MI 48170-2584  
Phone: 734-454-9900 Fax: 734-454-7685

**INVOICE**  
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SME  
P.O. Box 673166  
Detroit, MI 48267-3166

WEISS SAMONA  
32820 WOODWARD AVENUE STE 200  
ROYAL OAK, MI 48009

March 12, 2013  
Invoice No: 40883

Project 061377.01 BALMORAL BROWNFIELD CONSULTING SERVICES

Partial invoice for Brownfield consulting services including consulting in support of Michigan Community Revitalization Program loan.

**Professional Services from January 28, 2013 to February 24, 2013**

**Personnel**

	<b>Hours</b>	<b>Rate</b>	<b>Amount</b>	
Senior Consultant	8.00	155.00	1,240.00	
Totals	8.00		1,240.00	
<b>Total Labor</b>				<b>1,240.00</b>
Communication Fee			37.20	
			<b>37.20</b>	<b>37.20</b>
<b>Total this Invoice</b>				<b>\$1,277.20</b>

Thank you for the opportunity to be of service.  
Project Manager Daniel Cassidy

# Billing Backup

Tuesday, March 29, 2016

SME

Invoice 40883 Dated 3/12/2013

1:32:42 PM

Project	061377.01	BALMORA BROWNFIELD CONSULTING SERVICES
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## Personnel

		Hours	Rate	Amount	
Senior Consultant					
Senior Consultant					
1030 - Cassidy, Daniel	1/4/2013	.25	155.00	38.75	
1030 - Cassidy, Daniel	1/8/2013	1.50	155.00	232.50	
1030 - Cassidy, Daniel	1/14/2013	.75	155.00	116.25	
1030 - Cassidy, Daniel	1/15/2013	.50	155.00	77.50	
1030 - Cassidy, Daniel	1/24/2013	.50	155.00	77.50	
1030 - Cassidy, Daniel	1/31/2013	.50	155.00	77.50	
1030 - Cassidy, Daniel	2/1/2013	1.25	155.00	193.75	
1030 - Cassidy, Daniel	2/18/2013	1.50	155.00	232.50	
1030 - Cassidy, Daniel	2/19/2013	1.25	155.00	193.75	
Totals		8.00		1,240.00	
<b>Total Labor</b>					<b>1,240.00</b>
<b>Total this Project</b>					<b>\$1,240.00</b>
<b>Total this Report</b>					<b>\$1,240.00</b>



43980 Plymouth Oaks Blvd.  
Plymouth, MI 48170-2584  
Phone: 734-454-9900 Fax: 734-454-7685

**INVOICE**

Remit to:  
SME  
P.O. Box 673166  
Detroit, MI 48267-3166

Harvey Weiss  
WEISS SAMONA  
32820 WOODWARD AVENUE STE 200  
ROYAL OAK, MI 48009

August 12, 2013  
Invoice No: 43786

Project 061377.01 BALMORAL BROWNFIELD CONSULTING SERVICES

Partial invoice for Brownfield consulting services including consulting in support of Michigan Community Revitalization Program loan.

**Professional Services from June 24, 2013 to July 28, 2013**

**Personnel**

	<b>Hours</b>	<b>Rate</b>	<b>Amount</b>	
Senior Consultant	5.00	155.00	775.00	
Project Engineer	2.75	110.00	302.50	
Totals	7.75		1,077.50	
<b>Total Labor</b>				<b>1,077.50</b>
Communication Fee			32.33	
			<b>32.33</b>	<b>32.33</b>
		<b>Total this Invoice</b>		<b>\$1,109.83</b>

Thank you for the opportunity to be of service.  
Project Manager Daniel Cassidy

## Billing Backup

Tuesday, March 29, 2016

SME

Invoice 43786 Dated 8/12/2013

1:33:16 PM

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Project	061377.01	BALMORA BROWNFIELD CONSULTING SERVICES
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**Personnel**

		Hours	Rate	Amount	
Senior Consultant					
Senior Consultant					
1030 - Cassidy, Daniel	7/16/2013	1.25	155.00	193.75	
1030 - Cassidy, Daniel	7/19/2013	2.00	155.00	310.00	
1030 - Cassidy, Daniel	7/22/2013	.25	155.00	38.75	
1030 - Cassidy, Daniel	7/24/2013	.50	155.00	77.50	
1030 - Cassidy, Daniel	7/26/2013	1.00	155.00	155.00	
Project Engineer					
Project Engineer					
1080 - Desjardins, Matthew	7/19/2013	.75	110.00	82.50	
1080 - Desjardins, Matthew	7/26/2013	2.00	110.00	220.00	
Totals		7.75		1,077.50	
<b>Total Labor</b>					<b>1,077.50</b>
			<b>Total this Project</b>		<b>\$1,077.50</b>
			<b>Total this Report</b>		<b>\$1,077.50</b>



43980 Plymouth Oaks Blvd.  
Plymouth, MI 48170-2584  
Phone: 734-454-9900 Fax: 734-454-7685

**INVOICE**

Remit to:  
SME  
P.O. Box 673166  
Detroit, MI 48267-3166

Harvey Weiss  
Weiss Samona  
32820 Woodward Ave  
Suite 200  
Royal Oak, MI 48009

October 04, 2013  
Invoice No: 45266

Project 061377.01 BALMORAL BROWNFIELD CONSULTING SERVICES

Partial invoice for Brownfield consulting services including consulting including revisiting and updating project team on eligible Brownfield expenses and revising and submitting the final CRP application to MEDC.

**Professional Services from August 26, 2013 to September 22, 2013**

**Personnel**

	<b>Hours</b>	<b>Rate</b>	<b>Amount</b>	
Senior Consultant	6.00	155.00	930.00	
Totals	6.00		930.00	
<b>Total Labor</b>				<b>930.00</b>
 Communication Fee			27.90	
			<b>27.90</b>	<b>27.90</b>
		<b>Total this Invoice</b>		<b>\$957.90</b>

Thank you for the opportunity to be of service.  
Project Manager Daniel Cassidy



9:42 AM  
07/27/15

# Ronnisch Construction Group

May 1 through July 27, 2015

May 1 - Jul 27, 15

Berryman, Robert  
AWARDED:13-0041 Balmoral

8:00

Total Berryman, Robert

8:00

@ \$ 700 = \$560 —



# soil and materials engineers, inc.

PAGE 1

CORPORATE OFFICE:  
THE KRAMER BUILDING  
43980 PLYMOUTH OAKS BLVD.  
PLYMOUTH, MI 48170-2584

REMIT TO:  
Soil and Materials Engineers, Inc.  
PO BOX 673166  
DETROIT, MI 48267-3166

INVOICE 019370 DATE 5/21/2010  
SME PROJ NO PE61377

TO: WEISS SAMONA  
32820 WOODWARD AVENUE STE 200  
ROYAL OAK MI 48009

34901 WOODWARD AVENUE  
BROWNFIELD CONSULTING  
SERVICES - BIRMINGHAM MI

PLEASE RETURN DUPLICATE COPY WITH YOUR REMITTANCE TO ABOVE REMIT TO ADDRESS

CUST. ORDER NO. HARVEY WEISS	OPER. MT	CUST. NO. W0471	FOR PERIOD: 3/22/2010 - 4/25/2010
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## PARTIAL INVOICE FOR BROWNFIELD CONSULTING SERVICES

SR PROJECT ENGINEER/CONSULTA	5.25 HR	\$135.00	\$708.75
WORD PROCESSING/ADMIN ASSIST	0.25 HR	48.00	12.00
TRANSPORTATION	43.00 MI	0.65	27.95
COMMUNICATION FEE			21.62

INVOICE TOTAL	\$770.32
LESS RETAINER	( 1,500.00 )
	=====
CREDIT ON ACCOUNT	(\$ 729.68 )

THANK YOU FOR THE OPPORTUNITY TO BE OF SERVICE.  
DAN CASSIDY (Project Manager)

TERMS: Amount owed is due upon receipt of invoice. Amounts not paid within 30 days after invoice date are subject to 1.5% per month late charge.

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PHONE 734-454-9900 FAX 734-454-7685 FED ID# 38-1738670



# soil and materials engineers, inc.

PAGE 1

CORPORATE OFFICE:  
THE KRAMER BUILDING  
43980 PLYMOUTH OAKS BLVD.  
PLYMOUTH, MI 48170-2584

REMIT TO:  
Soil and Materials Engineers, Inc.  
PO BOX 673166  
DETROIT, MI 48267-3166

INVOICE 019658 DATE 6/9/2010  
SME PROJ NO PE61377

TO: WEISS SAMONA  
32820 WOODWARD AVENUE STE 200  
ROYAL OAK MI 48009

34901 WOODWARD AVENUE  
BROWNFIELD CONSULTING  
SERVICES - BIRMINGHAM MI

PLEASE RETURN DUPLICATE COPY WITH YOUR REMITTANCE TO ABOVE REMIT TO ADDRESS

CUST. ORDER NO.  
HARVEY WEISS

OPER.  
MT

CUST. NO.  
W0471

FOR PERIOD:  
4/26/2010 - 5/23/2010

## PARTIAL INVOICE FOR BROWNFIELD CONSULTING SERVICES

SR PROJECT ENGINEER/CONSULTA	5.25 HR	\$135.00	\$708.75
COMMUNICATION FEE			20.93

INVOICE TOTAL	\$729.68
LESS RETAINER	( 729.68 )
	=====
BALANCE DUE	\$ 0.00

THANK YOU FOR THE OPPORTUNITY TO BE OF SERVICE.  
DAN CASSIDY (Project Manager)

TERMS: Amount owed is due upon receipt of invoice. Amounts not paid within 30 days after invoice date are subject to 1.5% per month late charge.

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PHONE 734-454-9900 FAX 734-454-7685 FED ID# 38-1738670



# soil and materials engineers, inc.

PAGE 1

CORPORATE OFFICE:  
THE KRAMER BUILDING  
43980 PLYMOUTH OAKS BLVD.  
PLYMOUTH, MI 48170-2584

REMIT TO:  
Soil and Materials Engineers, Inc.  
PO BOX 673166  
DETROIT, MI 48267-3166

INVOICE 022142 DATE 9/21/2010  
SME PROJ NO PE61377

TO: WEISS SAMONA  
32820 WOODWARD AVENUE STE 200  
ROYAL OAK MI 48009

34901 WOODWARD AVENUE  
BROWNFIELD CONSULTING  
SERVICES - BIRMINGHAM MI

PLEASE RETURN DUPLICATE COPY WITH YOUR REMITTANCE TO ABOVE REMIT TO ADDRESS

CUST. ORDER NO. HARVEY WEISS	OPER. MT	CUST. NO. W0471	FOR PERIOD: 6/21/2010 - 8/22/2010
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## PARTIAL INVOICE FOR BROWNFIELD CONSULTING SERVICES

SR PROJECT ENGINEER/CONSULTA	4.25 HR	\$135.00	\$573.75
PROJECT ENGINEER/CONSULTANT	0.50 HR	110.00	55.00
COMMUNICATION FEE			18.87

INVOICE TOTAL **\$647.62**

=====

THANK YOU FOR THE OPPORTUNITY TO BE OF SERVICE.  
*DAN CASSIDY (Project Manager)*

TERMS: Amount owed is due upon receipt of invoice. Amounts not paid within 30 days after invoice date are subject to 1.5% per month late charge.

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PHONE 734-454-9900 FAX 734-454-7685 FED ID# 38-1738670



**soil and materials engineers, inc.**

PAGE 1

CORPORATE OFFICE:  
THE KRAMER BUILDING  
43980 PLYMOUTH OAKS BLVD.  
PLYMOUTH, MI 48170-2584

REMIT TO:  
Soil and Materials Engineers, Inc.  
PO BOX 673166  
DETROIT, MI 48267-3166

INVOICE 023232 DATE 11/16/2010  
SME PROJ NO PE61377

TO: WEISS SAMONA  
32820 WOODWARD AVENUE STE 200  
ROYAL OAK MI 48009

34901 WOODWARD AVENUE  
BROWNFIELD CONSULTING  
SERVICES - BIRMINGHAM MI

PLEASE RETURN DUPLICATE COPY WITH YOUR REMITTANCE TO ABOVE REMIT TO ADDRESS

CUST. ORDER NO. HARVEY WEISS	OPER. EB	CUST. NO. W0471	FOR PERIOD: 08/23/10 - 10/24/2010
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**PARTIAL INVOICE FOR BROWNFIELD CONSULTING SERVICES**

SR PROJECT ENGINEER/CONSULTA	2.00 HR	\$135.00	\$270.00
TRANSPORTATION	49.00 MI	0.65	31.85
COMMUNICATION FEE			309.96

**INVOICE TOTAL** **\$309.96**  
=====

THANK YOU FOR THE OPPORTUNITY TO BE OF SERVICE.  
**DAN CASSIDY (Project Manager)**

TERMS: Amount owed is due upon receipt of invoice. Amounts not paid within 30 days after invoice date are subject to 1.5% per month late charge.

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**soil and materials engineers, inc.**

PAGE 1

CORPORATE OFFICE:  
THE KRAMER BUILDING  
43980 PLYMOUTH OAKS BLVD.  
PLYMOUTH, MI 48170-2584

REMIT TO:  
Soil and Materials Engineers, Inc.  
PO BOX 673166  
DETROIT, MI 48267-3166

INVOICE 020673 DATE 7/22/2010  
SME PROJ NO PE61377

TO: WEISS SAMONA  
32820 WOODWARD AVENUE STE 200  
ROYAL OAK MI 48009

34901 WOODWARD AVENUE  
BROWNFIELD CONSULTING  
SERVICES - BIRMINGHAM MI

PLEASE RETURN DUPLICATE COPY WITH YOUR REMITTANCE TO ABOVE REMIT TO ADDRESS

CUST. ORDER NO.

HARVEY WEISS

OPER.

EN

CUST. NO.

W0471

FOR PERIOD:

THRU 06/20/2010

**PARTIAL INVOICE FOR BROWNFIELD CONSULTING SERVICES**

SR PROJECT ENGINEER/CONSULTA	7.75 HR	\$135.00	\$1,046.25
TRANSPORTATION	68.00 MI	0.65	44.20
COMMUNICATION FEE			31.39

**INVOICE TOTAL** **\$1,121.84**

=====

THANK YOU FOR THE OPPORTUNITY TO BE OF SERVICE.  
**DAN CASSIDY** (*Project Manager*)

TERMS: Amount owed is due upon receipt of invoice. Amounts not paid within 30 days after invoice date are subject to 1.5% per month late charge.

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PHONE 734-454-9900 FAX 734-454-7685 FED ID# 38-1738670



43980 Plymouth Oaks Blvd.  
Plymouth, MI 48170-2584  
Phone: 734-454-9900 Fax: 734-454-7685

# INVOICE

Remit to:  
SME  
P.O. Box 673166  
Detroit, MI 48267-3166

WEISS SAMONA  
32820 WOODWARD AVENUE STE 200  
ROYAL OAK, MI 48009

December 22, 2011  
Invoice No: 32250

Project 061377.01 BALMORAL BROWNFIELD CONSULTING SERVICES

Partial invoice for environmental consulting services including the following: preparation of tax increment financing Brownfield Plan and Act 381 work plan; attendance at Birmingham BRA meeting on July 28, 2011; meeting with BRA chair of September 2, 2011, meeting with BRA on September 8, 2011; and City Commission on September 26, 2011; consulting to project team on foundation design and groundwater management issues.

## Professional Services from August 16, 2011 to September 14, 2011

### Personnel

	Hours	Rate	Amount	
Principal Consultant	1.00	185.00	185.00	
Senior Project Manager	57.75	155.00	8,951.25	
Project Manager	18.25	135.00	2,463.75	
Project Consultant	25.25	110.00	2,777.50	
Senior Geologist	8.50	95.00	807.50	
Geologist	1.25	80.00	100.00	
CAD Operator	2.75	75.00	206.25	
Administrative Assistant	6.50	48.00	312.00	
Totals	121.25		15,803.25	
<b>Total Labor</b>				<b>15,803.25</b>

Communication Fee	474.10	
	<b>474.10</b>	<b>474.10</b>

### Reimbursable Expenses

Transportation			
7/28/2011	Cassidy, Daniel	Travel from Ply to Bham	23.40
9/2/2011	Cassidy, Daniel	Travel from Ply to Bham	20.15
9/8/2011	Cassidy, Daniel	Travel from Bham to Ply	18.85
9/26/2011	Cassidy, Daniel	Travel from Ply to Birmingham	35.10
<b>Total Reimbursables</b>			<b>97.50</b>
			<b>97.50</b>

### Unit Billing

TRANSPORTATION			
7/6/2011		62.0 MILES @ 0.65	40.30
8/15/2011	to / from MDEQ Warren - FOIA review	66.0 MILES @ 0.65	42.90
<b>Total Units</b>			<b>83.20</b>
			<b>83.20</b>

**Total this Invoice \$16,458.05**

Terms: Invoice is due upon receipt. Amount not paid within 30 days are subject to 1.5% per month late charge.  
Fed ID#: 38-1738670

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Project	061377.01	BALMORA BROWNFIELD CONSULTING SERVICES	Invoice	32250
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Thank you for the opportunity to be of service.

Project Manager Daniel Cassidy

# Billing Backup

Tuesday, March 29, 2016

SME

Invoice 32250 Dated 12/22/2011

1:28:41 PM

Project	061377.01	BALMORA BROWNFIELD CONSULTING SERVICES
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## Personnel

		Hours	Rate	Amount
Principal Consultant				
Principal Consultant				
1010 - Kehres-Dietrich, Cheryl	9/1/2011	.50	185.00	92.50
1010 - Kehres-Dietrich, Cheryl	9/7/2011	.50	185.00	92.50
Senior Project Manager				
Senior Project Manager				
1040 - Cassidy, Daniel	6/20/2011	1.50	155.00	232.50
1040 - Cassidy, Daniel	6/21/2011	.50	155.00	77.50
1040 - Cassidy, Daniel	7/5/2011	1.50	155.00	232.50
1040 - Cassidy, Daniel	7/6/2011	3.00	155.00	465.00
1040 - Cassidy, Daniel	7/18/2011	1.00	155.00	155.00
1040 - Cassidy, Daniel	7/22/2011	.50	155.00	77.50
1040 - Cassidy, Daniel	7/25/2011	.50	155.00	77.50
1040 - Cassidy, Daniel	7/28/2011	4.50	155.00	697.50
1040 - Cassidy, Daniel	7/29/2011	.50	155.00	77.50
1040 - Cassidy, Daniel	8/3/2011	2.50	155.00	387.50
1040 - Cassidy, Daniel	8/5/2011	.50	155.00	77.50
1040 - Cassidy, Daniel	8/8/2011	.50	155.00	77.50
1040 - Cassidy, Daniel	8/10/2011	1.25	155.00	193.75
1040 - Cassidy, Daniel	8/15/2011	2.25	155.00	348.75
1040 - Cassidy, Daniel	8/16/2011	5.00	155.00	775.00
1040 - Cassidy, Daniel	8/17/2011	1.00	155.00	155.00
1040 - Cassidy, Daniel	8/22/2011	.50	155.00	77.50
1040 - Cassidy, Daniel	8/22/2011	.25	155.00	38.75
1040 - Cassidy, Daniel	8/23/2011	.50	155.00	77.50
1040 - Cassidy, Daniel	8/30/2011	2.25	155.00	348.75
1040 - Cassidy, Daniel	8/31/2011	.25	155.00	38.75
1040 - Cassidy, Daniel	9/1/2011	7.00	155.00	1,085.00
1040 - Cassidy, Daniel	9/2/2011	3.50	155.00	542.50
1040 - Cassidy, Daniel	9/6/2011	2.00	155.00	310.00
1040 - Cassidy, Daniel	9/7/2011	3.00	155.00	465.00
1040 - Cassidy, Daniel	9/8/2011	4.00	155.00	620.00
1040 - Cassidy, Daniel	9/12/2011	3.00	155.00	465.00
1040 - Cassidy, Daniel	9/13/2011	3.00	155.00	465.00
1040 - Cassidy, Daniel	9/14/2011	.50	155.00	77.50
1040 - Cassidy, Daniel	9/15/2011	.25	155.00	38.75
1040 - Cassidy, Daniel	9/16/2011	1.25	155.00	193.75
Project Manager				
Project Manager				
1070 - Cassidy, Daniel	9/19/2011	1.00	135.00	135.00
1070 - Cassidy, Daniel	9/21/2011	4.00	135.00	540.00
1070 - Cassidy, Daniel	9/22/2011	1.00	135.00	135.00
1070 - Cassidy, Daniel	9/26/2011	3.50	135.00	472.50

Project	061377.01	BALMORA BROWNFIELD CONSULTING SERVICES			Invoice	32250
1070 - Cassidy, Daniel	9/27/2011	1.00	135.00	135.00		
1070 - Cassidy, Daniel	10/4/2011	.75	135.00	101.25		
1070 - Cassidy, Daniel	10/7/2011	.50	135.00	67.50		
1070 - Cassidy, Daniel	10/27/2011	.25	135.00	33.75		
1070 - Cassidy, Daniel	10/28/2011	.25	135.00	33.75		
1070 - Cassidy, Daniel	11/1/2011	2.00	135.00	270.00		
1070 - Cassidy, Daniel	11/3/2011	.50	135.00	67.50		
1070 - Cassidy, Daniel	11/4/2011	.50	135.00	67.50		
1070 - Cassidy, Daniel	11/11/2011	1.50	135.00	202.50		
1070 - Cassidy, Daniel	11/15/2011	.50	135.00	67.50		
1070 - Cassidy, Daniel	11/18/2011	1.00	135.00	135.00		
Project Consultant						
Project Consultant						
1090 - Larabel, Nicholas	9/1/2011	.50	110.00	55.00		
1090 - Larabel, Nicholas	9/2/2011	.50	110.00	55.00		
1090 - Larabel, Nicholas	9/6/2011	.50	110.00	55.00		
1090 - Miller, Rhonda	8/15/2011	2.25	110.00	247.50		
1090 - Quimby, Mark	8/3/2011	1.00	110.00	110.00		
1090 - Quimby, Mark	8/5/2011	.75	110.00	82.50		
1090 - Quimby, Mark	8/8/2011	1.50	110.00	165.00		
1090 - Quimby, Mark	8/9/2011	.25	110.00	27.50		
1090 - Quimby, Mark	8/10/2011	1.50	110.00	165.00		
1090 - Quimby, Mark	8/11/2011	2.00	110.00	220.00		
1090 - Quimby, Mark	8/15/2011	1.25	110.00	137.50		
1090 - Quimby, Mark	9/6/2011	.75	110.00	82.50		
1090 - Quimby, Mark	9/12/2011	.25	110.00	27.50		
1090 - Quimby, Mark	9/15/2011	1.00	110.00	110.00		
1090 - Quimby, Mark	9/16/2011	3.00	110.00	330.00		
1090 - Quimby, Mark	9/21/2011	2.50	110.00	275.00		
1090 - Quimby, Mark	9/22/2011	3.00	110.00	330.00		
1090 - Quimby, Mark	9/23/2011	.50	110.00	55.00		
1090 - Quimby, Mark	10/3/2011	.50	110.00	55.00		
1090 - Quimby, Mark	10/4/2011	.75	110.00	82.50		
1090 - Quimby, Mark	10/18/2011	.50	110.00	55.00		
1090 - Quimby, Mark	11/4/2011	.25	110.00	27.50		
1090 - Quimby, Mark	11/11/2011	.25	110.00	27.50		
Senior Geologist						
Senior Geologist						
1140 - Bolles, Nathan	9/2/2011	8.00	95.00	760.00		
1140 - Roberts, Paul	8/4/2011	.50	95.00	47.50		
Geologist						
Geologist						
1160 - Efros, Jeremy	11/14/2011	1.00	80.00	80.00		
1160 - Efros, Jeremy	11/15/2011	.25	80.00	20.00		
CAD Operator						
CAD Operator						
1200 - Mandrila, Gabriela	11/15/2011	2.75	75.00	206.25		

Project	061377.01	BALMORA BROWNFIELD CONSULTING SERVICES	Invoice	32250
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#### Administrative Assistant

##### Administrative Assistant

1310 - Mohlman, Sarah	10/19/2011	.50	48.00	24.00
1310 - Stopper, Pamela	8/26/2011	.50	48.00	24.00
1310 - Stopper, Pamela	9/13/2011	1.50	48.00	72.00
1310 - Stopper, Pamela	9/26/2011	1.50	48.00	72.00
1310 - Stopper, Pamela	9/26/2011	1.50	48.00	72.00
1310 - Stopper, Pamela	9/27/2011	.50	48.00	24.00
1310 - Stopper, Pamela	10/5/2011	.50	48.00	24.00

Totals		121.25		15,803.25
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#### Total Labor

**15,803.25**

#### Reimbursable Expenses

##### Transportation

EX 000000000311 7/28/2011	Cassidy, Daniel / Travel from Ply to Bham / Traveled from Plymouth to Birmingham for a BRA meeting / 36.00 miles @ 0.51	23.40
EX 000000000629 9/2/2011	Cassidy, Daniel / Travel from Ply to Bham / 31.00 miles @ 0.51	20.15
EX 000000000687 9/8/2011	Cassidy, Daniel / Travel from Bham to Ply / 29.00 miles @ 0.51	18.85
EX 000000000880 9/26/2011	Cassidy, Daniel / Travel from Ply to Birmingham / 54.00 miles @ 0.51	35.10

#### Total Reimbursables

**97.50**

**97.50**

#### Unit Billing

##### TRANSPORTATION

7/6/2011		62.0 MILES @ 0.65	40.30
8/15/2011	to / from MDEQ Warren - FOIA review	66.0 MILES @ 0.65	42.90

#### Total Units

**83.20**

**83.20**

#### Total this Project

**\$15,983.95**

#### Total this Report

**\$15,983.95**



43980 Plymouth Oaks Blvd.  
Plymouth, MI 48170-2584  
Phone: 734-454-9900 Fax: 734-454-7685

**INVOICE**

Remit to:  
SME  
P.O. Box 673166  
Detroit, MI 48267-3166

WEISS SAMONA  
32820 WOODWARD AVENUE STE 200  
ROYAL OAK, MI 48009

January 19, 2012  
Invoice No: 32762

Project 061377.01 BALMORAL BROWNFIELD CONSULTING SERVICES

Partial invoice for environmental consulting services including consulting in support of the Act 381 work plan

**Professional Services from November 21, 2011 to December 18, 2011**

**Personnel**

	<b>Hours</b>	<b>Rate</b>	<b>Amount</b>	
Project Manager	5.00	135.00	675.00	
Administrative Assistant	1.50	72.00	108.00	
Totals	6.50		783.00	
<b>Total Labor</b>				<b>783.00</b>
Communication Fee			23.49	
			<b>23.49</b>	<b>23.49</b>
		<b>Total this Invoice</b>		<b>\$806.49</b>

Thank you for the opportunity to be of service.

Project Manager Daniel Cassidy

## Billing Backup

Tuesday, March 29, 2016

SME

Invoice 32762 Dated 1/19/2012

1:28:58 PM

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Project	061377.01	BALMORA BROWNFIELD CONSULTING SERVICES
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**Personnel**

		Hours	Rate	Amount	
Project Manager					
Project Manager					
1070 - Cassidy, Daniel	11/21/2011	.50	135.00	67.50	
1070 - Cassidy, Daniel	11/28/2011	.50	135.00	67.50	
1070 - Cassidy, Daniel	12/5/2011	.25	135.00	33.75	
1070 - Cassidy, Daniel	12/6/2011	.25	135.00	33.75	
1070 - Cassidy, Daniel	12/7/2011	.50	135.00	67.50	
1070 - Cassidy, Daniel	12/12/2011	3.00	135.00	405.00	
Administrative Assistant					
Administrative Assistant					
1310 - Stopper, Pamela	12/12/2011 Ovt	1.50	72.00	108.00	
Totals		6.50		783.00	
<b>Total Labor</b>					<b>783.00</b>
			<b>Total this Project</b>		<b>\$783.00</b>
			<b>Total this Report</b>		<b>\$783.00</b>



43980 Plymouth Oaks Blvd.  
Plymouth, MI 48170-2584  
Phone: 734-454-9900 Fax: 734-454-7685

**INVOICE**

Remit to:  
SME  
P.O. Box 673166  
Detroit, MI 48267-3166

WEISS SAMONA  
32820 WOODWARD AVENUE STE 200  
ROYAL OAK, MI 48009

July 15, 2013  
Invoice No: 43114

Project 061377.00 34901 WOODWARD AVENUE BROWNFIELD CONSULTING  
SERVICES

Partial invoice for Brownfield consulting services including preparation of a tax increment financing Brownfield Plan and Act 381 work plan.

**Professional Services from March 06, 2013 to June 23, 2013**

**Personnel**

	<b>Hours</b>	<b>Rate</b>	<b>Amount</b>	
Senior Consultant	1.75	155.00	271.25	
Totals	1.75		271.25	
<b>Total Labor</b>				<b>271.25</b>

Communication Fee			8.14	
			<b>8.14</b>	<b>8.14</b>

**Total this Invoice \$279.39**

Project Manager Daniel Cassidy

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Project	061377.00	34901 WOODWARD AVENUE BROWNFIELD CONSULT	Invoice	43114
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## Billing Backup

Tuesday, March 29, 2016

SME

Invoice 43114 Dated 7/15/2013

1:38:01 PM

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Project	061377.00	34901 WOODWARD AVENUE BROWNFIELD CONSULTING SERVICES
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### Personnel

		Hours	Rate	Amount	
Senior Consultant					
Senior Consultant					
1030 - Cassidy, Daniel	3/6/2013	.25	155.00	38.75	
1030 - Cassidy, Daniel	5/7/2013	1.00	155.00	155.00	
1030 - Cassidy, Daniel	5/8/2013	.50	155.00	77.50	
Totals		1.75		271.25	
<b>Total Labor</b>					<b>271.25</b>

<b>Total this Project</b>	<b>\$271.25</b>
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<b>Total this Report</b>	<b>\$271.25</b>
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## DOCUMENTATION OF DUE CARE COMPLIANCE



The Kramer Building  
43980 Plymouth Oaks Blvd.  
Plymouth, MI 48170-2584

T (734) 454-9900

[www.sme-usa.com](http://www.sme-usa.com)

January 29, 2016

Mr. Harvey Weiss  
Weiss Samona Land Development  
32820 Woodward Avenue  
Suite 200  
Royal Oak, Michigan, 48009

RE: Documentation of Due Care Compliance  
The Balmoral  
34901-34953 Woodward Avenue  
Birmingham, Michigan  
SME Project Number: 061377.03

Dear Mr. Weiss:

We prepared this letter and the attached information to document the activities conducted by the property owner to comply with Michigan's due care obligations as promulgated in Section 20107a of Part 201, Environmental Remediation, of Michigan's Natural Resources and Environmental Protection Act, 1994 PA 451, as amended. A Due Care Plan dated December 30, 2010, (attached) was prepared to document the owner's obligations in complying with Section 20107a. The following information is attached to document compliance with the due care obligations identified in the Due Care Plan:

- Waste characterization (soil and groundwater) documentation;
- Groundwater discharge documentation;
- Soil excavation and disposal documentation; and
- Post-excavation soil sampling documentation.

The attached Due Care Documentation package should be appended to your copy of the Due Care Plan for the project site and kept on file for future reference.

Sincerely,

**SME**

Jason C. Lafayette  
Project Consultant

Daniel R. Cassidy, CPG  
Vice President



# DOCUMENTATION OF DUE CARE COMPLIANCE

THE BALMORAL  
34901-34953 WOODWARD AVENUE  
BIRMINGHAM, MICHIGAN

SME Project Number: 061377.03

January 29, 2016



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### **ATTACHMENT A:**

**SME's DECEMBER 30, 2010 DUE CARE PLAN, 34901 WOODWARD AVENUE,  
BIRMINGHAM, MICHIGAN**

### **ATTACHMENT B:**

**DWSD SPECIAL DISCHARGE PERMIT APPLICATION  
SUPPLEMENTAL GROUNDWATER SAMPLE LABORATORY DATA AND CHAIN OF  
CUSTODY  
DWSD SPECIAL DISCHARGE PERMIT  
DWSD SPECIAL DISCHARGE PERMIT EXTENSION**

### **ATTACHMENT C:**

**SOIL WASTE CHARACTERIZATION SAMPLE LABORATORY DATA AND CHAIN OF  
CUSTODY  
EXCAVATED SOIL DISPOSAL SUMMARY  
EXCAVATED SOIL TRUCKING TICKETS AND DISPOSAL MANIFESTS**

### **ATTACHMENT D:**

**FIGURE 1 – POST-EXCAVATION SOIL SAMPLING LOCATIONS DIAGRAM  
POST EXCAVATION SOIL SAMPLE LABORATORY DATA AND CHAINS OF CUSTODY**

## **APPENDIX A**

**SME's DECEMBER 30, 2010 DUE CARE PLAN, 34901 WOODWARD AVENUE,  
BIRMINGHAM, MICHIGAN**

above ground storage tank  
air quality  
asbestos/lead-based paint  
baseline environmental assessment  
brownfield redevelopment  
building/infrastructure restoration  
caisson/piles  
coatings  
concrete  
construction materials services  
corrosion  
dewatering  
drilling  
due care analysis  
earth retention system  
environmental compliance  
environmental site assessment  
facility asset management  
failure analyses  
forensic engineering  
foundation engineering  
geodynamic/vibration  
geophysical survey  
geosynthetic  
greyfield redevelopment  
ground modification  
hydrogeologic evaluation  
industrial hygiene  
indoor air quality/mold  
instrumentation  
masonry/stone  
metals  
nondestructive testing  
pavement evaluation/design  
property condition assessment  
regulatory compliance  
remediation  
risk assessment  
roof system management  
sealants/waterproofing  
settlement analysis  
slope stability  
storm water management  
structural steel/welding  
underground storage tank

## **DUE CARE PLAN**

**34901 WOODWARD AVENUE  
BIRMINGHAM, OAKLAND COUNTY,  
MICHIGAN**

### **PREPARED FOR:**

WOODWARD BROWN ASSOCIATES, LLC  
32820 WOODWARD, SUITE 200  
ROYAL OAK, MI 48073

### **PREPARED BY:**

SOIL AND MATERIALS ENGINEERS, INC.  
43980 PLYMOUTH OAKS BOULEVARD  
PLYMOUTH, MICHIGAN 48170-2584

**SME PROJECT NUMBER: PE60750B-02**

**DECEMBER 30, 2010**



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**Soil and Materials Engineers, Inc.**



Soil and Materials Engineers, Inc.  
The Kramer Building  
43980 Plymouth Oaks Blvd.  
Plymouth, MI 48170-2584  
tel (734) 454-9900  
fax (734) 454-0629  
www.sme-usa.com

Kenneth W. Kramer, PE  
Founder

Mark K. Kramer, PE  
Timothy H. Bedenis, PE  
Gerald M. Belian, PE  
Chuck A. Gemayel, PE  
James M. Harless, PhD, CHMM  
Larry P. Jedeke, PE  
Cheryl A. Kehres-Dietrich, CGWP  
Edward S. Lindow, PE  
Gerard P. Madej, PE  
Timothy J. Mitchell, PE  
Robert C. Rabeler, PE  
Daniel O. Roeser, PG

Daniel R. Cassidy, CPG  
Andrew J. Emmert, CPA  
Sheryl K. Fountain, SPHR  
Michael E. Gase, CWI, ASNT III  
Davie J. Hurlburt, PE  
Laurel M. Johnson, PE  
Jeffery M. Krusinga, PE, GE  
Michael S. Meddock, PE  
Mark L. Michener, LEED GA, CDT  
Louis J. Northouse, PE  
Joel W. Rinkel, PE  
Jason A. Schwarzenberger, PE  
Larry W. Shook, PE  
Thomas H. Skotzke  
Michael J. Thelen, PE  
John C. Zarzecki, CET, CDT, NDE

December 30, 2010

Mr. Harvey Weiss  
Mr. Najib Samona  
Woodward Brown Associates, LLC  
32820 Woodward, Suite 200  
Royal Oak, MI 48073

RE: Due Care Plan  
34901 Woodward Avenue  
Birmingham, Michigan 48009  
SME Project Number: PE60750B-02

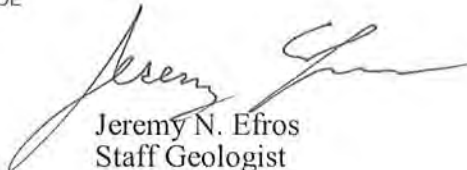
Dear Messrs. Weiss and Samona:

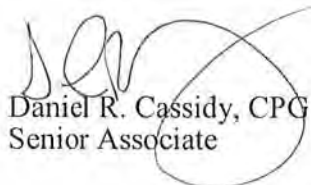
Enclosed is the Due Care Plan for the above referenced site (the Property). This Due Care Plan provides information to assist Woodward Brown Associates, LLC in complying with the requirements of Section 20107a of the Michigan Natural Resources and Environmental Protection Act, Act 451 of 1994, as amended (NREPA) during future construction and use of the Property.

If you have questions concerning the Due Care Plan, or if additional services are required, please call.

Very truly yours,

**SOIL AND MATERIALS ENGINEERS, INC.**

  
Jeremy N. Efros  
Staff Geologist

  
Daniel R. Cassidy, CPG  
Senior Associate

Enclosure: Due Care Plan

T:\PROJ\60000\PE60750B-02\PE60750B-02-12302010-DUE CARE PLAN

OFFICES  
Indiana  
Michigan  
Ohio

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consultants in the geosciences, materials, and the environment

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### Attachment A: Figures

Figure 1: Site Location Map

Figure 2: Soil Boring Location Map

### Attachment B: Boring Logs

## 1.0 INTRODUCTION

This Due Care Plan (the Plan) was prepared for the property located at 34901 Woodward Avenue, in Birmingham, Oakland County, Michigan (hereinafter referred to as the Property). It was prepared according to Administrative Rule R299.51003(5) (the Rule) for compliance with Section 20107a (due care) of the Michigan Natural Resources and Environmental Protection Act, Act 451 of 1994, as amended (NREPA). The Plan is designed to address human health risks associated with environmental contamination known at the time of Plan preparation to be present on the Property at levels above those allowed for residential use. This document also includes procedures designed to prevent exacerbation of the existing contamination. The Plan includes the following information to help the Property owner comply with the requirements of the Rule:

- Identification of human exposure pathways relevant to the intended use of the property and the features of the property;
- Information about the concentrations of hazardous substances to which persons may be exposed;
- Descriptions of the response activities or other measures that are or may be required to mitigate any unacceptable exposures and prevent exacerbation of the contamination;
- Procedures for recordkeeping related to implementation of any response activities;
- Copies of notices to other individuals or groups that may be exposed to the contamination.

A copy of this Plan must be available for review by the Michigan Department of Natural Resources and Environment (MDNRE, formerly Michigan Department of Environmental Quality) upon request pursuant to R299.51003 (Administrative Rules for Compliance with Section 20107a of Part 201 of the NREPA). This Due Care Plan does not serve as a comprehensive health and safety plan for the Property.

The Property description, current and proposed use, and environmental conditions are presented in the following subsections.

### **1.1 Property Description and Historical Use**

The Property consists of two parcels of land totaling 0.53 acres, developed with asphalt and gravel parking areas. The Property is located on the west side of Woodward Avenue approximately 200 feet south of the intersection of Woodward Avenue and Maple Road, in the City of Birmingham, Oakland County, Michigan. The location of the Property in relation to

nearby roads and major landmarks is depicted on Figure No. 1 in Attachment A. Property features are depicted on Figure No. 2 in Attachment A.

The Property was reportedly first developed as a feed mill in 1915. From at least 1921 to at least 1931, the Property was used as a lumber and coal yard. By 1944 the northern portion of the Property was developed with a bowling alley and by 1949 the southwest corner of the Property was developed with a laundry. The southern portion of the Property was occupied by a used car lot by 1960. The bowling alley reportedly operated until at least 1973 when it was occupied for retail uses. A commercial strip mall building was constructed by 1974 and occupied the southern portion of the Property until 2005. The commercial strip mall was occupied by a variety of tenants including a cleaners/laundry, a photography shop, and a printing shop. Since the demolition of the buildings in 2005, the Property has been used as a parking lot.

### **1.2 Current Property Use**

The current usage of the Property is primarily for parking. The northern asphalt portion of the Property is used as parking for customers of Peabody's (34965 Woodward Avenue) and for The Great Frame Up (215 Peabody Street). The southern gravel parking lot is currently used as parking for construction workers and storage of some construction equipment for a nearby construction project.

### **1.3 Proposed Property Use**

Woodward Brown Associates, LLC intends to redevelop the Property into a five-story, mixed use building and underground parking garage. Woodward Brown Associates, LLC anticipates the proposed Property use will include hydraulic elevators that will service various floors on the Property. Based on SME's communication with MDEQ regarding hydraulic elevators and the owner:

- There will be three or less elevators.
- The hydraulic fluid will be completely contained within the elevator and reservoir system.
- Additional hydraulic fluid, new or used, will not be stored on the Property.

#### **1.4 Property Environmental Conditions**

The environmental conditions of the Property were evaluated by SME during an environmental site assessment in May 2010. The Environmental site assessment of the Property revealed the presence of tetrachloroethene, xylenes, arsenic, boron, lead and selenium in soil samples at concentrations above residential Drinking Water Protection and/or Groundwater Surface water Interface (GSI) Protection Criteria. Arsenic and lead were measured in soil at concentrations above residential Direct Contact Criteria. Arsenic, boron, lead, and selenium were also measured in groundwater at concentrations above the residential cleanup criteria for Drinking Water Criteria and Groundwater Surface Water Interface Criteria.

Soil boring logs documenting observed subsurface conditions are provided in Attachment B. Figure No. 2 in Attachment A is a Sample Location Diagram. The north side of the Property was covered with asphalt and the south side of the site was covered with gravel. The subsurface soil conditions encountered at the boring locations generally consisted of sand and silt fill underlain by natural clays with varying amounts of sand and gravel extending the explored depth of the borings (12 feet). Perched subsurface water was encountered between three and five feet below existing ground surface at four of ten borings. The water appeared to be discontinuous across the site and did not appear to represent groundwater.

SME also reviewed boring logs from a Geotechnical Evaluation conducted at the Property by SME in August 2007. The soil profile encountered during SME's 2007 Evaluation was consistent with the soil profile encountered during SME's May 2010 environmental subsurface assessment. In addition, the borings conducted by SME in 2007 extended to approximately 40 feet below grade. SME reported the natural silty/sandy clay stratum extended to at least 40 feet. Perched subsurface water was observed by SME in 2007; however, the water appeared discontinuous and did not appear to represent groundwater.

## **2.0 EXPOSURE PATHWAY AND CRITERIA EVALUATION**

The applicable use criteria and exposure assumptions, relevant and applicable exposure pathways and criteria, and human exposure issues of concern are presented in the following subsections.

### **2.1 Applicable Use Criteria and Exposure Assumptions**

The current usage of the Property is primarily for parking. Woodward Brown Associates, LLC intends to redevelop the Property into a five-story, mixed use building and underground parking garage. SME identified the following groups of potential receptors and associated Part 201 exposure categories associated with the current and proposed Property use:

- Transient customers and visitors
- Construction workers
- Commercial Property workers

The Property use has and will be for commercial purposes. The Part 201 Generic Non Residential Cleanup Criteria and Screening Levels are applicable for evaluation of human exposures because this land use category is generally consistent with the characteristics of the current and proposed Property setting and activity patterns. However, this Plan should be added to, or modified if the exposure setting or activity pattern changes.

### **2.2 Relevant Exposure Pathways and Applicable Criteria**

A human exposure pathway is relevant because there is a reasonable potential for exposure to a hazardous substance to occur to a human from a source or release. An exposure pathway is not relevant if there are no concentrations that exceeded a health-based standard. The following exposure pathways are considered relevant at the Property:

- Groundwater ingestion pathway – drinking water is supplied to the Property by a municipal drinking water system and the installation of a drinking water well on site will not be allowed by the property owner; therefore, the groundwater ingestion pathway is reliably restricted.
- Soil dermal contact and ingestion pathway – existing site pavements provide a reliable exposure barrier to contaminated soils; however, site pavements are proposed for removal as part of Property redevelopment activities; therefore, direct contact and ingestion of contaminated soil is possible during proposed Property use.

The applicable cleanup criteria at the Property are dependent on the relevant exposure pathway and the appropriate land use category for the site. A cleanup criterion is not applicable if the exposure pathway is not relevant at the site or if the exposure it addresses is reliably restricted. Because the groundwater ingestion pathway is reliably restricted, the only applicable cleanup criterion at the Property is dermal contact with soil.

### **2.3 Exposure Summary**

Concentrations of target analytes from soil and groundwater samples collected during SME's 2010 assessment were compared to the applicable Part 201 Generic Non-Residential Criteria. Human health exposure risks associated with the contamination were evaluated by comparing the environmental assessment results to relevant exposure pathways and applicable Criteria. Concentrations of arsenic (150,000 µg/Kg) and lead (1,050,000 µg/Kg) measured in shallow (0.5-1.5 feet below grade) fill soil at the Property exceeded the Non-Residential Dermal Contact Criteria. Response actions to mitigate exposure to arsenic and lead in soil during redevelopment activities are further described the following section.

### **3.0 EVALUATION AND DEMONSTRATION OF COMPLIANCE WITH SECTION 20107A OBLIGATIONS**

Prior to performing subsurface activities, contact the Property Owner and an environmental professional to determine appropriate due care protocol. The due care protocol shall be tailored to the planned subsurface activities. The following general work practices are recommended for compliance with Section 20107a requirements.

#### **3.1 Exacerbation (Section 20107a (1)(a))**

- If possible, excavated soil will be returned to the original excavation.
- Contractors will be instructed to employ construction methods that minimize excess soil generation.
- Excess soil encountered during installation of the underground parking garage or other construction activities, such as subsurface utility construction and maintenance, will be properly characterized and appropriately managed based on the concentrations of chemicals-of concern<sup>1</sup>. Excess soil containing chemicals-of-concern in excess of generic residential criteria should be disposed at a licensed landfill in accordance with Part 115, Solid Waste Management, of the NREPA or otherwise managed to prevent exacerbation.
- Precautions will be taken to prevent track out of contaminated soil by construction equipment and contractor vehicles, such as the following:
  - Clean tools and equipment of mud/impacted soil to prevent tracking impacted soil outside the Property boundaries.
  - Use dust suppression measures to control dust.

The following general work practices will further reduce potential spread of contaminants:

- Excavated soil will be stockpiled in a single location at the Property and evaluated by an environmental professional for off-site disposal options. The excavated soil will be placed on and covered with plastic pending disposal. Wherever practical, excavated soil should be returned to the original excavation location.
- Contractors or workers will notify the City and an environmental professional if unusual environmental conditions (e.g., staining, odors, underground storage tanks (USTs), abandoned containers, etc.), other than those identified by this plan, are encountered at the Property.

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<sup>1</sup> Excess soil is soil that must be removed from the Property for purposes other than remediation.

- Perched, contaminated water is present in the subsurface at the Property. If encountered during construction, contractors shall have a plan in place prior to beginning construction activities to handle the water.
  - Groundwater can be containerized on-site and tested for off-site disposal options or groundwater can be treated on-site, tested, and discharged to the sanitary sewer.
  - Groundwater shall not be pumped into sewers without testing and permit approval.

Subsurface water perched on native clay at the Property was encountered at depths ranging from three to five feet below grade and appeared to be discontinuous across the site; therefore, installation of new subsurface utilities may create a preferential flow pathway that would allow groundwater contamination to migrate off of the Property more than what currently may be occurring. In the event impacted groundwater is encountered on the Property at depths above the proposed utilities, SME shall be contacted to assess if engineering controls are necessary to prevent migration of contaminated groundwater off site via the utility trench. If necessary, bentonite plugs will be placed in excavated utility trenches at the Property boundary to prevent the migration of impacted groundwater, in granular trench backfill, off site.

### **3.2 Due Care (Section 20107a(1)(b))**

Exposure to contaminated soil is currently mitigated by the presence of site pavements; however, pavements are proposed for removal during redevelopment activities. The following procedures will mitigate potential exposure to contaminated soil during redevelopment activities.

- Prior to removal of existing exposure barriers to human contact (site pavements), the following will be done:
  - The owner will provide contractors a copy of this due care plan.
  - The owner will notify contractors and workers about the known hazardous substances on the Property and related hazards information as required under the OSHA Hazard Communication Standard (29 CFR 1910.1200).
- When possible, excavation work shall be performed by mechanical equipment.
- To reduce contact with bare skin, workers shall wear protective clothing such as work gloves and long sleeved shirts.
- No eating, drinking, and smoking during subsurface activities shall be allowed.

- Employees shall be instructed to wash hands upon completion of subsurface activities on the Property and before eating or drinking. A hand washing station with soap and water should be provided for employees conducting subsurface work. Waterless hand wash/wipe materials should not be used as a substitute for soap and water.
- Workers shall be told to wash work clothes, and to wash those clothes separately.

### **3.3 Reasonable Precautions (Section 20107a(1)(c))**

Potential third party exposure to hazardous substances at the Property is not indicated based on known contamination and the proposed Property usage; nevertheless, prior to completion of subsurface activities, potential third party exposure will be mitigated through site access control. A construction fence will be established around excavation areas until subsurface construction is complete. Signs will be posted along the fence and on access points warning against trespassing. Unauthorized persons will not be allowed within the fenced work area(s). Contractors, employees, and representatives of the owner will be instructed to challenge unknown persons and verify their reasons for being on the Property or refer them to a person of authority.

## 4.0 RECORD KEEPING AND NOTIFICATIONS

The record keeping and notifications required for compliance with applicable due care rules are presented in the following subsections.

### **4.1 Record Keeping**

As required by Part 201 rule 299.51003(5), the owner is responsible to maintain documentation of their compliance with this rule and of the activities described in this plan. This includes records of all inspections of pavement, gravel, fencing, and building floor, soil management and / or disposal, and Property use.

The following table provides due care contact information. The Property owner shall periodically review and update this information.

<b>Property Owner's Representative</b>	Harvey Weiss	248-549-3600
<b>Police Department, Fire Department, and Emergency Rescue</b>	City of Birmingham	911
<b>Hospital</b>	Beaumont Hospital	248-898-5000
<b>Environmental Consultant</b>	Soil and Materials Engineers, Inc.	734-454-9900

### **4.2 Notifications**

The following general notices shall be provided if subsurface activities or building modifications involving removal of floor slabs are performed on the Property:

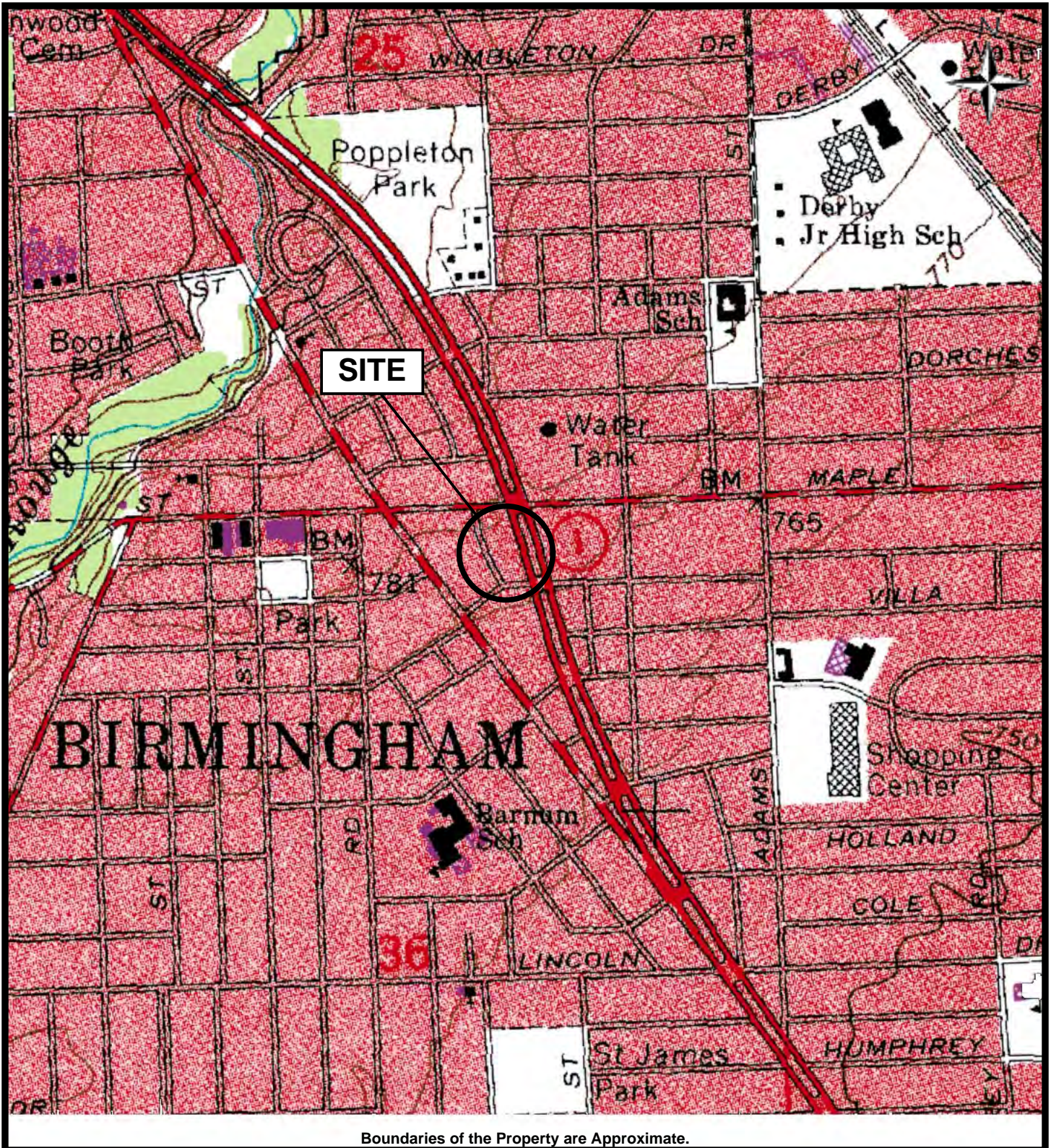
- Construction workers shall contact the owner if unusual conditions such as staining, odors, or buried objects other than described in this Plan are encountered during demolition or subsurface activities.
- Contractors who will perform subsurface work shall be notified of this Due Care Plan and will be instructed to prepare a project-specific Due Care Plan and Health and Safety Plan for the work.

## 5.0 GENERAL COMMENTS

This Due Care Plan is based on the information and current and proposed Property use described herein. This Due Care Plan shall be revised, if needed, if the Property use changes. This Due Care Plan should be added to, or modified, as needed depending upon planned activities and additional information. This Due Care Plan is not designed to be a construction specification and sound construction practices should be used. Furthermore, this Due Care Plan is not a comprehensive Health and Safety Plan. Site conditions may be encountered which have not been addressed by this Plan and parties shall at all time take steps to prevent exacerbation of existing contamination, and to mitigate exposure to impacted soil and/or groundwater.

## **ATTACHMENT A**

Figure No. 1 – Property Location Map  
Figure No. 2 – Soil Boring Location Map



**SITE LOCATION MAP  
WEISS SAMONA REDEVELOPMENT  
BIRMINGHAM, MICHIGAN**

PREPARED FOR:  
PROJ. MGR: DRC  
DRAWN BY: JNE

DATE: 05/21/2010  
PROJ. #: PE60750A-04

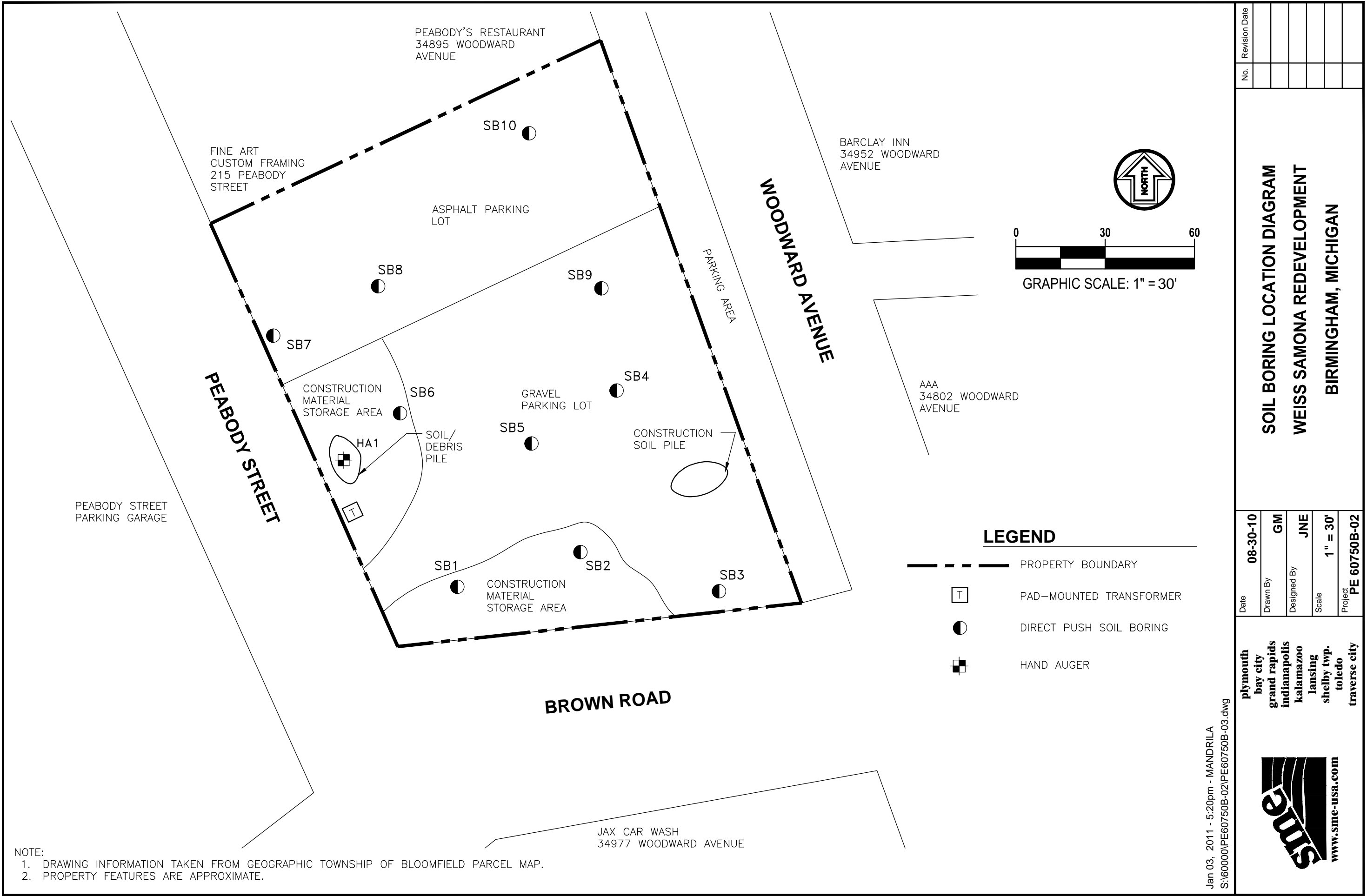


Figure No. 2

## **ATTACHMENT B**

### Soil Boring Logs



# soil and materials engineers, inc.

PROJECT NAME: WEISS SAMONA REDEVELOPMENT

A/E:

BORING SB1

PROJECT LOCATION: 34901 WOODWARD AVENUE, BIRMINGHAM, MICHIGAN

BY: JNE





START: 05/26/2010

END: 05/26/2010

CLIENT:

PROJECT NUMBER: PE60750B-02

SHEET: 1

DEPTH (FEET)	SYMBOLIC PROFILE	PROFILE DESCRIPTION	SAMPLE TYPE/NUMBER INTERVAL	INCHES OF RECOVERY	BLOWS PER SIX INCHES	PID READINGS (ppm)	ANALYTICAL SAMPLE	STANDARD PENETRATION TEST RESISTANCES (N-values)								
								0	10	20	30	40	50			
0		GROUND SURFACE ELEVATION=														
		Fine to Coarse Sand- Trace Gravel and Brick Pieces- Brown (SP/Fill)	S1	15		<1										
		Sandy Silt- Some Fine to Coarse Sand- Dark Brown (ML/Fill)	S2	15		<1										
		Fine to Medium Sand- Light Brown (SP/Fill)	S3	24		<1										
5	Clay- Trace Fine Sand and Gravel- Light Brown to Gray (CL)	S4	24		<1											
		END OF BORING AT 8 FEET.														
10																
15																
20																
25																
30																
35																
WATER LEVEL OBSERVATIONS		<b>Notes:</b> 1. THE INDICATED STRATIFICATION LINES ARE APPROXIMATE. IN SITU, THE TRANSITION BETWEEN MATERIALS MAY BE GRADUAL. 2. GROUNDWATER WAS NOT ENCOUNTERED. 3. NO ODORS NOTED AND NO STAINING OBSERVED.														
 GROUNDWATER ENCOUNTERED DURING DRILLING  GROUNDWATER ENCOUNTERED UPON COMPLETION OF DRILLING																

DRILLER: BJM

DRILL METHOD: DIRECT PUSH

WATER LEVEL DURING DRILLING: NONE

RIG NO.:

BACKFILL METHOD: SOIL CUTTINGS

WATER LEVEL UPON COMPLETION:



# soil and materials engineers, inc.

**PROJECT NAME:** WEISS SAMONA REDEVELOPMENT

**A/E:**

**BORING SB2**

**PROJECT LOCATION:** 34901 WOODWARD AVENUE, BIRMINGHAM, MICHIGAN

**BY:** JNE

**START:** 05/26/2010

**END:** 05/26/2010

**CLIENT:**

**PROJECT NUMBER:** PE60750B-02

**SHEET:** 1

DEPTH (FEET)	SYMBOLIC PROFILE	PROFILE DESCRIPTION	SAMPLE TYPE/NUMBER INTERVAL	INCHES OF RECOVERY	BLOWS PER SIX INCHES	PID READINGS (ppm)	ANALYTICAL SAMPLE	STANDARD PENETRATION TEST RESISTANCES (N-values)							
								0	10	20	30	40	50		
0		GROUND SURFACE ELEVATION=													
0		Gravel with Fine to Coarse Sand- Gray- Dry- Loose (GP)	S1	12		<1									
		Fine to Medium Sand- Trace Silt- Trace Gravel- Moist (SP/Fill)	S2	12		<1									
5		Clay- Trace Fine Sand and Gravel- Light Brown to Gray- Moist (CL)	S3	24		<1									
		END OF BORING AT 8 FEET.	S4	24		<1									
10															
15															
20															
25															
30															
35															

**WATER LEVEL OBSERVATIONS**

☼ GROUNDWATER ENCOUNTERED DURING DRILLING

☼ GROUNDWATER ENCOUNTERED UPON COMPLETION OF DRILLING

**Notes:**

1. THE INDICATED STRATIFICATION LINES ARE APPROXIMATE. IN SITU, THE TRANSITION BETWEEN MATERIALS MAY BE GRADUAL.
2. GROUNDWATER WAS NOT ENCOUNTERED.
3. NO ODORS NOTED AND NO STAINING OBSERVED.

**DRILLER:** BJM

**DRILL METHOD:** DIRECT PUSH

**WATER LEVEL DURING DRILLING:** NONE

**RIG NO.:**

**BACKFILL METHOD:** SOIL CUTTINGS

**WATER LEVEL UPON COMPLETION:**



# soil and materials engineers, inc.

PROJECT NAME: WEISS SAMONA REDEVELOPMENT

A/E:

BORING SB3

PROJECT LOCATION: 34901 WOODWARD AVENUE, BIRMINGHAM, MICHIGAN

BY: JNE

START: 05/26/2010

END: 05/26/2010

CLIENT:

PROJECT NUMBER: PE60750B-02

SHEET: 1

DEPTH (FEET)	SYMBOLIC PROFILE	PROFILE DESCRIPTION	SAMPLE TYPE/NUMBER INTERVAL	INCHES OF RECOVERY	BLOWS PER SIX INCHES	PID READINGS (ppm)	ANALYTICAL SAMPLE	STANDARD PENETRATION TEST RESISTANCES (N-values)
0		GROUND SURFACE ELEVATION=						0 10 20 30 40 50
0			S1	12		<1		
			S2	12				
5		Sandy Silt- Some Fine to Coarse Sand- Trace Gravel- Brown (ML/Fill)	S3	12		<1		
			S4	12		<1		
10		Clay- Trace Fine Sand and Gravel- Light Brown- Moist (CL)	S5	24		<1		
		END OF BORING AT 12 FEET.	S6	24		<1		
15								
20								
25								
30								
35								

WATER LEVEL OBSERVATIONS		Notes:
GROUNDWATER ENCOUNTERED DURING DRILLING		1. THE INDICATED STRATIFICATION LINES ARE APPROXIMATE. IN SITU, THE TRANSITION BETWEEN MATERIALS MAY BE GRADUAL.
GROUNDWATER ENCOUNTERED UPON COMPLETION OF DRILLING		2. GROUNDWATER WAS NOT ENCOUNTERED.
		3. NO ODORS NOTED AND NO STAINING OBSERVED.

DRILLER: BJM

DRILL METHOD: DIRECT PUSH

WATER LEVEL DURING DRILLING: NONE

RIG NO.:

BACKFILL METHOD: SOIL CUTTINGS

WATER LEVEL UPON COMPLETION:



# soil and materials engineers, inc.

PROJECT NAME: WEISS SAMONA REDEVELOPMENT

A/E:

BORING SB4

PROJECT LOCATION: 34901 WOODWARD AVENUE, BIRMINGHAM, MICHIGAN

BY: JNE





START: 05/26/2010

END: 05/26/2010

CLIENT:

PROJECT NUMBER: PE60750B-02

SHEET: 1

DEPTH (FEET)	SYMBOLIC PROFILE	PROFILE DESCRIPTION	SAMPLE TYPE/NUMBER INTERVAL	INCHES OF RECOVERY	BLOWS PER SIX INCHES	PID READINGS (ppm)	ANALYTICAL SAMPLE	STANDARD PENETRATION TEST RESISTANCES (N-values)				
								0	10	20	30	40
0		GROUND SURFACE ELEVATION=										
		Fine to Coarse Sand- Some Gravel- Gray (SP/Fill)	S1	12		<1						
		Fine Sand- Trace Coarse Sand and Gravel- Brown- Moist (SP/Fill)	S2	12								
5		Sandy Silt- Trace to Some Fine to Coarse Sand- Trace Gravel- Dark Brown- Moist (ML/Fill)	S3	12		<1						
		Clay- Trace Fine to Medium Sand- Trace Gravel- Grayish Brown- Moist (CL)	S4	12		<1						
10		Clay- Trace Fine Sand and Gravel- Gray- Moist (CL)	S5	22		<1						
		S6	22		<1							
		END OF BORING AT 12 FEET.										
15												
20												
25												
30												
35												
WATER LEVEL OBSERVATIONS			<b>Notes:</b> 1. THE INDICATED STRATIFICATION LINES ARE APPROXIMATE. IN SITU, THE TRANSITION BETWEEN MATERIALS MAY BE GRADUAL. 2. GROUNDWATER WAS NOT ENCOUNTERED. 3. NO ODORS NOTED AND NO STAINING OBSERVED.									
 GROUNDWATER ENCOUNTERED DURING DRILLING  GROUNDWATER ENCOUNTERED UPON COMPLETION OF DRILLING												

DRILLER: BJM

DRILL METHOD: DIRECT PUSH

WATER LEVEL DURING DRILLING: NONE

RIG NO.:

BACKFILL METHOD: SOIL CUTTINGS

WATER LEVEL UPON COMPLETION:



# soil and materials engineers, inc.

PROJECT NAME: WEISS SAMONA REDEVELOPMENT

A/E:

BORING SB5

PROJECT LOCATION: 34901 WOODWARD AVENUE, BIRMINGHAM, MICHIGAN

BY: JNE

START: 05/26/2010

END: 05/26/2010

CLIENT:

PROJECT NUMBER: PE60750B-02

SHEET: 1

DEPTH (FEET)	SYMBOLIC PROFILE	PROFILE DESCRIPTION	SAMPLE TYPE/NUMBER INTERVAL	INCHES OF RECOVERY	BLOWS PER SIX INCHES	PID READINGS (ppm)	ANALYTICAL SAMPLE	STANDARD PENETRATION TEST RESISTANCES (N-values)
0		GROUND SURFACE ELEVATION=						0 10 20 30 40 50
		Fine to Coarse Sand- Some Gravel- Grayish Black (SP/Fill)	S1	20		<1		
		Sandy Silt- Some Fine Sand- Brown (SM/Fill)	S2	20				
5		Clay- Trace Fine Sand- Trace Gravel- Brown to Gray (CL)	S3	24		<1		
		END OF BORING AT 8 FEET.	S4	24		<1		
10								
15								
20								
25								
30								
35								

WATER LEVEL OBSERVATIONS		Notes:
GROUNDWATER ENCOUNTERED DURING DRILLING		1. THE INDICATED STRATIFICATION LINES ARE APPROXIMATE. IN SITU, THE TRANSITION BETWEEN MATERIALS MAY BE GRADUAL.
GROUNDWATER ENCOUNTERED UPON COMPLETION OF DRILLING		2. GROUNDWATER WAS NOT ENCOUNTERED.
		3. NO ODORS NOTED AND NO STAINING OBSERVED.

DRILLER: BJM

DRILL METHOD: DIRECT PUSH

WATER LEVEL DURING DRILLING: NONE

RIG NO.:

BACKFILL METHOD: SOIL CUTTINGS

WATER LEVEL UPON COMPLETION:



# soil and materials engineers, inc.

PROJECT NAME: WEISS SAMONA REDEVELOPMENT

A/E:

BORING SB6

PROJECT LOCATION: 34901 WOODWARD AVENUE, BIRMINGHAM, MICHIGAN

BY: JNE

START: 05/26/2010

END: 05/26/2010

CLIENT:

PROJECT NUMBER: PE60750B-02

SHEET: 1

DEPTH (FEET)	SYMBOLIC PROFILE	PROFILE DESCRIPTION	SAMPLE TYPE/NUMBER INTERVAL	INCHES OF RECOVERY	BLOWS PER SIX INCHES	PID READINGS (ppm)	ANALYTICAL SAMPLE	STANDARD PENETRATION TEST RESISTANCES (N-values)
0		GROUND SURFACE ELEVATION=						0 10 20 30 40 50
		Fine to Coarse Sand- Some Gravel- Gray (SP/Fill)	S1	15		<1		
		Sandy Silt- Some Fine Sand- Brownish Black (SM/Fill)	S2	15				
5		Fine to Medium Sand- Light Brown (SP/Fill)	S3	24		<1		
		Clay- Trace Fine to Coarse Sand- Light Brown to Gray (CL)	S4	24		<1		
		END OF BORING AT 8 FEET.						
10								
15								
20								
25								
30								
35								

WATER LEVEL OBSERVATIONS		Notes:
GROUNDWATER ENCOUNTERED DURING DRILLING		1. THE INDICATED STRATIFICATION LINES ARE APPROXIMATE. IN SITU, THE TRANSITION BETWEEN MATERIALS MAY BE GRADUAL.
GROUNDWATER ENCOUNTERED UPON COMPLETION OF DRILLING		2. GROUNDWATER WAS NOT ENCOUNTERED.
		3. NO ODORS NOTED AND NO STAINING OBSERVED.

DRILLER: BJM

DRILL METHOD: DIRECT PUSH

WATER LEVEL DURING DRILLING: NONE

RIG NO.:

BACKFILL METHOD: SOIL CUTTINGS

WATER LEVEL UPON COMPLETION:



# soil and materials engineers, inc.

PROJECT NAME: WEISS SAMONA REDEVELOPMENT

A/E:

BORING SB7

PROJECT LOCATION: 34901 WOODWARD AVENUE, BIRMINGHAM, MICHIGAN

BY: JNE




START: 05/26/2010

END: 05/26/2010

CLIENT:

PROJECT NUMBER: PE60750B-02

SHEET: 1

DEPTH (FEET)	SYMBOLIC PROFILE	PROFILE DESCRIPTION	SAMPLE TYPE/NUMBER INTERVAL	INCHES OF RECOVERY	BLOWS PER SIX INCHES	PID READINGS (ppm)	ANALYTICAL SAMPLE	STANDARD PENETRATION TEST RESISTANCES (N-values)				
								0	10	20	30	40
0		GROUND SURFACE ELEVATION=										
		Fine Sand- Some Organics and Gravel- Trace Silt and Crushed Concrete (Fill)	S1	15		<1						
		Silty Sand- Fine to Medium Sand- Some Silt- Dark Gray- Moist (SM/Fill)	S2	15								
		Fine Sand- Trace Gravel- Light Brown- Wet (SW/Fill)	S3	15		<1						
5		Clay- Trace Fine Sand- Trace Gravel- Light Brown- Moist (CL)	S4	15		<1						
			S5	15		<1						
10	S6		15		<1							
	END OF BORING AT 12 FEET.											
15												
20												
25												
30												
35												
WATER LEVEL OBSERVATIONS			<b>Notes:</b> 1. THE INDICATED STRATIFICATION LINES ARE APPROXIMATE. IN SITU, THE TRANSITION BETWEEN MATERIALS MAY BE GRADUAL. 2. GROUNDWATER WAS ENCOUNTERED AT 3 FEET BELOW GRADE. 3. NO ODORS NOTED AND NO STAINING OBSERVED.									
☞ GROUNDWATER ENCOUNTERED DURING DRILLING ☞ GROUNDWATER ENCOUNTERED UPON COMPLETION OF DRILLING												

DRILLER: BJM

DRILL METHOD: DIRECT PUSH

WATER LEVEL DURING DRILLING: 3'

RIG NO.:

BACKFILL METHOD: SOIL CUTTINGS

WATER LEVEL UPON COMPLETION:



# soil and materials engineers, inc.

PROJECT NAME: WEISS SAMONA REDEVELOPMENT

A/E:

BORING SB8

PROJECT LOCATION: 34901 WOODWARD AVENUE, BIRMINGHAM, MICHIGAN

BY: JNE

START: 05/26/2010

END: 05/26/2010

CLIENT:

PROJECT NUMBER: PE60750B-02

SHEET: 1

DEPTH (FEET)	SYMBOLIC PROFILE	PROFILE DESCRIPTION	SAMPLE TYPE/NUMBER INTERVAL	INCHES OF RECOVERY	BLOWS PER SIX INCHES	PID READINGS (ppm)	ANALYTICAL SAMPLE	STANDARD PENETRATION TEST RESISTANCES (N-values)
0		GROUND SURFACE ELEVATION=						0 10 20 30 40 50
		Broken Asphalt, Slag and Brick- Gray	S1	18		<1		
		Silty Sand- Fine to Medium Sand- Some Silt- Dark Brown- Moist (ML/Fill)	S2	18				
		Fine Sand- Light Brown- Wet (SW/Fill)	S3	24		<1		
5		Clay- Some Fine to Medium Sand- Light Brown to Gray (CL)	S4	24		<1		
		END OF BORING AT 8 FEET.						
10								
15								
20								
25								
30								
35								

WATER LEVEL OBSERVATIONS		Notes:
GROUNDWATER ENCOUNTERED DURING DRILLING		1. THE INDICATED STRATIFICATION LINES ARE APPROXIMATE. IN SITU, THE TRANSITION BETWEEN MATERIALS MAY BE GRADUAL.
GROUNDWATER ENCOUNTERED UPON COMPLETION OF DRILLING		2. GROUNDWATER WAS ENCOUNTERED AT 5 FEET BELOW GRADE (BG).
		3. NO ODORS NOTED AND NO STAINING OBSERVED.
		4. A TEMPORARY MONITORING WELL SCREEN WAS INSTALLED FROM 2 TO 7 FEET BG.

DRILLER: BJM

DRILL METHOD: DIRECT PUSH

WATER LEVEL DURING DRILLING: 5'

RIG NO.:

BACKFILL METHOD: SOIL CUTTINGS

WATER LEVEL UPON COMPLETION:



# soil and materials engineers, inc.

PROJECT NAME: WEISS SAMONA REDEVELOPMENT

A/E:

BORING SB9

PROJECT LOCATION: 34901 WOODWARD AVENUE, BIRMINGHAM, MICHIGAN

BY: JNE

START: 05/26/2010

END: 05/26/2010

CLIENT:

PROJECT NUMBER: PE60750B-02

SHEET: 1

DEPTH (FEET)	SYMBOLIC PROFILE	PROFILE DESCRIPTION	SAMPLE TYPE/NUMBER INTERVAL	INCHES OF RECOVERY	BLOWS PER SIX INCHES	PID READINGS (ppm)	ANALYTICAL SAMPLE	STANDARD PENETRATION TEST RESISTANCES (N-values)
0		GROUND SURFACE ELEVATION=						0 10 20 30 40 50
		Broken Concrete and Asphalt with Some Fine Sand and Silt- Trace Gravel- Gray	S1	10		<1		
		Silty Sand- Fine to Coarse Sand- Some Silt- Light Brown- Moist (SM/Fill)	S2	10				
5		Fine to Coarse Sand- Some Silt- Light Brown- Wet (Fill)	S3	12		<1		
		Fine to Coarse Sand- Some Silt- Light Brown- Wet (SM/Fill)	S4	12		<1		
10		Clay- Trace Fine to Coarse Sand- Light Brown- Dense (CL) END OF BORING AT 10 FEET.	S5	24		<1		
15								
20								
25								
30								
35								

WATER LEVEL OBSERVATIONS		Notes:
GROUNDWATER ENCOUNTERED DURING DRILLING		1. THE INDICATED STRATIFICATION LINES ARE APPROXIMATE. IN SITU, THE TRANSITION BETWEEN MATERIALS MAY BE GRADUAL.
GROUNDWATER ENCOUNTERED UPON COMPLETION OF DRILLING		2. GROUNDWATER WAS ENCOUNTERED AT 5 FEET BELOW GRADE (BG).
		3. NO ODORS NOTED AND NO STAINING OBSERVED.
		4. A TEMPORARY MONITORING WELL SCREEN WAS INSTALLED FROM 2 TO 7 FEET BG.

DRILLER: BJM

DRILL METHOD: DIRECT PUSH

WATER LEVEL DURING DRILLING: 5'

RIG NO.:

BACKFILL METHOD: SOIL CUTTINGS

WATER LEVEL UPON COMPLETION:



# soil and materials engineers, inc.

PROJECT NAME: WEISS SAMONA REDEVELOPMENT

A/E:

BORING SB10

PROJECT LOCATION: 34901 WOODWARD AVENUE, BIRMINGHAM, MICHIGAN

BY: JNE

START: 05/26/2010

END: 05/26/2010

CLIENT:

PROJECT NUMBER: PE60750B-02

SHEET: 1

DEPTH (FEET)	SYMBOLIC PROFILE	PROFILE DESCRIPTION	SAMPLE TYPE/NUMBER INTERVAL	INCHES OF RECOVERY	BLOWS PER SIX INCHES	PID READINGS (ppm)	ANALYTICAL SAMPLE	STANDARD PENETRATION TEST RESISTANCES (N-values)				
								0	10	20	30	40
0		GROUND SURFACE ELEVATION=										
		Broken Asphalt- Some Gravel- Trace Sand- Gray	S1	18		<1						
		Fine to Medium Sand- Light Brown- Moist (SP/Fill)	S2	18								
5		Fine to Medium Sand- Trace Silt- Light Brown- Wet (SP/Fill)	S3	22		<1						
		Clay- Trace Coarse Sand- Trace Gravel- Light Gray (CL)	S4	22		<1						
			S5	15		<1						
10			S6	15		<1						
	END OF BORING AT 12 FEET.											
15												
20												
25												
30												
35												
WATER LEVEL OBSERVATIONS			<b>Notes:</b> 1. THE INDICATED STRATIFICATION LINES ARE APPROXIMATE. IN SITU, THE TRANSITION BETWEEN MATERIALS MAY BE GRADUAL. 2. GROUNDWATER WAS ENCOUNTERED AT 4 FEET BELOW GRADE (BG). 3. NO ODORS NOTED AND NO STAINING OBSERVED.									
GROUNDWATER ENCOUNTERED DURING DRILLING GROUNDWATER ENCOUNTERED UPON COMPLETION OF DRILLING												

DRILLER: BJM

DRILL METHOD: DIRECT PUSH

WATER LEVEL DURING DRILLING: 4'

RIG NO.:

BACKFILL METHOD: SOIL CUTTINGS

WATER LEVEL UPON COMPLETION:

## **APPENDIX B**

**DWSD SPECIAL DISCHARGE PERMIT APPLICATION**

**SUPPLEMENTAL GROUNDWATER SAMPLE LABORATORY DATA AND CHAIN OF CUSTODY**

**DWSD SPECIAL DISCHARGE PERMIT**

**DWSD SPECIAL DISCHARGE PERMIT EXTENSION**

# **DETROIT WATER & SEWERAGE DEPARTMENT**



## **SPECIAL DISCHARGE PERMIT APPLICATION**

## SPECIAL DISCHARGE PERMIT APPLICATION

This application is designed to enable the Detroit Water & Sewerage Department (DWSD) to make a determination for issuance of a Special Discharge Permit. A permit is required for all discharges that contain regulated pollutants into the DWSD sewerage system and its tributaries.

### SECTION A. GENERAL INFORMATION

1.	Applicant's Business Name	Woodward Brown Associates, LLC
2.	Mailing Address	32820 Woodward Ave. Royal Oak, MI 48073
3.	Authorized Representative	Harvey Weiss
4.	Title	Member
5.	Telephone No.	(248) 549-3600, ext. 14
6.	Site Name	Balmoral
7.	Site Address	34901 Woodward Avenue Birmingham, Michigan
8.	Name of Site Owner (if different from applicant)	
9.	Consultant's Company Name (if applicable)	Soil and Materials Engineers, Inc.
10.	Consultant's Company Address	43980 Plymouth Oaks Boulevard Plymouth, Michigan
11.	Consultant's Name	Daniel R. Cassidy, CPG
12.	Title	Vice President
13.	Telephone No.	734-454-9900
14.	Fax No.	734-454-0629
15.	Additional Details or Comments	

## SECTION B. SITE SPECIFIC INFORMATION

1.	<p>Source and type of pollutants at site (List activities and/or sources which contributed to the site contamination).</p> <p>See attached groundwater analytical data summary table</p> <p>No target analyses constituent are present at concentrations above DWSD screening levels for acceptance of discharge water</p>
2.	<p>Identify the environmental regulations and/or licenses administered for this site. Give license numbers and/or permit numbers. Also provide details about the site classification.</p> <p>None</p>
3.	<p>Was there any previous denial for discharge by the DWSD for this site?</p> <p><input type="checkbox"/> Yes. If Yes, explain. <input checked="" type="checkbox"/> No</p>
4.	<p>Description of the wastewater treatment facility. Also attach a written and more detailed description of the treatment system, if available. Include the Carbon breakthrough calculations, if applicable.</p> <p>No target analyses constituent are present at concentrations above DWSD screening levels for acceptance of discharge water</p>
5.	<p>Attach drawings showing (1) Location of the site (AAA map), (2) Site layout (monitoring wells, recovery wells, if determined, leaking tanks, sanitary sewer, storm sewer, discharge conduit and location of discharge point, treatment system, property boundaries; and (3) Flow sheet of treatment system, including location of necessary sampling valves (influent and effluent).</p>

## SECTION C. WASTEWATER DISCHARGE

1.	Indicate the constituents that are, or could be, present in the wastewater (check appropriate boxes):			
	<input type="checkbox"/> Ammonia	<input type="checkbox"/> Oil and Grease	<input type="checkbox"/> Acids	
	<input type="checkbox"/> Caustics	<input type="checkbox"/> Pesticides	<input type="checkbox"/> PCBs	
	<input type="checkbox"/> Detergents	<input type="checkbox"/> Flammable Substances	<input type="checkbox"/> Solvents	
	<input checked="" type="checkbox"/> Heavy Metals	<input type="checkbox"/> Radioactive Substances	<input type="checkbox"/> Sulfides	
	<input type="checkbox"/> Brine	<input checked="" type="checkbox"/> Mud, Sand, Silt	<input checked="" type="checkbox"/> Others	low level VOCs
2.	Describe the method of discharging wastewater from the site to the sewer system (above ground, in ground, gravity flow, pressure flow, hose, pipe, channel, etc.)			
	via hose from construction pump in open excavation to sanitary sewer manhole			
	an in-line sediment filter bag will be used to capture potential sediment in the effluent water prior to discharge to the sanitary manhole			
3.	Describe the location of the proposed point of discharge (also indicate this on the site plan)			
4.	Total estimated volume of wastewater to be discharged over the duration of the project			1,200,000 gallons
5.	Proposed duration of the discharge project			~2 weeks
6.	Proposed rate of discharge	120,000 gpd	200 gpm (max)	
7.	Schedule of discharge (hours)	from 7:00 am	to 6:00 pm	
	(days of week)	from Monday	to Friday	
8.	Type of discharge (check appropriate box)	<input checked="" type="checkbox"/> Batch	<input type="checkbox"/> Continuous	

## SECTION D. WASTEWATER ANALYSIS

Attach the analytical results of the wastewater to be discharged. Samples should be representative of the untreated and contaminated recovery stream (groundwater and/or collected water). The results are used in breakthrough calculations (activated carbon treatment) and also serve as a determination of prohibited pollutants present at the site.

Sampling and analysis must be conducted in accordance with the EPA 40 CFR 136. Samples are to be analyzed for pH, BOD, TSS, P, FOG, metals and toxic organic priority pollutants according to the attached list.

Required sampling includes the recovery well (if determined) and at least two other monitoring wells in the contaminated areas (contaminant plume).

Detection limits of the method and any matrix interference must be stated. All analytical reports should be supported by a QC report.

**SECTION E. ACCEPTANCE LETTER FROM LOCAL AGENCY**

(Required only for sites located outside the City of Detroit)

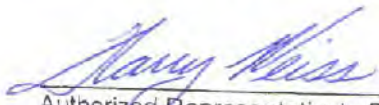
Attach a letter of acceptance from the local community allowing the discharge of wastewater from the site into the sanitary sewer at a specified discharge location. The acceptance letter shall include details of the location of a specific discharge point. Discharge into a storm sewer leading to open waters is strictly prohibited.

**SECTION F. FEES**

I am aware that, the company shall pay applicable fees to the DWSD or local community, based upon the current sewerage rate set by the Board of Water Commissioners. The fee shall be based on the actual volume of wastewater discharged into the sewer system. Failure to pay the sewerage fees can be subjected to appropriate enforcement action as determined by the DWSD.

**SECTION G. CERTIFICATION STATEMENT**

I certify, under penalty of law, that I have personally examined and I am familiar with the information in this application and all attachments and that based upon my inquiry of those persons immediately responsible for obtaining the information contained in this application, I believe that the information is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and/or imprisonment.

  
Authorized Representative's Signature

6-23-14  
Date

Harvey Weiss  
Authorized Representative's Name (Please print)

Member  
Title

(248) 549-3600  
Telephone No.

Woodward Brown Associates, LLC  
Company Name

32820 Woodward Avenue  
Address

Royal Oak, MI 48073  
City/Zip Code

Harvey Weiss

Member

(248) 549-3600

Woodward Brown Associates, LLC

Page 4 of 9

32820 Woodward Avenue

Royal Oak, MI 48073

## **Instructions for Completing the Special Discharge Permit**

The application consists of six sections listed as follows:

- Section A - General Information
- Section B - Site Specific Information
- Section C - Wastewater Discharge
- Section D - Wastewater Analysis
- Section E - Acceptance Letter from Local Authority
- Section F - Certification Statement

### **A. General Information**

- 1-5 Give the complete business name and mailing address of the applicant. Indicate if the applicant is a site owner or consultant or others. Specify the name, title and phone number of the designated contact person employed by the applicant.
- 6-8 Give the specific site name and address at which the wastewater is collected or generated. Give the name of the present owner and also the previous owner(s) under whose ownership the site was contaminated. If the wastewater is treated and/or disposed off-site, indicate the off-site location under 15.
- 9-14 Give the name and address of the consultant if different from the applicant; else, specify N/A (i.e. not applicable). Also provide the name of the contact person (project leader or engineer), phone number and fax number. The consultant is the company providing technical expertise and professional advice to the applicant.
- 15 Additional details should be provided when two or more parties are involved. Specify the business relationship between company and person(s) involved.

### **B. Site Specific Information**

- 1 Briefly describe present and previous activities, the nature of business operations and processes which were involved in contaminating the site.
- 2 Identify and explain if the site is classified under the following list; else, specify N/A.
  - a) EPA National Priority List (NPL)
  - b) Michigan Environmental Contamination Priority List (under Act 307)
  - c) Sites contaminated by chemicals listed in the EPA Priority Pollutant List and/or the Michigan Critical Materials List, and/or
  - d) Sites covered by other regulations and licenses.
- 3 Indicate and explain if the site was previously denied by the Detroit Water and Sewerage Department (DWSD) or any other agency from discharging the accumulated and/or stored wastewater.
- 4 If the initial wastewater analysis shows unacceptable pollutant levels, a pretreatment system may be required. Describe the processes and methods employed to treat the wastewater. Attach a more detailed description of the treatment process, such as used in a proposal or project description, if available. Also, attach any calculations showing treatment efficiency such as carbon breakthrough calculations, etc.
- 5 Submit essential drawings as described in the application form. Note that any facilities are prohibited from discharging wastewater into the storm sewers (i.e. leading to open waters) without

the Michigan Department of Environmental Quality's approval. Care must be taken to determine proper sewer lines that are connected to the DWSD collection system. If necessary, consult with your local authority and/or the DWSD.

### **C. Wastewater Discharge**

- 1 Mark the pollutants suspected to be present in the wastewater.
  - 2 Verify the manner of discharging the wastewater assuring the DWSD that the discharge will be made to the proper sanitary sewer and not to the storm sewer. Indicate whether the system is combined or not. Describe the type of conduit that will carry the discharge. Care must be taken that pedestrian and vehicle traffic is safe and not unduly impeded.
- 3-8 Self-explanatory.

### **D. Wastewater Analysis**

To determine the presence of known, suspected and other pollutants, the following parameters must be analyzed:

pH, BOD, TSS, P, FOG, metals (As, Cd, Cu, Fe, Pb, Hg, Ni, Ag, Cr and Zn), CN and priority organic pollutants (see attachment).

For ground remediation, the applicant must sample at least three (3) wells in the contaminant plume area. If the recovery well is determined, it should be included in the three sampled wells.

Any additional sampling and analytical results available in the project should be attached.

Discharge limits applied are as follows: (1) Compatible pollutants (BOD, TSS, P, FOG), pH, Metals. PCBs and phenols as listed in the City of Detroit Ordinance 34-96 and (2) Toxic Organics at 20 µg/L (ppb). If the initial analysis shows unacceptable pollutant levels, then, pretreatment is required before discharging.

### **E. Acceptance Letter from Local Authority**

This section applies only to sites located outside the City of Detroit. The applicant must secure a letter of acceptance from the local community serviced by the DWSD. The acceptance letter must express the local community's permission granting the applicant to discharge said wastewater and specify details of the discharge point. Some communities may also require a letter of approval from the county.

### **G. Certification Statement**

The company's authorized representative responsible for the overall project operation must sign this section. The authorized representative shall refer to a corporate officer, a general partner, a proprietor; if the company is a corporation, a partnership, or a proprietorship respectively.

## Total Toxic Organics

Purgeable Compounds	Limit	Extractable Compounds	Limit
1,1,1-Trichloroethane	20 ppb	Benzo (k) Fluoranthene or (11,12-Benzofluoranthene)	20 ppb
1,1,2,2-Tetrachloroethane	20 ppb	Bis (2-Chloroethoxy) Methane	20 ppb
1,1,2-Trichloroethane	20 ppb	Bis (2-Chloroethyl) Ether	20 ppb
1,1-Dichloroethane	20 ppb	Bis (2-Chloroisopropyl) Ether	20 ppb
1,1-Dichloroethylene	20 ppb	Bis (2-Ethylhexyl) Phthalate	20 ppb
1,2-Dichlorobenzene	20 ppb	Butyl benzyl phthalate or (Benzyl butyl phthalate)	20 ppb
1,2-Dichloroethane	20 ppb	Chrysene	20 ppb
1,2-Dichloropropane	20 ppb	Dibenzo (a,h) Anthracene or (1,2,5,6-Dibenzanthracene)	20 ppb
1,2-Dichloropropylene or (1,2-Dichloropropene)	20 ppb	Diethyl Phthalate	20 ppb
1,2-Trans-Dichloroethylene or (Trans-1,2-Dichloroethene)	20 ppb	Dimethyl Phthalate	20 ppb
1,3-Dichlorobenzene	20 ppb	Di-N-Butyl Phthalate	20 ppb
1,4-Dichlorobenzene	20 ppb	Di-N-Octyl Phthalate	20 ppb
2-Chloroethylvinyl Ether	20 ppb	Fluorene	20 ppb
Acrolein	20 ppb	Hexachlorobenzene	20 ppb
Acrylonitrile	20 ppb	Hexachlorobutadiene	20 ppb
Benzene	20 ppb	Hexachlorocyclopentadiene	20 ppb
Bromoform (Tribromomethane)	20 ppb	Hexachloroethane	20 ppb
Carbon Tetrachloride or (Tetrachloromethane)	20 ppb	Indeno (1,2,3-cd) Pyrene or (2,3-o-Phenylene Pyrene)	20 ppb
Chlorobenzene	20 ppb	Isophorone	20 ppb
Chlorodibromomethane or (Dibromochloromethane)	20 ppb	Naphthalene	20 ppb
Chloroethane	20 ppb	Nitrobenzene	20 ppb
Chloroform or (Trichloromethane)	20 ppb	N-Nitrosodimethylamine	20 ppb
Dichlorobromomethane or (Bromodichloromethane)	20 ppb	N-Nitrosodi-N-Propylamine	20 ppb
Ethylbenzene	20 ppb	N-Nitrosodiphenylamine	20 ppb
Methyl Bromide or (Bromomethane)	20 ppb	p-Chloro-m-Cresol or (4-chloro-3-methyl phenol)	20 ppb
Methyl Chloride or (Chloromethane)	20 ppb	Pentachlorophenol	20 ppb
Methylene Chloride or (Dichloromethane)	20 ppb	Phenanthrene	20 ppb
Tetrachloroethylene or (Tetrachloroethene)	20 ppb	Phenol	20 ppb
Toluene	20 ppb	Pyrene	20 ppb
Trichloroethylene or (Trichloroethene)	20 ppb	<b>Pesticides &amp; PCB</b>	
Vinyl Chloride or (Chloroethylene)	20 ppb	2,3,7,8-Tetrachlorodibenzo-p-Dioxin	20 ppb
Xylene	20 ppb	4,4-DDD or (p,p-TDE)	20 ppb
<b>Extractable Compounds</b>		4,4-DDE or (p,p-DDX)	20 ppb
1,2,4-Trichlorobenzene	20 ppb	4,4-DDT	20 ppb
1,2-Diphenylhydrazine	20 ppb	Aldrin	20 ppb
2,4,6-Trichlorophenol	20 ppb	Alpha-BHC	20 ppb
2,4-Dichlorophenol	20 ppb	Alpha-Endosulfan or (Endosulfan I)	20 ppb
2,4-Dimethylphenol	20 ppb	Beta-BHC	20 ppb
2,4-Dinitrophenol	20 ppb	Beta-Endosulfan or (Endosulfan II)	20 ppb
2,4-Dinitrotoluene	20 ppb	Chlordane	20 ppb
2,6-Dinitrotoluene	20 ppb	Delta-BHC	20 ppb
2-Chloronaphthalene	20 ppb	Dieldrin	20 ppb
2-Chlorophenol	20 ppb	Endosulfan sulfate	20 ppb
2-Nitrophenol	20 ppb	Endrin	20 ppb
3,3-Dichlorobenzidine	20 ppb	Endrin Aldehyde	20 ppb
4,6-Dinitro-O-Cresol	20 ppb	Fluoranthene	20 ppb
4-Bromophenyl Phenyl Ether	20 ppb	Gamma-BHC	20 ppb
4-Chlorophenyl Phenyl Ether	20 ppb	Heptachlor	20 ppb
4-Nitrophenol	20 ppb	Heptachlor Epoxide or (BHC-Hexachlorocyclohexane)	20 ppb
Acenaphthene	20 ppb	Toxaphene	20 ppb
Acenaphthylene	20 ppb	PCB-1016 (Arochlor 1016)	0.2 ppb
Anthracene	20 ppb	PCB-1221 (Arochlor 1221)	0.2 ppb
Benzidine	20 ppb	PCB-1232 (Arochlor 1232)	0.2 ppb
Benzo (a) Anthracene or (1,2-Benzanthracene)	20 ppb	PCB-1242 (Arochlor 1242)	0.2 ppb
Benzo (a) Pyrene or (3,4-Benzopyrene)	20 ppb	PCB-1248 (Arochlor 1248)	0.2 ppb
Benzo (b) Fluoranthene or (3,4-Benzofluoranthene)	20 ppb	PCB-1254 (Arochlor 1254)	0.2 ppb
Benzo (ghi) Perylene or (1,12-Benzoperylene)	20 ppb	PCB-1260 (Arochlor 1260)	0.2 ppb

- (7) Any substance which will cause the POTW to violate either the Consent Judgment in U.S. EPA v. City of Detroit et al., Federal District Court for the Eastern District of Michigan Case No. 77-1100, or the City of Detroit's National Pollutant Discharge Elimination System permit; or
  - (8) Any discharge having a color uncharacteristic of the wastewater being discharged; or
  - (9) Any wastewater having a temperature which will inhibit biological activity in the POTW treatment plant resulting in interference, but in no case wastewater with a temperature at the introduction into a public sewer which exceeds 150°F or which will cause the influent at the wastewater treatment plant to rise above 104°F (40°C); or
  - (10) Any pollutant discharge which constitutes a slug; or
  - (11) Any wastewater containing any radioactive wastes or isotopes of such half-life or concentration as may exceed limits established in compliance with applicable federal or State regulations; or
  - (12) Any floating fats, oil or grease which are sufficient to cause interference with or pass through the POTW; or
  - (13) Any solid materials having a specific gravity greater than 1.2 or a cross section dimension of one-half (1/2) inch or greater which are sufficient to cause interference with the POTW.
- (b) **Specific pollutant prohibitions.** No user shall discharge wastewater containing in excess of the following limitations:
- (1) Compatible pollutants.
    - a. Any Fats, Oil or Grease (FOG) in concentrations greater than 1,500 mg/l based on an average of all samples collected within a twenty-four (24) hour period.
    - b. Any Total Suspended Solids (TSS) in concentrations greater than 7,500 mg/l.
    - c. Any Biochemical Oxygen Demand (BOD) in concentrations greater than 7,500 mg/l.
    - d. Any Phosphorus (P) in concentrations greater than 250 mg/l.

Unless otherwise stated, all limitations are based upon samples collected over an operating period representative of a user's discharge, and in accordance with 40 CFR Part 136.

(2) Non-compatible pollutants. No user shall discharge wastewater containing in excess of:			
Arsenic (As)	1.0 mg/l	Silver (Ag)	1.0 mg/l
Cadmium (Cd)	1.0 mg/l	Iron (Fe)	1000.0 mg/l
Chromium (Cr)	25.0 mg/l	Lead (Pb)	1.0 mg/l
Copper (Cu)	2.5 mg/l	Nickel (Ni)	5.0 mg/l
		Cyanide (CN) (Available)	1.0 mg/l
		Zinc (Zn)	7.3 mg/l
		Total Phenolic Compounds	1.0 mg/l
		Total PCB	Non-detect
		Mercury (Hg)	Non-detect

All limitations are based on samples collected over an operating period representative of an industrial user's discharge, and in accordance with 40 C.F.R. part 136.

## DETROIT WATER AND SEWERAGE DEPARTMENT

### INDUSTRIAL WASTE CONTROL DIVISION

#### POLICY NO. 9201 - POLICY FOR SPECIAL WASTEWATER DISCHARGE

The Detroit Water and Sewerage Department (DWSD) allows the discharge generated and/or accumulated from groundwater, storm water, site remediation (not subjected to SARA and CERCLA), and other wastewater sources into the system in accordance with the following conditions.

- 1) The applicant for the special wastewater discharge shall not discharge any wastewater into the sewer system without a Special Discharge Permit.
- 2) The applicant shall apply for a Special Discharge Permit and satisfy the following requirements.
  - a) The background history of the site where the wastewater is accumulated and/or generated.
  - b) The characteristics of the wastewater including quality, quantity, flow rate, frequency, type and duration of the wastewater discharge.
  - c) A wastewater analysis based on the EPA Priority Pollutants conducted in accordance with the EPA 40 CFR 136.
  - d) An approval from the local authority, if other than the City of Detroit, granting the applicant an acceptance to discharge and specifying the discharge point.
  - e) A certification of the application by the owner of the site of an authorized representative of the company responsible for the overall project operation.
- 3) The Department shall accept a maximum special wastewater discharge of 100,000 gallons per day, based on a twenty-four (24) hours period. The discharge may be further limited by the carrying capacity of the sewer line discharged into.
- 4) The applicant shall install a wastewater pretreatment system when deemed necessary to comply with the discharge requirements.
- 5) The Department shall inspect the remediation and treatment facility before any discharges are made.
- 6) The Department shall issue the Special Discharge Permit only after the applicant complies with all the requirements.
- 7) The Special Discharge Permit shall contain the discharge shall contain the discharge limitations, monitoring requirements, reports requirements, and other general conditions needed for compliance.
- 8) The applicant shall comply with all the established conditions and requirements as issued on the Special Discharge Permit. Failure to comply shall result in immediate permit revocation and appropriate enforcement action.

July 1, 2014

City of Detroit  
Water and Sewerage Dept.  
Industrial Waste Control Division  
301 S. Livernois Ave.  
Detroit, MI 48209

RE: Special Discharge Permit  
34901 Woodward Ave.  
Birmingham, MI

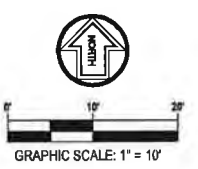
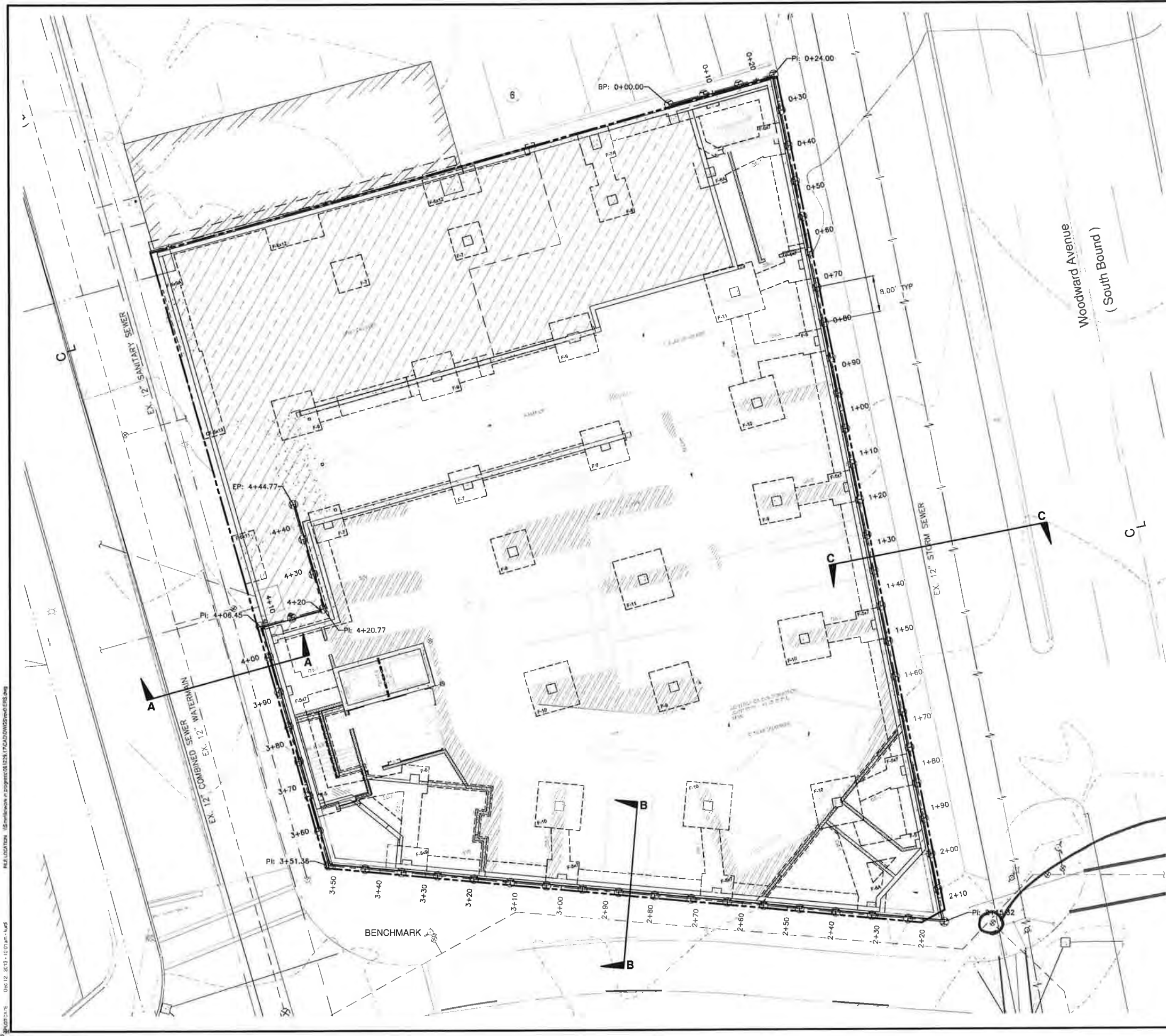
To Whom it May Concern,

The City of Birmingham has reviewed the permit application referenced above. The applicant plans to discharge excess water to a catch basin located on Brown St. at the southwest corner of the site. The catch basin is connected to a combined sewer system that ultimately connects to the George W. Kuhn sewer district.

The City of Birmingham will be collecting funds to cover the cost of sewage discharge for this project, and hereby accepts the discharge as proposed.

Sincerely,

Paul T. O'Meara, P.E.  
City Engineer



**LEGEND**

- BP: BEGINNING OF ERS WALL STATIONING
- PI: POINT OF HORIZONTAL INTERSECTION
- EP: END OF ERS WALL STATIONING
- SITE PROPERTY LINE
- PROPOSED SOLDIER PILE AND LAGGING WALL WITH STEEL BEAMS

**ERS LAYOUT**

- LAYOUT EARTH RETENTION SYSTEM OR SYSTEMS (ERS) BASED ON EXISTING SITE CONDITIONS AND LOCATIONS OF THE PROPOSED STRUCTURES. VERIFY LOCATION OF EXISTING UTILITIES, BASEMENTS, FOOTINGS, OR OTHER POTENTIAL OBSTRUCTIONS BEFORE INSTALLING THE ERS, TIEBACKS OR PERFORMING EXCAVATION. REVIEW THE ERS LAYOUT SHOWN ON THESE DRAWINGS WITH THE LATEST CONSTRUCTION DRAWINGS. NOTIFY SME IF CONFLICTS EXIST AND TO REVISE THE ERS LAYOUT.
- ERS LAYOUT SHALL BE PERFORMED BY A SURVEYOR REGISTERED IN THE STATE OF MICHIGAN.
- VERTICAL WALL ELEMENTS (INCLUDING PRE-DRILLED HOLES FOR PILES) MUST NOT EXTEND BEYOND THE PROPERTY LINES.
- LAGGING BOARDS MAY BE SUPPORTED BEHIND THE BACK FLANGES OF SOLDIER PILES (AS NEEDED) TO KEEP THE BOARDS OUTSIDE OF THE PROPOSED PERMANENT WALL SYSTEM.
- ALL H-PILE LOCATIONS SHALL BE DRILLED WITH A MINIMUM HOLE DIAMETER OF 24 INCHES.
- H-PILES SHALL BE HP14x73 GR.50.
- DRILLED HOLES SHALL BE FILLED BELOW THE EXCAVATION LIMITS WITH A GROUT CONCRETE FILL WITH A MINIMUM COMPRESSIVE STRENGTH OF 1,500 PSI @ 28 DAYS.
- LAGGING TIMBERS SHALL BE 3"x8" MIXED HARDWOODS PLACED BETWEEN THE BEAM FLANGES

Proposed Discharge point

BENCHMARK  
N. BOLT ON HYDRANT  
ELEV.=773.45  
U.S.G.S. DATUM



**Soil and Materials Engineers, Inc.**

**Detroit**  
The Kruer Building  
43980 Plymouth Oaks Boulevard  
Plymouth, MI 48170-2584  
ph (734) 454-9900  
fax (734) 454-0629

SEAL

PROJECT NAME  
**THE BALMORAL  
TEMPORARY EARTH  
RETENTION SYSTEM**

FACILITY NAME & LOCATION  
**THE BALMORAL  
BIRMINGHAM, MICHIGAN**



SHEET NAME  
**TEMPORARY EARTH  
RETENTION PLAN VIEW**

**REVISIONS**

REV	DESCRIPTION	DATE	BY



SME PROJECT NO.	061229-17
PROJECT MANAGER	THB
DESIGNED BY	THB
DRAWN BY	SRG/GBK
CHECKED BY	THB
DRAWING SCALE	1" = 10'
DATE	12-10-13
FILE NAME	061229-17 ERS.dwg
SHEET NO.	1 of 2

© 2013  
NO REPRODUCTION SHALL BE MADE WITHOUT THE PRIOR CONSENT OF SOIL AND MATERIALS ENGINEERS, INC.

TABLE NO. 2  
GROUND WATER SAMPLE RESULTS  
Page 1 of 1  
SME Project No. PE60750B-02

Constituent*	Chemical Abstract Service Number	Residential & Commercial I Drinking Water Criteria & RBSLs	Industrial & Commercial II, III & IV Drinking Water Criteria & RBSLs	Groundwater Surface Water Interface Criteria & RBSLs	Residential & Commercial I Groundwater Volatilization to Indoor Air Inhalation Criteria & RBSLs	Industrial & Commercial II, III & IV Groundwater Volatilization to Indoor Air Inhalation Criteria & RBSLs	Groundwater Contact Criteria & RBSLs	Water Solubility	Flammability and Explosivity Screening Level	Acute Inhalation Screening Level	Sample Location	SB8	SB8-DUP	SB9
											Collection Date	5/26/2010	5/26/2010	5/26/2010
											Screen Depth (feet)	2-7	2-7	2-7
*(Refer to detailed laboratory report for method reference data)														
Volatiles (Full List) (ug/kg)														
Toluene	108-88-3	790	790	140	530,000	530,000	530,000	526,000	61,000	ID		<1.0	<1.0	4.0
Other VOCs	CS	CS	CS	CS	CS	CS	CS	CS	CS	CS		<RL	<RL	<RL
PNAs (ug/kg)														
Acenaphthene	83-32-9	1,300	3,800	19	4,200	4,200	4,200	4,240	ID	ID		<5.0	<5.0	<5.0
Acenaphthylene	208-96-8	52	150	ID	3,900	3,900	3,900	3,930	ID	ID		<5.0	<5.0	<5.0
Anthracene	120-12-7	43	43	ID	43	43	43	43.4	ID	ID		<5.0	<5.0	<5.0
Benzoanthracene	56-55-3	2.1	8.5	ID	NLV	NLV	9.4	9.4	ID	ID		<1.0	<1.1	<1.1
Benzopyrene	50-32-8	5	5	ID	NLV	NLV	1	1.62	ID	ID		<1.0	<1.1	<1.1
Benzo(b)fluoranthene	205-99-2	1.5	1.5	ID	ID	ID	1.5	1.5	ID	ID		<1.0	<1.1	<1.1
Benzo(g,h,i)perylene	191-24-2	1	1	NA	NLV	NLV	1	0.26	ID	ID		<1.0	<1.1	<1.1
Benzo(k)fluoranthene	207-08-9	1	1	NA	NLV	NLV	1	0.8	ID	ID		<1.0	<1.1	<1.1
Chrysene	218-01-9	1.6	1.6	ID	ID	ID	1.6	1.6	ID	ID		<1.0	<1.1	<1.1
Dibenzo(a,h)anthracene	53-70-3	2	2	ID	NLV	NLV	2	2.49	ID	ID		<2.1	<2.1	<2.1
Fluoranthene	206-44-0	210	210	1.6	210	210	210	206	ID	ID		<1.0	<1.1	<1.1
Fluorene	86-73-7	880	2,000	12	2,000	2,000	2,000	1,980	ID	ID		<5.0	<5.0	<5.0
Indeno(1,2,3-cd)pyrene	193-39-5	2	2	ID	NLV	NLV	2	0.022	ID	ID		<2.1	<2.1	<2.1
2-Methylnaphthalene	91-57-6	260	750	ID	ID	ID	25,000	24,600	ID	ID		<5.0	<5.0	<5.0
Naphthalene	91-20-3	520	1,500	13	31,000	31,000	31,000	31,000	NA	31,000		<5.0	<5.0	<5.0
Phenanthrene	85-01-8	52	150	2.4	1,000	1,000	1,000	1,000	ID	ID		<2.0	<2.0	<2.0
Pyrene	129-00-0	140	140	ID	140	140	140	135	ID	ID	<5.0	<5.0	<5.0	
Semivolatiles (ug/kg)														
Various SVOCs**	CS	CS	CS	CS	CS	CS	CS	CS	CS	CS	**	**	**	
Metals (ug/kg)														
Arsenic	7440-38-2	10	10	150	NLV	NLV	4,300	NA	ID	ID	17	23	6.6	
Barium	7440-39-3	2,000	2,000	670	NLV	NLV	14,000,000	NA	ID	ID	470	510	220	
Boron	7440-42-8	500	500	1,900	NLV	NLV	62,000,000	NA	ID	ID	590	550	420	
Cadmium	7440-43-9	5	5	3/2.5	NLV	NLV	190,000	NA	ID	ID	<1.0	<1.0	<1.0	
Chromium, Total	7440-47-3	100	100	11	NLV	NLV	460,000	NA	ID	ID	<10	<10	<10	
Chromium VI	18540-29-9	100	100	11	NLV	NLV	460,000	NA	ID	ID	<5.0	NE	<5.0	
Copper	7440-50-8	1,000	1,000	130	NLV	NLV	7,400,000	NA	ID	ID	5.2	7.9	<4.0	
Lead	7439-92-1	4	4	16/14	NLV	NLV	ID	NA	ID	ID	7.0	12	<3.0	
Mercury, Total	7439-97-6	2	2	0.0013	56	56	56	56	ID	ID	<0.20	<0.20	<0.20	
Selenium	7782-49-2	50	50	5.0	NLV	NLV	970,000	NA	ID	ID	18	17	29	
Silver	7440-22-4	34	98	0.2	NLV	NLV	1,500,000	NA	ID	ID	<0.20	<0.20	<0.20	
Zinc	7440-66-6	2,400	5,000	170	NLV	NLV	110,000,000	NA	ID	ID	<50	<50	<50	

NOTES:

- (1) Concentrations reported in µg/kg (parts per billion or ppb). Detected results are shown in **BOLD**.
- (2) Analytical results were compared to the MDNRE Part 201 Generic Residential Cleanup Criteria and Screening Levels, dated January 23, 2006 (CC/SL).
- (3) Highlighted results exceed corresponding MDNRE Part 201 Cleanup Criteria.
- (4) Results in *italics* had reporting limits above a MDNRE Part 201 Cleanup Criteria.
- (5) CS = Constituent Specific.
- (6) ID = Insufficient data to develop criteria.
- (7) NA = Criterion or value is not available.
- (8) NE = Analyte not evaluated
- (9) NLV = Chemical is not likely to volitilize under most conditions.
- (10) NLL = Chemical is not likely to leach under most conditions.
- (11) The MDNRE has not established a cleanup criteria for total chromium. Hexavalent chromium (chromium VI) was not detected in the analyzed samples, therefore, results for total chromium were compared to the MDNRE established trivalent chromium (chromium III) cleanup criteria.
- (12) \*\* = SVOCs were not measured in SB8 or SB9 at concentrations above laboratory reporting limits; however, reporting limits for Hexachlorobutadiene (C-46), Indeno (1,2,3-cd) pyrene, 2-Methyl-4,6-dinitrophenol, and Pentachlorophenol were elevated above one or more cleanup criteria.
- (13) Where two values are presented for GSI criteria the first value is not protective of a surface water body used as a drinking water source while the second value is protective, i.e., not protective / protective.



Monday, June 07, 2010

Fibertec Project Number: 39362  
Project Identification: PE60750B-02 /  
Submittal Date: 05/28/2010

Mr. Dan Cassidy  
Soil and Materials Engineers, Inc. - Plymouth  
43980 Plymouth Oaks  
Plymouth, MI 48170

Dear Mr. Cassidy,

Thank you for selecting Fibertec Environmental Services as your analytical laboratory. The samples you submitted have been analyzed in accordance with NELAC standards and the results compiled in the attached report. Any exceptions to NELAC compliance are noted in the report. These results apply only to those samples submitted. Please note samples will be disposed of 30 days after reporting date.

Samples 39362-001 (SB8), 39362-004 (DUP-1-GW) and 39362-005 (SB9) may be biased high for selenium due to bromide in the samples.

If you have any questions regarding these results or if we may be of further assistance to you, please contact me at (517) 699-0345.

Sincerely,

A handwritten signature in black ink, appearing to read "Daryl Strandbergh", written in a cursive style.

Daryl P. Strandbergh  
Laboratory Director

DPS/kc

Enclosures

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**Analytical Laboratory Report**  
**Laboratory Project Number: 39362**  
**Laboratory Sample Number: 39362-001**

Order: 39362  
Page: 2 of 86  
Date: 06/07/10

Client Identification: <b>Soil and Materials Engineers, Inc. - Plymouth</b>	Sample Description: <b>SB8</b>	Chain of Custody: <b>97638</b>
Client Project Name: <b>PE60750B-02</b>	Sample No: <b>1</b>	Collect Date: <b>05/26/10</b>
Client Project No: <b>NA</b>	Sample Matrix: <b>Ground Water</b>	Collect Time: <b>09:00</b>

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Trace Elements by ICP/MS, Total Recoverable (EPA 3005A/EPA 6020)					Aliquot ID: 39362-001B		Matrix: Ground Water		Analyst: JLH	
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch	
1. Arsenic	17		µg/L	5.0	10	06/02/10	PT10F02E	06/02/10	T210F02B	
2. Barium	470		µg/L	100	10	06/02/10	PT10F02E	06/02/10	T210F02B	
3. Boron (NN)	590	J,V+	µg/L	300	10	06/02/10	PT10F02E	06/07/10	T210F07A	
4. Cadmium	U		µg/L	1.0	10	06/02/10	PT10F02E	06/02/10	T210F02B	
5. Chromium	U		µg/L	10	10	06/02/10	PT10F02E	06/04/10	T210F04A	
6. Copper	5.2		µg/L	4.0	10	06/02/10	PT10F02E	06/02/10	T210F02B	
7. Lead	7.0		µg/L	3.0	10	06/02/10	PT10F02E	06/02/10	T210F02B	
8. Selenium	18	J,J+	µg/L	5.0	10	06/02/10	PT10F02E	06/02/10	T210F02B	
9. Silver	U		µg/L	0.20	10	06/02/10	PT10F02E	06/02/10	T210F02B	
10. Zinc	U		µg/L	50	10	06/02/10	PT10F02E	06/02/10	T210F02B	

Chromium, Hexavalent, Dissolved (EPA 7196A)					Aliquot ID: 39362-001A		Matrix: Ground Water		Analyst: HLL	
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch	
1. Chromium VI	U		µg/L	5.0	1.0	NA	NA	05/27/10 09:53	WF10E27A	

Mercury by CVAAS, Total (EPA 7470A)					Aliquot ID: 39362-001B		Matrix: Ground Water		Analyst: MAP	
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch	
1. Mercury	U		µg/L	0.20	1.0	06/02/10	PM10F02A	06/02/10	M410F02A	

Volatile Organic Compounds (VOCs) by GC/MS (EPA 5030B/EPA 8260B)					Aliquot ID: 39362-001		Matrix: Ground Water		Analyst: BAG	
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch	
1. Acetone	U		µg/L	50	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
2. Acrylonitrile	U		µg/L	2.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
3. Benzene	U		µg/L	1.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
4. Bromobenzene	U		µg/L	1.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
5. Bromochloromethane	U		µg/L	1.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
6. Bromodichloromethane	U		µg/L	1.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
7. Bromoform	U		µg/L	1.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
8. Bromomethane	U		µg/L	5.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
9. 2-Butanone	U		µg/L	25	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
10. n-Butylbenzene	U		µg/L	1.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
11. sec-Butylbenzene	U		µg/L	1.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
12. tert-Butylbenzene	U		µg/L	1.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
13. Carbon Disulfide	U		µg/L	5.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
14. Carbon Tetrachloride	U		µg/L	1.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
15. Chlorobenzene	U		µg/L	1.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
16. Chloroethane	U		µg/L	5.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
17. Chloroform	U		µg/L	1.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	

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Client Identification: <b>Soil and Materials Engineers, Inc. - Plymouth</b>	Sample Description: <b>SB8</b>	Chain of Custody: <b>97638</b>
Client Project Name: <b>PE60750B-02</b>	Sample No: <b>1</b>	Collect Date: <b>05/26/10</b>
Client Project No: <b>NA</b>	Sample Matrix: <b>Ground Water</b>	Collect Time: <b>09:00</b>

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Volatile Organic Compounds (VOCs) by GC/MS (EPA 5030B/EPA 8260B)					Aliquot ID: 39362-001		Matrix: Ground Water		Analyst: BAG	
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch	
18. Chloromethane	U		µg/L	5.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
19. 2-Chlorotoluene	U		µg/L	5.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
20. Dibromochloromethane	U		µg/L	5.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
21. 1,2-Dibromo-3-chloropropane	U		µg/L	1.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
22. Dibromomethane	U		µg/L	5.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
23. 1,2-Dichlorobenzene	U		µg/L	1.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
24. 1,3-Dichlorobenzene	U		µg/L	1.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
25. 1,4-Dichlorobenzene	U		µg/L	1.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
26. Dichlorodifluoromethane	U		µg/L	5.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
27. 1,1-Dichloroethane	U		µg/L	1.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
28. 1,2-Dichloroethane	U		µg/L	1.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
29. 1,1-Dichloroethene	U		µg/L	1.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
30. cis-1,2-Dichloroethene	U		µg/L	1.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
31. trans-1,2-Dichloroethene	U		µg/L	1.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
32. 1,2-Dichloropropane	U		µg/L	1.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
33. cis-1,3-Dichloropropene	U		µg/L	1.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
34. trans-1,3-Dichloropropene	U		µg/L	1.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
35. Ethylbenzene	U		µg/L	1.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
36. Ethylene Dibromide	U		µg/L	1.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
37. 2-Hexanone	U		µg/L	50	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
38. Isopropylbenzene	U	J,L-	µg/L	5.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
39. Methyl Iodide	U		µg/L	5.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
40. Methylene Chloride	U		µg/L	5.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
41. 2-Methylnaphthalene (NN)	U		µg/L	5.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
42. 4-Methyl-2-pentanone	U		µg/L	50	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
43. MTBE	U		µg/L	5.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
44. Naphthalene	U		µg/L	5.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
45. n-Propylbenzene	U		µg/L	1.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
46. Styrene	U		µg/L	1.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
47. 1,1,1,2-Tetrachloroethane	U		µg/L	1.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
48. 1,1,2,2-Tetrachloroethane	U		µg/L	1.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
49. Tetrachloroethene	U		µg/L	1.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
50. Toluene	U		µg/L	1.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
51. 1,2,4-Trichlorobenzene	U		µg/L	5.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
52. 1,1,1-Trichloroethane	U		µg/L	1.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
53. 1,1,2-Trichloroethane	U		µg/L	1.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
54. Trichloroethene	U		µg/L	1.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
55. Trichlorofluoromethane	U		µg/L	1.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
56. 1,2,3-Trichloropropane	U		µg/L	1.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
57. 1,2,3-Trimethylbenzene (NN)	U		µg/L	1.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	

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Client Identification: **Soil and Materials Engineers, Inc. - Plymouth**

Client Project Name: **PE60750B-02**

Client Project No: **NA**

Sample Description: **SB8**

Sample No: **1**

Sample Matrix: **Ground Water**

Chain of Custody: **97638**

Collect Date: **05/26/10**

Collect Time: **09:00**

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Volatile Organic Compounds (VOCs) by GC/MS (EPA 5030B/EPA 8260B)					Aliquot ID: 39362-001		Matrix: Ground Water		Analyst: BAG	
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch	
58. 1,2,4-Trimethylbenzene	U		µg/L	1.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
59. 1,3,5-Trimethylbenzene	U		µg/L	1.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
60. Vinyl Chloride	U		µg/L	1.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
61. Xylenes	U		µg/L	3.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	

Base/Neutral/Acid Semivolatiles by GC/MS (EPA 3510C/EPA 8270C)					Aliquot ID: 39362-001C		Matrix: Ground Water		Analyst: HLS	
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch	
1. Acenaphthene	U		µg/L	5.0	1.0	06/01/10	PS10F01C	06/04/10	S710F04A	
2. Acenaphthylene	U		µg/L	5.0	1.0	06/01/10	PS10F01C	06/04/10	S710F04A	
3. Aniline	U		µg/L	4.0	1.0	06/01/10	PS10F01C	06/04/10	S710F04A	
4. Anthracene	U		µg/L	5.0	1.0	06/01/10	PS10F01C	06/04/10	S710F04A	
5. Azobenzene (NN)	U		µg/L	5.0	1.0	06/01/10	PS10F01C	06/04/10	S710F04A	
6. Benzo(a)anthracene	U		µg/L	1.0	1.0	06/01/10	PS10F01C	06/04/10	S710F04A	
7. Benzo(a)pyrene	U		µg/L	1.0	1.0	06/01/10	PS10F01C	06/04/10	S710F04A	
8. Benzo(b)fluoranthene	U		µg/L	1.0	1.0	06/01/10	PS10F01C	06/04/10	S710F04A	
9. Benzo(g,h,i)perylene	U		µg/L	1.0	1.0	06/01/10	PS10F01C	06/04/10	S710F04A	
10. Benzo(k)fluoranthene	U		µg/L	1.0	1.0	06/01/10	PS10F01C	06/04/10	S710F04A	
11. Benzyl Alcohol	U		µg/L	5.0	1.0	06/01/10	PS10F01C	06/04/10	S710F04A	
12. Bis(2-chloroethoxy)methane	U		µg/L	5.0	1.0	06/01/10	PS10F01C	06/04/10	S710F04A	
13. Bis(2-chloroethyl)ether (NN)	U		µg/L	1.0	1.0	06/01/10	PS10F01C	06/04/10	S710F04A	
14. Bis(2-chloroisopropyl) Ether	U		µg/L	5.0	1.0	06/01/10	PS10F01C	06/04/10	S710F04A	
15. Bis(2-ethylhexyl)phthalate (NN)	U		µg/L	5.2	1.0	06/01/10	PS10F01C	06/04/10	S710F04A	
16. 4-Bromophenyl Phenylether (NN)	U		µg/L	5.0	1.0	06/01/10	PS10F01C	06/04/10	S710F04A	
17. Butyl Benzyl Phthalate	U		µg/L	5.2	1.0	06/01/10	PS10F01C	06/04/10	S710F04A	
18. Carbazole	U		µg/L	5.0	1.0	06/01/10	PS10F01C	06/04/10	S710F04A	
19. 4-Chloro-3-methylphenol	U		µg/L	5.0	1.0	06/01/10	PS10F01C	06/04/10	S710F04A	
20. 2-Chloronaphthalene	U		µg/L	5.0	1.0	06/01/10	PS10F01C	06/04/10	S710F04A	
21. 2-Chlorophenol	U		µg/L	5.0	1.0	06/01/10	PS10F01C	06/04/10	S710F04A	
22. 4-Chlorophenyl Phenylether	U		µg/L	5.0	1.0	06/01/10	PS10F01C	06/04/10	S710F04A	
23. Chrysene	U		µg/L	1.0	1.0	06/01/10	PS10F01C	06/04/10	S710F04A	
24. Dibenzo(a,h)anthracene	U		µg/L	2.1	1.0	06/01/10	PS10F01C	06/04/10	S710F04A	
25. Dibenzofuran	U		µg/L	4.0	1.0	06/01/10	PS10F01C	06/04/10	S710F04A	
26. 2,4-Dichlorophenol	U		µg/L	5.0	1.0	06/01/10	PS10F01C	06/04/10	S710F04A	
27. Diethyl Phthalate	U		µg/L	5.0	1.0	06/01/10	PS10F01C	06/04/10	S710F04A	
28. Dimethyl Phthalate	U		µg/L	5.0	1.0	06/01/10	PS10F01C	06/04/10	S710F04A	
29. 2,4-Dimethylphenol	U		µg/L	5.2	1.0	06/01/10	PS10F01C	06/04/10	S710F04A	
30. Di-n-butyl Phthalate	U		µg/L	5.0	1.0	06/01/10	PS10F01C	06/04/10	S710F04A	
31. 2,4-Dinitrophenol	U		µg/L	20	1.0	06/01/10	PS10F01C	06/04/10	S710F04A	
32. 2,4-Dinitrotoluene (NN)	U		µg/L	5.2	1.0	06/01/10	PS10F01C	06/04/10	S710F04A	
33. 2,6-Dinitrotoluene (NN)	U		µg/L	5.0	1.0	06/01/10	PS10F01C	06/04/10	S710F04A	

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Client Identification: <b>Soil and Materials Engineers, Inc. - Plymouth</b>	Sample Description: <b>SB8</b>	Chain of Custody: <b>97638</b>
Client Project Name: <b>PE60750B-02</b>	Sample No: <b>1</b>	Collect Date: <b>05/26/10</b>
Client Project No: <b>NA</b>	Sample Matrix: <b>Ground Water</b>	Collect Time: <b>09:00</b>

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Base/Neutral/Acid Semivolatiles by GC/MS (EPA 3510C/EPA 8270C)				Aliquot ID: 39362-001C		Matrix: Ground Water		Analyst: HLS	
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
34. Di-n-octyl Phthalate	U		µg/L	5.2	1.0	06/01/10	PS10F01C	06/04/10	S710F04A
35. Fluoranthene	U		µg/L	1.0	1.0	06/01/10	PS10F01C	06/04/10	S710F04A
36. Fluorene	U		µg/L	5.0	1.0	06/01/10	PS10F01C	06/04/10	S710F04A
37. Hexachlorobenzene	U		µg/L	5.0	1.0	06/01/10	PS10F01C	06/04/10	S710F04A
38. Hexachlorobutadiene	U		µg/L	5.0	1.0	06/01/10	PS10F01C	06/04/10	S710F04A
39. Hexachlorocyclopentadiene	U		µg/L	5.2	1.0	06/01/10	PS10F01C	06/04/10	S710F04A
40. Indeno(1,2,3-cd)pyrene	U		µg/L	2.1	1.0	06/01/10	PS10F01C	06/04/10	S710F04A
41. Isophorone	U		µg/L	5.0	1.0	06/01/10	PS10F01C	06/04/10	S710F04A
42. 2-Methyl-4,6-dinitrophenol (NN)	U		µg/L	21	1.0	06/01/10	PS10F01C	06/04/10	S710F04A
43. 2-Methylnaphthalene	U		µg/L	5.0	1.0	06/01/10	PS10F01C	06/04/10	S710F04A
44. 2-Methylphenol (NN)	U		µg/L	5.0	1.0	06/01/10	PS10F01C	06/04/10	S710F04A
45. 3&4-Methylphenol (NN)	U		µg/L	10	1.0	06/01/10	PS10F01C	06/04/10	S710F04A
46. Naphthalene	U		µg/L	5.0	1.0	06/01/10	PS10F01C	06/04/10	S710F04A
47. 2-Nitroaniline	U		µg/L	20	1.0	06/01/10	PS10F01C	06/04/10	S710F04A
48. 3-Nitroaniline	U		µg/L	20	1.0	06/01/10	PS10F01C	06/04/10	S710F04A
49. 4-Nitroaniline	U		µg/L	20	1.0	06/01/10	PS10F01C	06/04/10	S710F04A
50. Nitrobenzene	U		µg/L	3.0	1.0	06/01/10	PS10F01C	06/04/10	S710F04A
51. 2-Nitrophenol	U		µg/L	5.2	1.0	06/01/10	PS10F01C	06/04/10	S710F04A
52. 4-Nitrophenol	U		µg/L	21	1.0	06/01/10	PS10F01C	06/04/10	S710F04A
53. N-Nitrosodimethylamine	U		µg/L	5.0	1.0	06/01/10	PS10F01C	06/04/10	S710F04A
54. N-Nitrosodi-n-propylamine	U		µg/L	5.0	1.0	06/01/10	PS10F01C	06/04/10	S710F04A
55. N-Nitrosodiphenylamine	U		µg/L	5.0	1.0	06/01/10	PS10F01C	06/04/10	S710F04A
56. Pentachlorophenol	U		µg/L	21	1.0	06/01/10	PS10F01C	06/04/10	S710F04A
57. Phenanthrene	U		µg/L	2.0	1.0	06/01/10	PS10F01C	06/04/10	S710F04A
58. Phenol	U		µg/L	5.0	1.0	06/01/10	PS10F01C	06/04/10	S710F04A
59. Pyrene	U		µg/L	5.0	1.0	06/01/10	PS10F01C	06/04/10	S710F04A
60. Pyridine	U		µg/L	5.0	1.0	06/01/10	PS10F01C	06/04/10	S710F04A
61. 1,2,4-Trichlorobenzene	U		µg/L	5.0	1.0	06/01/10	PS10F01C	06/04/10	S710F04A
62. 2,4,5-Trichlorophenol	U		µg/L	5.2	1.0	06/01/10	PS10F01C	06/04/10	S710F04A
63. 2,4,6-Trichlorophenol	U		µg/L	4.0	1.0	06/01/10	PS10F01C	06/04/10	S710F04A

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Client Identification:	<b>Soil and Materials Engineers, Inc. - Plymouth</b>	Sample Description:	<b>SB8 MS</b>	Chain of Custody:	<b>97638</b>
Client Project Name:	<b>PE60750B-02</b>	Sample No:	<b>2</b>	Collect Date:	<b>05/26/10</b>
Client Project No:	<b>NA</b>	Sample Matrix:	<b>Ground Water</b>	Collect Time:	<b>09:00</b>

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis,

Trace Elements by ICP/MS, Total Recoverable (EPA 3005A/EPA 6020)					Aliquot ID: 39362-002B		Matrix: Ground Water		Analyst: JLH	
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch	
1. Arsenic	120		µg/L	5.0	10	06/02/10	PT10F02E	06/02/10	T210F02B	
2. Barium	990		µg/L	100	10	06/02/10	PT10F02E	06/02/10	T210F02B	
3. Boron (NN)	680	J,V+	µg/L	300	10	06/02/10	PT10F02E	06/07/10	T210F07A	
4. Cadmium	110		µg/L	1.0	10	06/02/10	PT10F02E	06/02/10	T210F02B	
5. Chromium	200		µg/L	10	10	06/02/10	PT10F02E	06/04/10	T210F04A	
6. Copper	210		µg/L	4.0	10	06/02/10	PT10F02E	06/02/10	T210F02B	
7. Lead	210		µg/L	3.0	10	06/02/10	PT10F02E	06/02/10	T210F02B	
8. Selenium	120		µg/L	5.0	10	06/02/10	PT10F02E	06/02/10	T210F02B	
9. Silver	100		µg/L	0.20	10	06/02/10	PT10F02E	06/02/10	T210F02B	
10. Zinc	520		µg/L	50	10	06/02/10	PT10F02E	06/02/10	T210F02B	

Chromium, Hexavalent, Dissolved (EPA 7196A)					Aliquot ID: 39362-002A		Matrix: Ground Water		Analyst: HLL	
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch	
1. Chromium VI	47		µg/L	5.0	1.0	NA	NA	05/27/10 09:54	WF10E27A	

Mercury by CVAAS, Total (EPA 7470A)					Aliquot ID: 39362-002B		Matrix: Ground Water		Analyst: MAP	
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch	
1. Mercury	0.25		µg/L	0.20	1.0	06/02/10	PM10F02A	06/02/10	M410F02A	

Volatile Organic Compounds (VOCs) by GC/MS (EPA 5030B/EPA 8260B)					Aliquot ID: 39362-002		Matrix: Ground Water		Analyst: BAG	
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch	
1. Acetone	110		µg/L	50	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
2. Acrylonitrile	110		µg/L	2.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
3. Benzene	110		µg/L	1.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
4. Bromobenzene	100		µg/L	1.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
5. Bromochloromethane	98		µg/L	1.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
6. Bromodichloromethane	110		µg/L	1.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
7. Bromoform	120		µg/L	1.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
8. Bromomethane	99		µg/L	5.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
9. 2-Butanone	110		µg/L	25	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
10. n-Butylbenzene	120		µg/L	1.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
11. sec-Butylbenzene	120		µg/L	1.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
12. tert-Butylbenzene	120		µg/L	1.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
13. Carbon Disulfide	110		µg/L	5.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
14. Carbon Tetrachloride	130		µg/L	1.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
15. Chlorobenzene	110		µg/L	1.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
16. Chloroethane	75		µg/L	5.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
17. Chloroform	110		µg/L	1.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	

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**Analytical Laboratory Report**  
**Laboratory Project Number: 39362**  
**Laboratory Sample Number: 39362-002**

Order: 39362  
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Date: 06/07/10

Client Identification:	<b>Soil and Materials Engineers, Inc. - Plymouth</b>	Sample Description:	<b>SB8 MS</b>	Chain of Custody:	<b>97638</b>
Client Project Name:	<b>PE60750B-02</b>	Sample No:	<b>2</b>	Collect Date:	<b>05/26/10</b>
Client Project No:	<b>NA</b>	Sample Matrix:	<b>Ground Water</b>	Collect Time:	<b>09:00</b>

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Volatile Organic Compounds (VOCs) by GC/MS (EPA 5030B/EPA 8260B)					Aliquot ID: 39362-002		Matrix: Ground Water		Analyst: BAG	
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch	
18. Chloromethane	130		µg/L	5.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
19. 2-Chlorotoluene	110		µg/L	5.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
20. Dibromochloromethane	110		µg/L	5.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
21. 1,2-Dibromo-3-chloropropane	110		µg/L	1.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
22. Dibromomethane	110		µg/L	5.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
23. 1,2-Dichlorobenzene	120		µg/L	1.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
24. 1,3-Dichlorobenzene	100		µg/L	1.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
25. 1,4-Dichlorobenzene	100		µg/L	1.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
26. Dichlorodifluoromethane	140		µg/L	5.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
27. 1,1-Dichloroethane	110		µg/L	1.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
28. 1,2-Dichloroethane	200		µg/L	1.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
29. 1,1-Dichloroethene	120		µg/L	1.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
30. cis-1,2-Dichloroethene	110		µg/L	1.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
31. trans-1,2-Dichloroethene	110		µg/L	1.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
32. 1,2-Dichloropropane	110		µg/L	1.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
33. cis-1,3-Dichloropropene	110		µg/L	1.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
34. trans-1,3-Dichloropropene	120		µg/L	1.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
35. Ethylbenzene	110		µg/L	1.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
36. Ethylene Dibromide	210		µg/L	1.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
37. 2-Hexanone	130		µg/L	50	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
38. Isopropylbenzene	90	J,L-	µg/L	5.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
39. Methyl Iodide	120		µg/L	5.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
40. Methylene Chloride	87		µg/L	5.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
41. 2-Methylnaphthalene (NN)	120		µg/L	5.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
42. 4-Methyl-2-pentanone	120		µg/L	50	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
43. MTBE	210		µg/L	5.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
44. Naphthalene	110		µg/L	5.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
45. n-Propylbenzene	120		µg/L	1.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
46. Styrene	120		µg/L	1.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
47. 1,1,1,2-Tetrachloroethane	110		µg/L	1.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
48. 1,1,2,2-Tetrachloroethane	100		µg/L	1.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
49. Tetrachloroethene	120		µg/L	1.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
50. Toluene	120		µg/L	1.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
51. 1,2,4-Trichlorobenzene	110		µg/L	5.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
52. 1,1,1-Trichloroethane	120		µg/L	1.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
53. 1,1,2-Trichloroethane	100		µg/L	1.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
54. Trichloroethene	120		µg/L	1.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
55. Trichlorofluoromethane	120		µg/L	1.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
56. 1,2,3-Trichloropropane	110		µg/L	1.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
57. 1,2,3-Trimethylbenzene (NN)	110		µg/L	1.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	

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**Analytical Laboratory Report**  
**Laboratory Project Number: 39362**  
**Laboratory Sample Number: 39362-002**

Order: 39362  
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Date: 06/07/10

Client Identification:	<b>Soil and Materials Engineers, Inc. - Plymouth</b>	Sample Description:	<b>SB8 MS</b>	Chain of Custody:	<b>97638</b>
Client Project Name:	<b>PE60750B-02</b>	Sample No:	<b>2</b>	Collect Date:	<b>05/26/10</b>
Client Project No:	<b>NA</b>	Sample Matrix:	<b>Ground Water</b>	Collect Time:	<b>09:00</b>

**Sample Comments:**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Volatile Organic Compounds (VOCs) by GC/MS (EPA 5030B/EPA 8260B)					Aliquot ID: 39362-002		Matrix: Ground Water		Analyst: BAG	
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch	
58. 1,2,4-Trimethylbenzene	110		µg/L	1.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
59. 1,3,5-Trimethylbenzene	120		µg/L	1.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
60. Vinyl Chloride	120		µg/L	1.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
61. Xylenes	340		µg/L	3.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	

Base/Neutral/Acid Semivolatiles by GC/MS (EPA 3510C/EPA 8270C)					Aliquot ID: 39362-002C		Matrix: Ground Water		Analyst: HLS	
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch	
1. Acenaphthene	72		µg/L	5.0	1.0	06/01/10	PS10F01C	06/04/10	S710F04A	
2. Acenaphthylene	73		µg/L	5.0	1.0	06/01/10	PS10F01C	06/04/10	S710F04A	
3. Aniline	49		µg/L	4.0	1.0	06/01/10	PS10F01C	06/04/10	S710F04A	
4. Anthracene	75		µg/L	5.0	1.0	06/01/10	PS10F01C	06/04/10	S710F04A	
5. Azobenzene (NN)	67		µg/L	5.0	1.0	06/01/10	PS10F01C	06/04/10	S710F04A	
6. Benzo(a)anthracene	73		µg/L	1.0	1.0	06/01/10	PS10F01C	06/04/10	S710F04A	
7. Benzo(a)pyrene	77		µg/L	1.0	1.0	06/01/10	PS10F01C	06/04/10	S710F04A	
8. Benzo(b)fluoranthene	77		µg/L	1.0	1.0	06/01/10	PS10F01C	06/04/10	S710F04A	
9. Benzo(ghi)perylene	72		µg/L	1.0	1.0	06/01/10	PS10F01C	06/04/10	S710F04A	
10. Benzo(k)fluoranthene	78		µg/L	1.0	1.0	06/01/10	PS10F01C	06/04/10	S710F04A	
11. Benzyl Alcohol	61		µg/L	5.0	1.0	06/01/10	PS10F01C	06/04/10	S710F04A	
12. Bis(2-chloroethoxy)methane	62		µg/L	5.0	1.0	06/01/10	PS10F01C	06/04/10	S710F04A	
13. Bis(2-chloroethyl)ether (NN)	62		µg/L	1.0	1.0	06/01/10	PS10F01C	06/04/10	S710F04A	
14. Bis(2-chloroisopropyl) Ether	54		µg/L	5.0	1.0	06/01/10	PS10F01C	06/04/10	S710F04A	
15. Bis(2-ethylhexyl)phthalate (NN)	74		µg/L	5.0	1.0	06/01/10	PS10F01C	06/04/10	S710F04A	
16. 4-Bromophenyl Phenylether (NN)	70		µg/L	5.0	1.0	06/01/10	PS10F01C	06/04/10	S710F04A	
17. Butyl Benzyl Phthalate	72		µg/L	5.0	1.0	06/01/10	PS10F01C	06/04/10	S710F04A	
18. Carbazole	83		µg/L	5.0	1.0	06/01/10	PS10F01C	06/04/10	S710F04A	
19. 4-Chloro-3-methylphenol	73		µg/L	5.0	1.0	06/01/10	PS10F01C	06/04/10	S710F04A	
20. 2-Chloronaphthalene	64		µg/L	5.0	1.0	06/01/10	PS10F01C	06/04/10	S710F04A	
21. 2-Chlorophenol	43		µg/L	5.0	1.0	06/01/10	PS10F01C	06/04/10	S710F04A	
22. 4-Chlorophenyl Phenylether	65		µg/L	5.0	1.0	06/01/10	PS10F01C	06/04/10	S710F04A	
23. Chrysene	72		µg/L	1.0	1.0	06/01/10	PS10F01C	06/04/10	S710F04A	
24. Dibenzo(a,h)anthracene	75		µg/L	2.0	1.0	06/01/10	PS10F01C	06/04/10	S710F04A	
25. Dibenzofuran	67		µg/L	4.0	1.0	06/01/10	PS10F01C	06/04/10	S710F04A	
26. 2,4-Dichlorophenol	42		µg/L	5.0	1.0	06/01/10	PS10F01C	06/04/10	S710F04A	
27. Diethyl Phthalate	74		µg/L	5.0	1.0	06/01/10	PS10F01C	06/04/10	S710F04A	
28. Dimethyl Phthalate	71		µg/L	5.0	1.0	06/01/10	PS10F01C	06/04/10	S710F04A	
29. 2,4-Dimethylphenol	69		µg/L	5.0	1.0	06/01/10	PS10F01C	06/04/10	S710F04A	
30. Di-n-butyl Phthalate	77		µg/L	5.0	1.0	06/01/10	PS10F01C	06/04/10	S710F04A	
31. 2,4-Dinitrophenol	23		µg/L	20	1.0	06/01/10	PS10F01C	06/04/10	S710F04A	
32. 2,4-Dinitrotoluene (NN)	73		µg/L	5.0	1.0	06/01/10	PS10F01C	06/04/10	S710F04A	
33. 2,6-Dinitrotoluene (NN)	71		µg/L	5.0	1.0	06/01/10	PS10F01C	06/04/10	S710F04A	

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Analytical Laboratory Report  
Laboratory Project Number: 39362  
Laboratory Sample Number: 39362-002

Order: 39362  
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Date: 06/07/10

Client Identification: **Soil and Materials Engineers, Inc. - Plymouth** Sample Description: **SB8 MS** Chain of Custody: **97638**  
Client Project Name: **PE60750B-02** Sample No: **2** Collect Date: **05/26/10**  
Client Project No: **NA** Sample Matrix: **Ground Water** Collect Time: **09:00**

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Base/Neutral/Acid Semivolatiles by GC/MS (EPA 3510C/EPA 8270C)					Aliquot ID: 39362-002C		Matrix: Ground Water		Analyst: HLS	
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch	
34. Di-n-octyl Phthalate	79		µg/L	5.0	1.0	06/01/10	PS10F01C	06/04/10	S710F04A	
35. Fluoranthene	80		µg/L	1.0	1.0	06/01/10	PS10F01C	06/04/10	S710F04A	
36. Fluorene	74		µg/L	5.0	1.0	06/01/10	PS10F01C	06/04/10	S710F04A	
37. Hexachlorobenzene	69		µg/L	5.0	1.0	06/01/10	PS10F01C	06/04/10	S710F04A	
38. Hexachlorobutadiene	50		µg/L	5.0	1.0	06/01/10	PS10F01C	06/04/10	S710F04A	
39. Hexachlorocyclopentadiene	41		µg/L	5.0	1.0	06/01/10	PS10F01C	06/04/10	S710F04A	
40. Indeno(1,2,3-cd)pyrene	78		µg/L	2.0	1.0	06/01/10	PS10F01C	06/04/10	S710F04A	
41. Isophorone	65		µg/L	5.0	1.0	06/01/10	PS10F01C	06/04/10	S710F04A	
42. 2-Methyl-4,6-dinitrophenol (NN)	24		µg/L	20	1.0	06/01/10	PS10F01C	06/04/10	S710F04A	
43. 2-Methylnaphthalene	63		µg/L	5.0	1.0	06/01/10	PS10F01C	06/04/10	S710F04A	
44. 2-Methylphenol (NN)	59		µg/L	5.0	1.0	06/01/10	PS10F01C	06/04/10	S710F04A	
45. 3&4-Methylphenol (NN)	52		µg/L	10	1.0	06/01/10	PS10F01C	06/04/10	S710F04A	
46. Naphthalene	67		µg/L	5.0	1.0	06/01/10	PS10F01C	06/04/10	S710F04A	
47. 2-Nitroaniline	79		µg/L	20	1.0	06/01/10	PS10F01C	06/04/10	S710F04A	
48. 3-Nitroaniline	71		µg/L	20	1.0	06/01/10	PS10F01C	06/04/10	S710F04A	
49. 4-Nitroaniline	66		µg/L	20	1.0	06/01/10	PS10F01C	06/04/10	S710F04A	
50. Nitrobenzene	68		µg/L	3.0	1.0	06/01/10	PS10F01C	06/04/10	S710F04A	
51. 2-Nitrophenol	38		µg/L	5.0	1.0	06/01/10	PS10F01C	06/04/10	S710F04A	
52. N-Nitrosodimethylamine	45		µg/L	5.0	1.0	06/01/10	PS10F01C	06/04/10	S710F04A	
53. N-Nitrosodi-n-propylamine	70		µg/L	5.0	1.0	06/01/10	PS10F01C	06/04/10	S710F04A	
54. N-Nitrosodiphenylamine	74		µg/L	5.0	1.0	06/01/10	PS10F01C	06/04/10	S710F04A	
55. Pentachlorophenol	25		µg/L	20	1.0	06/01/10	PS10F01C	06/04/10	S710F04A	
56. Phenanthrene	75		µg/L	2.0	1.0	06/01/10	PS10F01C	06/04/10	S710F04A	
57. Phenol	23		µg/L	5.0	1.0	06/01/10	PS10F01C	06/04/10	S710F04A	
58. Pyrene	72		µg/L	5.0	1.0	06/01/10	PS10F01C	06/04/10	S710F04A	
59. Pyridine	40		µg/L	5.0	1.0	06/01/10	PS10F01C	06/04/10	S710F04A	
60. 1,2,4-Trichlorobenzene	53		µg/L	5.0	1.0	06/01/10	PS10F01C	06/04/10	S710F04A	
61. 2,4,5-Trichlorophenol	36		µg/L	5.0	1.0	06/01/10	PS10F01C	06/04/10	S710F04A	
62. 2,4,6-Trichlorophenol	32		µg/L	4.0	1.0	06/01/10	PS10F01C	06/04/10	S710F04A	

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**Analytical Laboratory Report**  
**Laboratory Project Number: 39362**  
**Laboratory Sample Number: 39362-003**

Order: 39362  
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Date: 06/07/10

Client Identification:	<b>Soil and Materials Engineers, Inc. - Plymouth</b>	Sample Description:	<b>SB8 MSD</b>	Chain of Custody:	<b>97638</b>
Client Project Name:	<b>PE60750B-02</b>	Sample No:	<b>3</b>	Collect Date:	<b>05/26/10</b>
Client Project No:	<b>NA</b>	Sample Matrix:	<b>Ground Water</b>	Collect Time:	<b>09:00</b>

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Trace Elements by ICP/MS, Total Recoverable (EPA 3005A/EPA 6020)					Aliquot ID: 39362-003B		Matrix: Ground Water		Analyst: JLH	
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch	
1. Arsenic	130		µg/L	5.0	10	06/02/10	PT10F02E	06/02/10	T210F02B	
2. Barium	910		µg/L	100	10	06/02/10	PT10F02E	06/02/10	T210F02B	
3. Boron (NN)	660	J,V+	µg/L	300	10	06/02/10	PT10F02E	06/07/10	T210F07A	
4. Cadmium	110		µg/L	1.0	10	06/02/10	PT10F02E	06/02/10	T210F02B	
5. Chromium	210		µg/L	10	10	06/02/10	PT10F02E	06/04/10	T210F04A	
6. Copper	220		µg/L	4.0	10	06/02/10	PT10F02E	06/02/10	T210F02B	
7. Lead	230		µg/L	3.0	10	06/02/10	PT10F02E	06/02/10	T210F02B	
8. Selenium	130		µg/L	5.0	10	06/02/10	PT10F02E	06/02/10	T210F02B	
9. Silver	100		µg/L	0.20	10	06/02/10	PT10F02E	06/02/10	T210F02B	
10. Zinc	530		µg/L	50	10	06/02/10	PT10F02E	06/02/10	T210F02B	

Chromium, Hexavalent, Dissolved (EPA 7196A)					Aliquot ID: 39362-003A		Matrix: Ground Water		Analyst: HLL	
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch	
1. Chromium VI	47		µg/L	5.0	1.0	NA	NA	05/27/10 09:55	WF10E27A	

Mercury by CVAAS, Total (EPA 7470A)					Aliquot ID: 39362-003B		Matrix: Ground Water		Analyst: MAP	
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch	
1. Mercury	0.26		µg/L	0.20	1.0	06/02/10	PM10F02A	06/02/10	M410F02A	

Volatile Organic Compounds (VOCs) by GC/MS (EPA 5030B/EPA 8260B)					Aliquot ID: 39362-003		Matrix: Ground Water		Analyst: BAG	
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch	
1. Acetone	110		µg/L	50	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
2. Acrylonitrile	98		µg/L	2.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
3. Benzene	110		µg/L	1.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
4. Bromobenzene	100		µg/L	1.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
5. Bromochloromethane	98		µg/L	1.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
6. Bromodichloromethane	110		µg/L	1.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
7. Bromoform	120		µg/L	1.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
8. Bromomethane	100		µg/L	5.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
9. 2-Butanone	97		µg/L	25	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
10. n-Butylbenzene	120		µg/L	1.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
11. sec-Butylbenzene	120		µg/L	1.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
12. tert-Butylbenzene	120		µg/L	1.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
13. Carbon Disulfide	110		µg/L	5.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
14. Carbon Tetrachloride	130		µg/L	1.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
15. Chlorobenzene	110		µg/L	1.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
16. Chloroethane	88		µg/L	5.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
17. Chloroform	110		µg/L	1.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	

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Analytical Laboratory Report  
Laboratory Project Number: 39362  
Laboratory Sample Number: 39362-003

Order: 39362  
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Date: 06/07/10

Client Identification:	Soil and Materials Engineers, Inc. - Plymouth	Sample Description:	SB8 MSD	Chain of Custody:	97638
Client Project Name:	PE60750B-02	Sample No:	3	Collect Date:	05/26/10
Client Project No:	NA	Sample Matrix:	Ground Water	Collect Time:	09:00

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Volatile Organic Compounds (VOCs) by GC/MS (EPA 5030B/EPA 8260B)					Aliquot ID: 39362-003		Matrix: Ground Water		Analyst: BAG	
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch	
18. Chloromethane	120		µg/L	5.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
19. 2-Chlorotoluene	120		µg/L	5.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
20. Dibromochloromethane	110		µg/L	5.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
21. 1,2-Dibromo-3-chloropropane	110		µg/L	1.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
22. Dibromomethane	110		µg/L	5.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
23. 1,2-Dichlorobenzene	150		µg/L	1.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
24. 1,3-Dichlorobenzene	110		µg/L	1.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
25. 1,4-Dichlorobenzene	100		µg/L	1.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
26. Dichlorodifluoromethane	140		µg/L	5.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
27. 1,1-Dichloroethane	110		µg/L	1.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
28. 1,2-Dichloroethane	200		µg/L	1.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
29. 1,1-Dichloroethene	120		µg/L	1.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
30. cis-1,2-Dichloroethene	110		µg/L	1.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
31. trans-1,2-Dichloroethene	110		µg/L	1.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
32. 1,2-Dichloropropane	110		µg/L	1.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
33. cis-1,3-Dichloropropene	110		µg/L	1.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
34. trans-1,3-Dichloropropene	110		µg/L	1.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
35. Ethylbenzene	110		µg/L	1.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
36. Ethylene Dibromide	210		µg/L	1.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
37. 2-Hexanone	120		µg/L	50	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
38. Isopropylbenzene	90	J,L-	µg/L	5.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
39. Methyl Iodide	130		µg/L	5.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
40. Methylene Chloride	89		µg/L	5.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
41. 2-Methylnaphthalene (NN)	120		µg/L	5.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
42. 4-Methyl-2-pentanone	120		µg/L	50	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
43. MTBE	220		µg/L	5.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
44. Naphthalene	110		µg/L	5.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
45. n-Propylbenzene	120		µg/L	1.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
46. Styrene	120		µg/L	1.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
47. 1,1,1,2-Tetrachloroethane	110		µg/L	1.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
48. 1,1,1,2,2-Tetrachloroethane	99		µg/L	1.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
49. Tetrachloroethene	120		µg/L	1.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
50. Toluene	120		µg/L	1.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
51. 1,2,4-Trichlorobenzene	110		µg/L	5.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
52. 1,1,1-Trichloroethane	120		µg/L	1.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
53. 1,1,2-Trichloroethane	100		µg/L	1.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
54. Trichloroethene	120		µg/L	1.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
55. Trichlorofluoromethane	120		µg/L	1.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
56. 1,2,3-Trichloropropane	110		µg/L	1.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
57. 1,2,3-Trimethylbenzene (NN)	110		µg/L	1.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	

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**Analytical Laboratory Report**  
**Laboratory Project Number: 39362**  
**Laboratory Sample Number: 39362-003**

Order: 39362  
Page: 12 of 86  
Date: 06/07/10

Client Identification:	<b>Soil and Materials Engineers, Inc. - Plymouth</b>	Sample Description:	<b>SB8 MSD</b>	Chain of Custody:	<b>97638</b>
Client Project Name:	<b>PE60750B-02</b>	Sample No:	<b>3</b>	Collect Date:	<b>05/26/10</b>
Client Project No:	<b>NA</b>	Sample Matrix:	<b>Ground Water</b>	Collect Time:	<b>09:00</b>

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Volatile Organic Compounds (VOCs) by GC/MS (EPA 5030B/EPA 8260B)					Aliquot ID: 39362-003		Matrix: Ground Water		Analyst: BAG	
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch	
58. 1,2,4-Trimethylbenzene	120		µg/L	1.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
59. 1,3,5-Trimethylbenzene	120		µg/L	1.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
60. Vinyl Chloride	120		µg/L	1.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
61. Xylenes	340		µg/L	3.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	

Base/Neutral/Acid Semivolatiles by GC/MS (EPA 3510C/EPA 8270C)					Aliquot ID: 39362-003C		Matrix: Ground Water		Analyst: HLS	
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch	
1. Acenaphthene	73		µg/L	5.0	1.0	06/01/10	PS10F01C	06/04/10	S710F04A	
2. Acenaphthylene	75		µg/L	5.0	1.0	06/01/10	PS10F01C	06/04/10	S710F04A	
3. Aniline	49		µg/L	4.0	1.0	06/01/10	PS10F01C	06/04/10	S710F04A	
4. Anthracene	76		µg/L	5.0	1.0	06/01/10	PS10F01C	06/04/10	S710F04A	
5. Azobenzene (NN)	68		µg/L	5.0	1.0	06/01/10	PS10F01C	06/04/10	S710F04A	
6. Benzo(a)anthracene	75		µg/L	1.0	1.0	06/01/10	PS10F01C	06/04/10	S710F04A	
7. Benzo(a)pyrene	79		µg/L	1.0	1.0	06/01/10	PS10F01C	06/04/10	S710F04A	
8. Benzo(b)fluoranthene	79		µg/L	1.0	1.0	06/01/10	PS10F01C	06/04/10	S710F04A	
9. Benzo(ghi)perylene	70		µg/L	1.0	1.0	06/01/10	PS10F01C	06/04/10	S710F04A	
10. Benzo(k)fluoranthene	80		µg/L	1.0	1.0	06/01/10	PS10F01C	06/04/10	S710F04A	
11. Benzyl Alcohol	63		µg/L	5.0	1.0	06/01/10	PS10F01C	06/04/10	S710F04A	
12. Bis(2-chloroethoxy)methane	62		µg/L	5.0	1.0	06/01/10	PS10F01C	06/04/10	S710F04A	
13. Bis(2-chloroethyl)ether (NN)	60		µg/L	1.0	1.0	06/01/10	PS10F01C	06/04/10	S710F04A	
14. Bis(2-chloroisopropyl) Ether	52		µg/L	5.0	1.0	06/01/10	PS10F01C	06/04/10	S710F04A	
15. Bis(2-ethylhexyl)phthalate (NN)	76		µg/L	5.0	1.0	06/01/10	PS10F01C	06/04/10	S710F04A	
16. 4-Bromophenyl Phenylether (NN)	71		µg/L	5.0	1.0	06/01/10	PS10F01C	06/04/10	S710F04A	
17. Butyl Benzyl Phthalate	74		µg/L	5.0	1.0	06/01/10	PS10F01C	06/04/10	S710F04A	
18. Carbazole	85		µg/L	5.0	1.0	06/01/10	PS10F01C	06/04/10	S710F04A	
19. 4-Chloro-3-methylphenol	80		µg/L	5.0	1.0	06/01/10	PS10F01C	06/04/10	S710F04A	
20. 2-Chloronaphthalene	65		µg/L	5.0	1.0	06/01/10	PS10F01C	06/04/10	S710F04A	
21. 2-Chlorophenol	68		µg/L	5.0	1.0	06/01/10	PS10F01C	06/04/10	S710F04A	
22. 4-Chlorophenyl Phenylether	67		µg/L	5.0	1.0	06/01/10	PS10F01C	06/04/10	S710F04A	
23. Chrysene	74		µg/L	1.0	1.0	06/01/10	PS10F01C	06/04/10	S710F04A	
24. Dibenzo(a,h)anthracene	74		µg/L	2.0	1.0	06/01/10	PS10F01C	06/04/10	S710F04A	
25. Dibenzofuran	69		µg/L	4.0	1.0	06/01/10	PS10F01C	06/04/10	S710F04A	
26. 2,4-Dichlorophenol	69		µg/L	5.0	1.0	06/01/10	PS10F01C	06/04/10	S710F04A	
27. Diethyl Phthalate	76		µg/L	5.0	1.0	06/01/10	PS10F01C	06/04/10	S710F04A	
28. Dimethyl Phthalate	74		µg/L	5.0	1.0	06/01/10	PS10F01C	06/04/10	S710F04A	
29. 2,4-Dimethylphenol	73		µg/L	5.0	1.0	06/01/10	PS10F01C	06/04/10	S710F04A	
30. Di-n-butyl Phthalate	78		µg/L	5.0	1.0	06/01/10	PS10F01C	06/04/10	S710F04A	
31. 2,4-Dinitrophenol	83		µg/L	20	1.0	06/01/10	PS10F01C	06/04/10	S710F04A	
32. 2,4-Dinitrotoluene (NN)	76		µg/L	5.0	1.0	06/01/10	PS10F01C	06/04/10	S710F04A	
33. 2,6-Dinitrotoluene (NN)	74		µg/L	5.0	1.0	06/01/10	PS10F01C	06/04/10	S710F04A	

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Analytical Laboratory Report  
Laboratory Project Number: 39362  
Laboratory Sample Number: 39362-003

Order: 39362  
Page: 13 of 86  
Date: 06/07/10

Client Identification: **Soil and Materials Engineers, Inc. - Plymouth** Sample Description: **SB8 MSD** Chain of Custody: **97638**  
Client Project Name: **PE60750B-02** Sample No: **3** Collect Date: **06/26/10**  
Client Project No: **NA** Sample Matrix: **Ground Water** Collect Time: **09:00**

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Base/Neutral/Acid Semivolatiles by GC/MS (EPA 3510C/EPA 8270C)				Aliquot ID: 39362-003C			Matrix: Ground Water		Analyst: HLS	
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch	
34. Di-n-octyl Phthalate	80		µg/L	5.0	1.0	06/01/10	PS10F01C	06/04/10	S710F04A	
35. Fluoranthene	81		µg/L	1.0	1.0	06/01/10	PS10F01C	06/04/10	S710F04A	
36. Fluorene	76		µg/L	5.0	1.0	06/01/10	PS10F01C	06/04/10	S710F04A	
37. Hexachlorobenzene	70		µg/L	5.0	1.0	06/01/10	PS10F01C	06/04/10	S710F04A	
38. Hexachlorobutadiene	48		µg/L	5.0	1.0	06/01/10	PS10F01C	06/04/10	S710F04A	
39. Hexachlorocyclopentadiene	43		µg/L	5.0	1.0	06/01/10	PS10F01C	06/04/10	S710F04A	
40. Indeno(1,2,3-cd)pyrene	75		µg/L	2.0	1.0	06/01/10	PS10F01C	06/04/10	S710F04A	
41. Isophorone	66		µg/L	5.0	1.0	06/01/10	PS10F01C	06/04/10	S710F04A	
42. 2-Methyl-4,6-dinitrophenol (NN)	83		µg/L	20	1.0	06/01/10	PS10F01C	06/04/10	S710F04A	
43. 2-Methylnaphthalene	62		µg/L	5.0	1.0	06/01/10	PS10F01C	06/04/10	S710F04A	
44. 2-Methylphenol (NN)	63		µg/L	5.0	1.0	06/01/10	PS10F01C	06/04/10	S710F04A	
45. 3&4-Methylphenol (NN)	57		µg/L	10	1.0	06/01/10	PS10F01C	06/04/10	S710F04A	
46. Naphthalene	66		µg/L	5.0	1.0	06/01/10	PS10F01C	06/04/10	S710F04A	
47. 2-Nitroaniline	84		µg/L	20	1.0	06/01/10	PS10F01C	06/04/10	S710F04A	
48. 3-Nitroaniline	72		µg/L	20	1.0	06/01/10	PS10F01C	06/04/10	S710F04A	
49. 4-Nitroaniline	73		µg/L	20	1.0	06/01/10	PS10F01C	06/04/10	S710F04A	
50. Nitrobenzene	67		µg/L	3.0	1.0	06/01/10	PS10F01C	06/04/10	S710F04A	
51. 2-Nitrophenol	69		µg/L	5.0	1.0	06/01/10	PS10F01C	06/04/10	S710F04A	
52. 4-Nitrophenol	41		µg/L	20	1.0	06/01/10	PS10F01C	06/04/10	S710F04A	
53. N-Nitrosodimethylamine	45		µg/L	5.0	1.0	06/01/10	PS10F01C	06/04/10	S710F04A	
54. N-Nitrosodi-n-propylamine	70		µg/L	5.0	1.0	06/01/10	PS10F01C	06/04/10	S710F04A	
55. N-Nitrosodiphenylamine	75		µg/L	5.0	1.0	06/01/10	PS10F01C	06/04/10	S710F04A	
56. Pentachlorophenol	79		µg/L	20	1.0	06/01/10	PS10F01C	06/04/10	S710F04A	
57. Phenanthrene	75		µg/L	2.0	1.0	06/01/10	PS10F01C	06/04/10	S710F04A	
58. Phenol	33		µg/L	5.0	1.0	06/01/10	PS10F01C	06/04/10	S710F04A	
59. Pyrene	74		µg/L	5.0	1.0	06/01/10	PS10F01C	06/04/10	S710F04A	
60. Pyridine	39		µg/L	5.0	1.0	06/01/10	PS10F01C	06/04/10	S710F04A	
61. 1,2,4-Trichlorobenzene	51		µg/L	5.0	1.0	06/01/10	PS10F01C	06/04/10	S710F04A	
62. 2,4,5-Trichlorophenol	70		µg/L	5.0	1.0	06/01/10	PS10F01C	06/04/10	S710F04A	
63. 2,4,6-Trichlorophenol	77		µg/L	4.0	1.0	06/01/10	PS10F01C	06/04/10	S710F04A	

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**Analytical Laboratory Report**  
**Laboratory Project Number: 39362**  
**Laboratory Sample Number: 39362-004**

Order: 39362  
Page: 14 of 86  
Date: 06/07/10

Client Identification: <b>Soil and Materials Engineers, Inc. - Plymouth</b>	Sample Description: <b>DUP-1-GW</b>	Chain of Custody: <b>97638</b>
Client Project Name: <b>PE60750B-02</b>	Sample No: <b>4</b>	Collect Date: <b>05/26/10</b>
Client Project No: <b>NA</b>	Sample Matrix: <b>Ground Water</b>	Collect Time: <b>09:00</b>

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Trace Elements by ICP/MS, Total Recoverable (EPA 3005A/EPA 6020)					Aliquot ID: 39362-004B		Matrix: Ground Water		Analyst: JLH	
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch	
1. Arsenic	23		µg/L	5.0	10	06/02/10	PT10F02E	06/02/10	T210F02B	
2. Barium	510		µg/L	100	10	06/02/10	PT10F02E	06/02/10	T210F02B	
3. Boron (NN)	560	J,V+	µg/L	300	10	06/02/10	PT10F02E	06/07/10	T210F07A	
4. Cadmium	U		µg/L	1.0	10	06/02/10	PT10F02E	06/02/10	T210F02B	
5. Chromium	U		µg/L	10	10	06/02/10	PT10F02E	06/02/10	T210F02B	
6. Copper	7.9		µg/L	4.0	10	06/02/10	PT10F02E	06/02/10	T210F02B	
7. Lead	12		µg/L	3.0	10	06/02/10	PT10F02E	06/02/10	T210F02B	
8. Selenium	17	J,J+	µg/L	5.0	10	06/02/10	PT10F02E	06/02/10	T210F02B	
9. Silver	U		µg/L	0.20	10	06/02/10	PT10F02E	06/02/10	T210F02B	
10. Zinc	U		µg/L	50	10	06/02/10	PT10F02E	06/02/10	T210F02B	

Mercury by CVAAS, Total (EPA 7470A)					Aliquot ID: 39362-004B		Matrix: Ground Water		Analyst: MAP	
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch	
1. Mercury	U		µg/L	0.20	1.0	06/02/10	PM10F02A	06/02/10	M410F02A	

Volatile Organic Compounds (VOCs) by GC/MS (EPA 5030B/EPA 8260B)					Aliquot ID: 39362-004		Matrix: Ground Water		Analyst: BAG	
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch	
1. Acetone	U		µg/L	50	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
2. Acrylonitrile	U		µg/L	2.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
3. Benzene	U		µg/L	1.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
4. Bromobenzene	U		µg/L	1.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
5. Bromochloromethane	U		µg/L	1.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
6. Bromodichloromethane	U		µg/L	1.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
7. Bromoform	U		µg/L	1.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
8. Bromomethane	U		µg/L	5.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
9. 2-Butanone	U		µg/L	25	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
10. n-Butylbenzene	U		µg/L	1.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
11. sec-Butylbenzene	U		µg/L	1.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
12. tert-Butylbenzene	U		µg/L	1.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
13. Carbon Disulfide	U		µg/L	5.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
14. Carbon Tetrachloride	U		µg/L	1.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
15. Chlorobenzene	U		µg/L	1.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
16. Chloroethane	U		µg/L	5.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
17. Chloroform	U		µg/L	1.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
18. Chloromethane	U		µg/L	5.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
19. 2-Chlorotoluene	U		µg/L	5.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
20. Dibromochloromethane	U		µg/L	5.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
21. 1,2-Dibromo-3-chloropropane	U		µg/L	1.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
22. Dibromomethane	U		µg/L	5.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	

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**Analytical Laboratory Report**  
**Laboratory Project Number: 39362**  
**Laboratory Sample Number: 39362-004**

Order: 39362  
Page: 15 of 86  
Date: 06/07/10

Client Identification:	<b>Soil and Materials Engineers, Inc. - Plymouth</b>	Sample Description:	<b>DUP-1-GW</b>	Chain of Custody:	<b>97638</b>
Client Project Name:	<b>PE60750B-02</b>	Sample No:	<b>4</b>	Collect Date:	<b>06/26/10</b>
Client Project No:	<b>NA</b>	Sample Matrix:	<b>Ground Water</b>	Collect Time:	<b>09:00</b>

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Volatile Organic Compounds (VOCs) by GC/MS (EPA 5030B/EPA 8260B)					Aliquot ID: 39362-004		Matrix: Ground Water		Analyst: BAG	
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch	
23. 1,2-Dichlorobenzene	U		µg/L	1.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
24. 1,3-Dichlorobenzene	U		µg/L	1.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
25. 1,4-Dichlorobenzene	U		µg/L	1.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
26. Dichlorodifluoromethane	U		µg/L	5.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
27. 1,1-Dichloroethane	U		µg/L	1.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
28. 1,2-Dichloroethane	U		µg/L	1.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
29. 1,1-Dichloroethene	U		µg/L	1.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
30. cis-1,2-Dichloroethene	U		µg/L	1.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
31. trans-1,2-Dichloroethene	U		µg/L	1.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
32. 1,2-Dichloropropane	U		µg/L	1.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
33. cis-1,3-Dichloropropene	U		µg/L	1.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
34. trans-1,3-Dichloropropene	U		µg/L	1.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
35. Ethylbenzene	U		µg/L	1.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
36. Ethylene Dibromide	U		µg/L	1.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
37. 2-Hexanone	U		µg/L	50	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
38. Isopropylbenzene	U	J,L-	µg/L	5.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
39. Methyl Iodide	U		µg/L	5.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
40. Methylene Chloride	U		µg/L	5.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
41. 2-Methylnaphthalene (NN)	U		µg/L	5.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
42. 4-Methyl-2-pentanone	U		µg/L	50	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
43. MTBE	U		µg/L	5.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
44. Naphthalene	U		µg/L	5.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
45. n-Propylbenzene	U		µg/L	1.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
46. Styrene	U		µg/L	1.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
47. 1,1,1,2-Tetrachloroethane	U		µg/L	1.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
48. 1,1,1,2,2-Tetrachloroethane	U		µg/L	1.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
49. Tetrachloroethene	U		µg/L	1.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
50. Toluene	U		µg/L	1.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
51. 1,2,4-Trichlorobenzene	U		µg/L	5.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
52. 1,1,1-Trichloroethane	U		µg/L	1.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
53. 1,1,2-Trichloroethane	U		µg/L	1.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
54. Trichloroethene	U		µg/L	1.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
55. Trichlorofluoromethane	U		µg/L	1.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
56. 1,2,3-Trichloropropane	U		µg/L	1.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
57. 1,2,3-Trimethylbenzene (NN)	U		µg/L	1.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
58. 1,2,4-Trimethylbenzene	U		µg/L	1.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
59. 1,3,5-Trimethylbenzene	U		µg/L	1.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
60. Vinyl Chloride	U		µg/L	1.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
61. Xylenes	U		µg/L	3.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	

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Client Identification: <b>Soil and Materials Engineers, Inc. - Plymouth</b>	Sample Description: <b>DUP-1-GW</b>	Chain of Custody: <b>97638</b>
Client Project Name: <b>PE60750B-02</b>	Sample No: <b>4</b>	Collect Date: <b>05/26/10</b>
Client Project No: <b>NA</b>	Sample Matrix: <b>Ground Water</b>	Collect Time: <b>09:00</b>

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Base/Neutral/Acid Semivolatiles by GC/MS (EPA 3510C/EPA 8270C)				Aliquot ID: 39362-004C		Matrix: Ground Water		Analyst: HLS	
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Acenaphthene	U		µg/L	5.0	1.1	06/01/10	PS10F01C	06/04/10	S710F04A
2. Acenaphthylene	U		µg/L	5.0	1.1	06/01/10	PS10F01C	06/04/10	S710F04A
3. Aniline	U		µg/L	4.0	1.1	06/01/10	PS10F01C	06/04/10	S710F04A
4. Anthracene	U		µg/L	5.0	1.1	06/01/10	PS10F01C	06/04/10	S710F04A
5. Azobenzene (NN)	U		µg/L	5.0	1.1	06/01/10	PS10F01C	06/04/10	S710F04A
6. Benzo(a)anthracene	U		µg/L	1.1	1.1	06/01/10	PS10F01C	06/04/10	S710F04A
7. Benzo(a)pyrene	U		µg/L	1.1	1.1	06/01/10	PS10F01C	06/04/10	S710F04A
8. Benzo(b)fluoranthene	U		µg/L	1.1	1.1	06/01/10	PS10F01C	06/04/10	S710F04A
9. Benzo(ghi)perylene	U		µg/L	1.1	1.1	06/01/10	PS10F01C	06/04/10	S710F04A
10. Benzo(k)fluoranthene	U		µg/L	1.1	1.1	06/01/10	PS10F01C	06/04/10	S710F04A
11. Benzyl Alcohol	U		µg/L	5.0	1.1	06/01/10	PS10F01C	06/04/10	S710F04A
12. Bis(2-chloroethoxy)methane	U		µg/L	5.0	1.1	06/01/10	PS10F01C	06/04/10	S710F04A
13. Bis(2-chloroethyl)ether (NN)	U		µg/L	1.1	1.1	06/01/10	PS10F01C	06/04/10	S710F04A
14. Bis(2-chloroisopropyl) Ether	U		µg/L	5.0	1.1	06/01/10	PS10F01C	06/04/10	S710F04A
15. Bis(2-ethylhexyl)phthalate (NN)	U		µg/L	5.3	1.1	06/01/10	PS10F01C	06/04/10	S710F04A
16. 4-Bromophenyl Phenylether (NN)	U		µg/L	5.0	1.1	06/01/10	PS10F01C	06/04/10	S710F04A
17. Butyl Benzyl Phthalate	U		µg/L	5.3	1.1	06/01/10	PS10F01C	06/04/10	S710F04A
18. Carbazole	U		µg/L	5.0	1.1	06/01/10	PS10F01C	06/04/10	S710F04A
19. 4-Chloro-3-methylphenol	U		µg/L	5.0	1.1	06/01/10	PS10F01C	06/04/10	S710F04A
20. 2-Chloronaphthalene	U		µg/L	5.0	1.1	06/01/10	PS10F01C	06/04/10	S710F04A
21. 2-Chlorophenol	U		µg/L	5.0	1.1	06/01/10	PS10F01C	06/04/10	S710F04A
22. 4-Chlorophenyl Phenylether	U		µg/L	5.0	1.1	06/01/10	PS10F01C	06/04/10	S710F04A
23. Chrysene	U		µg/L	1.1	1.1	06/01/10	PS10F01C	06/04/10	S710F04A
24. Dibenzo(a,h)anthracene	U		µg/L	2.1	1.1	06/01/10	PS10F01C	06/04/10	S710F04A
25. Dibenzofuran	U		µg/L	4.0	1.1	06/01/10	PS10F01C	06/04/10	S710F04A
26. 2,4-Dichlorophenol	U		µg/L	5.0	1.1	06/01/10	PS10F01C	06/04/10	S710F04A
27. Diethyl Phthalate	U		µg/L	5.0	1.1	06/01/10	PS10F01C	06/04/10	S710F04A
28. Dimethyl Phthalate	U		µg/L	5.0	1.1	06/01/10	PS10F01C	06/04/10	S710F04A
29. 2,4-Dimethylphenol	U		µg/L	5.3	1.1	06/01/10	PS10F01C	06/04/10	S710F04A
30. Di-n-butyl Phthalate	U		µg/L	5.0	1.1	06/01/10	PS10F01C	06/04/10	S710F04A
31. 2,4-Dinitrophenol	U		µg/L	20	1.1	06/01/10	PS10F01C	06/04/10	S710F04A
32. 2,4-Dinitrotoluene (NN)	U		µg/L	5.3	1.1	06/01/10	PS10F01C	06/04/10	S710F04A
33. 2,6-Dinitrotoluene (NN)	U		µg/L	5.0	1.1	06/01/10	PS10F01C	06/04/10	S710F04A
34. Di-n-octyl Phthalate	U		µg/L	5.3	1.1	06/01/10	PS10F01C	06/04/10	S710F04A
35. Fluoranthene	U		µg/L	1.1	1.1	06/01/10	PS10F01C	06/04/10	S710F04A
36. Fluorene	U		µg/L	5.0	1.1	06/01/10	PS10F01C	06/04/10	S710F04A
37. Hexachlorobenzene	U		µg/L	5.0	1.1	06/01/10	PS10F01C	06/04/10	S710F04A
38. Hexachlorobutadiene	U		µg/L	5.0	1.1	06/01/10	PS10F01C	06/04/10	S710F04A
39. Hexachlorocyclopentadiene	U		µg/L	5.3	1.1	06/01/10	PS10F01C	06/04/10	S710F04A
40. Indeno(1,2,3-cd)pyrene	U		µg/L	2.1	1.1	06/01/10	PS10F01C	06/04/10	S710F04A

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Client Identification: <b>Soil and Materials Engineers, Inc. - Plymouth</b>	Sample Description: <b>DUP-1-GW</b>	Chain of Custody: <b>97638</b>
Client Project Name: <b>PE60750B-02</b>	Sample No: <b>4</b>	Collect Date: <b>05/26/10</b>
Client Project No: <b>NA</b>	Sample Matrix: <b>Ground Water</b>	Collect Time: <b>09:00</b>

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Base/Neutral/Acid Semivolatiles by GC/MS (EPA 3510C/EPA 8270C)				Aliquot ID: 39362-004C		Matrix: Ground Water		Analyst: HLS	
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
41. Isophorone	U		µg/L	5.0	1.1	06/01/10	PS10F01C	06/04/10	S710F04A
42 2-Methyl-4,6-dinitrophenol (NN)	U		µg/L	21	1.1	06/01/10	PS10F01C	06/04/10	S710F04A
43 2-Methylnaphthalene	U		µg/L	5.0	1.1	06/01/10	PS10F01C	06/04/10	S710F04A
44 2-Methylphenol (NN)	U		µg/L	5.0	1.1	06/01/10	PS10F01C	06/04/10	S710F04A
45 3&4-Methylphenol (NN)	U		µg/L	10	1.1	06/01/10	PS10F01C	06/04/10	S710F04A
46 Naphthalene	U		µg/L	5.0	1.1	06/01/10	PS10F01C	06/04/10	S710F04A
47 2-Nitroaniline	U		µg/L	20	1.1	06/01/10	PS10F01C	06/04/10	S710F04A
48 3-Nitroaniline	U		µg/L	20	1.1	06/01/10	PS10F01C	06/04/10	S710F04A
49 4-Nitroaniline	U		µg/L	20	1.1	06/01/10	PS10F01C	06/04/10	S710F04A
50 Nitrobenzene	U		µg/L	3.0	1.1	06/01/10	PS10F01C	06/04/10	S710F04A
51 2-Nitrophenol	U		µg/L	5.3	1.1	06/01/10	PS10F01C	06/04/10	S710F04A
52 4-Nitrophenol	U		µg/L	21	1.1	06/01/10	PS10F01C	06/04/10	S710F04A
53 N-Nitrosodimethylamine	U		µg/L	5.0	1.1	06/01/10	PS10F01C	06/04/10	S710F04A
54 N-Nitrosodi-n-propylamine	U		µg/L	5.0	1.1	06/01/10	PS10F01C	06/04/10	S710F04A
55 N-Nitrosodiphenylamine	U		µg/L	5.0	1.1	06/01/10	PS10F01C	06/04/10	S710F04A
56 Pentachlorophenol	U		µg/L	21	1.1	06/01/10	PS10F01C	06/04/10	S710F04A
57 Phenanthrene	U		µg/L	2.0	1.1	06/01/10	PS10F01C	06/04/10	S710F04A
58 Phenol	U		µg/L	5.0	1.1	06/01/10	PS10F01C	06/04/10	S710F04A
59 Pyrene	U		µg/L	5.0	1.1	06/01/10	PS10F01C	06/04/10	S710F04A
60 Pyridine	U		µg/L	5.0	1.1	06/01/10	PS10F01C	06/04/10	S710F04A
61 1,2,4-Trichlorobenzene	U		µg/L	5.0	1.1	06/01/10	PS10F01C	06/04/10	S710F04A
62 2,4,5-Trichlorophenol	U		µg/L	5.3	1.1	06/01/10	PS10F01C	06/04/10	S710F04A
63 2,4,6-Trichlorophenol	U		µg/L	4.0	1.1	06/01/10	PS10F01C	06/04/10	S710F04A

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Client Identification:	<b>Soil and Materials Engineers, Inc. - Plymouth</b>	Sample Description:	<b>SB9</b>	Chain of Custody:	<b>97638</b>
Client Project Name:	<b>PE60750B-02</b>	Sample No:	<b>5</b>	Collect Date:	<b>05/26/10</b>
Client Project No:	<b>NA</b>	Sample Matrix:	<b>Ground Water</b>	Collect Time:	<b>10:50</b>

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Trace Elements by ICP/MS, Total Recoverable (EPA 3005A/EPA 6020)					Aliquot ID: 39362-005B		Matrix: Ground Water		Analyst: JLH
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Arsenic	6.6		µg/L	5.0	10	06/02/10	PT10F02E	06/02/10	T210F02B
2. Barium	220		µg/L	100	10	06/02/10	PT10F02E	06/02/10	T210F02B
3. Boron (NN)	420	J,V+	µg/L	300	10	06/02/10	PT10F02E	06/07/10	T210F07A
4. Cadmium	U		µg/L	1.0	10	06/02/10	PT10F02E	06/02/10	T210F02B
5. Chromium	U		µg/L	10	10	06/02/10	PT10F02E	06/02/10	T210F02B
6. Copper	U		µg/L	4.0	10	06/02/10	PT10F02E	06/02/10	T210F02B
7. Lead	U		µg/L	3.0	10	06/02/10	PT10F02E	06/02/10	T210F02B
8. Selenium	29	J,J+	µg/L	5.0	10	06/02/10	PT10F02E	06/02/10	T210F02B
9. Silver	U		µg/L	0.20	10	06/02/10	PT10F02E	06/02/10	T210F02B
10. Zinc	U		µg/L	50	10	06/02/10	PT10F02E	06/02/10	T210F02B

Chromium, Hexavalent, Dissolved (EPA 7196A)					Aliquot ID: 39362-005A		Matrix: Ground Water		Analyst: HLL
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Chromium VI	U		µg/L	5.0	1.0	NA	NA	05/27/10 09:54	WF10E27A

Mercury by CVAAS, Total (EPA 7470A)					Aliquot ID: 39362-005B		Matrix: Ground Water		Analyst: MAP
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Mercury	U		µg/L	0.20	1.0	06/02/10	PM10F02A	06/02/10	M410F02A

Volatile Organic Compounds (VOCs) by GC/MS (EPA 5030B/EPA 8260B)					Aliquot ID: 39362-005		Matrix: Ground Water		Analyst: BAG
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Acetone	U		µg/L	50	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A
2. Acrylonitrile	U		µg/L	2.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A
3. Benzene	U		µg/L	1.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A
4. Bromobenzene	U		µg/L	1.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A
5. Bromochloromethane	U		µg/L	1.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A
6. Bromodichloromethane	U		µg/L	1.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A
7. Bromoform	U		µg/L	1.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A
8. Bromomethane	U		µg/L	5.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A
9. 2-Butanone	U		µg/L	25	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A
10. n-Butylbenzene	U		µg/L	1.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A
11. sec-Butylbenzene	U		µg/L	1.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A
12. tert-Butylbenzene	U		µg/L	1.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A
13. Carbon Disulfide	U		µg/L	5.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A
14. Carbon Tetrachloride	U		µg/L	1.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A
15. Chlorobenzene	U		µg/L	1.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A
16. Chloroethane	U		µg/L	5.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A
17. Chloroform	U		µg/L	1.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A

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Analytical Laboratory Report  
Laboratory Project Number: 39362  
Laboratory Sample Number: 39362-005

Order: 39362  
Page: 19 of 86  
Date: 06/07/10

Client Identification:	Soil and Materials Engineers, Inc. - Plymouth	Sample Description:	SB9	Chain of Custody:	97638
Client Project Name:	PE60750B-02	Sample No:	5	Collect Date:	05/26/10
Client Project No:	NA	Sample Matrix:	Ground Water	Collect Time:	10:50

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Volatile Organic Compounds (VOCs) by GC/MS (EPA 5030B/EPA 8260B)				Aliquot ID: 39362-005			Matrix: Ground Water		Analyst: BAG
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
18 Chloromethane	U		µg/L	5.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A
19 2-Chlorotoluene	U		µg/L	5.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A
20 Dibromochloromethane	U		µg/L	5.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A
21 1,2-Dibromo-3-chloropropane	U		µg/L	1.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A
22 Dibromomethane	U		µg/L	5.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A
23 1,2-Dichlorobenzene	U		µg/L	1.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A
24 1,3-Dichlorobenzene	U		µg/L	1.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A
25 1,4-Dichlorobenzene	U		µg/L	1.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A
26 Dichlorodifluoromethane	U		µg/L	5.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A
27 1,1-Dichloroethane	U		µg/L	1.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A
28 1,2-Dichloroethane	U		µg/L	1.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A
29 1,1-Dichloroethene	U		µg/L	1.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A
30 cis-1,2-Dichloroethene	U		µg/L	1.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A
31 trans-1,2-Dichloroethene	U		µg/L	1.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A
32 1,2-Dichloropropane	U		µg/L	1.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A
33 cis-1,3-Dichloropropene	U		µg/L	1.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A
34 trans-1,3-Dichloropropene	U		µg/L	1.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A
35 Ethylbenzene	U		µg/L	1.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A
36 Ethylene Dibromide	U		µg/L	1.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A
37 2-Hexanone	U		µg/L	50	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A
38 Isopropylbenzene	U	J,L-	µg/L	5.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A
39 Methyl Iodide	U		µg/L	5.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A
40 Methylene Chloride	U		µg/L	5.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A
41 2-Methylnaphthalene (NN)	U		µg/L	5.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A
42 4-Methyl-2-pentanone	U		µg/L	50	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A
43 MTBE	U		µg/L	5.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A
44 Naphthalene	U		µg/L	5.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A
45 n-Propylbenzene	U		µg/L	1.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A
46 Styrene	U		µg/L	1.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A
47 1,1,1,2-Tetrachloroethane	U		µg/L	1.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A
48 1,1,2,2-Tetrachloroethane	U		µg/L	1.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A
49 Tetrachloroethene	U		µg/L	1.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A
50 Toluene	4.0		µg/L	1.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A
51 1,2,4-Trichlorobenzene	U		µg/L	5.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A
52 1,1,1-Trichloroethane	U		µg/L	1.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A
53 1,1,2-Trichloroethane	U		µg/L	1.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A
54 Trichloroethene	U		µg/L	1.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A
55 Trichlorofluoromethane	U		µg/L	1.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A
56 1,2,3-Trichloropropane	U		µg/L	1.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A
57 1,2,3-Trimethylbenzene (NN)	U		µg/L	1.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A

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Analytical Laboratory Report  
Laboratory Project Number: 39362  
Laboratory Sample Number: 39362-005

Order: 39362  
Page: 20 of 86  
Date: 06/07/10

Client Identification: **Soil and Materials Engineers,  
Inc. - Plymouth**

Client Project Name: **PE60750B-02**

Client Project No: **NA**

Sample Description: **SB9**

Sample No: **5**

Sample Matrix: **Ground Water**

Chain of Custody: **97638**

Collect Date: **05/26/10**

Collect Time: **10:50**

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Volatile Organic Compounds (VOCs) by GC/MS (EPA 5030B/EPA 8260B)					Aliquot ID: 39362-005		Matrix: Ground Water		Analyst: BAG	
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch	
58. 1,2,4-Trimethylbenzene	U		µg/L	1.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
59. 1,3,5-Trimethylbenzene	U		µg/L	1.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
60. Vinyl Chloride	U		µg/L	1.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	
61. Xylenes	U		µg/L	3.0	1.0	06/01/10	VB10F01A	06/01/10	VB10F01A	

Base/Neutral/Acid Semivolatiles by GC/MS (EPA 3510C/EPA 8270C)					Aliquot ID: 39362-005C		Matrix: Ground Water		Analyst: HLS	
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch	
1. Acenaphthene	U		µg/L	5.0	1.1	06/01/10	PS10F01C	06/04/10	S710F04A	
2. Acenaphthylene	U		µg/L	5.0	1.1	06/01/10	PS10F01C	06/04/10	S710F04A	
3. Aniline	U		µg/L	4.0	1.1	06/01/10	PS10F01C	06/04/10	S710F04A	
4. Anthracene	U		µg/L	5.0	1.1	06/01/10	PS10F01C	06/04/10	S710F04A	
5. Azobenzene (NN)	U		µg/L	5.0	1.1	06/01/10	PS10F01C	06/04/10	S710F04A	
6. Benzo(a)anthracene	U		µg/L	1.1	1.1	06/01/10	PS10F01C	06/04/10	S710F04A	
7. Benzo(a)pyrene	U		µg/L	1.1	1.1	06/01/10	PS10F01C	06/04/10	S710F04A	
8. Benzo(b)fluoranthene	U		µg/L	1.1	1.1	06/01/10	PS10F01C	06/04/10	S710F04A	
9. Benzo(ghi)perylene	U		µg/L	1.1	1.1	06/01/10	PS10F01C	06/04/10	S710F04A	
10. Benzo(k)fluoranthene	U		µg/L	1.1	1.1	06/01/10	PS10F01C	06/04/10	S710F04A	
11. Benzyl Alcohol	U		µg/L	5.0	1.1	06/01/10	PS10F01C	06/04/10	S710F04A	
12. Bis(2-chloroethoxy)methane	U		µg/L	5.0	1.1	06/01/10	PS10F01C	06/04/10	S710F04A	
13. Bis(2-chloroethyl)ether (NN)	U		µg/L	1.1	1.1	06/01/10	PS10F01C	06/04/10	S710F04A	
14. Bis(2-chloroisopropyl) Ether	U		µg/L	5.0	1.1	06/01/10	PS10F01C	06/04/10	S710F04A	
15. Bis(2-ethylhexyl)phthalate (NN)	U		µg/L	5.3	1.1	06/01/10	PS10F01C	06/04/10	S710F04A	
16. 4-Bromophenyl Phenylether (NN)	U		µg/L	5.0	1.1	06/01/10	PS10F01C	06/04/10	S710F04A	
17. Butyl Benzyl Phthalate	U		µg/L	5.3	1.1	06/01/10	PS10F01C	06/04/10	S710F04A	
18. Carbazole	U		µg/L	5.0	1.1	06/01/10	PS10F01C	06/04/10	S710F04A	
19. 4-Chloro-3-methylphenol	U		µg/L	5.0	1.1	06/01/10	PS10F01C	06/04/10	S710F04A	
20. 2-Chloronaphthalene	U		µg/L	5.0	1.1	06/01/10	PS10F01C	06/04/10	S710F04A	
21. 2-Chlorophenol	U		µg/L	5.0	1.1	06/01/10	PS10F01C	06/04/10	S710F04A	
22. 4-Chlorophenyl Phenylether	U		µg/L	5.0	1.1	06/01/10	PS10F01C	06/04/10	S710F04A	
23. Chrysene	U		µg/L	1.1	1.1	06/01/10	PS10F01C	06/04/10	S710F04A	
24. Dibenzo(a,h)anthracene	U		µg/L	2.1	1.1	06/01/10	PS10F01C	06/04/10	S710F04A	
25. Dibenzofuran	U		µg/L	4.0	1.1	06/01/10	PS10F01C	06/04/10	S710F04A	
26. 2,4-Dichlorophenol	U		µg/L	5.0	1.1	06/01/10	PS10F01C	06/04/10	S710F04A	
27. Diethyl Phthalate	U		µg/L	5.0	1.1	06/01/10	PS10F01C	06/04/10	S710F04A	
28. Dimethyl Phthalate	U		µg/L	5.0	1.1	06/01/10	PS10F01C	06/04/10	S710F04A	
29. 2,4-Dimethylphenol	U		µg/L	5.3	1.1	06/01/10	PS10F01C	06/04/10	S710F04A	
30. Di-n-butyl Phthalate	U		µg/L	5.0	1.1	06/01/10	PS10F01C	06/04/10	S710F04A	
31. 2,4-Dinitrophenol	U		µg/L	20	1.1	06/01/10	PS10F01C	06/04/10	S710F04A	
32. 2,4-Dinitrotoluene (NN)	U		µg/L	5.3	1.1	06/01/10	PS10F01C	06/04/10	S710F04A	
33. 2,6-Dinitrotoluene (NN)	U		µg/L	5.0	1.1	06/01/10	PS10F01C	06/04/10	S710F04A	

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Analytical Laboratory Report  
Laboratory Project Number: 39362  
Laboratory Sample Number: 39362-005

Order: 39362  
Page: 21 of 86  
Date: 06/07/10

Client Identification: **Soil and Materials Engineers,  
Inc. - Plymouth**

Client Project Name: **PE60750B-02**

Client Project No: **NA**

Sample Description: **SB9**

Sample No: **5**

Sample Matrix: **Ground Water**

Chain of Custody: **97638**

Collect Date: **05/26/10**

Collect Time: **10:50**

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

Base/Neutral/Acid Semivolatiles by GC/MS (EPA 3510C/EPA 8270C)				Aliquot ID: 39362-005C			Matrix: Ground Water		Analyst: HLS	
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch	
34. Di-n-octyl Phthalate	U		µg/L	5.3	1.1	06/01/10	PS10F01C	06/04/10	S710F04A	
35. Fluoranthene	U		µg/L	1.1	1.1	06/01/10	PS10F01C	06/04/10	S710F04A	
36. Fluorene	U		µg/L	5.0	1.1	06/01/10	PS10F01C	06/04/10	S710F04A	
37. Hexachlorobenzene	U		µg/L	5.0	1.1	06/01/10	PS10F01C	06/04/10	S710F04A	
38. Hexachlorobutadiene	U		µg/L	5.0	1.1	06/01/10	PS10F01C	06/04/10	S710F04A	
39. Hexachlorocyclopentadiene	U		µg/L	5.3	1.1	06/01/10	PS10F01C	06/04/10	S710F04A	
40. Indeno(1,2,3-cd)pyrene	U		µg/L	2.1	1.1	06/01/10	PS10F01C	06/04/10	S710F04A	
41. Isophorone	U		µg/L	5.0	1.1	06/01/10	PS10F01C	06/04/10	S710F04A	
42. 2-Methyl-4,6-dinitrophenol (NN)	U		µg/L	21	1.1	06/01/10	PS10F01C	06/04/10	S710F04A	
43. 2-Methylnaphthalene	U		µg/L	5.0	1.1	06/01/10	PS10F01C	06/04/10	S710F04A	
44. 2-Methylphenol (NN)	U		µg/L	5.0	1.1	06/01/10	PS10F01C	06/04/10	S710F04A	
45. 3&4-Methylphenol (NN)	U		µg/L	10	1.1	06/01/10	PS10F01C	06/04/10	S710F04A	
46. Naphthalene	U		µg/L	5.0	1.1	06/01/10	PS10F01C	06/04/10	S710F04A	
47. 2-Nitroaniline	U		µg/L	20	1.1	06/01/10	PS10F01C	06/04/10	S710F04A	
48. 3-Nitroaniline	U		µg/L	20	1.1	06/01/10	PS10F01C	06/04/10	S710F04A	
49. 4-Nitroaniline	U		µg/L	20	1.1	06/01/10	PS10F01C	06/04/10	S710F04A	
50. Nitrobenzene	U		µg/L	3.0	1.1	06/01/10	PS10F01C	06/04/10	S710F04A	
51. 2-Nitrophenol	U		µg/L	5.3	1.1	06/01/10	PS10F01C	06/04/10	S710F04A	
52. 4-Nitrophenol	U		µg/L	21	1.1	06/01/10	PS10F01C	06/04/10	S710F04A	
53. N-Nitrosodimethylamine	U		µg/L	5.0	1.1	06/01/10	PS10F01C	06/04/10	S710F04A	
54. N-Nitrosodi-n-propylamine	U		µg/L	5.0	1.1	06/01/10	PS10F01C	06/04/10	S710F04A	
55. N-Nitrosodiphenylamine	U		µg/L	5.0	1.1	06/01/10	PS10F01C	06/04/10	S710F04A	
56. Pentachlorophenol	U		µg/L	21	1.1	06/01/10	PS10F01C	06/04/10	S710F04A	
57. Phenanthrene	U		µg/L	2.0	1.1	06/01/10	PS10F01C	06/04/10	S710F04A	
58. Phenol	U		µg/L	5.0	1.1	06/01/10	PS10F01C	06/04/10	S710F04A	
59. Pyrene	U		µg/L	5.0	1.1	06/01/10	PS10F01C	06/04/10	S710F04A	
60. Pyridine	U		µg/L	5.0	1.1	06/01/10	PS10F01C	06/04/10	S710F04A	
61. 1,2,4-Trichlorobenzene	U		µg/L	5.0	1.1	06/01/10	PS10F01C	06/04/10	S710F04A	
62. 2,4,5-Trichlorophenol	U		µg/L	5.3	1.1	06/01/10	PS10F01C	06/04/10	S710F04A	
63. 2,4,6-Trichlorophenol	U		µg/L	4.0	1.1	06/01/10	PS10F01C	06/04/10	S710F04A	

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Friday, July 18, 2014

Fibertec Project Number: 63107  
Project Identification: 34901 Woodward Avenue /  
Submittal Date: 07/10/2014

Mr. Jason Lafayette  
Soil and Materials Engineers, Inc. - Plymouth  
43980 Plymouth Oaks  
Plymouth, MI 48170

Dear Mr. Lafayette,

Thank you for selecting Fibertec Environmental Services as your analytical laboratory. The samples you submitted have been analyzed in accordance with NELAC standards and the results compiled in the attached report. Any exceptions to NELAC compliance are noted in the report. These results apply only to those samples submitted. Please note TO-15 samples will be disposed of 14 days after the reporting date. All other samples will be disposed of 30 days after the reporting date.

If you have any questions regarding these results or if we may be of further assistance to you, please contact me at (517) 699-0345.

Sincerely,

A handwritten signature in black ink, appearing to read "Daryl Strandbergh", written over a light gray rectangular background.

Daryl P. Strandbergh  
Laboratory Director

DPS/kc

Enclosures

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Analytical Laboratory Report  
Laboratory Project Number: 63107  
Laboratory Sample Number: 63107-001

Order: 63107  
Page: 2 of 5  
Date: 07/18/14

Client Identification:	Soil and Materials Engineers, Inc. - Plymouth	Sample Description:	GW Sample #1	Chain of Custody:	137299-1
Client Project Name:	34901 Woodward Avenue	Sample No:	1	Collect Date:	07/10/14
Client Project No:	NA	Sample Matrix:	Ground Water	Collect Time:	11:00

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Trace Elements by ICP/MS, Total Recoverable (EPA 0200.8-M/EPA 0200.8)						Aliquot ID: 63107-001D		Matrix: Ground Water		
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		
						P. Date	P. Batch	A. Date	A. Batch	Init.
‡ 1. Iron	U		mg/L	1000	10	07/18/14	PT14G18A	07/18/14	T414G18A	JLH
2. Nickel	U		mg/L	5.0	10	07/18/14	PT14G18A	07/18/14	T414G18A	JLH

TTO - Polychlorinated Biphenyls (PCBs) (EPA 0608)						Aliquot ID: 63107-001A		Matrix: Ground Water		
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		
						P. Date	P. Batch	A. Date	A. Batch	Init.
‡ 1. Aroclor-1016	U		µg/L	0.21	1.1	07/15/14	PS14G15B	07/16/14	SA14G16A	BDA
‡ 2. Aroclor-1221	U		µg/L	0.21	1.1	07/15/14	PS14G15B	07/16/14	SA14G16A	BDA
‡ 3. Aroclor-1232	U		µg/L	0.21	1.1	07/15/14	PS14G15B	07/16/14	SA14G16A	BDA
‡ 4. Aroclor-1242	U		µg/L	0.21	1.1	07/15/14	PS14G15B	07/16/14	SA14G16A	BDA
‡ 5. Aroclor-1248	U		µg/L	0.21	1.1	07/15/14	PS14G15B	07/16/14	SA14G16A	BDA
‡ 6. Aroclor-1254	U		µg/L	0.21	1.1	07/15/14	PS14G15B	07/16/14	SA14G16A	BDA
‡ 7. Aroclor-1260	U		µg/L	0.21	1.1	07/15/14	PS14G15B	07/16/14	SA14G16A	BDA

Organochlorine Pesticides (EPA 0608)						Aliquot ID: 63107-001A		Matrix: Ground Water		
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		
						P. Date	P. Batch	A. Date	A. Batch	Init.
1. Aldrin	U	J,G-	µg/L	20	1.1	07/15/14	PS14G15B	07/15/14	SA14G15A	BDA
2. alpha-BHC	U	J,G-	µg/L	20	1.1	07/15/14	PS14G15B	07/15/14	SA14G15A	BDA
3. beta-BHC	U	J,G-	µg/L	20	1.1	07/15/14	PS14G15B	07/15/14	SA14G15A	BDA
4. delta-BHC	U	J,G-	µg/L	20	1.1	07/15/14	PS14G15B	07/15/14	SA14G15A	BDA
5. gamma-BHC	U	J,G-	µg/L	20	1.1	07/15/14	PS14G15B	07/15/14	SA14G15A	BDA
6. Chlordane	U	J,G-	µg/L	20	1.1	07/15/14	PS14G15B	07/15/14	SA14G15A	BDA
7. 4,4'-DDD	U	J,G-	µg/L	20	1.1	07/15/14	PS14G15B	07/15/14	SA14G15A	BDA
8. 4,4'-DDE	U	J,G-	µg/L	20	1.1	07/15/14	PS14G15B	07/15/14	SA14G15A	BDA
9. 4,4'-DDT	U	J,G-	µg/L	20	1.1	07/15/14	PS14G15B	07/15/14	SA14G15A	BDA
10. Dieldrin	U	J,G-	µg/L	20	1.1	07/15/14	PS14G15B	07/15/14	SA14G15A	BDA
11. Endosulfan I	U	J,G-	µg/L	20	1.1	07/15/14	PS14G15B	07/15/14	SA14G15A	BDA
12. Endosulfan II	U	J,G-	µg/L	20	1.1	07/15/14	PS14G15B	07/15/14	SA14G15A	BDA
13. Endosulfan Sulfate	U	J,G-	µg/L	20	1.1	07/15/14	PS14G15B	07/15/14	SA14G15A	BDA
14. Endrin	U	J,G-	µg/L	20	1.1	07/15/14	PS14G15B	07/15/14	SA14G15A	BDA
15. Endrin Aldehyde	U	J,G-	µg/L	20	1.1	07/15/14	PS14G15B	07/15/14	SA14G15A	BDA
16. Heptachlor	U	J,G-	µg/L	20	1.1	07/15/14	PS14G15B	07/15/14	SA14G15A	BDA
17. Heptachlor Epoxide	U	J,G-	µg/L	20	1.1	07/15/14	PS14G15B	07/15/14	SA14G15A	BDA
18. Toxaphene	U	J,G-	µg/L	20	1.1	07/15/14	PS14G15B	07/15/14	SA14G15A	BDA

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Analytical Laboratory Report  
Laboratory Project Number: 63107  
Laboratory Sample Number: 63107-001

Order: 63107  
Page: 3 of 5  
Date: 07/18/14

Client Identification:	Soil and Materials Engineers, Inc. - Plymouth	Sample Description:	GW Sample #1	Chain of Custody:	137299-1
Client Project Name:	34901 Woodward Avenue	Sample No:	1	Collect Date:	07/10/14
Client Project No:	NA	Sample Matrix:	Ground Water	Collect Time:	11:00

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

TTO - Semivolatiles by GC/MS (EPA 0625)						Aliquot ID: 63107-001A		Matrix: Ground Water		
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		
						P. Date	P. Batch	A. Date	A. Batch	Init.
‡ 1. Azobenzene	U		µg/L	59	12	07/15/14	PS14G15G	07/16/14	S714G15A	GAN
2. Benzidine	U		µg/L	200	10	07/15/14	PS14G15G	07/15/14	S714G15A	GAN
3. 3,3'-Dichlorobenzidine	U		µg/L	200	10	07/15/14	PS14G15G	07/15/14	S714G15A	GAN
4. Fluoranthene	U		µg/L	20	12	07/15/14	PS14G15G	07/16/14	S714G15A	GAN
5. Hexachloroethane	U		µg/L	59	12	07/15/14	PS14G15G	07/16/14	S714G15A	GAN

Cyanide, Available (OIA-1677-09)						Aliquot ID: 63107-001F		Matrix: Ground Water		
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		
						P. Date	P. Batch	A. Date	A. Batch	Init.
‡ 1. Cyanide, Available	U		µg/L	5.0	1.0	07/17/14	PW14G17A	07/17/14	WQ14G17A	NRV

Residue, Non-Filterable (TSS) (SM 2540 D.)						Aliquot ID: 63107-001C		Matrix: Ground Water		
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		
						P. Date	P. Batch	A. Date	A. Batch	Init.
1. Total Suspended Solids	31		mg/L	4.7	0.47	07/16/14	WH14G16A	07/17/14	WH14G16A	JEB

pH, Electrometric (SM 4500-H+ B.)						Aliquot ID: 63107-001C		Matrix: Ground Water		
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		
						P. Date	P. Batch	A. Date	A. Batch	Init.
1. pH	7.59	H	pH Units	0.10	1.0	NA	NA	07/11/14 00:00	WD14G11B	JEB

Phosphorus, Total (SM 4500-P E.)						Aliquot ID: 63107-001E		Matrix: Ground Water		
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		
						P. Date	P. Batch	A. Date	A. Batch	Init.
1. Phosphorus	0.24		mg/L	0.010	1.0	07/16/14	WF14G16A	07/17/14	WF14G16A	RKP

Biochemical Oxygen Demand, 5 Day (SM 5210 B.)						Aliquot ID: 63107-001C		Matrix: Ground Water		
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		
						P. Date	P. Batch	A. Date	A. Batch	Init.
1. BOD	4.4		mg/L	2.7	2.0	07/11/14 16:40	WE14G11A	07/16/14 15:13	WE14G11A	JEB

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Analytical Laboratory Report  
Laboratory Project Number: 63107  
Laboratory Sample Number: 63107-002

Order: 63107  
Page: 4 of 5  
Date: 07/18/14

Client Identification:	Soil and Materials Engineers, Inc. - Plymouth	Sample Description:	GW Sample #1 (A)	Chain of Custody:	
Client Project Name:	34901 Woodward Avenue	Sample No:	1A	Collect Date:	07/11/14
Client Project No:	NA	Sample Matrix:	Ground Water	Collect Time:	NA

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Phenolics, Total (E420.1 (ML))						Aliquot ID: 63107-002A		Matrix: Ground Water		
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		
						P. Date	P. Batch	A. Date	A. Batch	Init.
‡ 1. Phenolics	U		µg/L	20	1.0	NA	NA	07/16/14	NA	ME

TTO - Volatiles by GC/MS (EPA 0624)						Aliquot ID: 63107-002		Matrix: Ground Water		
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		
						P. Date	P. Batch	A. Date	A. Batch	Init.
1. Acrolein	U		µg/L	20	1.0	07/14/14 15:00	VB14G14A	07/14/14 18:04	VB14G14A	JPL
2. 2-Chloroethyl Vinyl Ether	U		µg/L	20	1.0	07/14/14 15:00	VB14G14A	07/14/14 18:04	VB14G14A	JPL

Fats, Oil & Grease (FOG) (EPA 1664B)						Aliquot ID: 63107-002B		Matrix: Ground Water		
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		
						P. Date	P. Batch	A. Date	A. Batch	Init.
1. Oil and Grease	U		mg/L	7.5	3.7	07/17/14	WH14G17A	07/17/14	WH14G17A	NRV

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**Definitions/ Qualifiers:**

- A:** Spike recovery or precision unusable due to dilution.  
**B:** The analyte was detected in the associated method blank.  
**E:** The analyte was detected at a concentration greater than the calibration range, therefore the result is estimated.  
**J:** The concentration is an estimated value.  
**M:** Modified Method  
**U:** The analyte was not detected at or above the reporting limit.  
**X:** Matrix Interference has resulted in a raised reporting limit or distorted result.  
**W:** Results reported on a wet-weight basis.  
**\*:** Value reported is outside QA limits

---

**Exception Summary:**

- G-** : Recovery of the associated Surrogate Compound exceeds the lower control limit. Results may be biased low.



Accreditation Number(s):

**E-10395 (KS)**

**T104704518-13-1 (TX)**

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**Analytical Laboratory**  
1914 Holloway Drive 8660 S. Mackinaw Trail  
Holt, MI 48842 Cadillac, MI 49601  
Phone: 517 699 0345 Phone: 231 775 8368  
Fax: 517 699 0388 Fax: 231 775 8584  
email: lab@fibertec.us

**Industrial Hygiene Services, Inc.**  
1914 Holloway Drive  
Holt, MI 48842  
Phone: 517 699 0345  
Fax: 517 699 0382  
email: asbestos@fibertec.us

**Geoprobe**  
11766 E. Grand River  
Brighton, MI 48116  
Phone: 810 220 3300  
Fax: 810 220 3311

Chain of Custody #  
**137299**  
PAGE 1 of 1

Client Name: <b>S.M.E.</b>					MATRIX (SEE RIGHT CORNER FOR CONTINUED) # OF CONTAINERS PRESERVED (Y/N)	PARAMETERS										Turnaround	Matrix Code	Deliverables
Contact Person: <b>JASON LAFAYETTE / DAN PASSY</b>						24 hour RUSH (surcharge applies)	<input checked="" type="checkbox"/> Soil	<input checked="" type="checkbox"/> GW	Ground Water	<input type="checkbox"/> Level 2								
Project Name/ Number: <b>34901 WOODWAY AVENUE</b>						48 hour RUSH (surcharge applies)	<input checked="" type="checkbox"/> Air	<input checked="" type="checkbox"/> SW	Surface Water	<input type="checkbox"/> Level 3								
QUOTE#						72 hour RUSH (surcharge applies)	<input checked="" type="checkbox"/> Oil	<input checked="" type="checkbox"/> WW	Waste Water	<input type="checkbox"/> Level 4								
Purchase Order#						<input checked="" type="checkbox"/> Standard (5-7 bus. days)	<input checked="" type="checkbox"/> P	<input checked="" type="checkbox"/> Wipe	<input checked="" type="checkbox"/> X	Other: Specify	<input type="checkbox"/> EDD							
Lab Sample #	Date	Time	Client Sample #	Client Sample Descriptor		Remarks: <b>5-DAY</b>										<input type="checkbox"/> FES Drilling Services		
	7/10/14	11:00		GW SAME #1	62134													
Comments:																		
Relinquished By:					Date/Time	Received By:					Date/Time: <b>7/10/14 11:30</b>							
Relinquished By:					Date/Time	Received By:					Date/Time: <b>7/10/14 2:55</b>							
Relinquished By:					Date/Time	Received By Laboratory:												
LAB USE ONLY:																		
Fibertec project number: <b>41500</b>																		
Laboratory Tracking: <b>63107</b>																		
Temperature at Receipt:																		

TERMS & CONDITIONS ON BACK

COC Revision: February, 2013

**RCVD ON ICE**





CITY OF DETROIT  
WATER AND SEWERAGE DEPARTMENT  
INDUSTRIAL WASTE CONTROL DIVISION

303 S. LIVERNOIS  
DETROIT, MICHIGAN 48209-3070  
PHONE 313•297•5850  
FAX 313•297•5860  
WWW.DETROITMI.GOV

## CERTIFIED MAIL

July 22, 2014

Mr. Harvey Weiss  
Woodward Brown Associates, LLC  
32820 Woodward Avenue  
Royal Oak, MI 48073

RE: Special Discharge of Construction/Excavation Wastewater – SD9-96332-A  
Site: Balmoral, 34901 Woodward Avenue, Birmingham, Michigan

Dear Mr. Weiss:

The Detroit Water and Sewerage Department (DWSD) hereby authorizes Woodward Brown Associates, LLC to discharge approximately 1,200,000 gallons of wastewater which was collected from construction/excavation activities at Balmoral site into the Detroit sewer system. The discharge point shall be the Catchbasin located approximately 37 feet northeast of the center point of the intersection of Brown Street and Peabody Street.

The daily maximum discharge rate from the site shall not exceed 120,000 gallons with a maximum of 200 gallons per minute. The discharge shall be made only after passing through a filter. The company shall adjust the flow rate to avoid any overflow from the catch basin during discharging. This authorization is granted in accordance and in conformity with plans, specifications, and other substantial data submitted to the DWSD by Woodward Brown Associates, LLC. The time of discharge shall be from 7:00 a.m. to 6:00 p.m., Monday thru Friday.

The Industrial Waste Control Division must be notified at least twenty-four (24) hours prior to the initiation and also upon completion of the discharge project. The DWSD can rescind this permit at any time if the discharge shows non-compliance with the discharge limitations or if the DWSD determines that the effluent has an adverse effect on the treatment plant.

The company is responsible for providing adequate safety for pedestrian and vehicle traffic at the discharge location. The open catch basin must not be left unattended at any time.



Mr. Harvey Weiss  
Woodward Brown Associates, LLC.  
July 22, 2014  
Page 2

The DWSD reserves the right to inspect the treatment system, discharge location, and procedure of discharge. This letter is effective as of July 22, 2014 and expires on September 30, 2014. No discharge shall be made after the expiration date without further approval from the DWSD. The company shall submit to DWSD a report specifying the actual discharge quantity, the analytical data, and the actual discharge period within fifteen (15) days of completion of the discharge project.

Any violations of the permit parameter limitations shall be subjected to a penalty of \$500.00 per violation per day per variable.

If you have any questions, please contact Ms. Tessy Jose at (313) 297-5878.

Sincerely,

Jayakumar Pallegar, P.E.  
Sr. Associate Engineer  
Industrial Waste Control Division

I Concur:

Joe I Belen, P.E.  
Chemical Engineer  
Industrial Waste Control Division

JP/JB/TJ/vb

cc: Mr. Daniel R Cassidy  
Soil and Materials Engineers, Inc.  
43980 Plymouth Oaks Boulevard  
Plymouth, MI 48170





CITY OF DETROIT  
WATER AND SEWERAGE DEPARTMENT  
INDUSTRIAL WASTE CONTROL DIVISION

303 S. LIVERNOIS AVENUE  
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PHONE: 313.297.9850  
FA X: 313.297-5860  
[WWW.DETROITMI.GOV](http://WWW.DETROITMI.GOV)

REC'D NOV 05 2014

**CERTIFIED MAIL**

October 30, 2014

Mr. Harvey Weiss  
Woodward Brown Associates, LLC  
32820 Woodward Avenue  
Royal Oak, MI 48073

RE: Renewal of Authorization – SD9-96332-A  
Site: Balmoral, 34901 Woodward Avenue, Birmingham, Michigan


Dear Mr. Weiss:

The Detroit Water and Sewerage Department (DWSD) hereby renews the Special Discharge Authorization dated July 22, 2014 and authorizes Woodward Brown Associates, LLC to discharge approximately 1,200,000 gallons of pretreated wastewater generated from the construction/excavation at Balmoral site into the Detroit sewer system. This decision is based on your request dated October 14, 2014, which states additional dewatering will be required during construction activities. The discharge point shall be the Catchbasin located approximately 37 feet northeast of the center point of the intersection of Brown Street and Peabody Street.

The daily maximum discharge rate from the site shall not exceed 120,000 gallons with a maximum of 200 gallons per minute. The discharge shall be made only after passing through a filter. The company shall adjust the flow rate to avoid any overflow from the catch basin during discharging. This authorization is granted in accordance and in conformity with plans, specifications, and other substantial data submitted to the DWSD by Woodward Brown Associates, LLC. The time of discharge shall be from 7:00 a.m. to 6:00 p.m., Monday thru Friday.

The Industrial Waste Control Division must be notified at least twenty-four (24) hours prior to the initiation and also upon completion of the discharge project. The DWSD can rescind this permit at any time if the DWSD determines that the effluent has an adverse effect on the treatment plant.

The company is responsible for providing adequate safety for pedestrian and vehicle traffic at the discharge location. The open catch basin must not be left unattended at any time.

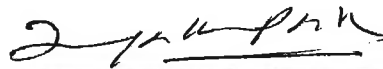


Mr. Harvey Weiss  
Woodward Brown Associates, LLC.  
October 30, 2014  
Page 2

The DWSD reserves the right to inspect the treatment system, discharge location, and procedure of discharge. This letter is effective as of October 30, 2014 and expires on March 31, 2015. No discharge shall be made after the expiration date without further approval from the DWSD. The company shall submit to DWSD a report specifying the actual discharge quantity, and the actual discharge period within fifteen (15) days of completion of the discharge project.

If you have any questions, please contact Ms. Tessy Jose at (313) 297-5878.

Sincerely,



Jayakumar Pallegar, P.E.  
Sr. Associate Engineer  
Industrial Waste Control Division



I Concur:

Jose I Belen, P.E.  
Chemical Engineer  
Industrial Waste Control Division

JP/JB/TJ/rg

cc: Mr. Daniel R Cassidy  
Soil and Materials Engineers, Inc.  
43980 Plymouth Oaks Boulevard  
Plymouth, MI 48170



October 21, 2014

City of Detroit  
Water and Sewerage Dept.  
Industrial Waste Control Division  
301 S. Livernois Ave.  
Detroit, MI 48209

RE: Special Discharge Permit  
34901 Woodward Ave.  
Birmingham, MI

To Whom it May Concern,

The City of Birmingham has previously approved the permit application referenced above. We endorse the extension of this permit through March 31, 2015.

The City of Birmingham will be collecting funds to cover the cost of sewage discharge for this project, and hereby accepts the discharge as proposed.

Sincerely,

A handwritten signature in blue ink that reads 'Paul T. O'Meara'. The signature is fluid and cursive, with a long horizontal stroke at the end.

Paul T. O'Meara, P.E.  
City Engineer

## **APPENDIX C**

### **SOIL WASTE CHARACTERIZATION SAMPLE LABORATORY DATA AND CHAIN OF CUSTODY**

### **EXCAVATED SOIL DISPOSAL SUMMARY**

### **EXCAVATED SOIL TRUCKING TICKETS AND DISPOSAL MANIFESTS**



Analytical Laboratory Report  
Laboratory Project Number: 62839  
Laboratory Sample Number: 62839-001

Order: 62839  
Page: 2 of 6  
Date: 06/27/14

Client Identification:	Soil and Materials Engineers, Inc. - Plymouth	Sample Description:	CS-1	Chain of Custody:	120424
Client Project Name:	The Balmoral	Sample No:	1	Collect Date:	06/24/14
Client Project No:	061377.03	Sample Matrix:	Soil/Solid	Collect Time:	14:47
Sample Comments:	Soil results have been calculated and reported on a dry weight basis unless otherwise noted.				
Definitions:	Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.				

Dry Weight Determination (ASTM D 2974-87)						Aliquot ID: 62839-001A		Matrix: Soil/Solid		
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		
						P. Date	P. Batch	A. Date	A. Batch	Init.
‡ 1. Percent Moisture (Water Content)	11		%	0.1	1.0	06/25/14	MC140625	06/27/14	MC140625	BMG

RCRA Elements by ICP/MS (EPA 0200.2-M/EPA 6020A)						Aliquot ID: 62839-001A		Matrix: Soil/Solid		
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		
						P. Date	P. Batch	A. Date	A. Batch	Init.
1. Arsenic	5300		µg/kg	100	20	06/26/14	PT14F26A	06/26/14	T214F26A	JLP
2. Barium	68000		µg/kg	1000	20	06/26/14	PT14F26A	06/26/14	T214F26A	JLP
3. Cadmium	200		µg/kg	50	20	06/26/14	PT14F26A	06/26/14	T214F26A	JLP
4. Chromium	11000		µg/kg	500	20	06/26/14	PT14F26A	06/26/14	T214F26A	JLP
5. Lead	37000		µg/kg	1000	20	06/26/14	PT14F26A	06/26/14	T214F26A	JLP
6. Selenium	520		µg/kg	200	20	06/26/14	PT14F26A	06/26/14	T214F26A	JLP
7. Silver	U		µg/kg	100	20	06/26/14	PT14F26A	06/26/14	T214F26A	JLP

Mercury by CVAAS (EPA 7471B)						Aliquot ID: 62839-001A		Matrix: Soil/Solid		
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		
						P. Date	P. Batch	A. Date	A. Batch	Init.
1. Mercury	U		µg/kg	50	9.6	06/26/14	PM14F26A	06/27/14	M614F27A	JLH

Polychlorinated Biphenyls (PCBs) (EPA 3546/EPA 8082A)						Aliquot ID: 62839-001A		Matrix: Soil/Solid		
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		
						P. Date	P. Batch	A. Date	A. Batch	Init.
1. Aroclor-1016	U		µg/kg	330	5.0	06/25/14	PS14F25D	06/26/14	SA14F26A	BDA
2. Aroclor-1221	U		µg/kg	330	5.0	06/25/14	PS14F25D	06/26/14	SA14F26A	BDA
3. Aroclor-1232	U		µg/kg	330	5.0	06/25/14	PS14F25D	06/26/14	SA14F26A	BDA
4. Aroclor-1242	U		µg/kg	330	5.0	06/25/14	PS14F25D	06/26/14	SA14F26A	BDA
5. Aroclor-1248	U		µg/kg	330	5.0	06/25/14	PS14F25D	06/26/14	SA14F26A	BDA
6. Aroclor-1254	U		µg/kg	330	5.0	06/25/14	PS14F25D	06/26/14	SA14F26A	BDA
7. Aroclor-1260	U		µg/kg	330	5.0	06/25/14	PS14F25D	06/26/14	SA14F26A	BDA
‡ 8. Aroclor-1262	U		µg/kg	330	5.0	06/25/14	PS14F25D	06/26/14	SA14F26A	BDA
‡ 9. Aroclor-1268	U		µg/kg	330	5.0	06/25/14	PS14F25D	06/26/14	SA14F26A	BDA

Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035/EPA 8260B)						Aliquot ID: 62839-001		Matrix: Soil/Solid		
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		
						P. Date	P. Batch	A. Date	A. Batch	Init.
1. Acetone	U		µg/kg	1000	1.0	06/25/14	VH14F25A	06/25/14	VH14F25A	CCD

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Analytical Laboratory Report  
Laboratory Project Number: 62839  
Laboratory Sample Number: 62839-001

Order: 62839  
Page: 3 of 6  
Date: 06/27/14

Client Identification:	Soil and Materials Engineers, Inc. - Plymouth	Sample Description:	CS-1	Chain of Custody:	120424
Client Project Name:	The Balmoral	Sample No:	1	Collect Date:	06/24/14
Client Project No:	061377.03	Sample Matrix:	Soil/Solid	Collect Time:	14:47
Sample Comments:	Soil results have been calculated and reported on a dry weight basis unless otherwise noted.				
Definitions:	Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.				

Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035/EPA 8260B)						Aliquot ID: 62839-001		Matrix: Soil/Solid		
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		
						P. Date	P. Batch	A. Date	A. Batch	Init.
‡ 2. Acrylonitrile	U		µg/kg	110	1.0	06/25/14	VH14F25A	06/25/14	VH14F25A	CCD
3. Benzene	U		µg/kg	50	1.0	06/25/14	VH14F25A	06/25/14	VH14F25A	CCD
4. Bromobenzene	U		µg/kg	100	1.0	06/25/14	VH14F25A	06/25/14	VH14F25A	CCD
5. Bromochloromethane	U		µg/kg	110	1.0	06/25/14	VH14F25A	06/25/14	VH14F25A	CCD
6. Bromodichloromethane	U		µg/kg	100	1.0	06/25/14	VH14F25A	06/25/14	VH14F25A	CCD
7. Bromoform	U		µg/kg	110	1.0	06/25/14	VH14F25A	06/25/14	VH14F25A	CCD
8. Bromomethane	U		µg/kg	200	1.0	06/25/14	VH14F25A	06/25/14	VH14F25A	CCD
9. 2-Butanone	U		µg/kg	750	1.0	06/25/14	VH14F25A	06/25/14	VH14F25A	CCD
10. n-Butylbenzene	U		µg/kg	50	1.0	06/25/14	VH14F25A	06/25/14	VH14F25A	CCD
11. sec-Butylbenzene	U		µg/kg	50	1.0	06/25/14	VH14F25A	06/25/14	VH14F25A	CCD
12. tert-Butylbenzene	U		µg/kg	50	1.0	06/25/14	VH14F25A	06/25/14	VH14F25A	CCD
13. Carbon Disulfide	U		µg/kg	250	1.0	06/25/14	VH14F25A	06/25/14	VH14F25A	CCD
14. Carbon Tetrachloride	U		µg/kg	50	1.0	06/25/14	VH14F25A	06/25/14	VH14F25A	CCD
15. Chlorobenzene	U		µg/kg	56	1.0	06/25/14	VH14F25A	06/25/14	VH14F25A	CCD
16. Chloroethane	U		µg/kg	250	1.0	06/25/14	VH14F25A	06/25/14	VH14F25A	CCD
17. Chloroform	U		µg/kg	50	1.0	06/25/14	VH14F25A	06/25/14	VH14F25A	CCD
18. Chloromethane	U		µg/kg	250	1.0	06/25/14	VH14F25A	06/25/14	VH14F25A	CCD
19. 2-Chlorotoluene	U		µg/kg	50	1.0	06/25/14	VH14F25A	06/25/14	VH14F25A	CCD
20. Dibromochloromethane	U		µg/kg	110	1.0	06/25/14	VH14F25A	06/25/14	VH14F25A	CCD
‡ 21. 1,2-Dibromo-3-chloropropane (SIM)	U		µg/kg	56	1.0	06/25/14	VH14F25A	06/25/14	VH14F25A	CCD
22. Dibromomethane	U		µg/kg	250	1.0	06/25/14	VH14F25A	06/25/14	VH14F25A	CCD
23. 1,2-Dichlorobenzene	U		µg/kg	100	1.0	06/25/14	VH14F25A	06/25/14	VH14F25A	CCD
24. 1,3-Dichlorobenzene	U		µg/kg	100	1.0	06/25/14	VH14F25A	06/25/14	VH14F25A	CCD
25. 1,4-Dichlorobenzene	U		µg/kg	110	1.0	06/25/14	VH14F25A	06/25/14	VH14F25A	CCD
26. Dichlorodifluoromethane	U		µg/kg	250	1.0	06/25/14	VH14F25A	06/25/14	VH14F25A	CCD
27. 1,1-Dichloroethane	U		µg/kg	50	1.0	06/25/14	VH14F25A	06/25/14	VH14F25A	CCD
28. 1,2-Dichloroethane	U		µg/kg	50	1.0	06/25/14	VH14F25A	06/25/14	VH14F25A	CCD
29. 1,1-Dichloroethene	U		µg/kg	50	1.0	06/25/14	VH14F25A	06/25/14	VH14F25A	CCD
30. cis-1,2-Dichloroethene	U		µg/kg	50	1.0	06/25/14	VH14F25A	06/25/14	VH14F25A	CCD
31. trans-1,2-Dichloroethene	U		µg/kg	56	1.0	06/25/14	VH14F25A	06/25/14	VH14F25A	CCD
32. 1,2-Dichloropropane	U		µg/kg	50	1.0	06/25/14	VH14F25A	06/25/14	VH14F25A	CCD
33. cis-1,3-Dichloropropene	U		µg/kg	50	1.0	06/25/14	VH14F25A	06/25/14	VH14F25A	CCD
34. trans-1,3-Dichloropropene	U		µg/kg	56	1.0	06/25/14	VH14F25A	06/25/14	VH14F25A	CCD
35. Ethylbenzene	U		µg/kg	50	1.0	06/25/14	VH14F25A	06/25/14	VH14F25A	CCD
36. Ethylene Dibromide	U		µg/kg	56	1.0	06/25/14	VH14F25A	06/25/14	VH14F25A	CCD
37. 2-Hexanone	U		µg/kg	2500	1.0	06/26/14	VH14F26B	06/26/14	VH14F26B	CCD
38. Isopropylbenzene	U		µg/kg	250	1.0	06/25/14	VH14F25A	06/25/14	VH14F25A	CCD
39. Methylene Chloride	U		µg/kg	110	1.0	06/25/14	VH14F25A	06/25/14	VH14F25A	CCD

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Analytical Laboratory Report  
Laboratory Project Number: 62839  
Laboratory Sample Number: 62839-001

Order: 62839  
Page: 4 of 6  
Date: 06/27/14

Client Identification:	Soil and Materials Engineers, Inc. - Plymouth	Sample Description:	CS-1	Chain of Custody:	120424
Client Project Name:	The Balmoral	Sample No:	1	Collect Date:	06/24/14
Client Project No:	061377.03	Sample Matrix:	Soil/Solid	Collect Time:	14:47
Sample Comments:	Soil results have been calculated and reported on a dry weight basis unless otherwise noted.				
Definitions:	Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.				

Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035/EPA 8260B)						Aliquot ID: 62839-001		Matrix: Soil/Solid		
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		
						P. Date	P. Batch	A. Date	A. Batch	Init.
‡ 40. 2-Methylnaphthalene	U		µg/kg	330	1.0	06/25/14	VH14F25A	06/25/14	VH14F25A	CCD
41. 4-Methyl-2-pentanone	U		µg/kg	2500	1.0	06/25/14	VH14F25A	06/25/14	VH14F25A	CCD
42. MTBE	U		µg/kg	250	1.0	06/25/14	VH14F25A	06/25/14	VH14F25A	CCD
43. Naphthalene	U		µg/kg	330	1.0	06/25/14	VH14F25A	06/25/14	VH14F25A	CCD
44. n-Propylbenzene	U		µg/kg	100	1.0	06/25/14	VH14F25A	06/25/14	VH14F25A	CCD
45. Styrene	U		µg/kg	50	1.0	06/25/14	VH14F25A	06/25/14	VH14F25A	CCD
46. 1,1,1,2-Tetrachloroethane	U		µg/kg	100	1.0	06/25/14	VH14F25A	06/25/14	VH14F25A	CCD
47. 1,1,2,2-Tetrachloroethane	U		µg/kg	56	1.0	06/25/14	VH14F25A	06/25/14	VH14F25A	CCD
48. Tetrachloroethene	U		µg/kg	50	1.0	06/25/14	VH14F25A	06/25/14	VH14F25A	CCD
49. Toluene	U		µg/kg	50	1.0	06/25/14	VH14F25A	06/25/14	VH14F25A	CCD
50. 1,2,4-Trichlorobenzene	U		µg/kg	330	1.0	06/25/14	VH14F25A	06/25/14	VH14F25A	CCD
51. 1,1,1-Trichloroethane	U		µg/kg	50	1.0	06/25/14	VH14F25A	06/25/14	VH14F25A	CCD
52. 1,1,2-Trichloroethane	U		µg/kg	50	1.0	06/25/14	VH14F25A	06/25/14	VH14F25A	CCD
53. Trichloroethene	U		µg/kg	50	1.0	06/25/14	VH14F25A	06/25/14	VH14F25A	CCD
54. Trichlorofluoromethane	U		µg/kg	110	1.0	06/25/14	VH14F25A	06/25/14	VH14F25A	CCD
55. 1,2,3-Trichloropropane	U		µg/kg	110	1.0	06/25/14	VH14F25A	06/25/14	VH14F25A	CCD
‡ 56. 1,2,3-Trimethylbenzene	U		µg/kg	100	1.0	06/25/14	VH14F25A	06/25/14	VH14F25A	CCD
57. 1,2,4-Trimethylbenzene	U		µg/kg	100	1.0	06/25/14	VH14F25A	06/25/14	VH14F25A	CCD
58. 1,3,5-Trimethylbenzene	U		µg/kg	100	1.0	06/25/14	VH14F25A	06/25/14	VH14F25A	CCD
59. Vinyl Chloride	U		µg/kg	40	1.0	06/25/14	VH14F25A	06/25/14	VH14F25A	CCD
60. Xylenes	U		µg/kg	150	1.0	06/25/14	VH14F25A	06/25/14	VH14F25A	CCD

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Analytical Laboratory Report  
Laboratory Project Number: 62839  
Laboratory Sample Number: 62839-001

Order: 62839  
Page: 5 of 6  
Date: 06/27/14

Client Identification:	Soil and Materials Engineers, Inc. - Plymouth	Sample Description:	CS-1	Chain of Custody:	120424
Client Project Name:	The Balmoral	Sample No:	1	Collect Date:	06/24/14
Client Project No:	061377.03	Sample Matrix:	Soil/Solid	Collect Time:	14:47
Sample Comments:	Soil results have been calculated and reported on a dry weight basis unless otherwise noted.				
Definitions:	Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.				

TCLP Metals by ICP/MS (EPA 3005A-M/EPA 6020A)						Aliquot ID: 62839-001B		Matrix: TCLP Extract		
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		Init.
						P. Date	P. Batch	A. Date	A. Batch	
1. Lead	U		mg/L	1.0	20	06/26/14	PT14F26D	06/26/14	T214F26A	JLP

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**Definitions/ Qualifiers:**

- A:** Spike recovery or precision unusable due to dilution.  
**B:** The analyte was detected in the associated method blank.  
**E:** The analyte was detected at a concentration greater than the calibration range, therefore the result is estimated.  
**J:** The concentration is an estimated value.  
**M:** Modified Method  
**U:** The analyte was not detected at or above the reporting limit.  
**X:** Matrix Interference has resulted in a raised reporting limit or distorted result.  
**W:** Results reported on a wet-weight basis.  
**\*:** Value reported is outside QA limits

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**Exception Summary:**

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Accreditation Number(s):

**E-10395 (KS)**

**T104704518-13-1 (TX)**

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Friday, June 27, 2014

Fibertec Project Number: 62839  
Project Identification: The Balmoral /061377.03  
Submittal Date: 06/25/2014

Mr. Dan Cassidy  
Soil and Materials Engineers, Inc. - Plymouth  
43980 Plymouth Oaks  
Plymouth, MI 48170

Dear Mr. Cassidy,

Thank you for selecting Fibertec Environmental Services as your analytical laboratory. The samples you submitted have been analyzed in accordance with NELAC standards and the results compiled in the attached report. Any exceptions to NELAC compliance are noted in the report. These results apply only to those samples submitted. Please note TO-15 samples will be disposed of 14 days after the reporting date. All other samples will be disposed of 30 days after the reporting date.

TCLP (1311) extraction date is June 25, 2014.

If you have any questions regarding these results or if we may be of further assistance to you, please contact me at (517) 699-0345.

Sincerely,

A handwritten signature in black ink, appearing to read "Daryl Strandbergh". The signature is fluid and cursive, with a large, sweeping flourish at the end.

Daryl P. Strandbergh  
Laboratory Director

DPS/kc

Enclosures

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## Case Narrative

Client: Soil and Materials Engineers, Inc.

Project Identification: The Balmoral /061377.03

One soil sample was collected on June 24, 2014 and received by Fibertec, Inc. on June 25, 2014. The shipping cooler temperature was within specifications (0 – 6 °C) and the sample containers arrived without any visible signs of tampering or breakage. The sample was prepared and analyzed within the required holding time. No exceptions were observed.

### Cross reference

Client ID#	Lab ID#	Matrix	Requested Tests
CS-1	62839-001	S	% Moisture, Trace Metals, Mercury, PCB, VOC, TCLP Lead

Sample data has been reviewed and results are valid as reported.

**Quality Control Report**  
**Preparation Batch QC Summary**  
**Gas Chromatography - Mass Spectrometry (Volatiles)**  
**Soil/Solid**

Batch ID: VH14F25A  
Page: 1 of 2  
Date: 06/26/14

Preparation Batch: VH14F25A

Preparation Date: 06/25/14

Parameter	Method Blank (MB)			Laboratory Control Sample (LCS)					LCS Duplicate (LCD)				Run Code		
	Result µg/kg	PQL µg/kg	Q	Result µg/kg	Spike µg/kg	Rec. %	LCL - UCL %	Q	Rec. %	RPD %	UCL %	Q	MB	LCS	LCD
1. Acetone	U	250		6,319	5,000	126	50 - 145		109	14	20		MB-1	LCS-1	LCD-1
2. Acrylonitrile	U	100		5,333	5,000	107	66 - 139		114	6	20		MB-1	LCS-1	LCD-1
3. Benzene	U	25.0		5,463	5,000	109	70 - 130		107	2	20		MB-1	LCS-1	LCD-1
4. Bromobenzene	U	50.0		5,278	5,000	106	70 - 130		103	3	20		MB-1	LCS-1	LCD-1
5. Bromochloromethane	U	100		5,774	5,000	115	62 - 134		113	2	20		MB-1	LCS-1	LCD-1
6. Bromodichloromethane	U	25.0		5,580	5,000	112	70 - 130		110	2	20		MB-1	LCS-1	LCD-1
7. Bromoform	U	100		5,698	5,000	114	70 - 130		116	2	20		MB-1	LCS-1	LCD-1
8. Bromomethane	U	100		7,517	5,000	150	56 - 135	*	146	3	20		MB-1	LCS-1	LCD-1
9. t-Butanol	U	1,000		37,086	50,000	74	50 - 150		87	16	20		MB-1	LCS-1	LCD-1
10. 2-Butanone	U	100		6,425	5,000	129	56 - 141		111	15	20		MB-1	LCS-1	LCD-1
11. n-Butylbenzene	U	25.0		5,551	5,000	111	70 - 141		105	6	20		MB-1	LCS-1	LCD-1
12. sec-Butylbenzene	U	25.0		5,702	5,000	114	70 - 130		109	4	20		MB-1	LCS-1	LCD-1
13. tert-Butylbenzene	U	25.0		5,699	5,000	114	70 - 130		110	4	20		MB-1	LCS-1	LCD-1
14. Carbon Disulfide	U	100		6,724	5,000	134	70 - 132	*	126	6	20		MB-1	LCS-1	LCD-1
15. Carbon Tetrachloride	U	25.0		5,578	5,000	112	70 - 143		107	5	20		MB-1	LCS-1	LCD-1
16. Chlorobenzene	U	50.0		5,252	5,000	105	70 - 130		102	3	20		MB-1	LCS-1	LCD-1
17. Chloroethane	U	100		6,786	5,000	136	60 - 150		132	3	20		MB-1	LCS-1	LCD-1
18. Chloroform	U	25.0		5,377	5,000	108	71 - 126		105	3	20		MB-1	LCS-1	LCD-1
19. Chloromethane	U	100		6,465	5,000	129	63 - 137		121	6	20		MB-1	LCS-1	LCD-1
20. 2-Chlorotoluene	U	25.0		5,494	5,000	110	70 - 130		106	4	20		MB-1	LCS-1	LCD-1
21. Cyclohexane	U	25.0		5,599	5,000	112	69 - 148		107	5	20		MB-1	LCS-1	LCD-1
22. Dibromochloromethane	U	100		5,683	5,000	114	70 - 130		114	0	20		MB-1	LCS-1	LCD-1
23. 1,2-Dibromo-3-chloropropane (SIM)	U	50.0		5,819	5,000	116	70 - 134		126	8	20		MB-1	LCS-1	LCD-1
24. Dibromomethane	U	100		5,307	5,000	106	70 - 130		108	2	20		MB-1	LCS-1	LCD-1
25. 1,2-Dichlorobenzene	U	25.0		5,207	5,000	104	70 - 130		103	1	20		MB-1	LCS-1	LCD-1
26. 1,3-Dichlorobenzene	U	25.0		5,260	5,000	105	70 - 130		101	4	20		MB-1	LCS-1	LCD-1
27. 1,4-Dichlorobenzene	U	100		5,231	5,000	105	70 - 130		102	3	20		MB-1	LCS-1	LCD-1
28. trans-1,4-Dichloro-2-butene (SIM)	U	25.0		5,165	5,000	103	70 - 150		107	4	20		MB-1	LCS-1	LCD-1
29. Dichlorodifluoromethane	U	25.0		6,475	5,000	130	70 - 144		124	5	20		MB-1	LCS-1	LCD-1
30. 1,1-Dichloroethane	U	25.0		5,238	5,000	105	70 - 130		103	2	20		MB-1	LCS-1	LCD-1
31. 1,2-Dichloroethane	U	25.0		4,874	5,000	97	69 - 130		99	2	20		MB-1	LCS-1	LCD-1
32. 1,1-Dichloroethene	U	25.0		5,150	5,000	103	72 - 131		99	4	20		MB-1	LCS-1	LCD-1
33. cis-1,2-Dichloroethene	U	25.0		5,263	5,000	105	70 - 131		106	1	20		MB-1	LCS-1	LCD-1
34. trans-1,2-Dichloroethene	U	50.0		5,270	5,000	105	70 - 131		104	1	20		MB-1	LCS-1	LCD-1
35. 1,2-Dichloropropane	U	25.0		5,017	5,000	100	80 - 127		101	1	20		MB-1	LCS-1	LCD-1
36. 1,3-Dichloropropane	U	25.0		5,205	5,000	104	70 - 130		107	3	20		MB-1	LCS-1	LCD-1
37. 2,2-Dichloropropane	U	25.0		5,450	5,000	109	65 - 166		106	3	20		MB-1	LCS-1	LCD-1
38. 1,1-Dichloropropene	U	25.0		5,739	5,000	115	70 - 135		111	4	20		MB-1	LCS-1	LCD-1
39. cis-1,3-Dichloropropene	U	25.0		5,801	5,000	116	70 - 131		116	0	20		MB-1	LCS-1	LCD-1
40. trans-1,3-Dichloropropene	U	50.0		5,160	5,000	103	70 - 132		104	1	20		MB-1	LCS-1	LCD-1
41. Diethyl Ether	U	25.0		5,343	5,000	107	52 - 150		109	2	20		MB-1	LCS-1	LCD-1
42. Diisopropyl Ether	U	25.0		5,857	5,000	117	61 - 150		116	1	20		MB-1	LCS-1	LCD-1
43. ETBE	U	25.0		5,231	5,000	105	65 - 146		109	4	20		MB-1	LCS-1	LCD-1
44. Ethylbenzene	U	25.0		5,685	5,000	114	80 - 120		110	4	20		MB-1	LCS-1	LCD-1
45. Ethylene Dibromide	U	50.0		5,301	5,000	106	70 - 130		109	3	20		MB-1	LCS-1	LCD-1
46. Hexachlorobutadiene	U	100		5,032	5,000	101	77 - 137		97	4	20		MB-1	LCS-1	LCD-1
47. Hexachloroethane	U	100		5,590	5,000	112	70 - 135		107	5	20		MB-1	LCS-1	LCD-1
48. 2-Hexanone	U	50.0		7,303	5,000	146	68 - 138	*	115	24	20	*	MB-1	LCS-1	LCD-1
49. Isopropylbenzene	U	25.0		6,100	5,000	122	70 - 130		118	3	20		MB-1	LCS-1	LCD-1
50. 4-Isopropyltoluene	U	25.0		5,662	5,000	113	70 - 131		108	5	20		MB-1	LCS-1	LCD-1
51. Methylene Chloride	U	100		5,640	5,000	113	62 - 130		110	3	20		MB-1	LCS-1	LCD-1

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**Quality Control Report**  
**Preparation Batch QC Summary**  
**Gas Chromatography - Mass Spectrometry (Volatiles)**  
**Soil/Solid**

Batch ID: VH14F25A  
Page: 2 of 2  
Date: 06/26/14

Preparation Batch: VH14F25A      Preparation Date: 06/25/14

Parameter	Method Blank (MB)			Laboratory Control Sample (LCS)					LCS Duplicate (LCD)				Run Code		
	Result µg/kg	PQL µg/kg	Q	Result µg/kg	Spike µg/kg	Rec. %	LCL - UCL %	Q	Rec. %	RPD %	UCL %	Q	MB	LCS	LCD
52. 2-Methylnaphthalene	U	100		4,690	5,000	94	51 - 149		103	9	20		MB-1	LCS-1	LCD-1
53. 4-Methyl-2-pentanone	U	100		5,445	5,000	109	70 - 133		110	1	20		MB-1	LCS-1	LCD-1
54. MTBE	U	25.0		5,030	5,000	101	61 - 142		106	5	20		MB-1	LCS-1	LCD-1
55. Naphthalene	27.8	25.0	*	5,259	5,000	105	70 - 136		112	6	20		MB-1	LCS-1	LCD-1
56. n-Propylbenzene	U	25.0		5,650	5,000	113	70 - 130		109	4	20		MB-1	LCS-1	LCD-1
57. Styrene	U	25.0		6,155	5,000	123	70 - 130		120	2	20		MB-1	LCS-1	LCD-1
58. TAME	U	50.0		4,762	5,000	95	64 - 137		101	6	20		MB-1	LCS-1	LCD-1
59. 1,1,1,2-Tetrachloroethane	U	25.0		5,297	5,000	106	70 - 130		103	3	20		MB-1	LCS-1	LCD-1
60. 1,1,2,2-Tetrachloroethane	U	50.0		5,069	5,000	101	70 - 130		105	4	20		MB-1	LCS-1	LCD-1
61. Tetrachloroethene	U	25.0		5,096	5,000	102	70 - 130		98	4	20		MB-1	LCS-1	LCD-1
62. Tetrahydrofuran	U	250		4,620	5,000	92	53 - 130		103	11	20		MB-1	LCS-1	LCD-1
63. Toluene	U	25.0		5,389	5,000	108	79 - 120		105	3	20		MB-1	LCS-1	LCD-1
64. 1,2,3-Trichlorobenzene	U	100		4,949	5,000	99	70 - 130		100	1	20		MB-1	LCS-1	LCD-1
65. 1,2,4-Trichlorobenzene	U	100		4,940	5,000	99	70 - 133		99	0	20		MB-1	LCS-1	LCD-1
66. 1,1,1-Trichloroethane	U	25.0		5,574	5,000	111	70 - 130		109	2	20		MB-1	LCS-1	LCD-1
67. 1,1,2-Trichloroethane	U	25.0		5,436	5,000	109	70 - 130		110	1	20		MB-1	LCS-1	LCD-1
68. Trichloroethene	U	25.0		5,166	5,000	103	70 - 130		101	2	20		MB-1	LCS-1	LCD-1
69. Trichlorofluoromethane	U	100		5,773	5,000	115	50 - 150		112	3	20		MB-1	LCS-1	LCD-1
70. 1,2,3-Trichloropropane	U	100		5,041	5,000	101	70 - 130		105	4	20		MB-1	LCS-1	LCD-1
71. 1,2,3-Trimethylbenzene	U	25.0		5,296	5,000	106	70 - 130		103	3	20		MB-1	LCS-1	LCD-1
72. 1,2,4-Trimethylbenzene	U	25.0		5,842	5,000	117	70 - 130		112	4	20		MB-1	LCS-1	LCD-1
73. 1,3,5-Trimethylbenzene	U	25.0		5,862	5,000	117	70 - 130		111	5	20		MB-1	LCS-1	LCD-1
74. Vinyl Chloride	U	25.0		5,742	5,000	115	70 - 137		111	4	20		MB-1	LCS-1	LCD-1
75. m&p-Xylene	U	50.0		11,728	10,000	117	70 - 130		114	3	20		MB-1	LCS-1	LCD-1
76. o-Xylene	U	25.0		5,949	5,000	119	70 - 130		117	2	20		MB-1	LCS-1	LCD-1

System Monitoring Compounds (Surrogates):	Method Blank (MB)				Laboratory Control Sample (LCS)					LCS Duplicate (LCD)				Run Code		
	Result	Spike	Rec.		Result	Spike	Rec.	LCL - UCL		Rec.	RPD	UCL		MB	LCS	LCD
	µg/kg	µg/kg	%	Q	µg/kg	µg/kg	%	%	Q	%	%	%	Q			
1. Dibromofluoromethane(S)	5,221	5,000	104		5,262	5,000	105	77 - 120		104	1	20		MB-1	LCS-1	LCD-1
2. 1,2-Dichloroethane-d4(S)	4,970	5,000	99		4,870	5,000	97	65 - 131		98	1	20		MB-1	LCS-1	LCD-1
3. Toluene-d8(S)	5,096	5,000	102		5,107	5,000	102	75 - 121		102	0	20		MB-1	LCS-1	LCD-1
4. 4-Bromofluorobenzene(S)	4,866	5,000	97		5,119	5,000	102	80 - 120		102	0	20		MB-1	LCS-1	LCD-1

**Definitions/ Qualifiers:**

U: The analyte was not detected at or above the PQL.  
\*: Value reported is outside QC limits

**Run Code (Analysis Sequence/Run Time):**

MB-1    VH14F25A    06/25/14 15:35  
LCS-1    VH14F25A    06/25/14 10:29  
LCD-1    VH14F25A    06/25/14 10:56

**Exception Summary:**

Exceptions have been properly noted on reported results or affected samples have been scheduled for reanalysis when appropriate.

**Report Generated By:**

*Carine Dempsey*

**Carine Dempsey**

Chemist, Volatile Organics  
Thursday, June 26, 2014  
9:35:15 AM

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**Quality Control Report**  
**Preparation Batch QC Summary**  
**Gas Chromatography - Mass Spectrometry (Volatiles)**  
**Soil/Solid**

Batch ID: VH14F26B  
Page: 1 of 2  
Date: 06/27/14

Preparation Batch: VH14F26B

Preparation Date: 06/26/14

Parameter	Method Blank (MB)			Laboratory Control Sample (LCS)					LCS Duplicate (LCD)				Run Code		
	Result µg/kg	PQL µg/kg	Q	Result µg/kg	Spike µg/kg	Rec. %	LCL - UCL %	Q	Rec. %	RPD %	UCL %	Q	MB	LCS	LCD
1. Acetone	U	250		3,887	5,000	78	50 - 145		78	0	20		MB-1	LCS-1	LCD-1
2. Acrylonitrile	U	100		4,859	5,000	97	66 - 139		98	1	20		MB-1	LCS-1	LCD-1
3. Benzene	U	50.0		5,222	5,000	104	70 - 130		102	2	20		MB-1	LCS-1	LCD-1
4. Bromobenzene	U	50.0		5,121	5,000	102	70 - 130		103	1	20		MB-1	LCS-1	LCD-1
5. Bromochloromethane	U	100		4,871	5,000	97	62 - 134		96	1	20		MB-1	LCS-1	LCD-1
6. Bromodichloromethane	U	50.0		5,381	5,000	108	70 - 130		106	2	20		MB-1	LCS-1	LCD-1
7. Bromoform	U	100		6,169	5,000	123	70 - 130		123	0	20		MB-1	LCS-1	LCD-1
8. Bromomethane	U	100		6,147	5,000	123	56 - 135		120	2	20		MB-1	LCS-1	LCD-1
9. t-Butanol	U	500		36,248	50,000	72	50 - 150		77	7	20		MB-1	LCS-1	LCD-1
10. 2-Butanone	U	250		4,726	5,000	95	56 - 141		94	1	20		MB-1	LCS-1	LCD-1
11. n-Butylbenzene	U	50.0		6,025	5,000	120	70 - 141		119	1	20		MB-1	LCS-1	LCD-1
12. sec-Butylbenzene	U	50.0		5,905	5,000	118	70 - 130		117	1	20		MB-1	LCS-1	LCD-1
13. tert-Butylbenzene	U	50.0		5,711	5,000	114	70 - 130		114	0	20		MB-1	LCS-1	LCD-1
14. Carbon Disulfide	U	100		5,734	5,000	115	70 - 132		111	4	20		MB-1	LCS-1	LCD-1
15. Carbon Tetrachloride	U	50.0		5,349	5,000	107	70 - 143		106	1	20		MB-1	LCS-1	LCD-1
16. Chlorobenzene	U	50.0		4,957	5,000	99	70 - 130		99	0	20		MB-1	LCS-1	LCD-1
17. Chloroethane	U	250		5,277	5,000	106	60 - 150		105	1	20		MB-1	LCS-1	LCD-1
18. Chloroform	U	50.0		4,664	5,000	93	71 - 126		94	1	20		MB-1	LCS-1	LCD-1
19. Chloromethane	U	250		4,820	5,000	96	63 - 137		95	1	20		MB-1	LCS-1	LCD-1
20. 2-Chlorotoluene	U	50.0		5,413	5,000	108	70 - 130		107	1	20		MB-1	LCS-1	LCD-1
21. Cyclohexane	U	50.0		4,722	5,000	94	69 - 148		96	2	20		MB-1	LCS-1	LCD-1
22. Dibromochloromethane	U	50.0		5,668	5,000	113	70 - 130		111	2	20		MB-1	LCS-1	LCD-1
23. 1,2-Dibromo-3-chloropropane (SIM)	U	50.0		6,546	5,000	131	70 - 134		130	1	20		MB-1	LCS-1	LCD-1
24. Dibromomethane	U	50.0		5,013	5,000	100	70 - 130		99	1	20		MB-1	LCS-1	LCD-1
25. 1,2-Dichlorobenzene	U	50.0		5,221	5,000	104	70 - 130		105	1	20		MB-1	LCS-1	LCD-1
26. 1,3-Dichlorobenzene	U	100		5,389	5,000	108	70 - 130		108	0	20		MB-1	LCS-1	LCD-1
27. 1,4-Dichlorobenzene	U	100		5,086	5,000	102	70 - 130		102	0	20		MB-1	LCS-1	LCD-1
28. trans-1,4-Dichloro-2-butene (SIM)	U	50.0		6,314	5,000	126	70 - 150		125	1	20		MB-1	LCS-1	LCD-1
29. Dichlorodifluoromethane	U	250		4,602	5,000	92	70 - 144		92	0	20		MB-1	LCS-1	LCD-1
30. 1,1-Dichloroethane	U	50.0		4,505	5,000	90	70 - 130		91	1	20		MB-1	LCS-1	LCD-1
31. 1,2-Dichloroethane	U	50.0		4,789	5,000	96	69 - 130		95	1	20		MB-1	LCS-1	LCD-1
32. 1,1-Dichloroethene	U	50.0		4,609	5,000	92	72 - 131		92	0	20		MB-1	LCS-1	LCD-1
33. cis-1,2-Dichloroethene	U	50.0		4,744	5,000	95	70 - 131		95	0	20		MB-1	LCS-1	LCD-1
34. trans-1,2-Dichloroethene	U	50.0		4,550	5,000	91	70 - 131		91	0	20		MB-1	LCS-1	LCD-1
35. 1,2-Dichloropropane	U	50.0		4,772	5,000	95	80 - 127		95	0	20		MB-1	LCS-1	LCD-1
36. 1,3-Dichloropropane	U	50.0		5,144	5,000	103	70 - 130		104	1	20		MB-1	LCS-1	LCD-1
37. 2,2-Dichloropropane	U	50.0		4,929	5,000	99	65 - 166		98	1	20		MB-1	LCS-1	LCD-1
38. 1,1-Dichloropropene	U	50.0		4,951	5,000	99	70 - 135		99	0	20		MB-1	LCS-1	LCD-1
39. cis-1,3-Dichloropropene	U	50.0		5,861	5,000	117	70 - 131		114	3	20		MB-1	LCS-1	LCD-1
40. trans-1,3-Dichloropropene	U	50.0		5,872	5,000	117	70 - 132		114	3	20		MB-1	LCS-1	LCD-1
41. Diethyl Ether	U	100		4,681	5,000	94	52 - 150		96	2	20		MB-1	LCS-1	LCD-1
42. Diisopropyl Ether	U	50.0		5,072	5,000	101	61 - 150		101	0	20		MB-1	LCS-1	LCD-1
43. ETBE	U	50.0		4,180	5,000	84	65 - 146		87	4	20		MB-1	LCS-1	LCD-1
44. Ethylbenzene	U	50.0		5,320	5,000	106	80 - 120		107	1	20		MB-1	LCS-1	LCD-1
45. Ethylene Dibromide	U	50.0		5,415	5,000	108	70 - 130		109	1	20		MB-1	LCS-1	LCD-1
46. Hexachlorobutadiene	U	250		5,788	5,000	116	77 - 137		116	0	20		MB-1	LCS-1	LCD-1
47. Hexachloroethane	U	100		5,919	5,000	118	70 - 135		116	2	20		MB-1	LCS-1	LCD-1
48. 2-Hexanone	U	50.0		5,321	5,000	106	68 - 138		106	0	20		MB-1	LCS-1	LCD-1
49. Isopropylbenzene	U	50.0		5,842	5,000	117	70 - 130		116	1	20		MB-1	LCS-1	LCD-1
50. 4-Isopropyltoluene	U	50.0		5,999	5,000	120	70 - 131		120	0	20		MB-1	LCS-1	LCD-1
51. Methylene Chloride	U	100		4,529	5,000	91	62 - 130		89	2	20		MB-1	LCS-1	LCD-1

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**Quality Control Report**  
**Preparation Batch QC Summary**  
**Gas Chromatography - Mass Spectrometry (Volatiles)**  
**Soil/Solid**

Batch ID: VH14F26B  
Page: 2 of 2  
Date: 06/27/14

Preparation Batch: VH14F26B

Preparation Date: 06/26/14

Parameter	Method Blank (MB)			Laboratory Control Sample (LCS)					LCS Duplicate (LCD)				Run Code		
	Result µg/kg	PQL µg/kg	Q	Result µg/kg	Spike µg/kg	Rec. %	LCL - UCL %	Q	Rec. %	RPD %	UCL %	Q	MB	LCS	LCD
52. 2-Methylnaphthalene	U	250		5,270	5,000	105	51 - 149		111	6	20		MB-1	LCS-1	LCD-1
53. 4-Methyl-2-pentanone	U	100		5,165	5,000	103	70 - 133		103	0	20		MB-1	LCS-1	LCD-1
54. MTBE	U	250		4,420	5,000	88	61 - 142		91	3	20		MB-1	LCS-1	LCD-1
55. Naphthalene	74.2	50.0	*	6,093	5,000	122	70 - 136		125	2	20		MB-1	LCS-1	LCD-1
56. n-Propylbenzene	U	50.0		5,517	5,000	110	70 - 130		111	1	20		MB-1	LCS-1	LCD-1
57. Styrene	U	50.0		5,870	5,000	117	70 - 130		117	0	20		MB-1	LCS-1	LCD-1
58. TAME	U	100		4,110	5,000	82	64 - 137		84	2	20		MB-1	LCS-1	LCD-1
59. 1,1,1,2-Tetrachloroethane	U	50.0		5,493	5,000	110	70 - 130		109	1	20		MB-1	LCS-1	LCD-1
60. 1,1,2,2-Tetrachloroethane	U	50.0		5,364	5,000	107	70 - 130		110	3	20		MB-1	LCS-1	LCD-1
61. Tetrachloroethene	U	50.0		5,001	5,000	100	70 - 130		100	0	20		MB-1	LCS-1	LCD-1
62. Tetrahydrofuran	U	250		4,564	5,000	91	53 - 130		94	3	20		MB-1	LCS-1	LCD-1
63. Toluene	U	50.0		4,965	5,000	99	79 - 120		98	1	20		MB-1	LCS-1	LCD-1
64. 1,2,3-Trichlorobenzene	U	100		5,664	5,000	113	70 - 130		116	3	20		MB-1	LCS-1	LCD-1
65. 1,2,4-Trichlorobenzene	U	100		5,944	5,000	119	70 - 133		121	2	20		MB-1	LCS-1	LCD-1
66. 1,1,1-Trichloroethane	U	50.0		4,839	5,000	97	70 - 130		96	1	20		MB-1	LCS-1	LCD-1
67. 1,1,2-Trichloroethane	U	50.0		4,874	5,000	97	70 - 130		99	2	20		MB-1	LCS-1	LCD-1
68. Trichloroethene	U	50.0		4,856	5,000	97	70 - 130		95	2	20		MB-1	LCS-1	LCD-1
69. Trichlorofluoromethane	U	100		4,598	5,000	92	50 - 150		93	1	20		MB-1	LCS-1	LCD-1
70. 1,2,3-Trichloropropane	U	100		4,930	5,000	99	70 - 130		103	4	20		MB-1	LCS-1	LCD-1
71. 1,2,3-Trimethylbenzene	U	50.0		5,552	5,000	111	70 - 130		111	0	20		MB-1	LCS-1	LCD-1
72. 1,2,4-Trimethylbenzene	104	50.0	*	5,882	5,000	118	70 - 130		117	1	20		MB-1	LCS-1	LCD-1
73. 1,3,5-Trimethylbenzene	U	50.0		5,736	5,000	115	70 - 130		114	1	20		MB-1	LCS-1	LCD-1
74. Vinyl Chloride	U	25.0		4,504	5,000	90	70 - 137		88	2	20		MB-1	LCS-1	LCD-1
75. m&p-Xylene	U	100		10,848	10,000	108	70 - 130		108	0	20		MB-1	LCS-1	LCD-1
76. o-Xylene	U	50.0		5,692	5,000	114	70 - 130		114	0	20		MB-1	LCS-1	LCD-1

System Monitoring Compounds (Surrogates):	Method Blank (MB)			Laboratory Control Sample (LCS)					LCS Duplicate (LCD)				Run Code		
	Result µg/kg	Spike µg/kg	Rec. %	Result µg/kg	Spike µg/kg	Rec. %	LCL - UCL %	Q	Rec. %	RPD %	UCL %	Q	MB	LCS	LCD
1. Dibromofluoromethane(S)	4,897	5,000	98	4,889	5,000	98	77 - 120		98	0	20		MB-1	LCS-1	LCD-1
2. 1,2-Dichloroethane-d4(S)	4,838	5,000	97	4,995	5,000	100	65 - 131		98	2	20		MB-1	LCS-1	LCD-1
3. Toluene-d8(S)	4,943	5,000	99	5,106	5,000	102	75 - 121		100	2	20		MB-1	LCS-1	LCD-1
4. 4-Bromofluorobenzene(S)	5,031	5,000	101	5,060	5,000	101	80 - 120		101	0	20		MB-1	LCS-1	LCD-1

**Definitions/ Qualifiers:**

U: The analyte was not detected at or above the PQL.  
\*: Value reported is outside QC limits

**Run Code (Analysis Sequence/Run Time):**

MB-1 VH14F26B 06/26/14 15:49  
LCS-1 VH14F26B 06/26/14 13:24  
LCD-1 VH14F26B 06/26/14 13:51

**Exception Summary:**

Exceptions have been properly noted on reported results or affected samples have been scheduled for reanalysis when appropriate.

**Report Generated By:**

*Carine Dempsey*

**Carine Dempsey**

Chemist, Volatile Organics  
Friday, June 27, 2014  
3:00:28 PM

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**Quality Control Report**  
**Preparation Batch QC Summary**  
**Gas Chromatography - Electron Capture Detector**  
**Soil/Solid**

Batch ID: PS14F25D  
Page: 1 of 1  
Date: 06/27/14

Preparation Batch: PS14F25D

Preparation Date: 06/25/14

Parameter	Method Blank (MB)			Laboratory Control Sample (LCS)					LCS Duplicate (LCD)				Run Code		
	Result	PQL	Q	Result	Spike	Rec.	LCL - UCL	Q	Rec.	RPD	UCL	Q	MB	LCS	LCD
	µg/kg	µg/kg		µg/kg	µg/kg	%	%		%	%	%				
1. Aroclor-1016	U	66.7		1,261	1,333	95	60 - 122		82	15	30		MB-1	LCS-1	LCD-1
2. Aroclor-1260	U	66.7		1,249	1,333	94	70 - 131		83	12	30		MB-1	LCS-1	LCD-1

System Monitoring Compounds (Surrogates):	Method Blank (MB)				Laboratory Control Sample (LCS)					LCS Duplicate (LCD)				Run Code		
	Result	Spike	Rec.	Q	Result	Spike	Rec.	LCL - UCL	Q	Rec.	RPD	UCL	Q	MB	LCS	LCD
	µg/kg	µg/kg	%		µg/kg	µg/kg	%	%		%	%	%				
1. Decachlorobiphenyl-PCB(S)	58.2	66.7	87		71.4	66.7	107	40 - 143		98	9	30		MB-1	LCS-1	LCD-1
2. 2,4,5,6-Tetrachloro-m-xylene-PCB(S)	47.0	66.7	71		56.6	66.7	85	42 - 133		79	7	30		MB-1	LCS-1	LCD-1

**Definitions/ Qualifiers:**

U: The analyte was not detected at or above the PQL.  
\*: Value reported is outside QC limits

**Run Code (Analysis Sequence/Run Time):**

MB-1 SA14F26A 06/26/14 12:30  
LCS-1 SA14F26A 06/26/14 12:45  
LCD-1 SA14F26A 06/26/14 13:00

**Exception Summary:**

Exceptions have been properly noted on reported results or affected samples have been scheduled for reanalysis when appropriate.

**Report Generated By:**

*Bethany D. Annett*

**Bethany Annett**  
Group Leader, Semivolatile Organics  
Friday, June 27, 2014  
12:57:14 PM



Quality Control Report  
Preparation Batch QC Summary  
Cold Vapor Atomic Absorption Spectrometry  
Soil/Solid

Batch ID: PM14F26  
Page: 1 of 1  
Date: 06/27/14

Preparation Batch: PM14F26A

Preparation Date: 06/26/14

Parameter	Method Blank (MB)			Laboratory Control Sample (LCS)					LCS Duplicate (LCD)				Run Code			
	Result	PQL	Q	Result	Spike	Rec.	LCL - UCL		Q	Rec.	RPD	UCL	Q	MB	LCS	LCD
	µg/kg	µg/kg		µg/kg	µg/kg	%	%			%	%	%				
1. Mercury	U	20.0		204	200	102	85 - 115							MB-1	LCS-1	

Definitions/ Qualifiers:

U: The analyte was not detected at or above the PQL.  
\*: Value reported is outside QC limits

Run Code (Analysis Sequence/Run Time):

MB-1 M614F27A 06/27/14 09:18  
LCS-1 M614F27A 06/27/14 09:19

Exception Summary:

Exceptions have been properly noted on reported results or affected samples have been scheduled for reanalysis when appropriate.

Report Generated By:

*J. Haney*

Jeri Haney  
Group Leader, Trace Metals  
Friday, June 27, 2014  
12:29:56 PM

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Quality Control Report  
Preparation Batch QC Summary  
Inductively Coupled Plasma - Mass Spectrometry  
Aqueous

Batch ID: PT14F26D  
Page: 1 of 1  
Date: 06/26/14

Preparation Batch: PT14F26D

Preparation Date: 06/26/14

Parameter	Method Blank (MB)			Laboratory Control Sample (LCS)					LCS Duplicate (LCD)			Run Code			
	Result	PQL	Q	Result	Spike	Rec.	LCL - UCL	Q	Rec.	RPD	UCL	Q	MB	LCS	LCD
	µg/L	µg/L		µg/L	µg/L	%	%		%	%	%				
1. Aluminum	U	100		3,481	5,000	70	-						MB-3	LCS-3	
2. Antimony	2.07	2.00	*	881	1,000	88	-						MB-3	LCS-3	
3. Arsenic	U	2.00		984	1,000	98	-						MB-3	LCS-3	
4. Barium	U	100		5,061	5,000	101	-						MB-3	LCS-3	
5. Beryllium	U	2.00		1,012	1,000	101	-						MB-3	LCS-3	
6. Boron	U	100		837	1,000	84	-						MB-3	LCS-3	
7. Cadmium	U	2.00		985	1,000	99	-						MB-3	LCS-3	
8. Chromium	6.78	4.00	*	1,974	2,000	99	-						MB-3	LCS-3	
9. Cobalt	U	2.00		963	1,000	96	-						MB-3	LCS-3	
10. Copper	8.31	4.00	*	1,952	2,000	98	-						MB-3	LCS-3	
11. Lead	5.12	4.00	*	2,009	2,000	100	-						MB-3	LCS-3	
12. Lithium	U	20.0		955	1,000	96	-						MB-3	LCS-3	
13. Manganese	U	100		5,089	5,000	102	-						MB-3	LCS-3	
14. Molybdenum	U	4.00		1,992	2,000	100	-						MB-3	LCS-3	
15. Nickel	U	40.0		2,010	2,000	101	-						MB-3	LCS-3	
16. Selenium	U	20.0		998	1,000	100	-						MB-3	LCS-3	
17. Silver	U	2.00		975	1,000	97	-						MB-3	LCS-3	
18. Strontium	U	2.00		979	1,000	98	-						MB-3	LCS-3	
19. Thallium	3.62	2.00	*	1,010	1,000	101	-						MB-3	LCS-3	
20. Thorium	U	2.00		297	500	59	-						MB-3	LCS-3	
21. Tin	19.9	2.00	*	999	1,000	100	-						MB-3	LCS-3	
22. Titanium	U	40.0		1,055	1,000	105	-						MB-3	LCS-3	
23. Uranium	U	2.00		1,008	1,000	101	-						MB-3	LCS-3	
24. Vanadium	U	40.0		966	1,000	97	-						MB-3	LCS-3	
25. Zinc	U	100		4,856	5,000	97	-						MB-3	LCS-3	

Definitions/ Qualifiers:

U: The analyte was not detected at or above the PQL  
\*: Value reported is outside QC limits

Run Code (Analysis Sequence/Run Time):

MB-3 T214F26A 06/26/14 13:15  
LCS-3 T214F26A 06/26/14 13:17

Exception Summary:

Exceptions have been properly noted on reported results or affected samples have been scheduled for reanalysis when appropriate.

Report Generated By:

*Julie Peterson*

Julie Peterson  
Chemist, Trace Metals  
Thursday, June 26, 2014  
2:23:18 PM

1914 Holloway Drive  
11766 E. Grand River  
8660 S. Mackinaw Trail

Holt, MI 48842  
Brighton, MI 48116  
Cadillac, MI 49601

T: (517) 699-0345  
T: (810) 220-3300  
T: (231) 775-8368

F: (517) 699-0388  
F: (810) 220-3311  
F: (231) 775-8584



Quality Control Report  
Preparation Batch QC Summary  
Inductively Coupled Plasma - Mass Spectrometry  
Soil/Solid

Batch ID: PT14F26A  
Page: 1 of 1  
Date: 06/26/14

Preparation Batch: PT14F26A

Preparation Date: 06/26/14

Parameter	Method Blank (MB)			Laboratory Control Sample (LCS)					LCS Duplicate (LCD)				Run Code		
	Result	PQL	Q	Result	Spike	Rec.	LCL - UCL	Q	Rec.	RPD	UCL	Q	MB	LCS	LCD
	µg/kg	µg/kg		µg/kg	µg/kg	%	%		%	%	%		%		
1. Aluminum	U	1,000		50,783	50,000	102	85 - 115						MB-2	LCS-2	
2. Antimony	357	20.0	*	8,985	10,000	90	85 - 115						MB-2	LCS-2	
3. Arsenic	U	20.0		9,604	10,000	96	85 - 115						MB-2	LCS-2	
4. Barium	U	1,000		51,147	50,000	102	85 - 115						MB-2	LCS-2	
5. Beryllium	U	20.0		10,111	10,000	101	85 - 115						MB-2	LCS-2	
6. Boron	U	1,000		10,061	10,000	101	85 - 115						MB-2	LCS-2	
7. Cadmium	U	20.0		9,640	10,000	96	85 - 115						MB-2	LCS-2	
8. Chromium	48.8	40.0	*	20,145	20,000	101	85 - 115						MB-2	LCS-2	
9. Cobalt	U	20.0		10,118	10,000	101	85 - 115						MB-2	LCS-2	
10. Copper	58.2	40.0	*	20,215	20,000	101	85 - 115						MB-2	LCS-2	
11. Lead	61.0	40.0	*	18,156	20,000	91	85 - 115						MB-2	LCS-2	
12. Lithium	U	200		11,180	10,000	112	85 - 115						MB-2	LCS-2	
13. Manganese	U	1,000		53,002	50,000	106	85 - 115						MB-2	LCS-2	
14. Molybdenum	116	40.0	*	19,644	20,000	98	85 - 115						MB-2	LCS-2	
15. Nickel	U	400		20,588	20,000	103	85 - 115						MB-2	LCS-2	
16. Selenium	U	200		9,638	10,000	96	85 - 115						MB-2	LCS-2	
17. Silver	U	20.0		9,617	10,000	96	85 - 115						MB-2	LCS-2	
18. Strontium	131	20.0	*	10,602	10,000	106	85 - 115						MB-2	LCS-2	
19. Thallium	71.4	20.0	*	9,245	10,000	92	85 - 115						MB-2	LCS-2	
20. Thorium	561	20.0	*	4,198	5,000	84	85 - 115	*					MB-2	LCS-2	
21. Tin	297	20.0	*	10,396	10,000	104	85 - 115						MB-2	LCS-2	
22. Titanium	U	400		11,052	10,000	111	85 - 115						MB-2	LCS-2	
23. Uranium	U	20.0		9,649	10,000	96	85 - 115						MB-2	LCS-2	
24. Vanadium	U	400		10,089	10,000	101	85 - 115						MB-2	LCS-2	
25. Zinc	1,288	1,000	*	48,331	50,000	97	85 - 115						MB-2	LCS-2	

Definitions/ Qualifiers:

U: The analyte was not detected at or above the PQL.  
\*: Value reported is outside QC limits

Run Code (Analysis Sequence/Run Time):

MB-2 T214F26A 06/26/14 12:46  
LCS-2 T214F26A 06/26/14 12:54

Exception Summary:

Exceptions have been properly noted on reported results or affected samples have been scheduled for reanalysis when appropriate.

Report Generated By:

*Julie Peterson*

Julie Peterson  
Chemist, Trace Metals  
Thursday, June 26, 2014  
2:23:18 PM

1914 Holloway Drive  
11766 E. Grand River  
8660 S. Mackinaw Trail

Holt, MI 48842  
Brighton, MI 48116  
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<b>1914 Holloway Drive</b>	<b>8660 S. Mackinaw Trail</b>
<b>Holt, MI 48842</b>	<b>Cadillac, MI 49601</b>
<b>Phone: 517 699 0345</b>	<b>Phone: 231 775 8368</b>
<b>Fax: 517 699 0388</b>	<b>Fax: 231 775 8584</b>
<b>email: <a href="mailto:lab@libertec.us">lab@libertec.us</a></b>	

**Industrial Hygiene Services, Inc.**  
1914 Holloway Drive  
Holt, MI 48842  
Phone: 517 699 0345  
Fax: 517 699 0382  
email: [asbestos@fibertec.us](mailto:asbestos@fibertec.us)

**Geoprobe**  
11766 E. Grand River  
Brighton, MI 48116  
Phone: 810 220 3300  
Fax: 810 220 3311

120424  
PAGE 11 of 1

[illegible]

TERMS & CONDITIONS ON BACK



# Contaminated Soils Summary - Balmoral.xlsx

1/29/2016

(Aielli)

Ticket Date	WM #	Orig Ticket #	Truck Load Ticket #	Manifest #	Clean Volume Yds	C-Spoils Volume Yds	Weight Tons
07/08/14	9429783	318255		311084		40	48.39
07/08/14	9429800	318274	527780	311085		40	48.88
07/08/14	9429815	318290	526249	311086		40	50.32
07/08/14	9429824	318299	527310	311087		40	55.13
07/09/14	9429969	318455	496082	311088		40	51.47
07/09/14	9429975	318460	526721	311089		40	52.13
07/09/14	9430009	318499	526722	311090		40	51.97
07/09/14	9430006	318495	528848	311091		40	62.19
07/09/14	9430035	318528	528849	311092		40	47.78
07/09/14	9430037	318530	495377	311093		40	54.29
07/09/14	9430040	318533	526723	311094		40	47.73
07/09/14	9430060	318557	528301	311095		40	50.18
07/09/14	9430078	318579	527963	311096		40	47.43
07/09/14	9430096	318600	489231	311097		40	43.16
07/09/14	9430098	318602	528302	311098		40	36.41
07/09/14	9430114	318618	527212	311099		40	45.40
07/09/14	9430120	318625	527962	311100		40	47.04
07/09/14	9430128	318632	489126	311101		40	47.27
07/10/14	9430163	318668	528833	311102		40	51.51
07/10/14		318675	528401	311103		40	60.48
07/10/14	9430188	318696	528832	311104		40	49.76
07/10/14		318714	528402	311105		40	49.56
07/10/14	9430213	318725	49647	311106		40	44.79
07/10/14	9430215	318729	526403	311107		40	39.83
07/10/14	9430228	318743	527324	311108		40	44.95
07/10/14	9430247	318765	489235	311109		40	45.23
07/10/14	9430249	318767	496476	311110		40	49.67
07/10/14	9430270	318790	527325	311111		40	54.17
07/10/14	9430296	318818	489236	311112		40	55.34
07/10/14	9430326	318847	527326	311113		40	53.17
07/10/14	9430333	318854	528860	311114		40	58.22
07/10/14	9430334	318856	528406	311115		40	57.22
07/11/14	9430388	318913	527952	311116		40	52.42
07/11/14	9430408	318935	526911	311117		40	43.00
07/11/14	9430446	318980	526912	311118		40	49.54
07/11/14			528150				
07/11/14			528865	non-manifest	40		
07/15/14	9431063	319680	527939	311119		40	54.31
07/15/14	9431070	319688	526272	311120		40	45.25
07/16/14	9431118	319738	526926	311121		40	62.46
07/16/14	9431162	319786	488872	311122		40	54.85
07/16/14	9431123	319743	494015	311123		40	52.25
07/16/14			528195	311124			
07/16/14	9431240	319870	528742	311125		40	52.32

## Contaminated Soils Summary - Balmoral.xlsx

1/29/2016

(Shekell/Blue Ribbon)

<b>Ticket Date</b>	<b>Orig Ticket #</b>	<b>Truck Truck Load Ticket #</b>	<b>Manifest #</b>	<b>Clean Volume Yds</b>	<b>C-Spoil Volume Yds</b>	<b>Weight Tons</b>
08/08/14		692619	non-manifest	24		
08/08/14		692620	non-manifest	24		
08/08/14		692621	non-manifest	24		
08/08/14		692622	non-manifest	24		
08/08/14		692623	non-manifest	24		
08/08/14		692624	non-manifest	24		
08/08/14		692625	non-manifest	24		
08/14/14		692295	non-manifest	24		
08/14/14		692296	non-manifest	24		
08/14/14		692773	non-manifest	24		
08/14/14		692780	non-manifest	24		
08/14/14		692781	non-manifest	24		
08/15/14		692735	non-manifest	24		
08/19/14		656066	non-manifest	24		
08/19/14		656067	non-manifest	24		
08/19/14		656069	non-manifest	24		
08/19/14		656071	non-manifest	24		
08/22/14		693764	non-manifest	24		
08/22/14		696128	non-manifest	24		
08/22/14		696301	non-manifest	24		
08/22/14		693404	non-manifest	12		
08/22/14		699326	non-manifest	24		
08/22/14		693454	non-manifest	24		
08/22/14		692691	non-manifest	24		
08/22/14	326053	692689	2706732		24	23.80
08/22/14		692690	2706733		24	28.99
09/12/14		669130	non-manifest	24		
09/12/14		669143	non-manifest	24		
09/12/14		669147	non-manifest	24		
09/12/14		669148	non-manifest	24		
09/12/14		699297	non-manifest	24		
09/12/14		699298	non-manifest	24		
09/12/14		699299	non-manifest	24		
09/12/14		667841	non-manifest	24		
09/12/14		667842	non-manifest	24		
09/12/14		667843	non-manifest	24		
09/12/14		700213	non-manifest	24		
09/15/14		699216	non-manifest	24		
09/15/14		699217	non-manifest	24		
09/15/14		699218	non-manifest	24		
09/15/14		667956	non-manifest	24		
09/15/14		699219	non-manifest	24		
09/15/14		667996	non-manifest	24		
09/25/14		585289	non-manifest	40		

# Contaminated Soils Summary - Balmoral.xlsx

1/29/2016

(Shekell/Blue Ribbon)

Ticket Date	Orig Ticket #	Truck Truck Load Ticket #	Manifest #	Clean Volume Yds	C-Spoil Volume Yds	Weight Tons
09/25/14		585290	non-manifest	24		
09/25/14		585292	non-manifest	24		
09/25/14		597607	non-manifest	24		
09/30/14		667669	non-manifest	24		
09/30/14		667671	non-manifest	24		
09/30/14		667673	non-manifest	24		
09/30/14		669340	non-manifest	24		
10/01/14		667064	non-manifest	24		
10/01/14		667066	non-manifest	24		
10/01/14		667069	non-manifest	24		
10/01/14		667560	non-manifest	24		
10/01/14		668356	non-manifest	24		
10/02/14		667567	non-manifest	24		
10/02/14		667568	non-manifest	24		
10/02/14		667569	non-manifest	24		
10/02/14		667570	non-manifest	24		
10/02/14		667571	non-manifest	24		
10/02/14	333402	667572	2706736		24	24.98
10/07/14		617079	non-manifest	24		

**1444.00**      **72.00**      **77.77**  
**Total**      **Total**      **Total**  
**Volume**      **Volume**      **Weight**  
**in Yds**      **in Yds**      **in Tons**  
**(Clean)**      **(C-Spoils)**      **(C-Spoils)**

# Contaminated Soils Summary - Balmoral.xlsx

(Aielli)

1/29/2016

<b>Ticket Date</b>	<b>WM #</b>	<b>Orig Ticket #</b>	<b>Truck Load Ticket #</b>	<b>Manifest #</b>	<b>Clean Volume Yds</b>	<b>C-Spoils Volume Yds</b>	<b>Weight Tons</b>
12/17/14			725718	2706740		24	29.00
12/17/14			724050	2706741		24	29.00

<b>0.00</b>	<b>48.00</b>	<b>58.00</b>
<b>Total</b>	<b>Total</b>	<b>Total</b>
<b>Volume</b>	<b>Volume</b>	<b>Weight</b>
<b>in Yds</b>	<b>in Yds</b>	<b>in Tons</b>
<b>(Clean)</b>	<b>(C-Spoils)</b>	<b>(C-Spoils)</b>

# Contaminated Soils Summary - Balmoral.xlsx

1/29/2016

(Aielli)

Ticket Date	WM #	Orig Ticket #	Truck Load Ticket #	Manifest #	Clean Volume Yds	C-Spoils Volume Yds	Weight Tons
07/16/14	9431287	319923	528743	311126		40	48.26
07/16/14	9431292	319928	527522	311127		40	54.23
07/16/14	9431301	319937	528196	311128		40	48.92
07/16/14			526487	non-manifest	40		
07/16/14			527649	non-manifest	40		
07/16/14	9431238	319868	528195	311124		40	51.37
07/17/14	9431380	320016	528202	311129		40	59.59
07/17/14	9431379	320015	520973	311130		40	55.37
07/17/14	9431395	320032	526934	311131		40	60.62
07/17/14	9431416	320055	527927	311132		40	52.14
07/17/14	9431459	320103	520975	311133		40	50.77
07/17/14	9431464	320108	528204	311134		40	47.17
07/17/14	9431495	320141	521728	311135		40	56.20
07/17/14			520983	non-manifest	40		
07/18/14	9431556	320204	526282	311136		40	48.02
07/18/14	9431567	320215	528207	311137		40	50.16
07/18/14	9431570	320219	520981	311138		40	53.05
07/18/14	9431579	320230	527360	311139		40	56.19
07/18/14	9431601	320255	491212	311140		40	42.68
07/18/14	9431620	320274	495565	311141		40	50.90
07/18/14	9431627	320283	527027	311142		40	50.62
07/18/14	9431679	320343	527730	311143		40	59.53
07/18/14	9431676	320341	527363	311144		40	49.12
07/18/14	9431681	320346	495563	311145		40	55.42
07/18/14	9431695	320361	526286	311146		40	51.00
07/18/14	9431701	320366	521773	311147		40	52.38
07/18/14			528209	non-manifest	40		
07/21/14	9431774	320471	526292	311148		40	58.41
07/21/14	9431793	320490	489267	311149		40	63.21
07/21/14	9431783	320481	527531	311150		40	63.07
07/21/14	9431832	320537	528569	311151		40	54.49
07/21/14	9431836	320541	522752	311152		40	51.77
07/21/14	9431800	320501	520896	312466		40	57.71
07/21/14	9431818	320504	526840	312467		40	51.99
07/21/14	9431825	320527	521713	312469		40	53.93
07/21/14	9431813	320517	521299	312470		40	50.13
07/21/14	9431898	320605	459039	312471		40	58.39
07/21/14	9431894	320602	498871	312473		40	58.02
07/21/14	9431920	320642	494039	312474		40	52.05
07/21/14	9431940	320663	527536	312475		40	55.78
07/21/14	9431930	320653	521904	312476		40	54.84
07/21/14	9431929	320652	522076	312477		40	51.57
07/21/14	9431867	320583	489269	312478		40	52.07

# Contaminated Soils Summary - Balmoral.xlsx

1/29/2016

(Aielli)

Ticket Date	WM #	Orig Ticket #	Truck Load Ticket #	Manifest #	Clean Volume Yds	C-Spoils Volume Yds	Weight Tons
07/21/14	9431913	320631	520899	312479		40	51.73
07/21/14	9431905	320622	496396	312480		40	55.28
07/21/14	9431900	320617	496365	312481		40	57.26
07/21/14	9431899	320607	496482	312482		40	49.19
07/21/14	9431862	320575	527534	312483		40	49.69
07/21/14	9431866	320574	469970	312484		40	52.91
07/21/14	9431838	320543	526294	312485		40	51.38
07/22/14	9432146	320881	526434	001		40	45.23
07/22/14	9432142	320887	528774	002		40	56.81
07/22/14	9432170	320919	521351	006		40	55.06
07/22/14	9432143	320889	521910	007		40	49.99
07/22/14	9432145	320891	526301	009		40	51.29
07/22/14	9431980	320704	527671	312452		40	45.20
07/22/14	9431992	320717	469499	312453		40	54.57
07/22/14	9432040	320762	498971	312454		40	54.67
07/22/14	9431990	320725	521039	312455		40	47.20
07/22/14	9432022	320752	527539	312456		40	55.01
07/22/14	9432024	320755	521333	312457		40	50.94
07/22/14	9432029	320760	527672	312458		40	43.67
07/22/14	9432036	320768	459043	312459		40	56.00
07/22/14			496996	312460		40	
07/22/14	9432053	320791	528772	312461		40	52.79
07/22/14	9432049	320783	521040	312462		40	53.23
07/22/14	9432064	320800	521908	312463		40	54.96
07/22/14	9432075	320804	500628	312464		40	54.22
07/22/14	9432052	320788	528575	312465		40	56.21
07/22/14	9431983	320707	527538	312468		40	52.67
07/22/14	9431982	320706	521334	312472		40	46.79
07/22/14			496375	non-manifest	40		
07/22/14			521039	non-manifest	40		
07/23/14	9432230	320978	528779	003		40	55.08
07/23/14	9432232	320981	521707	004		40	54.90
07/23/14	9432235	320984	522825	005		40	48.72
07/23/14	9432239	320989	521912	008		40	59.97
07/23/14	9432241	320992	494047	010		40	51.56
07/23/14	9432242	320993	521137	011		40	50.88
07/23/14	9432227	320975	527987	012		40	49.57
07/23/14	9432260	321006	527754	013		40	59.21
07/23/14	9432266	321019	459049	2706557		40	55.88
07/23/14	9432267	321020	497263	2706558		40	58.88
07/23/14	9432274	321027	500633	2706559		40	60.53
07/23/14	9432280	321033	528588	2706560		40	54.54
07/23/14	9432282	321035	528646	2706561		40	45.62

# Contaminated Soils Summary - Balmoral.xlsx

1/29/2016

(Aielli)

Ticket Date	WM #	Orig Ticket #	Truck Load Ticket #	Manifest #	Clean Volume Yds	C-Spoils Volume Yds	Weight Tons
07/23/14	9432290	321046	526438	2706562		40	48.35
07/23/14	9432293	321051	528778	2706563		40	51.88
07/23/14	9432311	321057	522198	2706564		40	52.77
07/23/14	9432305	321063	521914	2706565		40	52.04
07/23/14	9432312	321071	496380	2706566		40	49.92
07/23/14	9432372	321136	526441	2706567		40	47.41
07/23/14	9432375	321138	528780	2706568		40	50.63
07/23/14	9432379	321142	521916	2706569		40	48.25
07/23/14	9432394	321157	527389	2706570		40	55.25
07/23/14	9432398	321161	522196	2706571		40	57.05
07/24/14	9432446	321210	526796	2706572		40	51.61
07/24/14	9432449	321213	522288	2706573		40	50.95
07/24/14	9432451	321215	521345	2706574		40	46.04
07/24/14	9432452	321216	528784	2706575		40	46.44
07/24/14	9432453	321217	521918	2706576		40	49.78
07/24/14	9432494	321244	522984	2706577		40	60.11
07/24/14	9432482	321249	469986	2706578		40	51.92
07/24/14	9432495	321261	498885	2706579		40	52.23
07/24/14	9432511	321279	497268	2706580		40	51.12
07/24/14	9432515	321284	528782	2706581		40	52.12
07/24/14	9432523	321292	521920	2706582		40	58.28
07/24/14	9432574	321351	521348	2706583		40	46.42
07/24/14	9432587	321365	528787	2706584		40	47.56
07/24/14	9432590	321369	521922	2706585		40	55.28
07/24/14	9432593	321372	522772	2706586		40	46.51
07/24/14	9432604	321376	528373	2706587		40	49.94
07/24/14			414757	non-manifest	40		
07/24/14			527549	non-manifest	40		
07/25/14	9432041		496996	312460		40	49.48
07/25/14	9432660	321441	526940	2706588		40	54.02
07/25/14	9432665	321446	528478	2706589		40	55.17
07/25/14	9432666	321447	522989	2706590		40	56.88
07/25/14	9432679	321459	521924	2706591		40	63.45
07/25/14	9432690	321470	528377	2706592		40	48.99
07/25/14	9432693	321473	522775	2706593		40	57.75
07/25/14	9432697	321479	469991	2706594		40	50.05
07/25/14	9432700	321483	499079	2706595		40	50.66
07/25/14	9432723	321509	497273	2706596		40	53.69
07/25/14	9432756	321543	528791	2706597		40	49.18
07/25/14	9432761	321549	521926	2706598		40	55.37
07/25/14	9432768	321557	469993	2706599		40	50.11
07/25/14	9432772	321561	499081	2706600		40	54.00
07/25/14	9432796	321587	499121	2706601		40	48.21

# Contaminated Soils Summary - Balmoral.xlsx

1/29/2016

(Aielli)

Ticket Date	WM #	Orig Ticket #	Truck Load Ticket #	Manifest #	Clean Volume Yds	C-Spoils Volume Yds	Weight Tons
07/25/14	9432800	321591	528792	2706602		40	53.20
07/25/14	9432807	321598	521928	2706603		40	49.40
07/25/14	9432839	321634	528793	2706604		40	42.90
07/25/14	9432841	321636	521929	2706605		40	54.87
07/25/14	9432851	321648	528380	2706606		40	49.31
07/25/14	9432852	321649	522778	2706607		40	52.02
07/25/14	9432859	321655	522838	2706608		40	54.73
07/25/14			522704	non-manifest	40		
07/25/14			528480	non-manifest	40		
07/25/14			526942	non-manifest	40		
07/25/14			528789	non-manifest	40		
07/25/14			522993	non-manifest	40		
07/25/14			527558	non-manifest	40		
07/25/14			528789	non-manifest	40		
07/25/14			522177	non-manifest	40		
07/26/14	9432868	321666	522991	2706609		40	54.09
07/26/14			522941	2706613		40	
07/26/14	9432869	321667	522610	2706614		40	48.52
07/26/14	9432870	321669	522995	2706615		40	41.76
07/26/14	9432872	321671	521820	2706616		40	39.74
07/26/14	9432877	321674	527404	2706617		40	40.96
07/26/14	9432878	321676	521602	2706618		40	43.01
07/26/14	9432883	321690	522942	2706619		40	43.54
07/26/14	9432886	321694	522996	2706620		40	44.96
07/26/14	9432888	321695	521821	2706621		40	45.70
07/26/14	9432895	321703	527405	2706622		40	50.75
07/26/14	9432897	321707	521603	2706623		40	50.75
07/26/14	9432901	321711	522279	2706624		40	49.43
07/26/14	9432904	321714	526322	2706625		40	48.92
07/26/14			522611	non-manifest	40		
07/28/14	9432988	321811	528796	2706626		40	51.82
07/28/14	9432993	321816	521932	2706627		40	52.54
07/28/14	9433024	321852	528493	2706628		40	52.38
07/28/14	9433027	321855	522047	2706629		40	45.57
07/28/14	9433035	321861	527565	2706630		40	56.65
07/28/14	9433039	321866	529803	2706631		40	44.43
07/28/14	9433074	321891	397382	2706632		40	53.18
07/28/14	9433062	321892	528798	2706633		40	52.03
07/28/14	9433070	321899	521934	2706634		40	51.88
07/28/14	9433083	321912	529804	2706635		40	48.01
07/28/14	9433086	321916	527566	2706636		40	49.55
07/28/14	9433103	321932	523067	2706637		40	52.95
07/28/14	9433113	321944	526503	2706638		40	46.87

# Contaminated Soils Summary - Balmoral.xlsx

1/29/2016

(Aielli)

Ticket Date	WM #	Orig Ticket #	Truck Load Ticket #	Manifest #	Clean Volume Yds	C-Spoils Volume Yds	Weight Tons
07/28/14	9433118	321952	522294	2706639		40	43.68
07/28/14	9433121	321956	530805	2706640		40	54.13
07/28/14	9433124	321959	521612	2706641		40	53.04
07/28/14	9433130	321954		2706642		40	51.42
07/28/14			489141	non-manifest	40		
07/28/14			526509	non-manifest	40		
07/29/14	9433177	322014	206326	2706643		40	59.89
07/29/14	9433181	322018	521937	2706644		40	56.19
07/29/14	9433187	322026	529815	2706645		40	57.19
07/29/14	9433212	322059	520201	2706646		40	59.82
07/29/14	9433216	322063	521938	2706647		40	58.95
07/29/14	9433222	322070	528505	2706648		40	53.62
07/29/14	9433291	322147	523100	2706649		40	53.12
07/29/14	9433295	322152	521940	2706650		40	64.32
07/29/14	9433305	322163	521617	2706651		40	61.21
07/29/14	9433320	322179	528503	2706652		40	62.62
07/29/14	9433333	322192	523101	2706653		40	57.23
07/29/14	9433330	322194	521941	2706654		40	56.89
07/29/14	9433338	322196	521268	2706655		40	50.93
07/29/14			522558	non-manifest	40		
07/30/14	9433390	322249	526865	2706656		40	61.82
07/30/14	9433391	322251	530791	2706657		40	57.65
07/30/14	9433392	322252	527575	2706658		40	61.54
07/30/14	9433400	322259	529822	2706659		40	59.00
07/30/14	9433421	322284	522061	2706660		40	56.17
07/30/14	9433422	322285	469869	2706661		40	57.97
07/30/14	9433425	322288	523105	2706662		40	56.09
07/30/14	9433430	322293	521945	2706663		40	59.54
07/30/14	9433456	322320	526868	2706664		40	56.20
07/30/14	9433462	322326	522869	2706665		40	58.43
07/30/14	9433472	322337	529004	2706666		40	52.40
07/30/14	9433485	322350	527424	2706667		40	57.58
07/30/14	9433491	322357	523107	2706668		40	54.14
07/30/14	9433484	322360	521947	2706669		40	60.98
07/30/14	9433497	322363	522158	2706670		40	58.07
07/30/14	9433516	322386	497289	2706671		40	52.68
07/30/14	9433520	322391	522566	2706672		40	54.57
07/30/14			522058	non-manifest	40		
07/30/14			529002	non-manifest	40		
07/31/14	9433558	322430	694439	2706679		24	25.90
07/31/14	9433592	322470	694440	2706680		24	29.09
07/31/14	9433633	322517	694441	2706681		24	27.54
07/31/14	9433666	322556	694442	2706682		24	27.22

# Contaminated Soils Summary - Balmoral.xlsx

1/29/2016

(Aielli)

Ticket Date	WM #	Orig Ticket #	Truck Load Ticket #	Manifest #	Clean Volume Yds	C-Spoils Volume Yds	Weight Tons
07/31/14	9433696	322590	694443	2706683		24	28.18
07/31/14	9433709		694112	2706684		24	32.84
07/31/14	9433727	322624	694444	2706685		24	28.50
08/01/14	9433757	322653	681099	2706686		24	30.04
08/01/14	9433769	322667	686035	2706687		24	30.22
08/01/14	9433771	322671	692224	2706688		24	27.58
08/01/14	9433783	322683	681100	2706689		24	27.87
08/01/14	9433801	322700	686036	2706690		24	27.10
08/01/14	9433807	322708	681101	2706691		24	25.97
08/01/14	9433813	322716	692226	2706692		24	27.96
08/01/14	9433827	322731	686037	2706693		24	26.58
08/01/14	9433834	322739	681102	2706694		24	25.97
08/01/14	9433843	322748	692227	2706695		24	26.16
08/01/14	9433851	322759	686038	2706696		24	28.64
08/01/14	9433870	322777	681103	2706697		24	31.97
08/01/14	9433878	322785	692228	2706698		24	27.08
08/01/14	9433888	322795	686035	2706699		24	27.26
08/01/14	9433903	322810	681104	2706700		24	27.15
08/01/14	9433906	322813	692229	2706701		24	27.22
08/01/14	9433910	322817	686040	2706702		24	30.99
08/01/14	9433917	322824	692230	2706703		24	26.88
08/04/14	9433993	322929	693974	2706704		24	26.26
08/04/14	9433994	322931	711082	2706705		24	26.82
08/04/14	9434017	322961	693975	2706706		24	23.03
08/04/14	9434023	322967	711083	2706707		24	25.58
08/04/14	9434043	322993	693976	2706708		24	27.37
08/04/14	9344069	323026	693977	2706710		24	25.70
08/04/14	9434076	323035	711085	2706711		24	27.13
08/04/14	9434111	323072	711072	2706712		24	27.49
08/04/14	9434142	323104	693980	2706713		24	22.14
08/04/14	9434149	323113	711073	2706714		24	28.48
08/04/14	9434164	323128	693981	2706715		24	24.24
08/04/14	9434048	323000	711084	2707709		24	24.57
08/05/14	9434207	323171	711087	2706716		24	25.62
08/05/14	9434212		691505	2706717		24	25.19
08/05/14	9434245	323210	711077	2706718		24	28.33
08/05/14	9434258	323223	691506	2706719		24	26.29
08/05/14	9434271	323240	692244	2706720		24	25.82
08/05/14	9434276	323245	711088	2706721		24	28.39
08/05/14	943429	323267	692245	2706722		24	25.34
08/05/14	9434293	323271	711089	2706723		24	24.63
08/05/14	9434326	323285	693245	2706724		24	28.09
08/05/14	9434307	323289	675514	2706725		24	25.42

## Contaminated Soils Summary - Balmoral.xlsx

1/29/2016

(Aielli)

<b>Ticket Date</b>	<b>WM #</b>	<b>Orig Ticket #</b>	<b>Truck Load Ticket #</b>	<b>Manifest #</b>	<b>Clean Volume Yds</b>	<b>C-Spoils Volume Yds</b>	<b>Weight Tons</b>
08/05/14	9434319	323300	692246	2706726		24	24.94
08/05/14	9434328	323305	711078	2706727		24	26.44
08/05/14	9434330	323308	693327	2706728		24	28.29
08/05/14	9434344	323326	675522	2706729		24	27.66
08/05/14	9434348	323330	693246	2706730		24	18.88
08/05/14	9434351	323333	693194	2706731		24	30.18
12/11/14			703653	2706738		24	29.00
12/11/14			703654	2706739		24	29.00

<b>920.00</b>	<b>10520.00</b>	<b>13428.50</b>
<b>Total</b>	<b>Total</b>	<b>Total</b>
<b>Volume</b>	<b>Volume</b>	<b>Weight</b>
<b>in Yds</b>	<b>in Yds</b>	<b>in Tons</b>
<b>(Clean)</b>	<b>(C-Spoils)</b>	<b>(C-Spoils)</b>



# MANIFEST / LOAD TICKETS

12/11 AICW  
Z @ 24 YDS CZ 2706738 - 2706739

12/17 CLEWY  
Z @ 24 YDS CZ 2706740 - 2706741

Gielli

**LOU'S TRANSPORT INC. TICKET**

703653

NAME OF  
CARRIER

**LOU'S TRANSPORT INC.**

1785 E. HIGHWAY

PONTIAC, MI 48133

PHONE (248) 332-5627 FAX (248) 334-5531

NAME OF  
PASSENGER

Chen / S

PT. TICKET NO.

2706738

TRIP NO.

14-132

DATE

4/16/16

PLT. NAME

Barney

PLT. PHONE NO.

248-332-5627

PLT. ADDRESS

1785 E. HIGHWAY

PONTIAC, MI 48133

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TRIP NO.

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DATE

4/16/16

PLT. NAME

Barney

PLT. PHONE NO.

248-332-5627

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**LOU'S TRANSPORT INC. DRIVER'S COPY**

TRIP NO.

1

DATE

4/16/16

PLT. NAME

Barney

PLT. PHONE NO.

248-332-5627

PLT. ADDRESS

1785 E. HIGHWAY

PONTIAC, MI 48133

PLT. CITY

PONTIAC

PLT. STATE

MI

PLT. ZIP

48133

PLT. COUNTRY

USA

PLT. VEHICLE NO.

248-332-5627

PLT. VEHICLE TYPE

TRUCK

PLT. VEHICLE COLOR

WHITE

PLT. VEHICLE MAKE

FORD

PLT. VEHICLE MODEL

F-150

PLT. VEHICLE YEAR

2015

PLT. VEHICLE VIN

1F3P30H18DJA000000

2-DOWNER'S COPY

AieH:

# LOAD AND TIME TICKET

703654

NAME OF  
CARRIER

LOU'S TRANSPORT INC.

1701 E. Highland

Pontiac, MI 48340

Phone: (248) 332-5587 Fax: (248) 334-5555

MATERIAL

FTT TICKET NO.

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PLANT

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DRIVER'S SIGNATURE

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CARRIER'S SIGNATURE

CARRIER'S SIGNATURE

RECEIVED BY DRIVER'S SIGNATURE

3-DRIVER'S COPY

# NON-HAZARDOUS MANIFEST

4-1-81

NON-HAZARDOUS MANIFEST		1. Generator's UICPA ID No.		2. Page 1 of 2	
3. Generator's Mailing Address WIDENHARD BROWN ASSOCIATES 15011 WASHBURN BIRMINGHAM, AL 35202		4. Generator's Name WIDENHARD BROWN ASSOCIATES 15011 WASHBURN BIRMINGHAM, AL 35202 TAYLOR CLOTHING		5. Manifest Number WMNA 2706738	
6. Transporter's Name TRAS		7. Transporter's License No.		8. State of Origin	
9. Transporter's Facility Name and Site Address Faint Valley RLF 800 W. Silver Hill Rd Orion, AL 36858		10. UICPA ID Number		11. Description of Waste Material	
12. Description of Waste Material		13. Description of Waste Material		14. Description of Waste Material	
15. Special Handling Instructions and Additional Information		16. Special Handling Instructions and Additional Information		17. Special Handling Instructions and Additional Information	
18. Generator's Certificate		19. Generator's Certificate		20. Facility Owner or Operator	
21. Transporter's Acknowledgment of Receipt of Material		22. Transporter's Acknowledgment of Receipt of Material		23. Transporter's Acknowledgment of Receipt of Material	
24. Certificate of Final Treatment/Disposal		25. Certificate of Final Treatment/Disposal		26. Certificate of Final Treatment/Disposal	

WMAA - TREATMENT, STORAGE, DISPOSAL FACILITY COPY

WMAA - FACILITY USE ONLY

WMAA - GENERATOR'S COPY

WMAA - TRANSPORTER'S COPY

WMAA - GENERATOR'S COPY



# NON-HAZARDOUS MANIFEST

NON-HAZARDOUS MANIFEST		1. Generator's US EPA ID No.		Manifest Doc No.		2. Page 1 of 25	
3. Generator's Mailing Address: WOODWARD BROWN ASSOCIATES 34901 WOODWARD BIRMINGHAM, MI 48009		Generator's Site Address (if different than mailing): WOODWARD BROWN ASSOCIATES 34901 WOODWARD BIRMINGHAM, MI 48009 OAKLAND COUNTY		A. Manifest Number WMNA 2706739		B. State Generator's ID	
4. Generator's Phone: 248-549-3600		5. Transporter 1 Company Name TKMS		6. US EPA ID Number		C. State Transporter's ID	
7. Transporter 2 Company Name		8. US EPA ID Number		D. Transporter's Phone		E. State Transporter's ID	
9. Designated Facility Name and Site Address Eagle Valley RDF 600 W Silver Bell Rd Orion, MI 48359		10. US EPA ID Number		F. Transporter's Phone		G. State Facility ID	
				H. State Facility Phone: 248-391-0990			
11. Description of Waste Materials		12. Containers		13. Total Quantity		14. Unit Wt./Vol.	
a. Fill Soil		No. Type		24 yds		I. Misc. Comments	
WM Profile #: 112296MI							
b.							
WM Profile #							
c.							
WM Profile #							
d.							
WM Profile #							
J. Additional Descriptions for Materials Listed Above Color: brown Odor: no Physical State: solid		K. Disposal Location					
BILL TO: TKMS		Cell		Level			
		Grid					
15. Special Handling Instructions and Additional Information							
Purchase Order #		EMERGENCY CONTACT / PHONE NO.: Dave Laming/248-467-7108					
16. GENERATOR'S CERTIFICATE: I hereby certify that the above-described materials are not hazardous wastes as defined by CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged and are in proper condition for transportation according to applicable regulations.		Printed Name: <i>Patrick Haver</i>		Signature "On behalf of": <i>[Signature]</i>		Month: 5 Day: 11 Year: 11	
17. Transporter 1 Acknowledgement of Receipt of Materials		Printed Name: <i>Michael Kent</i>		Signature: <i>[Signature]</i>		Month: 12 Day: 11 Year: 11	
18. Transporter 2 Acknowledgement of Receipt of Materials		Printed Name:		Signature:		Month: Day: Year:	
19. Certificate of Final Treatment/Disposal I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.							
20. Facility Owner or Operator: Certification of receipt of non-hazardous materials covered by this manifest.		Printed Name:		Signature:		Month: Day: Year:	

White- TREATMENT, STORAGE, DISPOSAL FACILITY COPY

Pink- FACILITY USE ONLY

Blue- GENERATOR #2 COPY

Gold- TRANSPORTER #1 COPY

Yellow- GENERATOR #1 COPY

Clancy

# LOAD AND TIME TICKET

725718

NAME OF  
CARRIER

LOU'S TRANSPORT INC.

1780 E. Highwood

Pontiac, MI 48340

Phone: (248) 332-5687 Fax: (248) 334-9566

MATERIAL

C-Soil

PIT TICKET NO.

SECTION 1

TRUCK NO.

122

JOB NO.

14-1301

DATE

12/17/14  
MONTH DAY YEAR

CUSTOMER

Romish Cont.

FROM (LOADING PLACE)

Belt Road Baltimore

TO (UNLOADING PLACE)

EAGLE VALLEY

TONS

29

YARDS

SEC. 2

LOAD NO.

1

LOADED MILES

RATE

CHARGES

SECTION 3

(FOR HOURLY RATED HAULS)

	TIME		HOURS	RATE	CHARGES
	START	FINISH			
REGULAR					
	START	FINISH			
OVERTIME					
	START	FINISH			

SECTION 4

DRIVER'S SIGNATURE

*[Signature]*

CUSTOMER SIGNATURE

*[Signature]*

SEE CARRIER'S M.P.S.C. TARIFF FOR INSTRUCTIONS

2-SHIPPER'S COPY

Clancy

# LOAD AND TIME TICKET

724050

NAME OF CARRIER

LOU'S TRANSPORT INC.

1780 E. Highwood

Pontiac, MI 48340

Phone: (248) 332-5687 Fax: (248) 334-9566

MATERIAL

C/SID/OUT

PIT TICKET NO.

SECTION 1

TRUCK NO.

009

JOB NO.

14-1301

DATE

12/17/14

CUSTOMER

Ronnash Construction

FROM (LOADING PLACE)

BAYVIEW

TO (UNLOADING PLACE)

Eagle Valley

TONS

29 tons

YARDS

SEC. 2

LOAD NO.

6

LOADED MILES

RATE

CHARGES

SECTION 3

(FOR HOURLY RATED HAULS)

REGULAR

START

FINISH

OVERTIME

START

FINISH

TIME

HOURS

RATE

CHARGES

SECTION 4

DRIVER'S SIGNATURE

CUSTOMER SIGNATURE

SEE CARRIER'S M.P.S.C. TARIFF FOR INSTRUCTIONS

2-SHIPPER'S COPY

1. Name of the person 2. Date of birth 3. Place of birth 4. Date of death 5. Place of death 6. Date of burial 7. Place of burial 8. Date of cremation 9. Place of cremation 10. Date of interment 11. Place of interment 12. Date of exhumation 13. Place of exhumation 14. Date of reinterment 15. Place of reinterment 16. Date of removal 17. Place of removal 18. Date of return 19. Place of return 20. Date of disposal 21. Place of disposal 22. Date of burial 23. Place of burial 24. Date of cremation 25. Place of cremation 26. Date of interment 27. Place of interment 28. Date of exhumation 29. Place of exhumation 30. Date of reinterment 31. Place of reinterment 32. Date of removal 33. Place of removal 34. Date of return 35. Place of return 36. Date of disposal 37. Place of disposal 38. Date of burial 39. Place of burial 40. Date of cremation 41. Place of cremation 42. Date of interment 43. Place of interment 44. Date of exhumation 45. Place of exhumation 46. Date of reinterment 47. Place of reinterment 48. Date of removal 49. Place of removal 50. Date of return 51. Place of return 52. Date of disposal 53. Place of disposal 54. Date of burial 55. Place of burial 56. Date of cremation 57. Place of cremation 58. Date of interment 59. Place of interment 60. Date of exhumation 61. Place of exhumation 62. Date of reinterment 63. Place of reinterment 64. Date of removal 65. Place of removal 66. Date of return 67. Place of return 68. Date of disposal 69. Place of disposal 70. Date of burial 71. Place of burial 72. Date of cremation 73. Place of cremation 74. Date of interment 75. Place of interment 76. Date of exhumation 77. Place of exhumation 78. Date of reinterment 79. Place of reinterment 80. Date of removal 81. Place of removal 82. Date of return 83. Place of return 84. Date of disposal 85. Place of disposal 86. Date of burial 87. Place of burial 88. Date of cremation 89. Place of cremation 90. Date of interment 91. Place of interment 92. Date of exhumation 93. Place of exhumation 94. Date of reinterment 95. Place of reinterment 96. Date of removal 97. Place of removal 98. Date of return 99. Place of return 100. Date of disposal 101. Place of disposal 102. Date of burial 103. Place of burial 104. Date of cremation 105. Place of cremation 106. Date of interment 107. Place of interment 108. Date of exhumation 109. Place of exhumation 110. Date of reinterment 111. Place of reinterment 112. Date of removal 113. Place of removal 114. Date of return 115. Place of return 116. Date of disposal 117. Place of disposal 118. Date of burial 119. Place of burial 120. Date of cremation 121. Place of cremation 122. Date of interment 123. Place of interment 124. Date of exhumation 125. Place of exhumation 126. Date of reinterment 127. Place of reinterment 128. Date of removal 129. Place of removal 130. Date of return 131. Place of return 132. Date of disposal 133. Place of disposal 134. Date of burial 135. Place of burial 136. Date of cremation 137. Place of cremation 138. Date of interment 139. Place of interment 140. Date of exhumation 141. Place of exhumation 142. Date of reinterment 143. Place of reinterment 144. Date of removal 145. Place of removal 146. Date of return 147. Place of return 148. Date of disposal 149. Place of disposal 150. Date of burial 151. Place of burial 152. Date of cremation 153. Place of cremation 154. Date of interment 155. Place of interment 156. Date of exhumation 157. Place of exhumation 158. Date of reinterment 159. Place of reinterment 160. Date of removal 161. Place of removal 162. Date of return 163. Place of return 164. Date of disposal 165. Place of disposal 166. Date of burial 167. Place of burial 168. Date of cremation 169. Place of cremation 170. Date of interment 171. Place of interment 172. Date of exhumation 173. Place of exhumation 174. Date of reinterment 175. Place of reinterment 176. Date of removal 177. Place of removal 178. Date of return 179. Place of return 180. Date of disposal 181. Place of disposal 182. Date of burial 183. Place of burial 184. Date of cremation 185. Place of cremation 186. Date of interment 187. Place of interment 188. Date of exhumation 189. Place of exhumation 190. Date of reinterment 191. Place of reinterment 192. Date of removal 193. Place of removal 194. Date of return 195. Place of return 196. Date of disposal 197. Place of disposal 198. Date of burial 199. Place of burial 200. Date of cremation 201. Place of cremation 202. Date of interment 203. Place of interment 204. Date of exhumation 205. Place of exhumation 206. Date of reinterment 207. Place of reinterment 208. Date of removal 209. Place of removal 210. Date of return 211. Place of return 212. Date of disposal 213. Place of disposal 214. Date of burial 215. Place of burial 216. Date of cremation 217. Place of cremation 218. Date of interment 219. Place of interment 220. Date of exhumation 221. Place of exhumation 222. Date of reinterment 223. Place of reinterment 224. Date of removal 225. Place of removal 226. Date of return 227. Place of return 228. Date of disposal 229. Place of disposal 230. Date of burial 231. Place of burial 232. Date of cremation 233. Place of cremation 234. Date of interment 235. Place of interment 236. Date of exhumation 237. Place of exhumation 238. Date of reinterment 239. Place of reinterment 240. Date of removal 241. Place of removal 242. Date of return 243. Place of return 244. Date of disposal 245. Place of disposal 246. Date of burial 247. Place of burial 248. Date of cremation 249. Place of cremation 250. Date of interment 251. Place of interment 252. Date of exhumation 253. Place of exhumation 254. Date of reinterment 255. Place of reinterment 256. Date of removal 257. Place of removal 258. Date of return 259. Place of return 260. Date of disposal 261. Place of disposal 262. Date of burial 263. Place of burial 264. Date of cremation 265. Place of cremation 266. Date of interment 267. Place of interment 268. Date of exhumation 269. Place of exhumation 270. Date of reinterment 271. Place of reinterment 272. Date of removal 273. Place of removal 274. Date of return 275. Place of return 276. Date of disposal 277. Place of disposal 278. Date of burial 279. Place of burial 280. Date of cremation 281. Place of cremation 282. Date of interment 283. Place of interment 284. Date of exhumation 285. Place of exhumation 286. Date of reinterment 287. Place of reinterment 288. Date of removal 289. Place of removal 290. Date of return 291. Place of return 292. Date of disposal 293. Place of disposal 294. Date of burial 295. Place of burial 296. Date of cremation 297. Place of cremation 298. Date of interment 299. Place of interment 300. Date of exhumation 301. Place of exhumation 302. Date of reinterment 303. Place of reinterment 304. Date of removal 305. Place of removal 306. Date of return 307. Place of return 308. Date of disposal 309. Place of disposal 310. Date of burial 311. Place of burial 312. Date of cremation 313. Place of cremation 314. Date of interment 315. Place of interment 316. Date of exhumation 317. Place of exhumation 318. Date of reinterment 319. Place of reinterment 320. Date of removal 321. Place of removal 322. Date of return 323. Place of return 324. Date of disposal 325. Place of disposal 326. Date of burial 327. Place of burial 328. Date of cremation 329. Place of cremation	
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# NON-HAZARDOUS MANIFEST

11/11/90

1. Shipper's Name and Address

2. Material Name and Description  
3. Material Quantity  
4. Material Weight  
5. Material Volume

6. Material Hazardous or Non-Hazardous  
7. Material Identification Number  
8. Material Classification  
9. Material Packaging

10. Material Origin

11. Material Destination

12. Material Date

13. Material Quantity

14. Material Weight

15. Material Volume

16. Material Hazardous or Non-Hazardous  
17. Material Identification Number  
18. Material Classification  
19. Material Packaging

20. Material Quantity

21. Material Weight

22. Material Volume

23. Material Hazardous or Non-Hazardous

24. Material Identification Number

25. Material Classification

26. Material Packaging

27. Material Quantity

28. Material Weight

29. Material Volume

30. Material Hazardous or Non-Hazardous

31. Material Identification Number

32. Material Classification

33. Material Packaging

34. Material Quantity

35. Material Weight

36. Material Volume

37. Material Hazardous or Non-Hazardous

38. Material Identification Number

39. Material Classification

40. Material Packaging

41. Material Quantity

42. Material Weight

43. Material Volume

44. Material Hazardous or Non-Hazardous

45. Material Identification Number

46. Material Classification

47. Material Packaging

48. Material Quantity

49. Material Weight

50. Material Volume

51. Material Hazardous or Non-Hazardous

52. Material Identification Number

53. Material Classification

54. Material Packaging

55. Material Quantity

56. Material Weight

57. Material Volume

58. Material Hazardous or Non-Hazardous

59. Material Identification Number

60. Material Classification

61. Material Packaging

62. Material Quantity

63. Material Weight

64. Material Volume

65. Material Hazardous or Non-Hazardous

66. Material Identification Number

67. Material Classification

68. Material Packaging

69. Material Quantity

70. Material Weight

71. Material Volume

72. Material Hazardous or Non-Hazardous

73. Material Identification Number

74. Material Classification

75. Material Packaging

76. Material Quantity

77. Material Weight

78. Material Volume

79. Material Hazardous or Non-Hazardous

80. Material Identification Number

81. Material Classification

82. Material Packaging

83. Material Quantity

84. Material Weight

85. Material Volume

86. Material Hazardous or Non-Hazardous

87. Material Identification Number

88. Material Classification

89. Material Packaging

90. Material Quantity

91. Material Weight

92. Material Volume

93. Material Hazardous or Non-Hazardous

94. Material Identification Number

95. Material Classification

96. Material Packaging

97. Material Quantity

98. Material Weight

99. Material Volume

100. Material Hazardous or Non-Hazardous

101. Material Identification Number

102. Material Classification

103. Material Packaging

104. Material Quantity

105. Material Weight

106. Material Volume

107. Material Hazardous or Non-Hazardous

108. Material Identification Number

109. Material Classification

110. Material Packaging

111. Material Quantity

112. Material Weight

113. Material Volume

114. Material Hazardous or Non-Hazardous

115. Material Identification Number

116. Material Classification

117. Material Packaging

118. Material Quantity

119. Material Weight

120. Material Volume

121. Material Hazardous or Non-Hazardous

122. Material Identification Number

123. Material Classification

124. Material Packaging

125. Material Quantity

126. Material Weight

127. Material Volume

128. Material Hazardous or Non-Hazardous

129. Material Identification Number

130. Material Classification

131. Material Packaging

132. Material Quantity

133. Material Weight

134. Material Volume

135. Material Hazardous or Non-Hazardous

136. Material Identification Number

137. Material Classification

138. Material Packaging

139. Material Quantity

140. Material Weight

141. Material Volume

142. Material Hazardous or Non-Hazardous

143. Material Identification Number

144. Material Classification

145. Material Packaging

146. Material Quantity

147. Material Weight

148. Material Volume

149. Material Hazardous or Non-Hazardous

150. Material Identification Number

151. Material Classification

152. Material Packaging

153. Material Quantity

154. Material Weight

155. Material Volume

156. Material Hazardous or Non-Hazardous

157. Material Identification Number

158. Material Classification

159. Material Packaging

160. Material Quantity

161. Material Weight

162. Material Volume

163. Material Hazardous or Non-Hazardous

164. Material Identification Number

165. Material Classification

166. Material Packaging

167. Material Quantity

168. Material Weight

169. Material Volume

170. Material Hazardous or Non-Hazardous

171. Material Identification Number

172. Material Classification

173. Material Packaging

174. Material Quantity

175. Material Weight

176. Material Volume

177. Material Hazardous or Non-Hazardous

178. Material Identification Number

179. Material Classification

180. Material Packaging

181. Material Quantity

182. Material Weight

183. Material Volume

184. Material Hazardous or Non-Hazardous

185. Material Identification Number

186. Material Classification

187. Material Packaging

188. Material Quantity

189. Material Weight

190. Material Volume

191. Material Hazardous or Non-Hazardous

192. Material Identification Number

193. Material Classification

194. Material Packaging

195. Material Quantity

196. Material Weight

197. Material Volume

198. Material Hazardous or Non-Hazardous

199. Material Identification Number

200. Material Classification

201. Material Packaging

202. Material Quantity

203. Material Weight

204. Material Volume

205. Material Hazardous or Non-Hazardous

206. Material Identification Number

207. Material Classification

208. Material Packaging

209. Material Quantity

210. Material Weight

211. Material Volume

212. Material Hazardous or Non-Hazardous

213. Material Identification Number

214. Material Classification

215. Material Packaging

216. Material Quantity

217. Material Weight

218. Material Volume

219. Material Hazardous or Non-Hazardous

220. Material Identification Number

221. Material Classification

222. Material Packaging

223. Material Quantity

224. Material Weight

225. Material Volume

226. Material Hazardous or Non-Hazardous

227. Material Identification Number

228. Material Classification

229. Material Packaging

230. Material Quantity

231. Material Weight

232. Material Volume

233. Material Hazardous or Non-Hazardous

234. Material Identification Number

235. Material Classification

236. Material Packaging

237. Material Quantity

238. Material Weight

239. Material Volume

240. Material Hazardous or Non-Hazardous

241. Material Identification Number

242. Material Classification

243. Material Packaging

244. Material Quantity

245. Material Weight

246. Material Volume

247. Material Hazardous or Non-Hazardous

248. Material Identification Number

249. Material Classification

250. Material Packaging

251. Material Quantity

252. Material Weight

253. Material Volume

254. Material Hazardous or Non-Hazardous

255. Material Identification Number

256. Material Classification

257. Material Packaging

258. Material Quantity

259. Material Weight

260. Material Volume

261. Material Hazardous or Non-Hazardous

262. Material Identification Number

263. Material Classification

264. Material Packaging

265. Material Quantity

266. Material Weight

267. Material Volume

268. Material Hazardous or Non-Hazardous

269. Material Identification Number

270. Material Classification

271. Material Packaging

272. Material Quantity

273. Material Weight

274. Material Volume

275. Material Hazardous or Non-Hazardous

276. Material Identification Number

277. Material Classification

278. Material Packaging

279. Material Quantity

280. Material Weight

281. Material Volume

282. Material Hazardous or Non-Hazardous

283. Material Identification Number

284. Material Classification



# NON-HAZARDOUS MANIFEST

NON-HAZARDOUS MANIFEST		1. Generator's US EPA ID No.		Manifest Doc No.		2. Page 1 of		
3. Generator's Mailing Address: WOODWARD BROWN ASSOCIATES 34901 WOODWARD BIRMINGHAM, MI 48009		4. Generator's Phone 248-549-3600		Generator's Site Address (if different than mailing): WOODWARD BROWN ASSOCIATES 34901 WOODWARD BIRMINGHAM, MI 48009 OAKLAND COUNTY		A. Manifest Number WMNA 2706733		
5. Transporter 1 Company Name TKMS		6. US EPA ID Number		C. State Transporter's ID		D. Transporter's Phone		
7. Transporter 2 Company Name		8. US EPA ID Number		E. State Transporter's ID		F. Transporter's Phone		
9. Designated Facility Name and Site Address Eagle Valley RDF 600 W Silver Bell Rd Orion, MI 48359		10. US EPA ID Number		G. State Facility ID		H. State Facility Phone 248-391-0990		
11. Description of Waste Materials		12. Containers		13. Total Quantity	14. Unit Wt./Vol.	I. Misc. Comments		
		No.	Type					
				24 yds				
a. Fill Soil								
WM Profile # 112296MI								
b.								
WM Profile #								
c.								
WM Profile #								
d.								
WM Profile #								
J. Additional Descriptions for Materials Listed Above Color: brown Odor: no Physical State: solid		K. Disposal Location						
BILL TO: TKMS		Cell		Level				
		Grid						
15. Special Handling Instructions and Additional Information								
Purchase Order #				EMERGENCY CONTACT / PHONE NO.: Dave Laming/248-467-7108				
16. GENERATOR'S CERTIFICATE: I hereby certify that the above-described materials are not hazardous wastes as defined by CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged and are in proper condition for transportation according to applicable regulations.								
Printed Name DANIEL HAVEN		Signature "On behalf of"				Month 8	Day 22	Year 14
17. Transporter 1 Acknowledgement of Receipt of Materials		Signature				Month 8	Day 22	Year 14
Printed Name Mike Matkowski		Signature				Month 8	Day 22	Year 14
18. Transporter 2 Acknowledgement of Receipt of Materials		Signature				Month	Day	Year
Printed Name		Signature				Month	Day	Year
19. Certificate of Final Treatment/Disposal I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.								
20. Facility Owner or Operator: Certification of receipt of non-hazardous materials covered by this manifest.								
Printed Name		Signature				Month	Day	Year

White- TREATMENT, STORAGE, DISPOSAL FACILITY COPY

Blue- GENERATOR #2 COPY

Yellow- GENERATOR #1 COPY

Pink- FACILITY USE ONLY

Gold- TRANSPORTER #1 COPY



# NON-HAZARDOUS MANIFEST

NON-HAZARDOUS MANIFEST		1. Generator's US EPA ID No.		Manifest Doc No.		2. Page 1 of		69209-164			
3. Generator's Mailing Address: WOODWARD BROWN ASSOCIATES 34901 WOODWARD BIRMINGHAM, MI 48009				Generator's Site Address (If different than mailing): WOODWARD BROWN ASSOCIATES 34901 WOODWARD BIRMINGHAM, MI 48009 OAKLAND COUNTY				A. Manifest Number WMNA 2706732			
4. Generator's Phone 248-549-3600				6. US EPA ID Number				B. State Generator's ID			
5. Transporter 1 Company Name TKMS / Louis ST				8. US EPA ID Number				C. State Transporter's ID			
7. Transporter 2 Company Name				10. US EPA ID Number				D. Transporter's Phone			
9. Designated Facility Name and Site Address Eagle Valley RDF 600 W Silver Bell Rd Orion, MI 48359				G. State Facility ID				H. State Facility Phone 248-391-0990			
GENERATOR	11. Description of Waste Materials				12. Containers		13. Total Quantity	14. Unit WL/Vol.	I. Misc. Comments		
	a. Fill Soil				No.	Type	24 yds				
	WM Profile # 112296MI										
	b.										
	WM Profile #										
	c.										
TRANSPORTER	WM Profile #										
	d.										
	WM Profile #										
	J. Additional Descriptions for Materials Listed Above Color: brown Odor: no Physical State: solid				K. Disposal Location						
	BILL TO: TKMS				Cell		Level				
					Grid						
15. Special Handling Instructions and Additional Information											
Purchase Order # EMERGENCY CONTACT / PHONE NO.: Dave Laming/248-467-7108											
16. GENERATOR'S CERTIFICATE: I hereby certify that the above-described materials are not hazardous wastes as defined by CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged and are in proper condition for transportation according to applicable regulations.											
Printed Name Patrick Havoc				Signature "On behalf of"				Month 8	Day 22	Year 14	
FACILITY	17. Transporter 1 Acknowledgement of Receipt of Materials				Signature				Month 8	Day 22	Year 14
	Printed Name Tomiko Malinowski				Signature						
	18. Transporter 2 Acknowledgement of Receipt of Materials				Signature				Month	Day	Year
	Printed Name				Signature						
TREATMENT	19. Certificate of Final Treatment/Disposal I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.										
	20. Facility Owner or Operator: Certification of receipt of non-hazardous materials covered by this manifest.										
Printed Name				Signature				Month	Day	Year	

White- TREATMENT, STORAGE, DISPOSAL FACILITY COPY

Blue- GENERATOR #2 COPY

Yellow- GENERATOR #1 COPY

Pink- FACILITY USE ONLY

Gold- TRANSPORTER #1 COPY



# NON-HAZARDOUS MANIFEST

NON-HAZARDOUS MANIFEST		1. Generator's US EPA ID No.		Manifest Doc No.		2. Page 1 of		
3. Generator's Mailing Address: WOODWARD BROWN ASSOCIATES 34901 WOODWARD BIRMINGHAM, MI 48009		Generator's Site Address (if different than mailing): WOODWARD BROWN ASSOCIATES 34901 WOODWARD BIRMINGHAM, MI 48009 OAKLAND COUNTY		A. Manifest Number WMNA		2706736		
4. Generator's Phone 248-549-3600				B. State Generator's ID				
5. Transporter 1 Company Name TKMS		6. US EPA ID Number		C. State Transporter's ID		D. Transporter's Phone		
7. Transporter 2 Company Name		8. US EPA ID Number		E. State Transporter's ID		F. Transporter's Phone		
9. Designated Facility Name and Site Address Eagle Valley RDF 600 W Silver Bell Rd Orion, MI 48359		10. US EPA ID Number		G. State Facility ID		H. State Facility Phone 248-391-0990		
GENERATOR	11. Description of Waste Materials		12. Containers		13. Total Quantity		14. Unit Wt./Vol.	
	a. Fill Soil		No. Type		24 yds			
	WM Profile # 112296MI							
	b.							
	WM Profile #							
	c.							
	WM Profile #							
	d.							
	WM Profile #							
	J. Additional Descriptions for Materials Listed Above Color: brown Odor: no Physical State: solid		K. Disposal Location					
BILL TO: TKMS		Cell		Level				
		Grid						
15. Special Handling Instructions and Additional Information								
Purchase Order # EMERGENCY CONTACT / PHONE NO.: Dave Laming/248-467-7108								
16. GENERATOR'S CERTIFICATE: I hereby certify that the above-described materials are not hazardous wastes as defined by CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged and are in proper condition for transportation according to applicable regulations.								
Printed Name		Signature "On behalf of"				Month	Day	Year
17. Transporter 1 Acknowledgement of Receipt of Materials		Signature				Month	Day	Year
Printed Name		Signature				Month	Day	Year
18. Transporter 2 Acknowledgement of Receipt of Materials		Signature				Month	Day	Year
Printed Name		Signature				Month	Day	Year
FACILITY	19. Certificate of Final Treatment/Disposal I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.							
	20. Facility Owner or Operator: Certification of receipt of non-hazardous materials covered by this manifest.							
Printed Name		Signature				Month	Day	Year

White- TREATMENT, STORAGE, DISPOSAL FACILITY COPY

Blue- GENERATOR #2 COPY

Yellow- GENERATOR #1 COPY

Pink- FACILITY USE ONLY

Gold- TRANSPORTER #1 COPY

# LOAD AND TIME TICKET

667572

LOAD TO  
CARRIER

LOW'S TRANSPORT INC.

1765 E. Highland

Pontiac, MI 48240

Phone: (248) 337-5637 Fax: (248) 334-5516

DATE/TIME

MT TICKET NO.

DATE/TIME: 01/01/01 10:00 AM

TRUCK NO: 451 JUNE 10 10:00 AM DATE: 01/01/01

CARRIER: JUNE 10 10:00 AM

TO: JUNE 10 10:00 AM

FROM: JUNE 10 10:00 AM

TIME: JUNE 10 10:00 AM

DATE/TIME: JUNE 10 10:00 AM

DATE/TIME: JUNE 10 10:00 AM

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DATE/TIME: JUNE 10 10:00 AM



# LOAD AND TIME TICKET

692690

NAME OF  
CARRIER

LIN'S TRANSPORT INC.

1740 E. Highland

Portland, ME 04100

Phone: (240) 332-5887 Fax: (240) 334-5888

MATERIAL

PII TICKET NO.

C.S.A.

1740000000

TRUCK NO.

DATE

TIME

SHIPMENT

1740000000

12/14

TO UNLOADING PLACE

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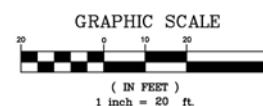
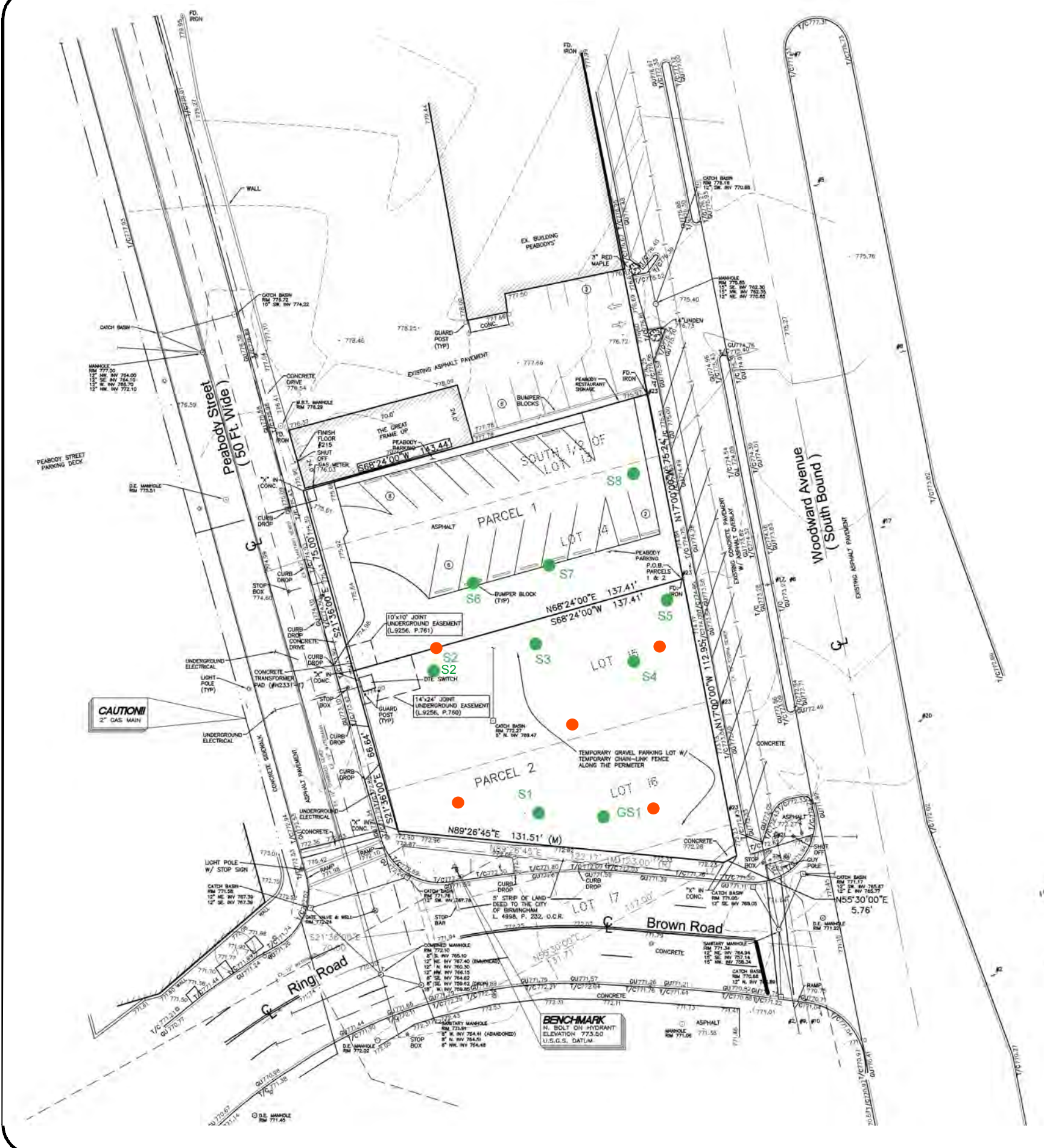
12/14

1-DRIVER'S COPY

## **APPENDIX D**

### **FIGURE 1 – POST-EXCAVATION SOIL SAMPLING LOCATIONS DIAGRAM**

#### **POST EXCAVATION SOIL SAMPLE LABORATORY DATA AND CHAINS OF CUSTODY**



LEGEND

- POST EXCAVATION SOIL GRAB SAMPLE LOCATIONS
- CS-1 WASTE CHARACTERIZATION COMPOSITE SAMPLE LOCATIONS

NOTE:  
DRAWING INFORMATION TAKEN FROM NF ENGINEERS  
2001 ALTA SURVEY AND SME SAMPLING EVENTS.



Project  
**THE BALMORAL**

Project Location  
**34901-34953  
WOODWARD AVE.  
BIRMINGHAM,  
MICHIGAN**

Sheet Name  
**FIGURE 1  
POST EXCAVATION  
SOIL SAMPLING  
LOCATIONS  
DIAGRAM**

No.	Revision Date

Date  
**1-28-2016**

CADD  
**ART**

Designer  
**ART**

Scale  
**1" = 20'**

Project  
**061377.03**

Figure No.  
**1**

DRAWING NOTE: SCALE DEPICTED IS MEANT FOR 11 X 17  
AND WILL SCALE INCORRECTLY IF PRINTED  
OTHER SIZES  
NO REPRODUCTION SHALL BE MADE WITHOUT THE  
CONSENT OF SME  
© 2015



## Case Narrative

Client: Soil and Materials Engineers, Inc.

Project Identification: The Balmoral /061377.03

One soil sample was collected on July 17, 2014 and received by Fibertec, Inc. on July 17, 2014. The shipping cooler temperature was within specifications (0 – 6 °C) and the sample containers arrived without any visible signs of tampering or breakage. The sample was prepared and analyzed within the required holding time. No exceptions were observed.

### Cross reference

Client ID#	Lab ID#	Matrix	Requested Tests
GS-1	63365-001	S	% Moisture, Trace Metals, Mercury, VOC, SVOC

Sample data has been reviewed and results are valid as reported.



Monday, August 04, 2014

Fibertec Project Number: 63365  
Project Identification: The Balmoral /061377.03  
Submittal Date: 07/17/2014

Mr. Dan Cassidy  
Soil and Materials Engineers, Inc. - Plymouth  
43980 Plymouth Oaks  
Plymouth, MI 48170

Dear Mr. Cassidy,

Thank you for selecting Fibertec Environmental Services as your analytical laboratory. The samples you submitted have been analyzed in accordance with NELAC standards and the results compiled in the attached report. Any exceptions to NELAC compliance are noted in the report. These results apply only to those samples submitted. Please note TO-15 samples will be disposed of 14 days after the reporting date. All other samples will be disposed of 30 days after the reporting date.

If you have any questions regarding these results or if we may be of further assistance to you, please contact me at (517) 699-0345.

Sincerely,

A handwritten signature in black ink, appearing to read "Daryl Strandbergh". The signature is fluid and cursive, with a large, sweeping "S" at the end.

Daryl P. Strandbergh  
Laboratory Director

DPS/kc

Enclosures

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F: (231) 775-8584



Analytical Laboratory Report  
Laboratory Project Number: 63365  
Laboratory Sample Number: 63365-001

Order: 63365  
Page: 2 of 5  
Date: 08/04/14

Client Identification:	Soil and Materials Engineers, Inc. - Plymouth	Sample Description:	GS-1	Chain of Custody:	120430
Client Project Name:	The Balmoral	Sample No:	1	Collect Date:	07/17/14
Client Project No:	061377.03	Sample Matrix:	Soil/Solid	Collect Time:	08:30
Sample Comments:	Soil results have been calculated and reported on a dry weight basis unless otherwise noted.				
Definitions:	Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.				

Dry Weight Determination (ASTM D 2974-87)						Aliquot ID: 63365-001A		Matrix: Soil/Solid		
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		
						P. Date	P. Batch	A. Date	A. Batch	Init.
‡ 1. Percent Moisture (Water Content)	13		%	0.1	1.0	07/25/14	MC140724	07/26/14	MC140724	KRF

RCRA Elements by ICP/MS (EPA 0200.2-M/EPA 6020A)						Aliquot ID: 63365-001A		Matrix: Soil/Solid		
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		
						P. Date	P. Batch	A. Date	A. Batch	Init.
1. Arsenic	6100		µg/kg	100	20	07/28/14	PT14G28E	07/28/14	T414G28C	JLH
2. Barium	30000		µg/kg	1000	20	07/28/14	PT14G28E	07/28/14	T414G28C	JLH
3. Cadmium	U		µg/kg	100	20	07/28/14	PT14G28E	07/28/14	T414G28C	JLH
4. Chromium	13000		µg/kg	500	20	07/28/14	PT14G28E	07/28/14	T414G28C	JLH
5. Lead	7000		µg/kg	1000	20	07/28/14	PT14G28E	07/28/14	T414G28C	JLH
6. Selenium	320		µg/kg	200	20	07/28/14	PT14G28E	07/30/14	T214G30A	JLH
7. Silver	U		µg/kg	100	20	07/28/14	PT14G28E	07/28/14	T414G28C	JLH

Mercury by CVAAS (EPA 7471B)						Aliquot ID: 63365-001A		Matrix: Soil/Solid		
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		
						P. Date	P. Batch	A. Date	A. Batch	Init.
1. Mercury	U		µg/kg	50	8.7	07/24/14	PM14G24A	07/24/14	M614G24A	JLP

Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035A/EPA 8260B)						Aliquot ID: 63365-001		Matrix: Soil/Solid		
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		
						P. Date	P. Batch	A. Date	A. Batch	Init.
1. Acetone	U		µg/kg	1000	1.0	07/24/14	VH14G24A	07/24/14	VH14G24A	CCD
‡ 2. Acrylonitrile	U		µg/kg	110	1.0	07/24/14	VH14G24A	07/24/14	VH14G24A	CCD
3. Benzene	U		µg/kg	57	1.0	07/24/14	VH14G24A	07/24/14	VH14G24A	CCD
4. Bromobenzene	U		µg/kg	100	1.0	07/24/14	VH14G24A	07/24/14	VH14G24A	CCD
5. Bromochloromethane	U		µg/kg	100	1.0	07/24/14	VH14G24A	07/24/14	VH14G24A	CCD
6. Bromodichloromethane	U		µg/kg	100	1.0	07/24/14	VH14G24A	07/24/14	VH14G24A	CCD
7. Bromoform	U		µg/kg	110	1.0	07/24/14	VH14G24A	07/24/14	VH14G24A	CCD
8. Bromomethane	U		µg/kg	200	1.0	07/24/14	VH14G24A	07/24/14	VH14G24A	CCD
9. 2-Butanone	U		µg/kg	750	1.0	07/24/14	VH14G24A	07/24/14	VH14G24A	CCD
10. n-Butylbenzene	U		µg/kg	57	1.0	07/24/14	VH14G24A	07/24/14	VH14G24A	CCD
11. sec-Butylbenzene	U		µg/kg	57	1.0	07/24/14	VH14G24A	07/24/14	VH14G24A	CCD
12. tert-Butylbenzene	U		µg/kg	57	1.0	07/24/14	VH14G24A	07/24/14	VH14G24A	CCD
13. Carbon Disulfide	U		µg/kg	250	1.0	07/24/14	VH14G24A	07/24/14	VH14G24A	CCD
14. Carbon Tetrachloride	U		µg/kg	57	1.0	07/24/14	VH14G24A	07/24/14	VH14G24A	CCD
15. Chlorobenzene	U		µg/kg	57	1.0	07/24/14	VH14G24A	07/24/14	VH14G24A	CCD

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F: (231) 775-8584



Analytical Laboratory Report  
Laboratory Project Number: 63365  
Laboratory Sample Number: 63365-001

Order: 63365  
Page: 3 of 5  
Date: 08/04/14

Client Identification:	Soil and Materials Engineers, Inc. - Plymouth	Sample Description:	GS-1	Chain of Custody:	120430
Client Project Name:	The Balmoral	Sample No:	1	Collect Date:	07/17/14
Client Project No:	061377.03	Sample Matrix:	Soil/Solid	Collect Time:	08:30
Sample Comments:	Soil results have been calculated and reported on a dry weight basis unless otherwise noted.				
Definitions:	Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.				

Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035A/EPA 8260B)						Aliquot ID: 63365-001		Matrix: Soil/Solid		
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		
						P. Date	P. Batch	A. Date	A. Batch	Init.
16. Chloroethane	U		µg/kg	290	1.0	07/24/14	VH14G24A	07/24/14	VH14G24A	CCD
17. Chloroform	U		µg/kg	50	1.0	07/24/14	VH14G24A	07/24/14	VH14G24A	CCD
18. Chloromethane	U		µg/kg	290	1.0	07/24/14	VH14G24A	07/24/14	VH14G24A	CCD
19. 2-Chlorotoluene	U		µg/kg	57	1.0	07/24/14	VH14G24A	07/24/14	VH14G24A	CCD
20. Dibromochloromethane	U		µg/kg	100	1.0	07/24/14	VH14G24A	07/24/14	VH14G24A	CCD
‡ 21. 1,2-Dibromo-3-chloropropane (SIM)	U		µg/kg	57	1.0	07/24/14	VH14G24A	07/24/14	VH14G24A	CCD
22. Dibromomethane	U		µg/kg	250	1.0	07/24/14	VH14G24A	07/24/14	VH14G24A	CCD
23. 1,2-Dichlorobenzene	U		µg/kg	110	1.0	07/24/14	VH14G24A	07/24/14	VH14G24A	CCD
24. 1,3-Dichlorobenzene	U		µg/kg	110	1.0	07/24/14	VH14G24A	07/24/14	VH14G24A	CCD
25. 1,4-Dichlorobenzene	U		µg/kg	110	1.0	07/24/14	VH14G24A	07/24/14	VH14G24A	CCD
26. Dichlorodifluoromethane	U		µg/kg	250	1.0	07/24/14	VH14G24A	07/24/14	VH14G24A	CCD
27. 1,1-Dichloroethane	U		µg/kg	50	1.0	07/24/14	VH14G24A	07/24/14	VH14G24A	CCD
28. 1,2-Dichloroethane	U		µg/kg	57	1.0	07/24/14	VH14G24A	07/24/14	VH14G24A	CCD
29. 1,1-Dichloroethene	U		µg/kg	50	1.0	07/24/14	VH14G24A	07/24/14	VH14G24A	CCD
30. cis-1,2-Dichloroethene	U		µg/kg	50	1.0	07/24/14	VH14G24A	07/24/14	VH14G24A	CCD
31. trans-1,2-Dichloroethene	U		µg/kg	57	1.0	07/24/14	VH14G24A	07/24/14	VH14G24A	CCD
32. 1,2-Dichloropropane	U		µg/kg	57	1.0	07/24/14	VH14G24A	07/24/14	VH14G24A	CCD
33. cis-1,3-Dichloropropene	U		µg/kg	50	1.0	07/24/14	VH14G24A	07/24/14	VH14G24A	CCD
34. trans-1,3-Dichloropropene	U		µg/kg	57	1.0	07/24/14	VH14G24A	07/24/14	VH14G24A	CCD
35. Ethylbenzene	U		µg/kg	57	1.0	07/24/14	VH14G24A	07/24/14	VH14G24A	CCD
36. Ethylene Dibromide	U		µg/kg	57	1.0	07/24/14	VH14G24A	07/24/14	VH14G24A	CCD
37. 2-Hexanone	U		µg/kg	2500	1.0	07/24/14	VH14G24A	07/24/14	VH14G24A	CCD
38. Isopropylbenzene	U		µg/kg	250	1.0	07/24/14	VH14G24A	07/24/14	VH14G24A	CCD
39. Methylene Chloride	U		µg/kg	110	1.0	07/24/14	VH14G24A	07/24/14	VH14G24A	CCD
40. 4-Methyl-2-pentanone	U		µg/kg	2500	1.0	07/24/14	VH14G24A	07/24/14	VH14G24A	CCD
41. MTBE	U		µg/kg	250	1.0	07/24/14	VH14G24A	07/24/14	VH14G24A	CCD
42. Naphthalene	U		µg/kg	330	1.0	07/24/14	VH14G24A	07/24/14	VH14G24A	CCD
43. n-Propylbenzene	U		µg/kg	100	1.0	07/24/14	VH14G24A	07/24/14	VH14G24A	CCD
44. Styrene	U		µg/kg	50	1.0	07/24/14	VH14G24A	07/24/14	VH14G24A	CCD
45. 1,1,1,2-Tetrachloroethane	U		µg/kg	100	1.0	07/24/14	VH14G24A	07/24/14	VH14G24A	CCD
46. 1,1,2,2-Tetrachloroethane	U		µg/kg	57	1.0	07/24/14	VH14G24A	07/24/14	VH14G24A	CCD
47. Tetrachloroethene	U		µg/kg	57	1.0	07/24/14	VH14G24A	07/24/14	VH14G24A	CCD
48. Toluene	U		µg/kg	57	1.0	07/24/14	VH14G24A	07/24/14	VH14G24A	CCD
49. 1,2,4-Trichlorobenzene	U		µg/kg	330	1.0	07/24/14	VH14G24A	07/24/14	VH14G24A	CCD
50. 1,1,1-Trichloroethane	U		µg/kg	57	1.0	07/24/14	VH14G24A	07/24/14	VH14G24A	CCD
51. 1,1,2-Trichloroethane	U		µg/kg	57	1.0	07/24/14	VH14G24A	07/24/14	VH14G24A	CCD
52. Trichloroethene	U		µg/kg	57	1.0	07/24/14	VH14G24A	07/24/14	VH14G24A	CCD
53. Trichlorofluoromethane	U		µg/kg	110	1.0	07/24/14	VH14G24A	07/24/14	VH14G24A	CCD

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Analytical Laboratory Report  
Laboratory Project Number: 63365  
Laboratory Sample Number: 63365-001

Order: 63365  
Page: 4 of 5  
Date: 08/04/14

Client Identification:	Soil and Materials Engineers, Inc. - Plymouth	Sample Description:	GS-1	Chain of Custody:	120430
Client Project Name:	The Balmoral	Sample No:	1	Collect Date:	07/17/14
Client Project No:	061377.03	Sample Matrix:	Soil/Solid	Collect Time:	08:30
Sample Comments:	Soil results have been calculated and reported on a dry weight basis unless otherwise noted.				
Definitions:	Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.				

Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035A/EPA 8260B)						Aliquot ID: 63365-001		Matrix: Soil/Solid		
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		
						P. Date	P. Batch	A. Date	A. Batch	Init.
54. 1,2,3-Trichloropropane	U		µg/kg	100	1.0	07/24/14	VH14G24A	07/24/14	VH14G24A	CCD
‡ 55. 1,2,3-Trimethylbenzene	U		µg/kg	110	1.0	07/24/14	VH14G24A	07/24/14	VH14G24A	CCD
56. 1,2,4-Trimethylbenzene	U		µg/kg	110	1.0	07/24/14	VH14G24A	07/24/14	VH14G24A	CCD
57. 1,3,5-Trimethylbenzene	U		µg/kg	100	1.0	07/24/14	VH14G24A	07/24/14	VH14G24A	CCD
58. Vinyl Chloride	U		µg/kg	40	1.0	07/24/14	VH14G24A	07/24/14	VH14G24A	CCD
59. Xylenes	U		µg/kg	150	1.0	07/24/14	VH14G24A	07/24/14	VH14G24A	CCD

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3546/EPA 8270C)						Aliquot ID: 63365-001A		Matrix: Soil/Solid		
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		
						P. Date	P. Batch	A. Date	A. Batch	Init.
1. Acenaphthene	U		µg/kg	330	1.0	07/28/14	PS14G28A	07/29/14	S114G29A	TMC
2. Acenaphthylene	U		µg/kg	330	1.0	07/28/14	PS14G28A	07/29/14	S114G29A	TMC
3. Anthracene	U		µg/kg	330	1.0	07/28/14	PS14G28A	07/29/14	S114G29A	TMC
4. Benzo(a)anthracene	U		µg/kg	330	1.0	07/28/14	PS14G28A	07/29/14	S114G29A	TMC
5. Benzo(a)pyrene	U		µg/kg	330	1.0	07/28/14	PS14G28A	07/29/14	S114G29A	TMC
6. Benzo(b)fluoranthene	U		µg/kg	330	1.0	07/28/14	PS14G28A	07/29/14	S114G29A	TMC
7. Benzo(ghi)perylene	U		µg/kg	330	1.0	07/28/14	PS14G28A	07/29/14	S114G29A	TMC
8. Benzo(k)fluoranthene	U		µg/kg	330	1.0	07/28/14	PS14G28A	07/29/14	S114G29A	TMC
9. Chrysene	U		µg/kg	330	1.0	07/28/14	PS14G28A	07/29/14	S114G29A	TMC
10. Dibenzo(a,h)anthracene	U		µg/kg	330	1.0	07/28/14	PS14G28A	07/29/14	S114G29A	TMC
11. Fluoranthene	U		µg/kg	330	1.0	07/28/14	PS14G28A	07/29/14	S114G29A	TMC
12. Fluorene	U		µg/kg	330	1.0	07/28/14	PS14G28A	07/29/14	S114G29A	TMC
13. Indeno(1,2,3-cd)pyrene	U		µg/kg	330	1.0	07/28/14	PS14G28A	07/29/14	S114G29A	TMC
14. 2-Methylnaphthalene	U		µg/kg	330	1.0	07/28/14	PS14G28A	07/29/14	S114G29A	TMC
15. Naphthalene	U		µg/kg	330	1.0	07/28/14	PS14G28A	07/29/14	S114G29A	TMC
16. Phenanthrene	U		µg/kg	330	1.0	07/28/14	PS14G28A	07/29/14	S114G29A	TMC
17. Pyrene	U		µg/kg	330	1.0	07/28/14	PS14G28A	07/29/14	S114G29A	TMC

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**Definitions/ Qualifiers:**

- A:** Spike recovery or precision unusable due to dilution.  
**B:** The analyte was detected in the associated method blank.  
**E:** The analyte was detected at a concentration greater than the calibration range, therefore the result is estimated.  
**J:** The concentration is an estimated value.  
**M:** Modified Method  
**U:** The analyte was not detected at or above the reporting limit.  
**X:** Matrix Interference has resulted in a raised reporting limit or distorted result.  
**W:** Results reported on a wet-weight basis.  
**\*:** Value reported is outside QA limits

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**Exception Summary:**

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Accreditation Number(s):

**E-10395 (KS)**

**T104704518-13-1 (TX)**



Quality Control Report  
Preparation Batch QC Summary  
Cold Vapor Atomic Absorption Spectrometry  
Soil/Solid

Batch ID: PM14G24  
Page: 1 of 1  
Date: 09/24/14

Preparation Batch: PM14G24A

Preparation Date: 07/24/14

Parameter	Method Blank (MB)			Laboratory Control Sample (LCS)					LCS Duplicate (LCD)				Run Code		
	Result	RL	Q	Result	Spike	Rec.	LCL - UCL	Q	Rec.	RPD	UCL	Q	MB	LCS	LCD
	µg/kg	µg/kg		µg/kg	µg/kg	%	%		%	%	%				
1. Mercury	U	50		189	200	95	85 - 115						MB-25	LCS-26	

**Definitions/Qualifiers:**

U: The analyte was not detected at or above the Reporting Limit (RL).  
\*: Value reported is outside QC limits

**Run Code (Analysis Sequence/Run Time):**

MB-25 M614G24A 07/24/14 11:11  
LCS-26 M614G24A 07/24/14 11:13

**Exception Summary:**

Exceptions have been properly noted on reported results or affected samples have been scheduled for reanalysis when appropriate.

**Report Generated By:**

Anthony Donnelly  
Information Technology Officer  
Wednesday, September 24, 2014  
12:42:30 PM

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**Quality Control Report**  
**Preparation Batch QC Summary**  
**Gas Chromatography - Mass Spectrometry (Semivolatiles)**  
**Soil/Solid**

Batch ID: PS14G28  
Page: 1 of 1  
Date: 09/24/14

**Preparation Batch: PS14G28A      Preparation Date: 07/28/14**

Parameter	Method Blank (MB)			Laboratory Control Sample (LCS)					LCS Duplicate (LCD)				Run Code		
	Result µg/kg	RL µg/kg	Q	Result µg/kg	Spike µg/kg	Rec. %	LCL - UCL %	Q	Rec. %	RPD %	UCL %	Q	MB	LCS	LCD
1. Acenaphthene	U	330		2,995	5,333	56	50 - 114						MB-29	LCS-30	
2. Acenaphthylene	U	330		3,140	5,333	59	53 - 115						MB-29	LCS-30	
3. Anthracene	U	330		3,239	5,333	61	48 - 119						MB-29	LCS-30	
4. Benzo(a)anthracene	U	330		3,369	5,333	63	56 - 120						MB-29	LCS-30	
5. Benzo(a)pyrene	U	330		3,372	5,333	63	57 - 122						MB-29	LCS-30	
6. Benzo(b)fluoranthene	U	330		3,210	5,333	60	50 - 131						MB-29	LCS-30	
7. Benzo(ghi)perylene	U	330		3,510	5,333	66	41 - 132						MB-29	LCS-30	
8. Benzo(k)fluoranthene	U	330		3,246	5,333	61	39 - 137						MB-29	LCS-30	
9. Chrysene	U	330		3,285	5,333	62	53 - 124						MB-29	LCS-30	
10. Dibenzo(a,h)anthracene	U	330		3,492	5,333	65	53 - 126						MB-29	LCS-30	
11. Fluoranthene	U	330		3,434	5,333	64	48 - 135						MB-29	LCS-30	
12. Fluorene	U	330		3,032	5,333	57	49 - 126						MB-29	LCS-30	
13. Indeno(1,2,3-cd)pyrene	U	330		3,812	5,333	71	51 - 132						MB-29	LCS-30	
14. 2-Methylnaphthalene	U	330		3,194	5,333	60	46 - 105						MB-29	LCS-30	
15. Phenanthrene	U	330		3,294	5,333	62	53 - 119						MB-29	LCS-30	
16. Pyrene	U	330		3,427	5,333	64	55 - 127						MB-29	LCS-30	

System Monitoring Compounds (Surrogates)	Method Blank (MB)				Laboratory Control Sample (LCS)					LCS Duplicate (LCD)				Run Code		
	Result µg/kg	Spike µg/kg	Rec. %	Q	Result µg/kg	Spike µg/kg	Rec. %	LCL - UCL %	Q	Rec. %	RPD %	UCL %	Q	MB	LCS	LCD
1. 2-Fluorobiphenyl(S)	3,926	5,333	74		3,077	5,333	58	49 - 115						MB-29	LCS-30	
2. 4-Terphenyl-d14(S)	4,273	5,333	80		3,418	5,333	64	48 - 117						MB-29	LCS-30	
3. 1-Fluoronaphthalene(S)	3,675	5,333	69		3,000	5,333	56	46 - 114						MB-29	LCS-30	

**Definitions/ Qualifiers:**

U: The analyte was not detected at or above the Reporting Limit (RL).  
\*: Value reported is outside QC limits

**Run Code (Analysis Sequence/Run Time):**

MB-29 S114G28A 07/28/14 14:37  
LCS-30 S114G28A 07/28/14 15:25

**Exception Summary:**

Exceptions have been properly noted on reported results or affected samples have been scheduled for reanalysis when appropriate.

**Report Generated By:**



**Anthony Donnelly**  
Information Technology Officer  
Wednesday, September 24, 2014  
12:42:30 PM



Quality Control Report  
Preparation Batch QC Summary  
Inductively Coupled Plasma - Mass Spectrometry  
Soil/Solid

Batch ID: PT14G28  
Page: 1 of 1  
Date: 09/24/14

Preparation Batch: PT14G28E

Preparation Date: 07/28/14

Parameter	Method Blank (MB)			Laboratory Control Sample (LCS)					LCS Duplicate (LCD)				Run Code		
	Result µg/kg	RL µg/kg	Q	Result µg/kg	Spike µg/kg	Rec. %	LCL - UCL %	Q	Rec. %	RPD %	UCL %	Q	MB	LCS	LCD
1. Arsenic	U	100		10,063	10,000	101	85 - 115						MB-30	LCS-29	
2. Barium	U	1000		49,995	50,000	100	85 - 115						MB-30	LCS-29	
3. Cadmium	U	100		9,702	10,000	97	85 - 115						MB-30	LCS-29	
4. Chromium	U	500		19,554	20,000	98	85 - 115						MB-30	LCS-29	
5. Lead	U	1000		20,073	20,000	100	85 - 115						MB-30	LCS-29	
6. Selenium	U	200		10,273	10,000	103	85 - 115						MB-30	LCS-29	
7. Silver	U	100		9,670	10,000	97	85 - 115						MB-30	LCS-29	

**Definitions/ Qualifiers:**

U: The analyte was not detected at or above the Reporting Limit (RL).  
\*: Value reported is outside QC limits

**Run Code (Analysis Sequence/Run Time):**

MB-30 T414G28C 07/28/14 14:58  
LCS-29 T414G28C 07/28/14 15:00

**Exception Summary:**

Exceptions have been properly noted on reported results or affected samples have been scheduled for reanalysis when appropriate.

**Report Generated By:**

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Wednesday, September 24, 2014  
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Quality Control Report  
Preparation Batch QC Summary  
Gas Chromatography - Mass Spectrometry (Volatiles)  
Soil/Solid

Batch ID: VH14G24  
Page: 1 of 2  
Date: 09/24/14

Preparation Batch: VH14G24A

Preparation Date: 07/24/14

Parameter	Method Blank (MB)			Laboratory Control Sample (LCS)				LCS Duplicate (LCD)				Run Code		
	Result µg/kg	RL µg/kg	Q	Result µg/kg	Spike µg/kg	Rec. %	LCL - UCL %	Rec. %	RPD %	UCL %	Q	MB	LCS	LCD
1. Acetone	U	1000		4,327	5,000	87	50 - 145	78	11	20		MB-26	LCS-25	LCD-7
2. Acrylonitrile	U	100		5,144	5,000	103	66 - 139	106	3	20		MB-26	LCS-25	LCD-7
3. Benzene	U	50		5,164	5,000	103	70 - 130	103	0	20		MB-26	LCS-25	LCD-7
4. Bromobenzene	U	100		4,786	5,000	96	70 - 130	96	0	20		MB-26	LCS-25	LCD-7
5. Bromochloromethane	U	100		4,749	5,000	95	62 - 134	95	0	20		MB-26	LCS-25	LCD-7
6. Bromodichloromethane	U	100		5,477	5,000	110	70 - 130	111	1	20		MB-26	LCS-25	LCD-7
7. Bromoform	U	100		4,748	5,000	95	70 - 130	97	2	20		MB-26	LCS-25	LCD-7
8. Bromomethane	U	200		5,266	5,000	105	56 - 135	104	1	20		MB-26	LCS-25	LCD-7
9. 2-Butanone	U	750		4,718	5,000	94	56 - 141	90	4	20		MB-26	LCS-25	LCD-7
10. n-Butylbenzene	U	50		5,331	5,000	107	70 - 141	104	3	20		MB-26	LCS-25	LCD-7
11. sec-Butylbenzene	U	50		5,187	5,000	104	70 - 130	103	1	20		MB-26	LCS-25	LCD-7
12. tert-Butylbenzene	U	50		5,294	5,000	106	70 - 130	105	1	20		MB-26	LCS-25	LCD-7
13. Carbon Disulfide	U	250		4,976	5,000	100	70 - 132	96	4	20		MB-26	LCS-25	LCD-7
14. Carbon Tetrachloride	U	50		5,674	5,000	113	70 - 143	114	1	20		MB-26	LCS-25	LCD-7
15. Chlorobenzene	U	50		5,057	5,000	101	70 - 130	103	2	20		MB-26	LCS-25	LCD-7
16. Chloroethane	U	250		4,345	5,000	87	60 - 150	86	1	20		MB-26	LCS-25	LCD-7
17. Chloroform	U	50		5,240	5,000	105	71 - 126	104	1	20		MB-26	LCS-25	LCD-7
18. Chloromethane	U	250		5,201	5,000	104	63 - 137	101	3	20		MB-26	LCS-25	LCD-7
19. 2-Chlorotoluene	U	50		5,196	5,000	104	70 - 130	104	0	20		MB-26	LCS-25	LCD-7
20. Dibromochloromethane	U	100		6,015	5,000	120	70 - 130	123	2	20		MB-26	LCS-25	LCD-7
21. 1,2-Dibromo-3-chloropropane	U	50		4,736	5,000	95	70 - 134	99	4	20		MB-26	LCS-25	LCD-7
22. Dibromomethane	U	250		5,396	5,000	108	70 - 130	111	3	20		MB-26	LCS-25	LCD-7
23. 1,2-Dichlorobenzene	U	100		5,302	5,000	106	70 - 130	106	0	20		MB-26	LCS-25	LCD-7
24. 1,3-Dichlorobenzene	U	100		5,403	5,000	108	70 - 130	107	1	20		MB-26	LCS-25	LCD-7
25. 1,4-Dichlorobenzene	U	100		5,211	5,000	104	70 - 130	104	0	20		MB-26	LCS-25	LCD-7
26. Dichlorodifluoromethane	U	250		6,261	5,000	125	70 - 144	124	1	20		MB-26	LCS-25	LCD-7
27. 1,1-Dichloroethane	U	50		5,135	5,000	103	70 - 130	102	1	20		MB-26	LCS-25	LCD-7
28. 1,2-Dichloroethane	U	50		5,099	5,000	102	69 - 130	103	1	20		MB-26	LCS-25	LCD-7
29. 1,1-Dichloroethene	U	50		5,449	5,000	109	72 - 131	106	3	20		MB-26	LCS-25	LCD-7
30. cis-1,2-Dichloroethene	U	50		5,028	5,000	101	70 - 131	100	1	20		MB-26	LCS-25	LCD-7
31. trans-1,2-Dichloroethene	U	50		5,171	5,000	103	70 - 131	103	0	20		MB-26	LCS-25	LCD-7
32. 1,2-Dichloropropane	U	50		5,265	5,000	105	80 - 127	106	1	20		MB-26	LCS-25	LCD-7
33. cis-1,3-Dichloropropene	U	50		5,744	5,000	115	70 - 131	117	2	20		MB-26	LCS-25	LCD-7
34. trans-1,3-Dichloropropene	U	50		5,728	5,000	115	70 - 132	118	3	20		MB-26	LCS-25	LCD-7
35. Ethylbenzene	U	50		5,288	5,000	106	80 - 120	107	1	20		MB-26	LCS-25	LCD-7
36. Ethylene Dibromide	U	50		5,192	5,000	104	70 - 130	107	3	20		MB-26	LCS-25	LCD-7
37. 2-Hexanone	U	2500		4,606	5,000	92	68 - 138	89	3	20		MB-26	LCS-25	LCD-7
38. Isopropylbenzene	U	250		5,225	5,000	105	70 - 130	106	1	20		MB-26	LCS-25	LCD-7
39. Methylene Chloride	U	100		4,835	5,000	97	62 - 130	96	1	20		MB-26	LCS-25	LCD-7
40. 4-Methyl-2-pentanone	U	2500		5,182	5,000	104	70 - 133	109	5	20		MB-26	LCS-25	LCD-7
41. MTBE	U	250		4,686	5,000	94	61 - 142	96	2	20		MB-26	LCS-25	LCD-7
42. Naphthalene	U	330		4,292	5,000	86	70 - 136	85	1	20		MB-26	LCS-25	LCD-7
43. n-Propylbenzene	U	100		5,323	5,000	106	70 - 130	107	1	20		MB-26	LCS-25	LCD-7
44. Styrene	U	50		5,257	5,000	105	70 - 130	106	1	20		MB-26	LCS-25	LCD-7
45. 1,1,1,2-Tetrachloroethane	U	100		6,095	5,000	122	70 - 130	122	0	20		MB-26	LCS-25	LCD-7
46. 1,1,2,2-Tetrachloroethane	U	50		6,359	5,000	127	70 - 130	132	4	20		MB-26	LCS-25	LCD-7
47. Tetrachloroethene	U	50		5,444	5,000	109	70 - 130	111	2	20		MB-26	LCS-25	LCD-7
48. Toluene	U	50		5,175	5,000	104	79 - 120	105	1	20		MB-26	LCS-25	LCD-7
49. 1,2,4-Trichlorobenzene	U	330		5,291	5,000	106	70 - 133	106	0	20		MB-26	LCS-25	LCD-7
50. 1,1,1-Trichloroethane	U	50		5,136	5,000	103	70 - 130	102	1	20		MB-26	LCS-25	LCD-7
51. 1,1,2-Trichloroethane	U	50		5,381	5,000	108	70 - 130	110	2	20		MB-26	LCS-25	LCD-7

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**Quality Control Report**  
**Preparation Batch QC Summary**  
**Gas Chromatography - Mass Spectrometry (Volatiles)**  
**Soil/Solid**

Batch ID: VH14G24  
Page: 2 of 2  
Date: 09/24/14

Preparation Batch: VH14G24A      Preparation Date: 07/24/14

Parameter	Method Blank (MB)			Laboratory Control Sample (LCS)					LCS Duplicate (LCD)			Run Code			
	Result	RL	Q	Result	Spike	Rec.	LCL - UCL	Q	Rec.	RPD	UCL	Q	MB	LCS	LCD
	µg/kg	µg/kg		µg/kg	%	%	%		%	%	%				
52. Trichloroethene	U	50		4,781	5,000	96	70 - 130		95	1	20		MB-26	LCS-25	LCD-7
53. Trichlorofluoromethane	U	100		5,344	5,000	107	50 - 150		103	4	20		MB-26	LCS-25	LCD-7
54. 1,2,3-Trichloropropane	U	100		5,277	5,000	106	70 - 130		110	4	20		MB-26	LCS-25	LCD-7
55. 1,2,3-Trimethylbenzene	U	100		5,136	5,000	103	70 - 130		103	0	20		MB-26	LCS-25	LCD-7
56. 1,2,4-Trimethylbenzene	U	100		5,304	5,000	106	70 - 130		106	0	20		MB-26	LCS-25	LCD-7
57. 1,3,5-Trimethylbenzene	U	100		5,070	5,000	101	70 - 130		101	0	20		MB-26	LCS-25	LCD-7
58. Vinyl Chloride	U	40		5,271	5,000	105	70 - 137		105	0	20		MB-26	LCS-25	LCD-7
59. m&p-Xylene	U	100		10,581	10,000	106	70 - 130		107	1	20		MB-26	LCS-25	LCD-7
60. o-Xylene	U	50		5,249	5,000	105	70 - 130		107	2	20		MB-26	LCS-25	LCD-7

System Monitoring Compounds (Surrogates):	Method Blank (MB)				Laboratory Control Sample (LCS)					LCS Duplicate (LCD)				Run Code		
	Result	Spike	Rec.		Result	Spike	Rec.	LCL - UCL		Rec.	RPD	UCL		MB	LCS	LCD
	µg/kg	µg/kg	%	Q	µg/kg	µg/kg	%	%	Q	%	%	%	Q			
1. Dibromofluoromethane(S)	4,971	5,000	99		4,975	5,000	99	77 - 120		99	0	20		MB-26	LCS-25	LCD-7
2. 1,2-Dichloroethane-d4(S)	5,034	5,000	101		5,050	5,000	101	65 - 131		100	1	20		MB-26	LCS-25	LCD-7
3. Toluene-d8(S)	4,871	5,000	97		4,931	5,000	99	75 - 121		99	0	20		MB-26	LCS-25	LCD-7
4. 4-Bromofluorobenzene(S)	4,695	5,000	94		4,724	5,000	94	80 - 120		95	1	20		MB-26	LCS-25	LCD-7

**Definitions/ Qualifiers:**

U: The analyte was not detected at or above the Reporting Limit (RL).  
\*: Value reported is outside QC limits

**Run Code (Analysis Sequence/Run Time):**

MB-26 VH14G24A 07/24/14 12:12  
LCS-25 VH14G24A 07/24/14 09:59  
LCD-7 VH14G24A 07/24/14 10:26

**Exception Summary:**

Exceptions have been properly noted on reported results or affected samples have been scheduled for reanalysis when appropriate.

**Report Generated By:**



**Anthony Donnelly**  
Information Technology Officer  
Wednesday, September 24, 2014  
12:42:30 PM

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Analytical Laboratory  
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Geoprobe  
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Chain of Custody #  
**120430**  
PAGE 1 of 1

Client Name: <b>SME</b>					MATRIX (SEE RIGHT CORNER FOR CODE)	# OF CONTAINERS	PRESERVED (Y/N)	PARAMETERS										Turnaround	Matrix Code	
Contact Person: <b>Dan Cassidy / Darin Meluskey</b>								TOTAL VOCs	TOTAL PCAS	+CLP Lead	TOTAL PCBs	<input checked="" type="checkbox"/> 24 hour RUSH (surcharge applies)	<input checked="" type="checkbox"/> Soil	GW	Ground Water					
Project Name/ Number: <b>061377.03 The Balmora</b>												<input checked="" type="checkbox"/> 48 hour RUSH (surcharge applies)	<input checked="" type="checkbox"/> Water	SW	Surface Water					
Purchase Order#												<input checked="" type="checkbox"/> 72 hour RUSH (surcharge applies)	<input checked="" type="checkbox"/> Air	WW	Waste Water					
Lab Sample #	Date	Time	Client Sample #	Client Sample Descriptor												<input checked="" type="checkbox"/> Standard (5-7 bus. days)	<input checked="" type="checkbox"/> Oil	X	Other: Specify	
	7/17/14	8:30		GS-1	5	1	Y	X	X	X	X									
Comments:																				
Relinquished By: <b>Darin Meluskey</b>					Date/ Time		Received By: <b>Dale St. Shade</b> 7/17/14 10:10													
Relinquished By: <b>Dale St. Shade</b>					Date/ Time		Received By: <b>[Signature]</b>													
Relinquished By:					Date/ Time		Received By Laboratory:													
LAB USE ONLY:																				
Fibertec project number: <b>6.0<sup>04</sup></b>																				
Laboratory Tracking: <b>63365</b>																				
Temperature at Receipt:																				

TERMS & CONDITIONS ON BACK

COC Revision: April, 2006



## Case Narrative

Client: Soil and Materials Engineers, Inc.  
Project Identification: Unspecified /

One soil sample was collected on July 14, 2014 and received by Fibertec, Inc. on July 23, 2014. The shipping cooler temperature was within specifications (0 – 6 °C) and the sample containers arrived without any visible signs of tampering or breakage. The sample was prepared and analyzed within the required holding time. No exceptions were observed.

### Cross reference

Client ID#	Lab ID#	Matrix	Requested Tests
S1 7' BG	63368-001	S	% Moisture, Trace Metals, Mercury, VOC, SVOC

Sample data has been reviewed and results are valid as reported.



Monday, August 04, 2014

Fibertec Project Number: 63368  
Project Identification: Unspecified /  
Submittal Date: 07/23/2014

Mr. Jason Lafayette  
Soil and Materials Engineers, Inc. - Plymouth  
43980 Plymouth Oaks  
Plymouth, MI 48170

Dear Mr. Lafayette,

Thank you for selecting Fibertec Environmental Services as your analytical laboratory. The samples you submitted have been analyzed in accordance with NELAC standards and the results compiled in the attached report. Any exceptions to NELAC compliance are noted in the report. These results apply only to those samples submitted. Please note TO-15 samples will be disposed of 14 days after the reporting date. All other samples will be disposed of 30 days after the reporting date.

If you have any questions regarding these results or if we may be of further assistance to you, please contact me at (517) 699-0345.

Sincerely,

A handwritten signature in black ink, appearing to read "Daryl P. Strandbergh", written over a light gray background.

Daryl P. Strandbergh  
Laboratory Director

DPS/kc

Enclosures

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Analytical Laboratory Report  
Laboratory Project Number: 63368  
Laboratory Sample Number: 63368-001

Order: 63368  
Page: 2 of 5  
Date: 08/04/14

Client Identification:	Soil and Materials Engineers, Inc. - Plymouth	Sample Description:	S1 7" BG	Chain of Custody:	120431
Client Project Name:	Unspecified	Sample No:	1	Collect Date:	07/14/14
Client Project No:	NA	Sample Matrix:	Soil/Solid	Collect Time:	09:20
Sample Comments:	Soil results have been calculated and reported on a dry weight basis unless otherwise noted.				
Definitions:	Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.				

Dry Weight Determination (ASTM D 2974-87)						Aliquot ID: 63368-001A		Matrix: Soil/Solid		
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		Init.
						P. Date	P. Batch	A. Date	A. Batch	
‡ 1. Percent Moisture (Water Content)	12		%	0.1	1.0	07/25/14	MC140724	07/26/14	MC140724	KRF

RCRA Elements by ICP/MS (EPA 0200.2-M/EPA 6020A)						Aliquot ID: 63368-001A		Matrix: Soil/Solid		
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		Init.
						P. Date	P. Batch	A. Date	A. Batch	
1. Arsenic	4900		µg/kg	100	20	07/29/14	PT14G29E	07/29/14	T414G29C	JLH
2. Barium	29000		µg/kg	1000	20	07/29/14	PT14G29E	07/29/14	T414G29C	JLH
3. Cadmium	100		µg/kg	50	20	07/29/14	PT14G29E	07/29/14	T414G29C	JLH
4. Chromium	13000		µg/kg	500	20	07/29/14	PT14G29E	07/29/14	T414G29C	JLH
5. Lead	6400		µg/kg	1000	20	07/29/14	PT14G29E	07/29/14	T414G29C	JLH
6. Selenium	290		µg/kg	200	10	07/29/14	PT14G29E	07/30/14	T214G30A	JLH
7. Silver	U		µg/kg	100	20	07/29/14	PT14G29E	07/29/14	T414G29C	JLH

Mercury by CVAAS (EPA 7471B)						Aliquot ID: 63368-001A		Matrix: Soil/Solid		
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		Init.
						P. Date	P. Batch	A. Date	A. Batch	
1. Mercury	U		µg/kg	50	8.7	07/24/14	PM14G24A	07/24/14	M614G24A	JLP

Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035A/EPA 8260B)						Aliquot ID: 63368-001		Matrix: Soil/Solid		
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		Init.
						P. Date	P. Batch	A. Date	A. Batch	
1. Acetone	U		µg/kg	1000	1.0	07/25/14	VL14G25B	07/26/14	VL14G25B	HLS
‡ 2. Acrylonitrile	U		µg/kg	110	1.0	07/24/14	VH14G24B	07/25/14	VH14G24B	CDH
3. Benzene	U		µg/kg	57	1.0	07/24/14	VH14G24B	07/25/14	VH14G24B	CDH
4. Bromobenzene	U		µg/kg	100	1.0	07/24/14	VH14G24B	07/25/14	VH14G24B	CDH
5. Bromochloromethane	U		µg/kg	100	1.0	07/24/14	VH14G24B	07/25/14	VH14G24B	CDH
6. Bromodichloromethane	U		µg/kg	100	1.0	07/24/14	VH14G24B	07/25/14	VH14G24B	CDH
7. Bromoform	U		µg/kg	110	1.0	07/24/14	VH14G24B	07/25/14	VH14G24B	CDH
8. Bromomethane	U		µg/kg	200	1.0	07/24/14	VH14G24B	07/25/14	VH14G24B	CDH
9. 2-Butanone	U		µg/kg	750	1.0	07/24/14	VH14G24B	07/25/14	VH14G24B	CDH
10. n-Butylbenzene	U		µg/kg	57	1.0	07/24/14	VH14G24B	07/25/14	VH14G24B	CDH
11. sec-Butylbenzene	U		µg/kg	57	1.0	07/24/14	VH14G24B	07/25/14	VH14G24B	CDH
12. tert-Butylbenzene	U		µg/kg	57	1.0	07/24/14	VH14G24B	07/25/14	VH14G24B	CDH
13. Carbon Disulfide	U		µg/kg	250	1.0	07/24/14	VH14G24B	07/25/14	VH14G24B	CDH
14. Carbon Tetrachloride	U		µg/kg	57	1.0	07/24/14	VH14G24B	07/25/14	VH14G24B	CDH
15. Chlorobenzene	U		µg/kg	57	1.0	07/24/14	VH14G24B	07/25/14	VH14G24B	CDH

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Analytical Laboratory Report  
Laboratory Project Number: 63368  
Laboratory Sample Number: 63368-001

Order: 63368  
Page: 3 of 5  
Date: 08/04/14

Client Identification:	Soil and Materials Engineers, Inc. - Plymouth	Sample Description:	S1 7" BG	Chain of Custody:	120431
Client Project Name:	Unspecified	Sample No:	1	Collect Date:	07/14/14
Client Project No:	NA	Sample Matrix:	Soil/Solid	Collect Time:	09:20
Sample Comments:	Soil results have been calculated and reported on a dry weight basis unless otherwise noted.				
Definitions:	Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.				

Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035A/EPA 8260B)						Aliquot ID: 63368-001		Matrix: Soil/Solid		
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		
						P. Date	P. Batch	A. Date	A. Batch	Init.
16. Chloroethane	U		µg/kg	280	1.0	07/24/14	VH14G24B	07/25/14	VH14G24B	CDH
17. Chloroform	U		µg/kg	50	1.0	07/24/14	VH14G24B	07/25/14	VH14G24B	CDH
18. Chloromethane	U		µg/kg	280	1.0	07/24/14	VH14G24B	07/25/14	VH14G24B	CDH
19. 2-Chlorotoluene	U		µg/kg	57	1.0	07/24/14	VH14G24B	07/25/14	VH14G24B	CDH
20. Dibromochloromethane	U		µg/kg	100	1.0	07/24/14	VH14G24B	07/25/14	VH14G24B	CDH
‡ 21. 1,2-Dibromo-3-chloropropane (SIM)	U		µg/kg	57	1.0	07/24/14	VH14G24B	07/25/14	VH14G24B	CDH
22. Dibromomethane	U		µg/kg	250	1.0	07/24/14	VH14G24B	07/25/14	VH14G24B	CDH
23. 1,2-Dichlorobenzene	U		µg/kg	110	1.0	07/24/14	VH14G24B	07/25/14	VH14G24B	CDH
24. 1,3-Dichlorobenzene	U		µg/kg	110	1.0	07/24/14	VH14G24B	07/25/14	VH14G24B	CDH
25. 1,4-Dichlorobenzene	U		µg/kg	110	1.0	07/24/14	VH14G24B	07/25/14	VH14G24B	CDH
26. Dichlorodifluoromethane	U		µg/kg	250	1.0	07/24/14	VH14G24B	07/25/14	VH14G24B	CDH
27. 1,1-Dichloroethane	U		µg/kg	50	1.0	07/24/14	VH14G24B	07/25/14	VH14G24B	CDH
28. 1,2-Dichloroethane	U		µg/kg	57	1.0	07/24/14	VH14G24B	07/25/14	VH14G24B	CDH
29. 1,1-Dichloroethene	U		µg/kg	50	1.0	07/24/14	VH14G24B	07/25/14	VH14G24B	CDH
30. cis-1,2-Dichloroethene	U		µg/kg	50	1.0	07/24/14	VH14G24B	07/25/14	VH14G24B	CDH
31. trans-1,2-Dichloroethene	U		µg/kg	57	1.0	07/24/14	VH14G24B	07/25/14	VH14G24B	CDH
32. 1,2-Dichloropropane	U		µg/kg	57	1.0	07/24/14	VH14G24B	07/25/14	VH14G24B	CDH
33. cis-1,3-Dichloropropene	U		µg/kg	50	1.0	07/24/14	VH14G24B	07/25/14	VH14G24B	CDH
34. trans-1,3-Dichloropropene	U		µg/kg	57	1.0	07/24/14	VH14G24B	07/25/14	VH14G24B	CDH
35. Ethylbenzene	U		µg/kg	57	1.0	07/24/14	VH14G24B	07/25/14	VH14G24B	CDH
36. Ethylene Dibromide	U		µg/kg	57	1.0	07/24/14	VH14G24B	07/25/14	VH14G24B	CDH
37. 2-Hexanone	U		µg/kg	2500	1.0	07/24/14	VH14G24B	07/25/14	VH14G24B	CDH
38. Isopropylbenzene	U		µg/kg	250	1.0	07/24/14	VH14G24B	07/25/14	VH14G24B	CDH
39. Methylene Chloride	U		µg/kg	110	1.0	07/24/14	VH14G24B	07/25/14	VH14G24B	CDH
40. 4-Methyl-2-pentanone	U		µg/kg	2500	1.0	07/24/14	VH14G24B	07/25/14	VH14G24B	CDH
41. MTBE	U		µg/kg	250	1.0	07/24/14	VH14G24B	07/25/14	VH14G24B	CDH
42. Naphthalene	U		µg/kg	330	1.0	07/24/14	VH14G24B	07/25/14	VH14G24B	CDH
43. n-Propylbenzene	U		µg/kg	100	1.0	07/24/14	VH14G24B	07/25/14	VH14G24B	CDH
44. Styrene	U		µg/kg	50	1.0	07/24/14	VH14G24B	07/25/14	VH14G24B	CDH
45. 1,1,1,2-Tetrachloroethane	U		µg/kg	100	1.0	07/24/14	VH14G24B	07/25/14	VH14G24B	CDH
46. 1,1,2,2-Tetrachloroethane	U		µg/kg	57	1.0	07/24/14	VH14G24B	07/25/14	VH14G24B	CDH
47. Tetrachloroethene	U		µg/kg	57	1.0	07/24/14	VH14G24B	07/25/14	VH14G24B	CDH
48. Toluene	U		µg/kg	57	1.0	07/24/14	VH14G24B	07/25/14	VH14G24B	CDH
49. 1,2,4-Trichlorobenzene	U		µg/kg	330	1.0	07/24/14	VH14G24B	07/25/14	VH14G24B	CDH
50. 1,1,1-Trichloroethane	U		µg/kg	57	1.0	07/24/14	VH14G24B	07/25/14	VH14G24B	CDH
51. 1,1,2-Trichloroethane	U		µg/kg	57	1.0	07/24/14	VH14G24B	07/25/14	VH14G24B	CDH
52. Trichloroethene	U		µg/kg	57	1.0	07/24/14	VH14G24B	07/25/14	VH14G24B	CDH
53. Trichlorofluoromethane	U		µg/kg	110	1.0	07/24/14	VH14G24B	07/25/14	VH14G24B	CDH

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Analytical Laboratory Report  
Laboratory Project Number: 63368  
Laboratory Sample Number: 63368-001

Order: 63368  
Page: 4 of 5  
Date: 08/04/14

Client Identification:	Soil and Materials Engineers, Inc. - Plymouth	Sample Description:	S1 7" BG	Chain of Custody:	120431
Client Project Name:	Unspecified	Sample No:	1	Collect Date:	07/14/14
Client Project No:	NA	Sample Matrix:	Soil/Solid	Collect Time:	09:20
Sample Comments:	Soil results have been calculated and reported on a dry weight basis unless otherwise noted.				
Definitions:	Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.				

Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035A/EPA 8260B)						Aliquot ID: 63368-001		Matrix: Soil/Solid		
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		
						P. Date	P. Batch	A. Date	A. Batch	Init.
54. 1,2,3-Trichloropropane	U		µg/kg	100	1.0	07/24/14	VH14G24B	07/25/14	VH14G24B	CDH
‡ 55. 1,2,3-Trimethylbenzene	U		µg/kg	110	1.0	07/24/14	VH14G24B	07/25/14	VH14G24B	CDH
56. 1,2,4-Trimethylbenzene	U		µg/kg	110	1.0	07/24/14	VH14G24B	07/25/14	VH14G24B	CDH
57. 1,3,5-Trimethylbenzene	U		µg/kg	100	1.0	07/24/14	VH14G24B	07/25/14	VH14G24B	CDH
58. Vinyl Chloride	U		µg/kg	40	1.0	07/24/14	VH14G24B	07/25/14	VH14G24B	CDH
59. Xylenes	U		µg/kg	150	1.0	07/24/14	VH14G24B	07/25/14	VH14G24B	CDH

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3546/EPA 8270C)						Aliquot ID: 63368-001A		Matrix: Soil/Solid		
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		
						P. Date	P. Batch	A. Date	A. Batch	Init.
1. Acenaphthene	U		µg/kg	330	1.0	07/28/14	PS14G28A	07/29/14	S114G29A	TMC
2. Acenaphthylene	U		µg/kg	330	1.0	07/28/14	PS14G28A	07/29/14	S114G29A	TMC
3. Anthracene	U		µg/kg	330	1.0	07/28/14	PS14G28A	07/29/14	S114G29A	TMC
4. Benzo(a)anthracene	U		µg/kg	330	1.0	07/28/14	PS14G28A	07/29/14	S114G29A	TMC
5. Benzo(a)pyrene	U		µg/kg	330	1.0	07/28/14	PS14G28A	07/29/14	S114G29A	TMC
6. Benzo(b)fluoranthene	U		µg/kg	330	1.0	07/28/14	PS14G28A	07/29/14	S114G29A	TMC
7. Benzo(ghi)perylene	U		µg/kg	330	1.0	07/28/14	PS14G28A	07/29/14	S114G29A	TMC
8. Benzo(k)fluoranthene	U		µg/kg	330	1.0	07/28/14	PS14G28A	07/29/14	S114G29A	TMC
9. Chrysene	U		µg/kg	330	1.0	07/28/14	PS14G28A	07/29/14	S114G29A	TMC
10. Dibenzo(a,h)anthracene	U		µg/kg	330	1.0	07/28/14	PS14G28A	07/29/14	S114G29A	TMC
11. Fluoranthene	U		µg/kg	330	1.0	07/28/14	PS14G28A	07/29/14	S114G29A	TMC
12. Fluorene	U		µg/kg	330	1.0	07/28/14	PS14G28A	07/29/14	S114G29A	TMC
13. Indeno(1,2,3-cd)pyrene	U		µg/kg	330	1.0	07/28/14	PS14G28A	07/29/14	S114G29A	TMC
14. 2-Methylnaphthalene	U		µg/kg	330	1.0	07/28/14	PS14G28A	07/29/14	S114G29A	TMC
15. Phenanthrene	U		µg/kg	330	1.0	07/28/14	PS14G28A	07/29/14	S114G29A	TMC
16. Pyrene	U		µg/kg	330	1.0	07/28/14	PS14G28A	07/29/14	S114G29A	TMC

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---

**Definitions/ Qualifiers:**

- A:** Spike recovery or precision unusable due to dilution.  
**B:** The analyte was detected in the associated method blank.  
**E:** The analyte was detected at a concentration greater than the calibration range, therefore the result is estimated.  
**J:** The concentration is an estimated value.  
**M:** Modified Method  
**U:** The analyte was not detected at or above the reporting limit.  
**X:** Matrix Interference has resulted in a raised reporting limit or distorted result.  
**W:** Results reported on a wet-weight basis.  
**\*:** Value reported is outside QA limits

---

**Exception Summary:**

---



Accreditation Number(s):

**E-10395 (KS)**

**T104704518-13-1 (TX)**

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Quality Control Report  
Preparation Batch QC Summary  
Cold Vapor Atomic Absorption Spectrometry  
Soil/Solid

Batch ID: PM14G24  
Page: 1 of 1  
Date: 09/22/14

Preparation Batch: PM14G24A

Preparation Date: 07/24/14

Parameter	Method Blank (MB)			Laboratory Control Sample (LCS)					LCS Duplicate (LCD)				Run Code		
	Result	RL	Q	Result	Spike	Rec.	LCL - UCL	Q	Rec.	RPD	UCL	Q	MB	LCS	LCD
	µg/kg	µg/kg		µg/kg	µg/kg	%	%		%	%	%				
1. Mercury	U	50		189	200	95	85 - 115						MB-1	LCS-1	

**Definitions/Qualifiers:**

U: The analyte was not detected at or above the Reporting Limit (RL).  
\*: Value reported is outside QC limits

**Run Code (Analysis Sequence/Run Time):**

MB-1 M614G24A 07/24/14 11:11  
LCS-1 M614G24A 07/24/14 11:13

**Exception Summary:**

Exceptions have been properly noted on reported results or affected samples have been scheduled for reanalysis when appropriate.

**Report Generated By:**

Anthony Donnelly  
Information Technology Officer  
Monday, September 22, 2014  
12:04:38 PM

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**Quality Control Report**  
**Preparation Batch QC Summary**  
**Gas Chromatography - Mass Spectrometry (Semivolatiles)**  
**Soil/Solid**

Batch ID: PS14G28  
Page: 1 of 1  
Date: 09/22/14

Preparation Batch: PS14G28A      Preparation Date: 07/28/14

Parameter	Method Blank (MB)			Laboratory Control Sample (LCS)					LCS Duplicate (LCD)				Run Code		
	Result µg/kg	RL µg/kg	Q	Result µg/kg	Spike µg/kg	Rec. %	LCL - UCL %	Q	Rec. %	RPD %	UCL %	Q	MB	LCS	LCD
1. Acenaphthene	U	330		2,995	5,333	56	50 - 114						MB-4	LCS-4	
2. Acenaphthylene	U	330		3,140	5,333	59	53 - 115						MB-4	LCS-4	
3. Anthracene	U	330		3,239	5,333	61	48 - 119						MB-4	LCS-4	
4. Benzo(a)anthracene	U	330		3,369	5,333	63	56 - 120						MB-4	LCS-4	
5. Benzo(a)pyrene	U	330		3,372	5,333	63	57 - 122						MB-4	LCS-4	
6. Benzo(b)fluoranthene	U	330		3,210	5,333	60	50 - 131						MB-4	LCS-4	
7. Benzo(ghi)perylene	U	330		3,510	5,333	66	41 - 132						MB-4	LCS-4	
8. Benzo(k)fluoranthene	U	330		3,246	5,333	61	39 - 137						MB-4	LCS-4	
9. Chrysene	U	330		3,285	5,333	62	53 - 124						MB-4	LCS-4	
10. Dibenzo(a,h)anthracene	U	330		3,492	5,333	65	53 - 126						MB-4	LCS-4	
11. Fluoranthene	U	330		3,434	5,333	64	48 - 135						MB-4	LCS-4	
12. Fluorene	U	330		3,032	5,333	57	49 - 126						MB-4	LCS-4	
13. Indeno(1,2,3-cd)pyrene	U	330		3,812	5,333	71	51 - 132						MB-4	LCS-4	
14. 2-Methylnaphthalene	U	330		3,194	5,333	60	46 - 105						MB-4	LCS-4	
15. Phenanthrene	U	330		3,294	5,333	62	53 - 119						MB-4	LCS-4	
16. Pyrene	U	330		3,427	5,333	64	55 - 127						MB-4	LCS-4	

System Monitoring Compounds (Surrogates)	Method Blank (MB)				Laboratory Control Sample (LCS)					LCS Duplicate (LCD)				Run Code		
	Result µg/kg	Spike µg/kg	Rec. %	Q	Result µg/kg	Spike µg/kg	Rec. %	LCL - UCL %	Q	Rec. %	RPD %	UCL %	Q	MB	LCS	LCD
1. 2-Fluorobiphenyl(S)	3,926	5,333	74		3,077	5,333	58	49 - 115						MB-4	LCS-4	
2. 4-Terphenyl-d14(S)	4,273	5,333	80		3,418	5,333	64	48 - 117						MB-4	LCS-4	
3. 1-Fluoronaphthalene(S)	3,675	5,333	69		3,000	5,333	56	46 - 114						MB-4	LCS-4	

**Definitions/ Qualifiers:**

U: The analyte was not detected at or above the Reporting Limit (RL).  
\*: Value reported is outside QC limits

**Run Code (Analysis Sequence/Run Time):**

MB-4 S114G28A 07/28/14 14:37  
LCS-4 S114G28A 07/28/14 15:25

**Exception Summary:**

Exceptions have been properly noted on reported results or affected samples have been scheduled for reanalysis when appropriate.

**Report Generated By:**



**Anthony Donnelly**  
Information Technology Officer  
Monday, September 22, 2014  
12:04:38 PM



Quality Control Report  
Preparation Batch QC Summary  
Inductively Coupled Plasma - Mass Spectrometry  
Soil/Solid

Batch ID: PT14G29  
Page: 1 of 1  
Date: 09/22/14

Preparation Batch: PT14G29E

Preparation Date: 07/29/14

Parameter	Method Blank (MB)			Laboratory Control Sample (LCS)					LCS Duplicate (LCD)				Run Code		
	Result µg/kg	RL µg/kg	Q	Result µg/kg	Spike µg/kg	Rec. %	LCL - UCL %	Q	Rec. %	RPD %	UCL %	Q	MB	LCS	LCD
1. Arsenic	U	100		10,555	10,000	106	85 - 115						MB-5	LCS-5	
2. Barium	U	1000		51,601	50,000	103	85 - 115						MB-5	LCS-5	
3. Cadmium	U	50		10,294	10,000	103	85 - 115						MB-5	LCS-5	
4. Chromium	U	500		20,336	20,000	102	85 - 115						MB-5	LCS-5	
5. Lead	U	1000		20,375	20,000	102	85 - 115						MB-5	LCS-5	
6. Selenium	U	200		10,455	10,000	105	85 - 115						MB-5	LCS-5	
7. Silver	U	100		9,830	10,000	98	85 - 115						MB-5	LCS-5	

**Definitions/ Qualifiers:**

U: The analyte was not detected at or above the Reporting Limit (RL).  
\*: Value reported is outside QC limits

**Run Code (Analysis Sequence/Run Time):**

MB-5 T414G29C 07/29/14 15:46  
LCS-5 T414G29C 07/29/14 15:48

**Exception Summary:**

Exceptions have been properly noted on reported results or affected samples have been scheduled for reanalysis when appropriate.

**Report Generated By:**

Anthony Donnelly  
Information Technology Officer  
Monday, September 22, 2014  
12:04:38 PM

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**Quality Control Report**  
**Preparation Batch QC Summary**  
**Gas Chromatography - Mass Spectrometry (Volatiles)**  
**Soil/Solid**

Batch ID: VH14G24  
Page: 1 of 2  
Date: 09/22/14

Preparation Batch: VH14G24B

Preparation Date: 07/24/14

Parameter	Method Blank (MB)			Laboratory Control Sample (LCS)					LCS Duplicate (LCD)				Run Code		
	Result µg/kg	RL µg/kg	Q	Result µg/kg	Spike µg/kg	Rec. %	LCL - UCL %	Q	Rec. %	RPD %	UCL %	Q	MB	LCS	LCD
1. Acrylonitrile	U	100		4,689	5,000	94	66 - 139		93	1	20		MB-2	LCS-2	LCD-1
2. Benzene	U	50		5,287	5,000	106	70 - 130		99	7	20		MB-2	LCS-2	LCD-1
3. Bromobenzene	U	100		4,756	5,000	95	70 - 130		90	5	20		MB-2	LCS-2	LCD-1
4. Bromochloromethane	U	100		4,725	5,000	94	62 - 134		90	4	20		MB-2	LCS-2	LCD-1
5. Bromodichloromethane	U	100		5,559	5,000	111	70 - 130		106	5	20		MB-2	LCS-2	LCD-1
6. Bromoform	U	100		4,563	5,000	91	70 - 130		89	2	20		MB-2	LCS-2	LCD-1
7. Bromomethane	U	200		5,293	5,000	106	56 - 135		101	5	20		MB-2	LCS-2	LCD-1
8. 2-Butanone	U	750		3,667	5,000	73	56 - 141		72	1	20		MB-2	LCS-2	LCD-1
9. n-Butylbenzene	U	50		5,198	5,000	104	70 - 141		99	5	20		MB-2	LCS-2	LCD-1
10. sec-Butylbenzene	U	50		5,167	5,000	103	70 - 130		97	6	20		MB-2	LCS-2	LCD-1
11. tert-Butylbenzene	U	50		5,302	5,000	106	70 - 130		99	7	20		MB-2	LCS-2	LCD-1
12. Carbon Disulfide	U	250		5,259	5,000	105	70 - 132		98	7	20		MB-2	LCS-2	LCD-1
13. Carbon Tetrachloride	U	50		5,900	5,000	118	70 - 143		109	8	20		MB-2	LCS-2	LCD-1
14. Chlorobenzene	U	50		5,103	5,000	102	70 - 130		97	5	20		MB-2	LCS-2	LCD-1
15. Chloroethane	U	250		4,450	5,000	89	60 - 150		84	6	20		MB-2	LCS-2	LCD-1
16. Chloroform	U	50		5,241	5,000	105	71 - 126		99	6	20		MB-2	LCS-2	LCD-1
17. Chloromethane	U	250		5,153	5,000	103	63 - 137		97	6	20		MB-2	LCS-2	LCD-1
18. 2-Chlorotoluene	U	50		5,133	5,000	103	70 - 130		97	6	20		MB-2	LCS-2	LCD-1
19. Dibromochloromethane	U	100		5,941	5,000	119	70 - 130		114	4	20		MB-2	LCS-2	LCD-1
20. 1,2-Dibromo-3-chloropropane (SIM)	U	50		4,337	5,000	87	70 - 134		86	1	20		MB-2	LCS-2	LCD-1
21. Dibromomethane	U	250		5,379	5,000	108	70 - 130		103	5	20		MB-2	LCS-2	LCD-1
22. 1,2-Dichlorobenzene	U	100		5,242	5,000	105	70 - 130		101	4	20		MB-2	LCS-2	LCD-1
23. 1,3-Dichlorobenzene	U	100		5,316	5,000	106	70 - 130		101	5	20		MB-2	LCS-2	LCD-1
24. 1,4-Dichlorobenzene	U	100		5,157	5,000	103	70 - 130		98	5	20		MB-2	LCS-2	LCD-1
25. Dichlorodifluoromethane	U	250		6,084	5,000	122	70 - 144		114	7	20		MB-2	LCS-2	LCD-1
26. 1,1-Dichloroethane	U	50		5,183	5,000	104	70 - 130		98	6	20		MB-2	LCS-2	LCD-1
27. 1,2-Dichloroethane	U	50		5,127	5,000	103	69 - 130		99	4	20		MB-2	LCS-2	LCD-1
28. 1,1-Dichloroethene	U	50		5,516	5,000	110	72 - 131		103	7	20		MB-2	LCS-2	LCD-1
29. cis-1,2-Dichloroethene	U	50		5,060	5,000	101	70 - 131		96	5	20		MB-2	LCS-2	LCD-1
30. trans-1,2-Dichloroethene	U	50		5,274	5,000	105	70 - 131		99	6	20		MB-2	LCS-2	LCD-1
31. 1,2-Dichloropropane	U	50		5,406	5,000	108	80 - 127		102	6	20		MB-2	LCS-2	LCD-1
32. cis-1,3-Dichloropropene	U	50		5,913	5,000	118	70 - 131		112	5	20		MB-2	LCS-2	LCD-1
33. trans-1,3-Dichloropropene	U	50		5,711	5,000	114	70 - 132		109	4	20		MB-2	LCS-2	LCD-1
34. Ethylbenzene	U	50		5,394	5,000	108	80 - 120		101	7	20		MB-2	LCS-2	LCD-1
35. Ethylene Dibromide	U	50		5,098	5,000	102	70 - 130		100	2	20		MB-2	LCS-2	LCD-1
36. 2-Hexanone	U	2500		3,680	5,000	74	68 - 138		73	1	20		MB-2	LCS-2	LCD-1
37. Isopropylbenzene	U	250		5,347	5,000	107	70 - 130		100	7	20		MB-2	LCS-2	LCD-1
38. Methylene Chloride	U	100		4,848	5,000	97	62 - 130		93	4	20		MB-2	LCS-2	LCD-1
39. 4-Methyl-2-pentanone	U	2500		5,028	5,000	101	70 - 133		96	5	20		MB-2	LCS-2	LCD-1
40. MTBE	U	250		4,654	5,000	93	61 - 142		91	2	20		MB-2	LCS-2	LCD-1
41. Naphthalene	U	330		5,026	5,000	101	70 - 136		99	2	20		MB-2	LCS-2	LCD-1
42. n-Propylbenzene	U	100		5,375	5,000	107	70 - 130		100	7	20		MB-2	LCS-2	LCD-1
43. Styrene	U	50		5,310	5,000	106	70 - 130		101	5	20		MB-2	LCS-2	LCD-1
44. 1,1,1,2-Tetrachloroethane	U	100		6,069	5,000	121	70 - 130		116	4	20		MB-2	LCS-2	LCD-1
45. 1,1,2,2-Tetrachloroethane	U	50		5,941	5,000	119	70 - 130		115	3	20		MB-2	LCS-2	LCD-1
46. Tetrachloroethene	U	50		5,549	5,000	111	70 - 130		105	6	20		MB-2	LCS-2	LCD-1
47. Toluene	U	50		5,318	5,000	106	79 - 120		99	7	20		MB-2	LCS-2	LCD-1
48. 1,2,4-Trichlorobenzene	U	330		5,158	5,000	103	70 - 133		99	4	20		MB-2	LCS-2	LCD-1
49. 1,1,1-Trichloroethane	U	50		5,194	5,000	104	70 - 130		98	6	20		MB-2	LCS-2	LCD-1
50. 1,1,2-Trichloroethane	U	50		5,261	5,000	105	70 - 130		102	3	20		MB-2	LCS-2	LCD-1
51. Trichloroethene	U	50		4,865	5,000	97	70 - 130		91	6	20		MB-2	LCS-2	LCD-1

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**Quality Control Report**  
**Preparation Batch QC Summary**  
**Gas Chromatography - Mass Spectrometry (Volatiles)**  
**Soil/Solid**

Batch ID: VH14G24  
Page: 2 of 2  
Date: 09/22/14

**Preparation Batch: VH14G24B      Preparation Date: 07/24/14**

Parameter	Method Blank (MB)				Laboratory Control Sample (LCS)					LCS Duplicate (LCD)				Run Code		
	Result	RL		Q	Result	Spike	Rec.	LCL - UCL	Q	Rec.	RPD	UCL	Q	MB	LCS	LCD
	µg/kg	µg/kg			µg/kg	µg/kg	%	%		%	%	%				
52. Trichlorofluoromethane	U	100			5,410	5,000	108	50 - 150		98	10	20		MB-2	LCS-2	LCD-1
53. 1,2,3-Trichloropropane	U	100			4,996	5,000	100	70 - 130		94	6	20		MB-2	LCS-2	LCD-1
54. 1,2,3-Trimethylbenzene	U	100			5,187	5,000	104	70 - 130		98	6	20		MB-2	LCS-2	LCD-1
55. 1,2,4-Trimethylbenzene	U	100			5,301	5,000	106	70 - 130		101	5	20		MB-2	LCS-2	LCD-1
56. 1,3,5-Trimethylbenzene	U	100			5,159	5,000	103	70 - 130		96	7	20		MB-2	LCS-2	LCD-1
57. Vinyl Chloride	U	40			5,224	5,000	104	70 - 137		98	6	20		MB-2	LCS-2	LCD-1
58. m&p-Xylene	U	100			10,749	10,000	107	70 - 130		101	6	20		MB-2	LCS-2	LCD-1
59. o-Xylene	U	50			5,352	5,000	107	70 - 130		101	6	20		MB-2	LCS-2	LCD-1

System Monitoring Compounds (Surrogates):	Method Blank (MB)				Laboratory Control Sample (LCS)					LCS Duplicate (LCD)				Run Code		
	Result	Spike	Rec.	Q	Result	Spike	Rec.	LCL - UCL	Q	Rec.	RPD	UCL	Q	MB	LCS	LCD
	µg/kg	µg/kg	%		µg/kg	µg/kg	%	%		%	%	%				
1. Dibromofluoromethane(S)	4,818	5,000	96		4,863	5,000	97	77 - 120		98	1	20		MB-2	LCS-2	LCD-1
2. 1,2-Dichloroethane-d4(S)	5,012	5,000	100		4,972	5,000	99	65 - 131		99	0	20		MB-2	LCS-2	LCD-1
3. Toluene-d8(S)	4,916	5,000	98		5,010	5,000	100	75 - 121		99	1	20		MB-2	LCS-2	LCD-1
4. 4-Bromofluorobenzene(S)	4,723	5,000	94		4,855	5,000	97	80 - 120		97	0	20		MB-2	LCS-2	LCD-1

**Definitions/ Qualifiers:**

U: The analyte was not detected at or above the Reporting Limit (RL).  
\*: Value reported is outside QC limits

**Run Code (Analysis Sequence/Run Time):**

MB-2    VH14G24B    07/24/14 23:40  
LCS-2    VH14G24B    07/24/14 21:28  
LCD-1    VH14G24B    07/24/14 21:55

**Exception Summary:**

Exceptions have been properly noted on reported results or affected samples have been scheduled for reanalysis when appropriate.

**Report Generated By:**



**Anthony Donnelly**  
Information Technology Officer  
Monday, September 22, 2014  
12:04:38 PM

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Quality Control Report  
Preparation Batch QC Summary  
Gas Chromatography - Mass Spectrometry (Volatiles)  
Soil/Solid

Batch ID: VL14G25  
Page: 1 of 1  
Date: 09/22/14

Preparation Batch: VL14G25B

Preparation Date: 07/25/14

Parameter	Method Blank (MB)			Laboratory Control Sample (LCS)					LCS Duplicate (LCD)				Run Code		
	Result	RL		Result	Spike	Rec.	LCL - UCL		Rec.	RPD	UCL		MB	LCS	LCD
	µg/kg	µg/kg	Q	µg/kg	µg/kg	%	%	Q	%	%	%	Q			
1. Acetone	U	1000		5,248	5,000	105	50 - 145		99	6	20		MB-3	LCS-3	LCD-2

System Monitoring Compounds (Surrogates):	Method Blank (MB)				Laboratory Control Sample (LCS)					LCS Duplicate (LCD)				Run Code		
	Result	Spike	Rec.		Result	Spike	Rec.	LCL - UCL		Rec.	RPD	UCL		MB	LCS	LCD
	µg/kg	µg/kg	%	Q	µg/kg	µg/kg	%	%	Q	%	%	%	Q			
1. Dibromofluoromethane(S)	2,352	2,500	94		2,454	2,500	98	77 - 120		95	3	20		MB-3	LCS-3	LCD-2
2. 1,2-Dichloroethane-d4(S)	2,429	2,500	97		2,369	2,500	95	65 - 131		96	1	20		MB-3	LCS-3	LCD-2
3. Toluene-d8(S)	2,436	2,500	97		2,444	2,500	98	75 - 121		100	2	20		MB-3	LCS-3	LCD-2
4. 4-Bromofluorobenzene(S)	2,434	2,500	97		2,531	2,500	101	80 - 120		101	0	20		MB-3	LCS-3	LCD-2

**Definitions/ Qualifiers:**

U: The analyte was not detected at or above the Reporting Limit (RL).  
\*: Value reported is outside QC limits

**Run Code (Analysis Sequence/Run Time):**

MB-3 VL14G25B 07/25/14 23:48  
LCS-3 VL14G25B 07/25/14 21:43  
LCD-2 VL14G25B 07/25/14 22:08

**Exception Summary:**

Exceptions have been properly noted on reported results or affected samples have been scheduled for reanalysis when appropriate.

**Report Generated By:**

Anthony Donnelly  
Information Technology Officer  
Monday, September 22, 2014  
12:04:39 PM

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**Analytical Laboratory**

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**Industrial Hygiene Services, Inc.**

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email: asbestos@fibertec.us

**Geoprobe**

11766 E. Grand River  
Brighton, MI 48116  
Phone: 810 220 3300  
Fax: 810 220 3311

Chain of Custody #

120431

PAGE 1 of 1

Client Name: <b>SME</b>				MATRIX (SEE RIGHT CORNER FOR CODE) # OF CONTAINERS PRESERVED (Y/N) <b>JOX</b> <b>PAHs</b> <b>TRCA 3 HENAB</b>				PARAMETERS				Turnaround		Matrix Code	
Contact Person: <b>JASON LAFOLETTE</b>								<input type="checkbox"/> 24 hour RUSH (surcharge applies) <input type="checkbox"/> 48 hour RUSH (surcharge applies) <input type="checkbox"/> 72 hour RUSH (surcharge applies) <input checked="" type="checkbox"/> Standard (5-7 bus. days) Other: Specify _____				<input type="checkbox"/> Soil <input type="checkbox"/> GW Ground Water			
Project Name/ Number:												<input type="checkbox"/> Water <input type="checkbox"/> SW Surface Water			
												<input type="checkbox"/> Air <input type="checkbox"/> WW Waste Water			
Purchase Order#												<input type="checkbox"/> Oil <input checked="" type="checkbox"/> Other: Specify _____			
Lab Sample #	Date	Time	Client Sample #	Client Sample Descriptor											Remarks:
	7/14/14	9:20		S 1 7' 36"	S	2	1	X	X	X					
Comments:															
Relinquished By:					Date/ Time: 7/14/14 10:30		Received By: <b>SME FIELD STERILE</b>								
Relinquished By:					Date/ Time: 7/23/14 1030		Received By:  7/23/14 10:30								
Relinquished By:					Date/ Time: 7/23/14 2:50		Received By Laboratory:								
LAB USE ONLY:															
Fibertec project number: <b>4.7<sup>9C</sup></b>															
Laboratory Tracking: <b>63368</b>															
Temperature at Receipt:															

TERMS &amp; CONDITIONS ON BACK

COC Revision 2/01/200

**RCV'D ON  
ICE**



## Case Narrative

Client: Soil and Materials Engineers, Inc.

Project Identification: Balmoral (061377.03) /061377.03

Four soil samples were collected on July 29, 2014 and received by Fibertec, Inc. on July 31, 2014. The shipping cooler temperature was within specifications (0 – 6 °C) and the sample containers arrived without any visible signs of tampering or breakage. The samples were prepared and analyzed within the required holding time. No exceptions were observed.

### Cross reference

Client ID#	Lab ID#	Matrix	Requested Tests
S2 12'BG	63508-001	S	% Moisture, Trace Metals, Mercury, VOC, SVOC
S3 12'BG	63508-002	S	% Moisture, Trace Metals, Mercury, VOC, SVOC
S4 12'BG	63508-003	S	% Moisture, Trace Metals, Mercury, VOC, SVOC
S5 12'BG	63508-004	S	% Moisture, Trace Metals, Mercury, VOC, SVOC

Sample data has been reviewed and results are valid as reported.



Tuesday, August 12, 2014

Fibertec Project Number: 63508  
Project Identification: Balmoral (061377.03) /061377.03  
Submittal Date: 07/31/2014

Mr. Jason Lafayette  
Soil and Materials Engineers, Inc. - Plymouth  
43980 Plymouth Oaks  
Plymouth, MI 48170

Dear Mr. Lafayette,

Thank you for selecting Fibertec Environmental Services as your analytical laboratory. The samples you submitted have been analyzed in accordance with NELAC standards and the results compiled in the attached report. Any exceptions to NELAC compliance are noted in the report. These results apply only to those samples submitted. Please note TO-15 samples will be disposed of 14 days after the reporting date. All other samples will be disposed of 30 days after the reporting date.

If you have any questions regarding these results or if we may be of further assistance to you, please contact me at (517) 699-0345.

Sincerely,

A handwritten signature in black ink, appearing to read "Daryl Strandbergh", written over a light gray rectangular background.

Daryl P. Strandbergh  
Laboratory Director

DPS/kc

Enclosures

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Analytical Laboratory Report  
Laboratory Project Number: 63508  
Laboratory Sample Number: 63508-001

Order: 63508  
Page: 2 of 14  
Date: 08/12/14

Client Identification:	Soil and Materials Engineers, Inc. - Plymouth	Sample Description:	S2 12'BG	Chain of Custody:	120433
Client Project Name:	Balmoral (061377.03)	Sample No:	1	Collect Date:	07/29/14
Client Project No:	061377.03	Sample Matrix:	Soil/Solid	Collect Time:	09:30
Sample Comments:	Soil results have been calculated and reported on a dry weight basis unless otherwise noted.				
Definitions:	Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.				

Dry Weight Determination (ASTM D 2974-87)						Aliquot ID: 63508-001A		Matrix: Soil/Solid		
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		
						P. Date	P. Batch	A. Date	A. Batch	Init.
‡ 1. Percent Moisture (Water Content)	12		%	0.1	1.0	08/04/14	MC140801	08/05/14	MC140801	KRF

RCRA Elements by ICP/MS (EPA 0200.2-M/EPA 6020A)						Aliquot ID: 63508-001A		Matrix: Soil/Solid		
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		
						P. Date	P. Batch	A. Date	A. Batch	Init.
1. Arsenic	5900		µg/kg	100	20	08/05/14	PT14H05D	08/06/14	T214H06A	JLH
2. Barium	35000		µg/kg	1000	20	08/05/14	PT14H05D	08/06/14	T214H06A	JLH
3. Cadmium	120		µg/kg	50	20	08/05/14	PT14H05D	08/06/14	T214H06A	JLH
4. Chromium	12000		µg/kg	500	20	08/05/14	PT14H05D	08/06/14	T214H06A	JLH
5. Lead	6600		µg/kg	1000	20	08/05/14	PT14H05D	08/06/14	T214H06A	JLH
6. Selenium	390		µg/kg	200	20	08/05/14	PT14H05D	08/06/14	T214H06A	JLH
7. Silver	U		µg/kg	100	20	08/05/14	PT14H05D	08/06/14	T214H06A	JLH

Mercury by CVAAS (EPA 7471B)						Aliquot ID: 63508-001A		Matrix: Soil/Solid		
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		
						P. Date	P. Batch	A. Date	A. Batch	Init.
1. Mercury	U		µg/kg	50	10	08/06/14	PM14H06A	08/07/14	M614H07A	JLP

Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035A/EPA 8260B)						Aliquot ID: 63508-001		Matrix: Soil/Solid		
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		
						P. Date	P. Batch	A. Date	A. Batch	Init.
1. Acetone	U		µg/kg	1000	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR
‡ 2. Acrylonitrile	U		µg/kg	110	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR
3. Benzene	U		µg/kg	50	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR
4. Bromobenzene	U		µg/kg	100	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR
5. Bromochloromethane	U		µg/kg	100	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR
6. Bromodichloromethane	U		µg/kg	100	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR
7. Bromoform	U		µg/kg	100	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR
8. Bromomethane	U		µg/kg	200	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR
9. 2-Butanone	U		µg/kg	750	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR
10. n-Butylbenzene	U		µg/kg	57	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR
11. sec-Butylbenzene	U		µg/kg	50	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR
12. tert-Butylbenzene	U		µg/kg	50	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR
13. Carbon Disulfide	U		µg/kg	250	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR
14. Carbon Tetrachloride	U		µg/kg	57	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR
15. Chlorobenzene	U		µg/kg	50	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR

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Analytical Laboratory Report  
Laboratory Project Number: 63508  
Laboratory Sample Number: 63508-001

Order: 63508  
Page: 3 of 14  
Date: 08/12/14

Client Identification: **Soil and Materials Engineers, Inc. - Plymouth** Sample Description: **S2 12'BG** Chain of Custody: **120433**  
Client Project Name: **Balmoral (061377.03)** Sample No: **1** Collect Date: **07/29/14**  
Client Project No: **061377.03** Sample Matrix: **Soil/Solid** Collect Time: **09:30**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

**Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035A/EPA 8260B)**

Aliquot ID: 63508-001

Matrix: Soil/Solid

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		
						P. Date	P. Batch	A. Date	A. Batch	Init.
16. Chloroethane	U		µg/kg	280	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR
17. Chloroform	U		µg/kg	50	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR
18. Chloromethane	U		µg/kg	280	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR
19. 2-Chlorotoluene	U		µg/kg	50	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR
20. Dibromochloromethane	U		µg/kg	100	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR
‡ 21. 1,2-Dibromo-3-chloropropane (SIM)	U		µg/kg	57	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR
22. Dibromomethane	U		µg/kg	250	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR
23. 1,2-Dichlorobenzene	U		µg/kg	100	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR
24. 1,3-Dichlorobenzene	U		µg/kg	100	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR
25. 1,4-Dichlorobenzene	U		µg/kg	100	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR
26. Dichlorodifluoromethane	U		µg/kg	250	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR
27. 1,1-Dichloroethane	U		µg/kg	50	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR
28. 1,2-Dichloroethane	U		µg/kg	50	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR
29. 1,1-Dichloroethene	U		µg/kg	50	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR
30. cis-1,2-Dichloroethene	U		µg/kg	50	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR
31. trans-1,2-Dichloroethene	U		µg/kg	50	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR
32. 1,2-Dichloropropane	U		µg/kg	50	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR
33. cis-1,3-Dichloropropene	U		µg/kg	50	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR
34. trans-1,3-Dichloropropene	U		µg/kg	50	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR
35. Ethylbenzene	U		µg/kg	50	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR
36. Ethylene Dibromide	U		µg/kg	28	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR
37. 2-Hexanone	U		µg/kg	2500	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR
38. Isopropylbenzene	U		µg/kg	250	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR
39. Methylene Chloride	U		µg/kg	110	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR
40. 4-Methyl-2-pentanone	U		µg/kg	2500	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR
41. MTBE	U		µg/kg	250	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR
42. Naphthalene	U		µg/kg	330	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR
43. n-Propylbenzene	U		µg/kg	100	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR
44. Styrene	U		µg/kg	57	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR
45. 1,1,1,2-Tetrachloroethane	U		µg/kg	100	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR
46. 1,1,2,2-Tetrachloroethane	U		µg/kg	50	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR
47. Tetrachloroethene	U		µg/kg	50	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR
48. Toluene	U		µg/kg	50	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR
49. 1,2,4-Trichlorobenzene	U		µg/kg	330	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR
50. 1,1,1-Trichloroethane	U		µg/kg	50	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR
51. 1,1,2-Trichloroethane	U		µg/kg	50	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR
52. Trichloroethene	U		µg/kg	50	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR
53. Trichlorofluoromethane	U		µg/kg	100	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR

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Analytical Laboratory Report  
Laboratory Project Number: 63508  
Laboratory Sample Number: 63508-001

Order: 63508  
Page: 4 of 14  
Date: 08/12/14

Client Identification:	Soil and Materials Engineers, Inc. - Plymouth	Sample Description:	S2 12'BG	Chain of Custody:	120433
Client Project Name:	Balmoral (061377.03)	Sample No:	1	Collect Date:	07/29/14
Client Project No:	061377.03	Sample Matrix:	Soil/Solid	Collect Time:	09:30
Sample Comments:	Soil results have been calculated and reported on a dry weight basis unless otherwise noted.				
Definitions:	Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.				

Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035A/EPA 8260B)						Aliquot ID: 63508-001		Matrix: Soil/Solid		
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		
						P. Date	P. Batch	A. Date	A. Batch	Init.
54. 1,2,3-Trichloropropane	U		µg/kg	100	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR
‡ 55. 1,2,3-Trimethylbenzene	U		µg/kg	100	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR
56. 1,2,4-Trimethylbenzene	U		µg/kg	100	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR
57. 1,3,5-Trimethylbenzene	U		µg/kg	100	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR
58. Vinyl Chloride	U		µg/kg	40	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR
59. Xylenes	U		µg/kg	150	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3546/EPA 8270C)						Aliquot ID: 63508-001A		Matrix: Soil/Solid		
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		
						P. Date	P. Batch	A. Date	A. Batch	Init.
1. Acenaphthene	U		µg/kg	330	1.0	08/04/14	PS14H04F	08/05/14	S514H05A	BDA
2. Acenaphthylene	U		µg/kg	330	1.0	08/04/14	PS14H04F	08/05/14	S514H05A	BDA
3. Anthracene	U		µg/kg	330	1.0	08/04/14	PS14H04F	08/05/14	S514H05A	BDA
4. Benzo(a)anthracene	U		µg/kg	330	1.0	08/04/14	PS14H04F	08/05/14	S514H05A	BDA
5. Benzo(a)pyrene	U		µg/kg	330	1.0	08/04/14	PS14H04F	08/05/14	S514H05A	BDA
6. Benzo(b)fluoranthene	U		µg/kg	330	1.0	08/04/14	PS14H04F	08/05/14	S514H05A	BDA
7. Benzo(ghi)perylene	U		µg/kg	330	1.0	08/04/14	PS14H04F	08/05/14	S514H05A	BDA
8. Benzo(k)fluoranthene	U		µg/kg	330	1.0	08/04/14	PS14H04F	08/05/14	S514H05A	BDA
9. Chrysene	U		µg/kg	330	1.0	08/04/14	PS14H04F	08/05/14	S514H05A	BDA
10. Dibenzo(a,h)anthracene	U		µg/kg	330	1.0	08/04/14	PS14H04F	08/05/14	S514H05A	BDA
11. Fluoranthene	U		µg/kg	330	1.0	08/04/14	PS14H04F	08/05/14	S514H05A	BDA
12. Fluorene	U		µg/kg	330	1.0	08/04/14	PS14H04F	08/05/14	S514H05A	BDA
13. Indeno(1,2,3-cd)pyrene	U		µg/kg	330	1.0	08/04/14	PS14H04F	08/05/14	S514H05A	BDA
14. 2-Methylnaphthalene	U		µg/kg	330	1.0	08/04/14	PS14H04F	08/05/14	S514H05A	BDA
15. Phenanthrene	U		µg/kg	330	1.0	08/04/14	PS14H04F	08/05/14	S514H05A	BDA
16. Pyrene	U		µg/kg	330	1.0	08/04/14	PS14H04F	08/05/14	S514H05A	BDA

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Analytical Laboratory Report  
Laboratory Project Number: 63508  
Laboratory Sample Number: 63508-002

Order: 63508  
Page: 5 of 14  
Date: 08/12/14

Client Identification:	Soil and Materials Engineers, Inc. - Plymouth	Sample Description:	S3 12' BG	Chain of Custody:	120433
Client Project Name:	Balmoral (061377.03)	Sample No:	2	Collect Date:	07/29/14
Client Project No:	061377.03	Sample Matrix:	Soil/Solid	Collect Time:	09:35
Sample Comments:	Soil results have been calculated and reported on a dry weight basis unless otherwise noted.				
Definitions:	Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.				

Dry Weight Determination (ASTM D 2974-87)						Aliquot ID: 63508-002A		Matrix: Soil/Solid		
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		
						P. Date	P. Batch	A. Date	A. Batch	Init.
‡ 1. Percent Moisture (Water Content)	12		%	0.1	1.0	08/04/14	MC140801	08/05/14	MC140801	KRF

RCRA Elements by ICP/MS (EPA 0200.2-M/EPA 6020A)						Aliquot ID: 63508-002A		Matrix: Soil/Solid		
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		
						P. Date	P. Batch	A. Date	A. Batch	Init.
1. Arsenic	5700		µg/kg	100	20	08/05/14	PT14H05D	08/06/14	T214H06A	JLH
2. Barium	32000		µg/kg	1000	20	08/05/14	PT14H05D	08/06/14	T214H06A	JLH
3. Cadmium	94		µg/kg	50	20	08/05/14	PT14H05D	08/06/14	T214H06A	JLH
4. Chromium	13000		µg/kg	500	20	08/05/14	PT14H05D	08/06/14	T214H06A	JLH
5. Lead	7300		µg/kg	1000	20	08/05/14	PT14H05D	08/06/14	T214H06A	JLH
6. Selenium	340		µg/kg	200	20	08/05/14	PT14H05D	08/06/14	T214H06A	JLH
7. Silver	U		µg/kg	100	20	08/05/14	PT14H05D	08/06/14	T214H06A	JLH

Mercury by CVAAS (EPA 7471B)						Aliquot ID: 63508-002A		Matrix: Soil/Solid		
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		
						P. Date	P. Batch	A. Date	A. Batch	Init.
1. Mercury	U		µg/kg	50	10	08/06/14	PM14H06A	08/07/14	M614H07A	JLP

Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035A/EPA 8260B)						Aliquot ID: 63508-002		Matrix: Soil/Solid		
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		
						P. Date	P. Batch	A. Date	A. Batch	Init.
1. Acetone	U		µg/kg	1000	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR
‡ 2. Acrylonitrile	U		µg/kg	110	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR
3. Benzene	U		µg/kg	50	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR
4. Bromobenzene	U		µg/kg	100	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR
5. Bromochloromethane	U		µg/kg	100	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR
6. Bromodichloromethane	U		µg/kg	100	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR
7. Bromoform	U		µg/kg	100	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR
8. Bromomethane	U		µg/kg	200	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR
9. 2-Butanone	U		µg/kg	750	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR
10. n-Butylbenzene	U		µg/kg	57	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR
11. sec-Butylbenzene	U		µg/kg	50	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR
12. tert-Butylbenzene	U		µg/kg	50	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR
13. Carbon Disulfide	U		µg/kg	250	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR
14. Carbon Tetrachloride	U		µg/kg	57	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR
15. Chlorobenzene	U		µg/kg	50	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR

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Analytical Laboratory Report  
Laboratory Project Number: 63508  
Laboratory Sample Number: 63508-002

Order: 63508  
Page: 6 of 14  
Date: 08/12/14

Client Identification:	Soil and Materials Engineers, Inc. - Plymouth	Sample Description:	S3 12' BG	Chain of Custody:	120433
Client Project Name:	Balmoral (061377.03)	Sample No:	2	Collect Date:	07/29/14
Client Project No:	061377.03	Sample Matrix:	Soil/Solid	Collect Time:	09:35

Sample Comments: Soil results have been calculated and reported on a dry weight basis unless otherwise noted.

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035A/EPA 8260B)

Aliquot ID: 63508-002

Matrix: Soil/Solid

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		
						P. Date	P. Batch	A. Date	A. Batch	Init.
16. Chloroethane	U		µg/kg	280	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR
17. Chloroform	U		µg/kg	50	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR
18. Chloromethane	U		µg/kg	280	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR
19. 2-Chlorotoluene	U		µg/kg	50	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR
20. Dibromochloromethane	U		µg/kg	100	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR
‡ 21. 1,2-Dibromo-3-chloropropane (SIM)	U		µg/kg	57	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR
22. Dibromomethane	U		µg/kg	250	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR
23. 1,2-Dichlorobenzene	U		µg/kg	100	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR
24. 1,3-Dichlorobenzene	U		µg/kg	100	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR
25. 1,4-Dichlorobenzene	U		µg/kg	100	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR
26. Dichlorodifluoromethane	U		µg/kg	250	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR
27. 1,1-Dichloroethane	U		µg/kg	50	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR
28. 1,2-Dichloroethane	U		µg/kg	50	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR
29. 1,1-Dichloroethene	U		µg/kg	50	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR
30. cis-1,2-Dichloroethene	U		µg/kg	50	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR
31. trans-1,2-Dichloroethene	U		µg/kg	50	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR
32. 1,2-Dichloropropane	U		µg/kg	50	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR
33. cis-1,3-Dichloropropene	U		µg/kg	50	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR
34. trans-1,3-Dichloropropene	U		µg/kg	50	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR
35. Ethylbenzene	U		µg/kg	50	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR
36. Ethylene Dibromide	U		µg/kg	28	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR
37. 2-Hexanone	U		µg/kg	2500	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR
38. Isopropylbenzene	U		µg/kg	250	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR
39. Methylene Chloride	U		µg/kg	110	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR
40. 4-Methyl-2-pentanone	U		µg/kg	2500	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR
41. MTBE	U		µg/kg	250	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR
42. Naphthalene	U		µg/kg	330	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR
43. n-Propylbenzene	U		µg/kg	100	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR
44. Styrene	U		µg/kg	57	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR
45. 1,1,1,2-Tetrachloroethane	U		µg/kg	100	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR
46. 1,1,2,2-Tetrachloroethane	U		µg/kg	50	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR
47. Tetrachloroethene	U		µg/kg	50	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR
48. Toluene	U		µg/kg	50	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR
49. 1,2,4-Trichlorobenzene	U		µg/kg	330	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR
50. 1,1,1-Trichloroethane	U		µg/kg	50	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR
51. 1,1,2-Trichloroethane	U		µg/kg	50	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR
52. Trichloroethene	U		µg/kg	50	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR
53. Trichlorofluoromethane	U		µg/kg	100	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR

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Analytical Laboratory Report  
Laboratory Project Number: 63508  
Laboratory Sample Number: 63508-002

Order: 63508  
Page: 7 of 14  
Date: 08/12/14

Client Identification:	Soil and Materials Engineers, Inc. - Plymouth	Sample Description:	S3 12' BG	Chain of Custody:	120433
Client Project Name:	Balmoral (061377.03)	Sample No:	2	Collect Date:	07/29/14
Client Project No:	061377.03	Sample Matrix:	Soil/Solid	Collect Time:	09:35
Sample Comments:	Soil results have been calculated and reported on a dry weight basis unless otherwise noted.				
Definitions:	Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.				

Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035A/EPA 8260B)						Aliquot ID: 63508-002		Matrix: Soil/Solid		
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		
						P. Date	P. Batch	A. Date	A. Batch	Init.
54. 1,2,3-Trichloropropane	U		µg/kg	100	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR
‡ 55. 1,2,3-Trimethylbenzene	U		µg/kg	100	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR
56. 1,2,4-Trimethylbenzene	U		µg/kg	100	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR
57. 1,3,5-Trimethylbenzene	U		µg/kg	100	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR
58. Vinyl Chloride	U		µg/kg	40	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR
59. Xylenes	U		µg/kg	150	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3546/EPA 8270C)						Aliquot ID: 63508-002A		Matrix: Soil/Solid		
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		
						P. Date	P. Batch	A. Date	A. Batch	Init.
1. Acenaphthene	U		µg/kg	330	1.0	08/04/14	PS14H04F	08/05/14	S514H05A	BDA
2. Acenaphthylene	U		µg/kg	330	1.0	08/04/14	PS14H04F	08/05/14	S514H05A	BDA
3. Anthracene	U		µg/kg	330	1.0	08/04/14	PS14H04F	08/05/14	S514H05A	BDA
4. Benzo(a)anthracene	U		µg/kg	330	1.0	08/04/14	PS14H04F	08/05/14	S514H05A	BDA
5. Benzo(a)pyrene	U		µg/kg	330	1.0	08/04/14	PS14H04F	08/05/14	S514H05A	BDA
6. Benzo(b)fluoranthene	U		µg/kg	330	1.0	08/04/14	PS14H04F	08/05/14	S514H05A	BDA
7. Benzo(ghi)perylene	U		µg/kg	330	1.0	08/04/14	PS14H04F	08/05/14	S514H05A	BDA
8. Benzo(k)fluoranthene	U		µg/kg	330	1.0	08/04/14	PS14H04F	08/05/14	S514H05A	BDA
9. Chrysene	U		µg/kg	330	1.0	08/04/14	PS14H04F	08/05/14	S514H05A	BDA
10. Dibenzo(a,h)anthracene	U		µg/kg	330	1.0	08/04/14	PS14H04F	08/05/14	S514H05A	BDA
11. Fluoranthene	U		µg/kg	330	1.0	08/04/14	PS14H04F	08/05/14	S514H05A	BDA
12. Fluorene	U		µg/kg	330	1.0	08/04/14	PS14H04F	08/05/14	S514H05A	BDA
13. Indeno(1,2,3-cd)pyrene	U		µg/kg	330	1.0	08/04/14	PS14H04F	08/05/14	S514H05A	BDA
14. 2-Methylnaphthalene	U		µg/kg	330	1.0	08/04/14	PS14H04F	08/05/14	S514H05A	BDA
15. Phenanthrene	U		µg/kg	330	1.0	08/04/14	PS14H04F	08/05/14	S514H05A	BDA
16. Pyrene	U		µg/kg	330	1.0	08/04/14	PS14H04F	08/05/14	S514H05A	BDA

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Analytical Laboratory Report  
Laboratory Project Number: 63508  
Laboratory Sample Number: 63508-003

Order: 63508  
Page: 8 of 14  
Date: 08/12/14

Client Identification:	Soil and Materials Engineers, Inc. - Plymouth	Sample Description:	S4 12' BG	Chain of Custody:	120433
Client Project Name:	Balmoral (061377.03)	Sample No:	3	Collect Date:	07/29/14
Client Project No:	061377.03	Sample Matrix:	Soil/Solid	Collect Time:	09:40
Sample Comments:	Soil results have been calculated and reported on a dry weight basis unless otherwise noted.				
Definitions:	Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.				

Dry Weight Determination (ASTM D 2974-87)						Aliquot ID: 63508-003A		Matrix: Soil/Solid		
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		
						P. Date	P. Batch	A. Date	A. Batch	Init.
‡ 1. Percent Moisture (Water Content)	11		%	0.1	1.0	08/04/14	MC140801	08/05/14	MC140801	KRF

RCRA Elements by ICP/MS (EPA 0200.2-M/EPA 6020A)						Aliquot ID: 63508-003A		Matrix: Soil/Solid		
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		
						P. Date	P. Batch	A. Date	A. Batch	Init.
1. Arsenic	5600		µg/kg	100	20	08/05/14	PT14H05D	08/06/14	T214H06A	JLH
2. Barium	34000		µg/kg	1000	20	08/05/14	PT14H05D	08/06/14	T214H06A	JLH
3. Cadmium	110		µg/kg	50	20	08/05/14	PT14H05D	08/06/14	T214H06A	JLH
4. Chromium	14000		µg/kg	500	20	08/05/14	PT14H05D	08/06/14	T214H06A	JLH
5. Lead	6900		µg/kg	1000	20	08/05/14	PT14H05D	08/06/14	T214H06A	JLH
6. Selenium	360		µg/kg	200	20	08/05/14	PT14H05D	08/06/14	T214H06A	JLH
7. Silver	U		µg/kg	100	20	08/05/14	PT14H05D	08/06/14	T214H06A	JLH

Mercury by CVAAS (EPA 7471B)						Aliquot ID: 63508-003A		Matrix: Soil/Solid		
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		
						P. Date	P. Batch	A. Date	A. Batch	Init.
1. Mercury	U		µg/kg	50	9.8	08/06/14	PM14H06A	08/07/14	M614H07A	JLP

Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035A/EPA 8260B)						Aliquot ID: 63508-003		Matrix: Soil/Solid		
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		
						P. Date	P. Batch	A. Date	A. Batch	Init.
1. Acetone	U		µg/kg	1000	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR
‡ 2. Acrylonitrile	U		µg/kg	110	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR
3. Benzene	U		µg/kg	50	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR
4. Bromobenzene	U		µg/kg	100	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR
5. Bromochloromethane	U		µg/kg	100	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR
6. Bromodichloromethane	U		µg/kg	100	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR
7. Bromoform	U		µg/kg	100	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR
8. Bromomethane	U		µg/kg	200	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR
9. 2-Butanone	U		µg/kg	750	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR
10. n-Butylbenzene	U		µg/kg	56	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR
11. sec-Butylbenzene	U		µg/kg	50	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR
12. tert-Butylbenzene	U		µg/kg	50	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR
13. Carbon Disulfide	U		µg/kg	250	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR
14. Carbon Tetrachloride	U		µg/kg	56	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR
15. Chlorobenzene	U		µg/kg	50	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR

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Analytical Laboratory Report  
Laboratory Project Number: 63508  
Laboratory Sample Number: 63508-003

Order: 63508  
Page: 9 of 14  
Date: 08/12/14

Client Identification:	Soil and Materials Engineers, Inc. - Plymouth	Sample Description:	S4 12' BG	Chain of Custody:	120433
Client Project Name:	Balmoral (061377.03)	Sample No:	3	Collect Date:	07/29/14
Client Project No:	061377.03	Sample Matrix:	Soil/Solid	Collect Time:	09:40

Sample Comments: Soil results have been calculated and reported on a dry weight basis unless otherwise noted.

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035A/EPA 8260B)						Aliquot ID: 63508-003		Matrix: Soil/Solid		
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		
						P. Date	P. Batch	A. Date	A. Batch	Init.
16. Chloroethane	U		µg/kg	280	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR
17. Chloroform	U		µg/kg	50	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR
18. Chloromethane	U		µg/kg	280	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR
19. 2-Chlorotoluene	U		µg/kg	50	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR
20. Dibromochloromethane	U		µg/kg	100	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR
‡ 21. 1,2-Dibromo-3-chloropropane (SIM)	U		µg/kg	56	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR
22. Dibromomethane	U		µg/kg	250	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR
23. 1,2-Dichlorobenzene	U		µg/kg	100	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR
24. 1,3-Dichlorobenzene	U		µg/kg	100	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR
25. 1,4-Dichlorobenzene	U		µg/kg	100	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR
26. Dichlorodifluoromethane	U		µg/kg	250	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR
27. 1,1-Dichloroethane	U		µg/kg	50	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR
28. 1,2-Dichloroethane	U		µg/kg	50	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR
29. 1,1-Dichloroethene	U		µg/kg	50	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR
30. cis-1,2-Dichloroethene	U		µg/kg	50	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR
31. trans-1,2-Dichloroethene	U		µg/kg	50	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR
32. 1,2-Dichloropropane	U		µg/kg	50	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR
33. cis-1,3-Dichloropropene	U		µg/kg	50	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR
34. trans-1,3-Dichloropropene	U		µg/kg	50	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR
35. Ethylbenzene	U		µg/kg	50	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR
36. Ethylene Dibromide	U		µg/kg	28	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR
37. 2-Hexanone	U		µg/kg	2500	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR
38. Isopropylbenzene	U		µg/kg	250	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR
39. Methylene Chloride	U		µg/kg	110	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR
40. 4-Methyl-2-pentanone	U		µg/kg	2500	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR
41. MTBE	U		µg/kg	250	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR
42. Naphthalene	U		µg/kg	330	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR
43. n-Propylbenzene	U		µg/kg	100	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR
44. Styrene	U		µg/kg	56	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR
45. 1,1,1,2-Tetrachloroethane	U		µg/kg	100	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR
46. 1,1,2,2-Tetrachloroethane	U		µg/kg	50	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR
47. Tetrachloroethene	U		µg/kg	50	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR
48. Toluene	U		µg/kg	50	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR
49. 1,2,4-Trichlorobenzene	U		µg/kg	330	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR
50. 1,1,1-Trichloroethane	U		µg/kg	50	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR
51. 1,1,2-Trichloroethane	U		µg/kg	50	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR
52. Trichloroethene	U		µg/kg	50	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR
53. Trichlorofluoromethane	U		µg/kg	100	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR

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Analytical Laboratory Report  
Laboratory Project Number: 63508  
Laboratory Sample Number: 63508-003

Order: 63508  
Page: 10 of 14  
Date: 08/12/14

Client Identification:	Soil and Materials Engineers, Inc. - Plymouth	Sample Description:	S4 12' BG	Chain of Custody:	120433
Client Project Name:	Balmoral (061377.03)	Sample No:	3	Collect Date:	07/29/14
Client Project No:	061377.03	Sample Matrix:	Soil/Solid	Collect Time:	09:40
Sample Comments:	Soil results have been calculated and reported on a dry weight basis unless otherwise noted.				
Definitions:	Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.				

Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035A/EPA 8260B)						Aliquot ID: 63508-003		Matrix: Soil/Solid		
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		
						P. Date	P. Batch	A. Date	A. Batch	Init.
54. 1,2,3-Trichloropropane	U		µg/kg	100	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR
‡ 55. 1,2,3-Trimethylbenzene	U		µg/kg	100	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR
56. 1,2,4-Trimethylbenzene	U		µg/kg	100	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR
57. 1,3,5-Trimethylbenzene	U		µg/kg	100	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR
58. Vinyl Chloride	U		µg/kg	40	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR
59. Xylenes	U		µg/kg	150	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3546/EPA 8270C)						Aliquot ID: 63508-003A		Matrix: Soil/Solid		
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		
						P. Date	P. Batch	A. Date	A. Batch	Init.
1. Acenaphthene	U		µg/kg	330	1.0	08/04/14	PS14H04F	08/06/14	S514H05B	BDA
2. Acenaphthylene	U		µg/kg	330	1.0	08/04/14	PS14H04F	08/06/14	S514H05B	BDA
3. Anthracene	U		µg/kg	330	1.0	08/04/14	PS14H04F	08/06/14	S514H05B	BDA
4. Benzo(a)anthracene	U		µg/kg	330	1.0	08/04/14	PS14H04F	08/06/14	S514H05B	BDA
5. Benzo(a)pyrene	U		µg/kg	330	1.0	08/04/14	PS14H04F	08/06/14	S514H05B	BDA
6. Benzo(b)fluoranthene	U		µg/kg	330	1.0	08/04/14	PS14H04F	08/06/14	S514H05B	BDA
7. Benzo(ghi)perylene	U		µg/kg	330	1.0	08/04/14	PS14H04F	08/06/14	S514H05B	BDA
8. Benzo(k)fluoranthene	U		µg/kg	330	1.0	08/04/14	PS14H04F	08/06/14	S514H05B	BDA
9. Chrysene	U		µg/kg	330	1.0	08/04/14	PS14H04F	08/06/14	S514H05B	BDA
10. Dibenzo(a,h)anthracene	U		µg/kg	330	1.0	08/04/14	PS14H04F	08/06/14	S514H05B	BDA
11. Fluoranthene	U		µg/kg	330	1.0	08/04/14	PS14H04F	08/06/14	S514H05B	BDA
12. Fluorene	U		µg/kg	330	1.0	08/04/14	PS14H04F	08/06/14	S514H05B	BDA
13. Indeno(1,2,3-cd)pyrene	U		µg/kg	330	1.0	08/04/14	PS14H04F	08/06/14	S514H05B	BDA
14. 2-Methylnaphthalene	U		µg/kg	330	1.0	08/04/14	PS14H04F	08/06/14	S514H05B	BDA
15. Phenanthrene	U		µg/kg	330	1.0	08/04/14	PS14H04F	08/06/14	S514H05B	BDA
16. Pyrene	U		µg/kg	330	1.0	08/04/14	PS14H04F	08/06/14	S514H05B	BDA

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Analytical Laboratory Report  
Laboratory Project Number: 63508  
Laboratory Sample Number: 63508-004

Order: 63508  
Page: 11 of 14  
Date: 08/12/14

Client Identification:	Soil and Materials Engineers, Inc. - Plymouth	Sample Description:	S5 12' BG	Chain of Custody:	120433
Client Project Name:	Balmoral (061377.03)	Sample No:	4	Collect Date:	07/29/14
Client Project No:	061377.03	Sample Matrix:	Soil/Solid	Collect Time:	09:45
Sample Comments:	Soil results have been calculated and reported on a dry weight basis unless otherwise noted.				
Definitions:	Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.				

Dry Weight Determination (ASTM D 2974-87)						Aliquot ID: 63508-004A		Matrix: Soil/Solid		
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		
						P. Date	P. Batch	A. Date	A. Batch	Init.
‡ 1. Percent Moisture (Water Content)	11		%	0.1	1.0	08/04/14	MC140801	08/05/14	MC140801	KRF

RCRA Elements by ICP/MS (EPA 0200.2-M/EPA 6020A)						Aliquot ID: 63508-004A		Matrix: Soil/Solid		
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		
						P. Date	P. Batch	A. Date	A. Batch	Init.
1. Arsenic	7100		µg/kg	100	20	08/05/14	PT14H05D	08/06/14	T214H06A	JLH
2. Barium	30000		µg/kg	1000	20	08/05/14	PT14H05D	08/06/14	T214H06A	JLH
3. Cadmium	93		µg/kg	50	20	08/05/14	PT14H05D	08/06/14	T214H06A	JLH
4. Chromium	14000		µg/kg	500	20	08/05/14	PT14H05D	08/06/14	T214H06A	JLH
5. Lead	6800		µg/kg	1000	20	08/05/14	PT14H05D	08/06/14	T214H06A	JLH
6. Selenium	300		µg/kg	200	20	08/05/14	PT14H05D	08/06/14	T214H06A	JLH
7. Silver	U		µg/kg	100	20	08/05/14	PT14H05D	08/06/14	T214H06A	JLH

Mercury by CVAAS (EPA 7471B)						Aliquot ID: 63508-004A		Matrix: Soil/Solid		
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		
						P. Date	P. Batch	A. Date	A. Batch	Init.
1. Mercury	U		µg/kg	50	10	08/06/14	PM14H06A	08/07/14	M614H07A	JLP

Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035A/EPA 8260B)						Aliquot ID: 63508-004		Matrix: Soil/Solid		
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		
						P. Date	P. Batch	A. Date	A. Batch	Init.
1. Acetone	U		µg/kg	1000	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR
‡ 2. Acrylonitrile	U		µg/kg	110	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR
3. Benzene	U		µg/kg	50	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR
4. Bromobenzene	U		µg/kg	100	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR
5. Bromochloromethane	U		µg/kg	100	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR
6. Bromodichloromethane	U		µg/kg	100	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR
7. Bromoform	U		µg/kg	100	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR
8. Bromomethane	U		µg/kg	200	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR
9. 2-Butanone	U		µg/kg	750	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR
10. n-Butylbenzene	U		µg/kg	56	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR
11. sec-Butylbenzene	U		µg/kg	50	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR
12. tert-Butylbenzene	U		µg/kg	50	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR
13. Carbon Disulfide	U		µg/kg	250	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR
14. Carbon Tetrachloride	U		µg/kg	56	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR
15. Chlorobenzene	U		µg/kg	50	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR

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Analytical Laboratory Report  
Laboratory Project Number: 63508  
Laboratory Sample Number: 63508-004

Order: 63508  
Page: 12 of 14  
Date: 08/12/14

Client Identification: **Soil and Materials Engineers, Inc. - Plymouth** Sample Description: **S5 12' BG** Chain of Custody: **120433**  
Client Project Name: **Balmoral (061377.03)** Sample No: **4** Collect Date: **07/29/14**  
Client Project No: **061377.03** Sample Matrix: **Soil/Solid** Collect Time: **09:45**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

**Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035A/EPA 8260B)**

**Aliquot ID: 63508-004**

**Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		
						P. Date	P. Batch	A. Date	A. Batch	Init.
16. Chloroethane	U		µg/kg	280	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR
17. Chloroform	U		µg/kg	50	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR
18. Chloromethane	U		µg/kg	280	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR
19. 2-Chlorotoluene	U		µg/kg	50	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR
20. Dibromochloromethane	U		µg/kg	100	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR
‡ 21. 1,2-Dibromo-3-chloropropane (SIM)	U		µg/kg	56	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR
22. Dibromomethane	U		µg/kg	250	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR
23. 1,2-Dichlorobenzene	U		µg/kg	100	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR
24. 1,3-Dichlorobenzene	U		µg/kg	100	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR
25. 1,4-Dichlorobenzene	U		µg/kg	100	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR
26. Dichlorodifluoromethane	U		µg/kg	250	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR
27. 1,1-Dichloroethane	U		µg/kg	50	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR
28. 1,2-Dichloroethane	U		µg/kg	50	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR
29. 1,1-Dichloroethene	U		µg/kg	50	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR
30. cis-1,2-Dichloroethene	U		µg/kg	50	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR
31. trans-1,2-Dichloroethene	U		µg/kg	50	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR
32. 1,2-Dichloropropane	U		µg/kg	50	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR
33. cis-1,3-Dichloropropene	U		µg/kg	50	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR
34. trans-1,3-Dichloropropene	U		µg/kg	50	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR
35. Ethylbenzene	U		µg/kg	50	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR
36. Ethylene Dibromide	U		µg/kg	28	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR
37. 2-Hexanone	U		µg/kg	2500	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR
38. Isopropylbenzene	U		µg/kg	250	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR
39. Methylene Chloride	U		µg/kg	110	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR
40. 4-Methyl-2-pentanone	U		µg/kg	2500	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR
41. MTBE	U		µg/kg	250	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR
42. Naphthalene	U		µg/kg	330	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR
43. n-Propylbenzene	U		µg/kg	100	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR
44. Styrene	U		µg/kg	56	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR
45. 1,1,1,2-Tetrachloroethane	U		µg/kg	100	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR
46. 1,1,2,2-Tetrachloroethane	U		µg/kg	50	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR
47. Tetrachloroethene	U		µg/kg	50	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR
48. Toluene	U		µg/kg	50	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR
49. 1,2,4-Trichlorobenzene	U		µg/kg	330	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR
50. 1,1,1-Trichloroethane	U		µg/kg	50	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR
51. 1,1,2-Trichloroethane	U		µg/kg	50	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR
52. Trichloroethene	U		µg/kg	50	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR
53. Trichlorofluoromethane	U		µg/kg	100	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR

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Analytical Laboratory Report  
Laboratory Project Number: 63508  
Laboratory Sample Number: 63508-004

Order: 63508  
Page: 13 of 14  
Date: 08/12/14

Client Identification:	Soil and Materials Engineers, Inc. - Plymouth	Sample Description:	S5 12' BG	Chain of Custody:	120433
Client Project Name:	Balmoral (061377.03)	Sample No:	4	Collect Date:	07/29/14
Client Project No:	061377.03	Sample Matrix:	Soil/Solid	Collect Time:	09:45
Sample Comments:	Soil results have been calculated and reported on a dry weight basis unless otherwise noted.				
Definitions:	Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.				

Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035A/EPA 8260B)						Aliquot ID: 63508-004		Matrix: Soil/Solid		
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		
						P. Date	P. Batch	A. Date	A. Batch	Init.
54. 1,2,3-Trichloropropane	U		µg/kg	100	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR
‡ 55. 1,2,3-Trimethylbenzene	U		µg/kg	100	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR
56. 1,2,4-Trimethylbenzene	U		µg/kg	100	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR
57. 1,3,5-Trimethylbenzene	U		µg/kg	100	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR
58. Vinyl Chloride	U		µg/kg	40	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR
59. Xylenes	U		µg/kg	150	1.0	08/01/14	VJ14H01A	08/01/14	VJ14H01A	DAR

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3546/EPA 8270C)						Aliquot ID: 63508-004A		Matrix: Soil/Solid		
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		
						P. Date	P. Batch	A. Date	A. Batch	Init.
1. Acenaphthene	U		µg/kg	330	1.0	08/04/14	PS14H04F	08/05/14	S514H05A	BDA
2. Acenaphthylene	U		µg/kg	330	1.0	08/04/14	PS14H04F	08/05/14	S514H05A	BDA
3. Anthracene	U		µg/kg	330	1.0	08/04/14	PS14H04F	08/05/14	S514H05A	BDA
4. Benzo(a)anthracene	U		µg/kg	330	1.0	08/04/14	PS14H04F	08/05/14	S514H05A	BDA
5. Benzo(a)pyrene	U		µg/kg	330	1.0	08/04/14	PS14H04F	08/05/14	S514H05A	BDA
6. Benzo(b)fluoranthene	U		µg/kg	330	1.0	08/04/14	PS14H04F	08/05/14	S514H05A	BDA
7. Benzo(ghi)perylene	U		µg/kg	330	1.0	08/04/14	PS14H04F	08/05/14	S514H05A	BDA
8. Benzo(k)fluoranthene	U		µg/kg	330	1.0	08/04/14	PS14H04F	08/05/14	S514H05A	BDA
9. Chrysene	U		µg/kg	330	1.0	08/04/14	PS14H04F	08/05/14	S514H05A	BDA
10. Dibenzo(a,h)anthracene	U		µg/kg	330	1.0	08/04/14	PS14H04F	08/05/14	S514H05A	BDA
11. Fluoranthene	U		µg/kg	330	1.0	08/04/14	PS14H04F	08/05/14	S514H05A	BDA
12. Fluorene	U		µg/kg	330	1.0	08/04/14	PS14H04F	08/05/14	S514H05A	BDA
13. Indeno(1,2,3-cd)pyrene	U		µg/kg	330	1.0	08/04/14	PS14H04F	08/05/14	S514H05A	BDA
14. 2-Methylnaphthalene	U		µg/kg	330	1.0	08/04/14	PS14H04F	08/05/14	S514H05A	BDA
15. Phenanthrene	U		µg/kg	330	1.0	08/04/14	PS14H04F	08/05/14	S514H05A	BDA
16. Pyrene	U		µg/kg	330	1.0	08/04/14	PS14H04F	08/05/14	S514H05A	BDA

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**Definitions/ Qualifiers:**

- A:** Spike recovery or precision unusable due to dilution.  
**B:** The analyte was detected in the associated method blank.  
**E:** The analyte was detected at a concentration greater than the calibration range, therefore the result is estimated.  
**J:** The concentration is an estimated value.  
**M:** Modified Method  
**U:** The analyte was not detected at or above the reporting limit.  
**X:** Matrix Interference has resulted in a raised reporting limit or distorted result.  
**W:** Results reported on a wet-weight basis.  
**\*:** Value reported is outside QA limits

---

**Exception Summary:**

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Accreditation Number(s):

**E-10395 (KS)**

**T104704518-13-1 (TX)**

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Quality Control Report  
Preparation Batch QC Summary  
Cold Vapor Atomic Absorption Spectrometry  
Soil/Solid

Batch ID: PM14H06  
Page: 1 of 1  
Date: 10/22/14

Preparation Batch: PM14H06A

Preparation Date: 08/06/14

Parameter	Method Blank (MB)			Laboratory Control Sample (LCS)					LCS Duplicate (LCD)				Run Code		
	Result	RL	Q	Result	Spike	Rec.	LCL - UCL	Q	Rec.	RPD	UCL	Q	MB	LCS	LCD
	µg/kg	µg/kg		µg/kg	µg/kg	%	%		%	%	%				
1. Mercury	U	50		193	200	97	85 - 115						MB-4	LCS-4	

**Definitions/Qualifiers:**

U: The analyte was not detected at or above the Reporting Limit (RL).  
\*: Value reported is outside QC limits

**Run Code (Analysis Sequence/Run Time):**

MB-4 M614H07A 08/07/14 11:35  
LCS-4 M614H07A 08/07/14 11:37

**Exception Summary:**

Exceptions have been properly noted on reported results or affected samples have been scheduled for reanalysis when appropriate.

**Report Generated By:**

Anthony Donnelly  
Information Technology Officer  
Wednesday, October 22, 2014  
1:25:20 PM

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**Quality Control Report**  
**Preparation Batch QC Summary**  
**Gas Chromatography - Mass Spectrometry (Semivolatiles)**  
**Soil/Solid**

Batch ID: PS14H04  
Page: 1 of 1  
Date: 10/22/14

**Preparation Batch: PS14H04F**

**Preparation Date: 08/04/14**

Parameter	Method Blank (MB)			Laboratory Control Sample (LCS)					LCS Duplicate (LCD)				Run Code		
	Result µg/kg	RL µg/kg	Q	Result µg/kg	Spike µg/kg	Rec. %	LCL - UCL %	Q	Rec. %	RPD %	UCL %	Q	MB	LCS	LCD
1. Acenaphthene	U	330		3,700	5,333	69	50 - 114						MB-2	LCS-2	
2. Acenaphthylene	U	330		3,662	5,333	69	53 - 115						MB-2	LCS-2	
3. Anthracene	U	330		3,992	5,333	75	48 - 119						MB-2	LCS-2	
4. Benzo(a)anthracene	U	330		3,776	5,333	71	56 - 120						MB-2	LCS-2	
5. Benzo(a)pyrene	U	330		3,959	5,333	74	57 - 122						MB-2	LCS-2	
6. Benzo(b)fluoranthene	U	330		3,858	5,333	72	50 - 131						MB-2	LCS-2	
7. Benzo(ghi)perylene	U	330		4,191	5,333	79	41 - 132						MB-2	LCS-2	
8. Benzo(k)fluoranthene	U	330		4,034	5,333	76	39 - 137						MB-2	LCS-2	
9. Chrysene	U	330		3,816	5,333	72	53 - 124						MB-2	LCS-2	
10. Dibenzo(a,h)anthracene	U	330		4,504	5,333	84	53 - 126						MB-2	LCS-2	
11. Fluoranthene	U	330		4,015	5,333	75	48 - 135						MB-2	LCS-2	
12. Fluorene	U	330		3,896	5,333	73	49 - 126						MB-2	LCS-2	
13. Indeno(1,2,3-cd)pyrene	U	330		4,296	5,333	81	51 - 132						MB-2	LCS-2	
14. 2-Methylnaphthalene	U	330		3,374	5,333	63	46 - 105						MB-2	LCS-2	
15. Phenanthrene	U	330		3,992	5,333	75	53 - 119						MB-2	LCS-2	
16. Pyrene	U	330		4,262	5,333	80	55 - 127						MB-2	LCS-2	

System Monitoring Compounds (Surrogates)	Method Blank (MB)				Laboratory Control Sample (LCS)					LCS Duplicate (LCD)				Run Code		
	Result µg/kg	Spike µg/kg	Rec. %	Q	Result µg/kg	Spike µg/kg	Rec. %	LCL - UCL %	Q	Rec. %	RPD %	UCL %	Q	MB	LCS	LCD
1. 2-Fluorobiphenyl(S)	3,671	5,333	69		3,905	5,333	73	49 - 115						MB-2	LCS-2	
2. 4-Terphenyl-d14(S)	4,258	5,333	80		4,252	5,333	80	48 - 117						MB-2	LCS-2	
3. 1-Fluoronaphthalene(S)	3,426	5,333	64		3,424	5,333	64	46 - 114						MB-2	LCS-2	

**Definitions/ Qualifiers:**

U: The analyte was not detected at or above the Reporting Limit (RL).  
\*: Value reported is outside QC limits

**Run Code (Analysis Sequence/Run Time):**

MB-2 S514H05A 08/05/14 09:26  
LCS-2 S514H05A 08/05/14 09:59

**Exception Summary:**

Exceptions have been properly noted on reported results or affected samples have been scheduled for reanalysis when appropriate.

**Report Generated By:**



**Anthony Donnelly**  
Information Technology Officer  
Wednesday, October 22, 2014  
1:25:20 PM

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**Quality Control Report**  
**Preparation Batch QC Summary**  
**Inductively Coupled Plasma - Mass Spectrometry**  
**Soil/Solid**

Batch ID: PT14H05  
Page: 1 of 1  
Date: 10/22/14

Preparation Batch: PT14H05D

Preparation Date: 08/05/14

Parameter	Method Blank (MB)			Laboratory Control Sample (LCS)					LCS Duplicate (LCD)				Run Code		
	Result µg/kg	RL µg/kg	Q	Result µg/kg	Spike µg/kg	Rec. %	LCL - UCL %	Q	Rec. %	RPD %	UCL %	Q	MB	LCS	LCD
1. Arsenic	U	100		9,868	10,000	99	85 - 115						MB-3	LCS-3	
2. Barium	U	1000		49,310	50,000	99	85 - 115						MB-3	LCS-3	
3. Cadmium	U	50		9,966	10,000	100	85 - 115						MB-3	LCS-3	
4. Chromium	U	500		19,274	20,000	96	85 - 115						MB-3	LCS-3	
5. Lead	U	1000		18,673	20,000	93	85 - 115						MB-3	LCS-3	
6. Selenium	U	200		9,935	10,000	99	85 - 115						MB-3	LCS-3	
7. Silver	U	100		9,692	10,000	97	85 - 115						MB-3	LCS-3	

**Definitions/ Qualifiers:**

U: The analyte was not detected at or above the Reporting Limit (RL).  
\*: Value reported is outside QC limits

**Run Code (Analysis Sequence/Run Time):**

MB-3 T214H06A 08/06/14 09:57  
LCS-3 T214H06A 08/06/14 09:59

**Exception Summary:**

Exceptions have been properly noted on reported results or affected samples have been scheduled for reanalysis when appropriate.

**Report Generated By:**



**Anthony Donnelly**  
Information Technology Officer  
Wednesday, October 22, 2014  
1:25:20 PM

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Analytical Laboratory Report  
Laboratory Project Number: 63716  
Laboratory Sample Number: 63716-001

Order: 63716  
Page: 2 of 11  
Date: 08/20/14

Client Identification:	Soil and Materials Engineers, Inc. - Plymouth	Sample Description:	S6	Chain of Custody:	132960
Client Project Name:	Balmoral (061377.03)	Sample No:	1	Collect Date:	08/13/14
Client Project No:	061377.03	Sample Matrix:	Soil/Solid	Collect Time:	10:00
Sample Comments:	Soil results have been calculated and reported on a dry weight basis unless otherwise noted.				
Definitions:	Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.				

Dry Weight Determination (ASTM D 2974-87)						Aliquot ID: 63716-001		Matrix: Soil/Solid		
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		Init.
						P. Date	P. Batch	A. Date	A. Batch	
‡ 1. Percent Moisture (Water Content)	12		%	0.1	1.0	08/18/14	MC140818	08/19/14	MC140818	BMG

RCRA Elements by ICP/MS (EPA 0200.2-M/EPA 6020A)						Aliquot ID: 63716-001		Matrix: Soil/Solid		
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		Init.
						P. Date	P. Batch	A. Date	A. Batch	
1. Arsenic	6900		µg/kg	100	20	08/19/14	PT14H19C	08/20/14	T414H20A	JLH
2. Barium	42000		µg/kg	1000	20	08/19/14	PT14H19C	08/20/14	T414H20A	JLH
3. Cadmium	100		µg/kg	50	20	08/19/14	PT14H19C	08/20/14	T414H20A	JLH
4. Chromium	14000		µg/kg	500	20	08/19/14	PT14H19C	08/20/14	T414H20A	JLH
5. Lead	7000		µg/kg	1000	20	08/19/14	PT14H19C	08/20/14	T414H20A	JLH
6. Selenium	U		µg/kg	200	20	08/19/14	PT14H19C	08/20/14	T414H20A	JLH
7. Silver	U		µg/kg	100	20	08/19/14	PT14H19C	08/20/14	T414H20A	JLH

Mercury by CVAAS (EPA 7471B)						Aliquot ID: 63716-001		Matrix: Soil/Solid		
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		Init.
						P. Date	P. Batch	A. Date	A. Batch	
1. Mercury	U		µg/kg	50	9.7	08/19/14	PM14H19A	08/19/14	M614H19A	JLP

Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035A/EPA 8260B)						Aliquot ID: 63716-001A		Matrix: Soil/Solid		
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		Init.
						P. Date	P. Batch	A. Date	A. Batch	
1. Acetone	U		µg/kg	1000	1.0	08/15/14	VH14H15A	08/15/14	VH14H15A	DAR
‡ 2. Acrylonitrile	U		µg/kg	110	1.0	08/15/14	VH14H15A	08/15/14	VH14H15A	DAR
3. Benzene	U		µg/kg	50	1.0	08/15/14	VH14H15A	08/15/14	VH14H15A	DAR
4. Bromobenzene	U		µg/kg	100	1.0	08/15/14	VH14H15A	08/15/14	VH14H15A	DAR
5. Bromochloromethane	U		µg/kg	100	1.0	08/15/14	VH14H15A	08/15/14	VH14H15A	DAR
6. Bromodichloromethane	U		µg/kg	100	1.0	08/15/14	VH14H15A	08/15/14	VH14H15A	DAR
7. Bromoform	U		µg/kg	110	1.0	08/15/14	VH14H15A	08/15/14	VH14H15A	DAR
8. Bromomethane	U		µg/kg	200	1.0	08/15/14	VH14H15A	08/15/14	VH14H15A	DAR
9. 2-Butanone	U		µg/kg	750	1.0	08/15/14	VH14H15A	08/15/14	VH14H15A	DAR
10. n-Butylbenzene	U		µg/kg	50	1.0	08/15/14	VH14H15A	08/15/14	VH14H15A	DAR
11. sec-Butylbenzene	U		µg/kg	50	1.0	08/15/14	VH14H15A	08/15/14	VH14H15A	DAR
12. tert-Butylbenzene	U		µg/kg	50	1.0	08/15/14	VH14H15A	08/15/14	VH14H15A	DAR
13. Carbon Disulfide	U		µg/kg	250	1.0	08/15/14	VH14H15A	08/15/14	VH14H15A	DAR
14. Carbon Tetrachloride	U		µg/kg	57	1.0	08/15/14	VH14H15A	08/15/14	VH14H15A	DAR
15. Chlorobenzene	U		µg/kg	57	1.0	08/15/14	VH14H15A	08/15/14	VH14H15A	DAR

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Quality Control Report  
Preparation Batch QC Summary  
Gas Chromatography - Mass Spectrometry (Volatiles)  
Soil/Solid

Batch ID: VJ14H01A  
Page: 1 of 2  
Date: 10/22/14

Preparation Batch: VJ14H01A

Preparation Date: 08/01/14

Parameter	Method Blank (MB)			Laboratory Control Sample (LCS)					LCS Duplicate (LCD)				Run Code		
	Result µg/kg	RL µg/kg	Q	Result µg/kg	Spike µg/kg	Rec. %	LCL - UCL %	Q	Rec. %	RPD %	UCL %	Q	MB	LCS	LCD
1. Acetone	U	1000		6,200	5,000	124	50 - 145		109	13	20		MB-1	LCS-1	LCD-1
2. Acrylonitrile	U	100		5,316	5,000	106	66 - 139		104	2	20		MB-1	LCS-1	LCD-1
3. Benzene	U	50		5,024	5,000	100	70 - 130		94	6	20		MB-1	LCS-1	LCD-1
4. Bromobenzene	U	100		4,905	5,000	98	70 - 130		93	5	20		MB-1	LCS-1	LCD-1
5. Bromochloromethane	U	100		4,518	5,000	90	62 - 134		87	3	20		MB-1	LCS-1	LCD-1
6. Bromodichloromethane	U	100		4,875	5,000	97	70 - 130		92	5	20		MB-1	LCS-1	LCD-1
7. Bromoform	U	100		5,193	5,000	104	70 - 130		100	4	20		MB-1	LCS-1	LCD-1
8. Bromomethane	U	200		5,277	5,000	106	56 - 135		98	8	20		MB-1	LCS-1	LCD-1
9. 2-Butanone	U	750		5,848	5,000	117	56 - 141		105	11	20		MB-1	LCS-1	LCD-1
10. n-Butylbenzene	U	50		6,025	5,000	121	70 - 141		112	8	20		MB-1	LCS-1	LCD-1
11. sec-Butylbenzene	U	50		5,747	5,000	115	70 - 130		108	6	20		MB-1	LCS-1	LCD-1
12. tert-Butylbenzene	U	50		5,844	5,000	117	70 - 130		110	6	20		MB-1	LCS-1	LCD-1
13. Carbon Disulfide	U	250		4,947	5,000	99	70 - 132		91	8	20		MB-1	LCS-1	LCD-1
14. Carbon Tetrachloride	U	50		5,148	5,000	103	70 - 143		96	7	20		MB-1	LCS-1	LCD-1
15. Chlorobenzene	U	50		4,960	5,000	99	70 - 130		94	5	20		MB-1	LCS-1	LCD-1
16. Chloroethane	U	250		4,665	5,000	93	60 - 150		86	8	20		MB-1	LCS-1	LCD-1
17. Chloroform	U	50		4,768	5,000	95	71 - 126		89	7	20		MB-1	LCS-1	LCD-1
18. Chloromethane	U	250		4,799	5,000	96	63 - 137		88	9	20		MB-1	LCS-1	LCD-1
19. 2-Chlorotoluene	U	50		5,313	5,000	106	70 - 130		101	5	20		MB-1	LCS-1	LCD-1
20. Dibromochloromethane	U	100		5,035	5,000	101	70 - 130		97	4	20		MB-1	LCS-1	LCD-1
21. 1,2-Dibromo-3-chloropropane	U	50		5,183	5,000	104	70 - 134		102	2	20		MB-1	LCS-1	LCD-1
22. Dibromomethane	U	250		4,837	5,000	97	70 - 130		92	5	20		MB-1	LCS-1	LCD-1
23. 1,2-Dichlorobenzene	U	100		5,115	5,000	102	70 - 130		97	5	20		MB-1	LCS-1	LCD-1
24. 1,3-Dichlorobenzene	U	100		5,073	5,000	101	70 - 130		96	5	20		MB-1	LCS-1	LCD-1
25. 1,4-Dichlorobenzene	U	100		4,891	5,000	98	70 - 130		93	5	20		MB-1	LCS-1	LCD-1
26. Dichlorodifluoromethane	U	250		4,840	5,000	97	70 - 144		89	9	20		MB-1	LCS-1	LCD-1
27. 1,1-Dichloroethane	U	50		4,854	5,000	97	70 - 130		90	7	20		MB-1	LCS-1	LCD-1
28. 1,2-Dichloroethane	U	50		4,700	5,000	94	69 - 130		90	4	20		MB-1	LCS-1	LCD-1
29. 1,1-Dichloroethene	U	50		5,126	5,000	103	72 - 131		94	9	20		MB-1	LCS-1	LCD-1
30. cis-1,2-Dichloroethene	U	50		4,878	5,000	98	70 - 131		92	6	20		MB-1	LCS-1	LCD-1
31. trans-1,2-Dichloroethene	U	50		4,975	5,000	99	70 - 131		92	7	20		MB-1	LCS-1	LCD-1
32. 1,2-Dichloropropane	U	50		4,951	5,000	99	80 - 127		93	6	20		MB-1	LCS-1	LCD-1
33. cis-1,3-Dichloropropene	U	50		5,722	5,000	114	70 - 131		108	5	20		MB-1	LCS-1	LCD-1
34. trans-1,3-Dichloropropene	U	50		5,716	5,000	114	70 - 132		109	4	20		MB-1	LCS-1	LCD-1
35. Ethylbenzene	U	50		5,395	5,000	108	80 - 120		101	7	20		MB-1	LCS-1	LCD-1
36. Ethylene Dibromide	U	25		5,124	5,000	102	70 - 130		100	2	20		MB-1	LCS-1	LCD-1
37. 2-Hexanone	U	2500		6,516	5,000	130	68 - 138		119	9	20		MB-1	LCS-1	LCD-1
38. Isopropylbenzene	U	250		5,627	5,000	113	70 - 130		106	6	20		MB-1	LCS-1	LCD-1
39. Methylene Chloride	U	100		4,707	5,000	94	62 - 130		90	4	20		MB-1	LCS-1	LCD-1
40. 4-Methyl-2-pentanone	U	2500		5,164	5,000	103	70 - 133		102	1	20		MB-1	LCS-1	LCD-1
41. MTBE	U	250		5,176	5,000	104	61 - 142		99	5	20		MB-1	LCS-1	LCD-1
42. Naphthalene	U	330		5,033	5,000	101	70 - 136		98	3	20		MB-1	LCS-1	LCD-1
43. n-Propylbenzene	U	100		5,531	5,000	111	70 - 130		104	7	20		MB-1	LCS-1	LCD-1
44. Styrene	U	50		5,711	5,000	114	70 - 130		109	4	20		MB-1	LCS-1	LCD-1
45. 1,1,1,2-Tetrachloroethane	U	100		4,987	5,000	100	70 - 130		94	6	20		MB-1	LCS-1	LCD-1
46. 1,1,2,2-Tetrachloroethane	U	50		4,984	5,000	100	70 - 130		97	3	20		MB-1	LCS-1	LCD-1
47. Tetrachloroethene	U	50		5,264	5,000	105	70 - 130		99	6	20		MB-1	LCS-1	LCD-1
48. Toluene	U	50		4,990	5,000	100	79 - 120		93	7	20		MB-1	LCS-1	LCD-1
49. 1,2,4-Trichlorobenzene	U	330		5,822	5,000	116	70 - 133		111	4	20		MB-1	LCS-1	LCD-1
50. 1,1,1-Trichloroethane	U	50		4,926	5,000	99	70 - 130		92	7	20		MB-1	LCS-1	LCD-1
51. 1,1,2-Trichloroethane	U	50		5,076	5,000	102	70 - 130		98	4	20		MB-1	LCS-1	LCD-1

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**Quality Control Report**  
**Preparation Batch QC Summary**  
**Gas Chromatography - Mass Spectrometry (Volatiles)**  
**Soil/Solid**

Batch ID: VJ14H01A  
Page: 2 of 2  
Date: 10/22/14

**Preparation Batch: VJ14H01A**

**Preparation Date: 08/01/14**

Parameter	Method Blank (MB)			Laboratory Control Sample (LCS)					LCS Duplicate (LCD)				Run Code		
	Result	RL	Q	Result	Spike	Rec.	LCL	UCL	Rec.	RPD	UCL	Q	MB	LCS	LCD
	µg/kg	µg/kg		µg/kg	µg/kg	%	%	%	%	%	%	%			
52. Trichloroethene	U	50		5,044	5,000	101	70	130	94	7	20		MB-1	LCS-1	LCD-1
53. Trichlorofluoromethane	U	100		4,761	5,000	95	50	150	86	10	20		MB-1	LCS-1	LCD-1
54. 1,2,3-Trichloropropane	U	100		5,099	5,000	102	70	130	99	3	20		MB-1	LCS-1	LCD-1
55. 1,2,3-Trimethylbenzene	U	100		5,386	5,000	108	70	130	103	5	20		MB-1	LCS-1	LCD-1
56. 1,2,4-Trimethylbenzene	U	100		5,732	5,000	115	70	130	108	6	20		MB-1	LCS-1	LCD-1
57. 1,3,5-Trimethylbenzene	U	100		5,668	5,000	113	70	130	106	6	20		MB-1	LCS-1	LCD-1
58. Vinyl Chloride	U	40		4,690	5,000	94	70	137	86	9	20		MB-1	LCS-1	LCD-1
59. m&p-Xylene	U	100		11,105	10,000	111	70	130	105	6	20		MB-1	LCS-1	LCD-1
60. o-Xylene	U	50		5,543	5,000	111	70	130	105	6	20		MB-1	LCS-1	LCD-1

System Monitoring Compounds (Surrogates)	Method Blank (MB)				Laboratory Control Sample (LCS)					LCS Duplicate (LCD)				Run Code		
	Result	Spike	Rec.	Q	Result	Spike	Rec.	LCL	UCL	Rec.	RPD	UCL	Q	MB	LCS	LCD
	µg/kg	µg/kg	%		µg/kg	µg/kg	%	%	%	%	%	%	%			
1. Dibromofluoromethane(S)	2,510	2,500	100		2,431	2,500	97	77	120	97	0	20		MB-1	LCS-1	LCD-1
2. 1,2-Dichloroethane-d4(S)	2,457	2,500	98		2,349	2,500	94	65	131	94	0	20		MB-1	LCS-1	LCD-1
3. Toluene-d8(S)	2,467	2,500	99		2,477	2,500	99	75	121	99	0	20		MB-1	LCS-1	LCD-1
4. 4-Bromofluorobenzene(S)	2,450	2,500	98		2,522	2,500	101	80	120	102	1	20		MB-1	LCS-1	LCD-1

**Definitions/ Qualifiers:**

U: The analyte was not detected at or above the Reporting Limit (RL).  
\*: Value reported is outside QC limits

**Run Code (Analysis Sequence/Run Time):**

MB-1 VJ14H01A 08/01/14 11:12  
LCS-1 VJ14H01A 08/01/14 09:50  
LCD-1 VJ14H01A 08/01/14 10:15

**Exception Summary:**

Exceptions have been properly noted on reported results or affected samples have been scheduled for reanalysis when appropriate.

**Report Generated By:**



**Anthony Donnelly**  
Information Technology Officer  
Wednesday, October 22, 2014  
1:25:20 PM

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Industrial Hygiene Services, Inc.  
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Chain of Custody #  
**120433**  
PAGE 1 of 1

Client Name: <b>S.M.E</b>					PARAMETERS										Turnaround		Matrix Code	
Contact Person: <b>JASON LAFANETTE / DAN CASSIDY</b>					<div style="display: flex; flex-direction: column; align-items: center;"><div>MATRIX (SEE RIGHT CORNER FOR CODES)</div><div># OF CONTAINERS</div><div>PRESERVED (Y/N)</div><div>VOCs</div><div>PAHs</div><div>PCOA &amp; METALS</div></div>										<input type="checkbox"/> 24 hour RUSH (surcharge applies)		<input type="checkbox"/> S Soil	<input type="checkbox"/> GW Ground Water
Project Name/ Number: <b>BALTIMORE / 061377.03</b>															<input type="checkbox"/> 48 hour RUSH (surcharge applies)		<input type="checkbox"/> W Water	<input type="checkbox"/> SW Surface Water
Purchase Order#															<input type="checkbox"/> 72 hour RUSH (surcharge applies)		<input type="checkbox"/> A Air	<input type="checkbox"/> WW Waste Water
					<input checked="" type="checkbox"/> Standard (5-7 bus. days)		<input type="checkbox"/> O Oil	<input checked="" type="checkbox"/> X Other: Specify										
					<input type="checkbox"/> Other: Specify		<input type="checkbox"/> P Wipe											
Lab Sample #					Remarks:													
Date					Time													
Client Sample #					Client Sample Descriptor													
7/29/14					9:30													
S2					12' BG													
S3					12' BG													
S4					12' BG													
S5					12' BG													
Comments:																		
Relinquished By:					Date/Time					Received By:								
					7/29/14 12:00					S.M.E. CO. STORAGE								
Relinquished By:					Date/Time					Received By:								
S.M.E. CO. STORAGE JCL																		
Relinquished By:					Date/Time					Received By Laboratory:								
					7/31/14 4:15													
LAB USE ONLY:																		
Fibertec project number:																		
Laboratory Tracking:																		
Temperature at Receipt:																		

TERMS & CONDITIONS ON BACK

**RCV'D ON**  
COC Revision: April, 2006

**ICE**



## Case Narrative

Client: Soil and Materials Engineers, Inc.  
Project Identification: Balmoral /061377.03

Three soil samples were collected on August 13, 2014 and received by Fibertec, Inc. on August 14, 2014. The shipping cooler temperature was within specifications (0 – 6 °C) and the sample containers arrived without any visible signs of tampering or breakage. The samples were prepared and analyzed within the required holding time. No exceptions were observed.

### Cross reference

Client ID#	Lab ID#	Matrix	Requested Tests
S6	63716-001	S	% Moisture, Trace Metals, Mercury, VOC, SVOC
S7	63716-002	S	% Moisture, Trace Metals, Mercury, VOC, SVOC
S8	63716-003	S	% Moisture, Trace Metals, Mercury, VOC, SVOC

Sample data has been reviewed and results are valid as reported.



Wednesday, August 20, 2014

Fibertec Project Number: 63716  
Project Identification: Balmoral (061377.03) /061377.03  
Submittal Date: 08/14/2014

Mr. Jason Lafayette  
Soil and Materials Engineers, Inc. - Plymouth  
43980 Plymouth Oaks  
Plymouth, MI 48170

Dear Mr. Lafayette,

Thank you for selecting Fibertec Environmental Services as your analytical laboratory. The samples you submitted have been analyzed in accordance with NELAC standards and the results compiled in the attached report. Any exceptions to NELAC compliance are noted in the report. These results apply only to those samples submitted. Please note TO-15 samples will be disposed of 14 days after the reporting date. All other samples will be disposed of 30 days after the reporting date.

If you have any questions regarding these results or if we may be of further assistance to you, please contact me at (517) 699-0345.

Sincerely,

A handwritten signature in black ink, appearing to read "Daryl Strandbergh", written over a light gray rectangular background.

Daryl P. Strandbergh  
Laboratory Director

DPS/cdh

Enclosures

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Analytical Laboratory Report  
Laboratory Project Number: 63716  
Laboratory Sample Number: 63716-001

Order: 63716  
Page: 3 of 11  
Date: 08/20/14

Client Identification:	Soil and Materials Engineers, Inc. - Plymouth	Sample Description:	S6	Chain of Custody:	132960
Client Project Name:	Balmoral (061377.03)	Sample No:	1	Collect Date:	08/13/14
Client Project No:	061377.03	Sample Matrix:	Soil/Solid	Collect Time:	10:00
Sample Comments:	Soil results have been calculated and reported on a dry weight basis unless otherwise noted.				
Definitions:	Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.				

Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035A/EPA 8260B)						Aliquot ID: 63716-001A		Matrix: Soil/Solid		
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		
						P. Date	P. Batch	A. Date	A. Batch	Init.
16. Chloroethane	U		µg/kg	280	1.0	08/15/14	VH14H15A	08/15/14	VH14H15A	DAR
17. Chloroform	U		µg/kg	50	1.0	08/15/14	VH14H15A	08/15/14	VH14H15A	DAR
18. Chloromethane	U		µg/kg	250	1.0	08/15/14	VH14H15A	08/15/14	VH14H15A	DAR
19. 2-Chlorotoluene	U		µg/kg	50	1.0	08/15/14	VH14H15A	08/15/14	VH14H15A	DAR
20. Dibromochloromethane	U		µg/kg	110	1.0	08/15/14	VH14H15A	08/15/14	VH14H15A	DAR
‡ 21. 1,2-Dibromo-3-chloropropane (SIM)	U		µg/kg	110	1.0	08/15/14	VH14H15A	08/15/14	VH14H15A	DAR
22. Dibromomethane	U		µg/kg	250	1.0	08/15/14	VH14H15A	08/15/14	VH14H15A	DAR
23. 1,2-Dichlorobenzene	U		µg/kg	100	1.0	08/15/14	VH14H15A	08/15/14	VH14H15A	DAR
24. 1,3-Dichlorobenzene	U		µg/kg	100	1.0	08/15/14	VH14H15A	08/15/14	VH14H15A	DAR
25. 1,4-Dichlorobenzene	U		µg/kg	110	1.0	08/15/14	VH14H15A	08/15/14	VH14H15A	DAR
26. Dichlorodifluoromethane	U		µg/kg	250	1.0	08/15/14	VH14H15A	08/15/14	VH14H15A	DAR
27. 1,1-Dichloroethane	U		µg/kg	50	1.0	08/15/14	VH14H15A	08/15/14	VH14H15A	DAR
28. 1,2-Dichloroethane	U		µg/kg	50	1.0	08/15/14	VH14H15A	08/15/14	VH14H15A	DAR
29. 1,1-Dichloroethene	U		µg/kg	50	1.0	08/15/14	VH14H15A	08/15/14	VH14H15A	DAR
30. cis-1,2-Dichloroethene	U		µg/kg	50	1.0	08/15/14	VH14H15A	08/15/14	VH14H15A	DAR
31. trans-1,2-Dichloroethene	U		µg/kg	50	1.0	08/15/14	VH14H15A	08/15/14	VH14H15A	DAR
32. 1,2-Dichloropropane	U		µg/kg	50	1.0	08/15/14	VH14H15A	08/15/14	VH14H15A	DAR
33. cis-1,3-Dichloropropene	U		µg/kg	50	1.0	08/15/14	VH14H15A	08/15/14	VH14H15A	DAR
34. trans-1,3-Dichloropropene	U		µg/kg	50	1.0	08/15/14	VH14H15A	08/15/14	VH14H15A	DAR
35. Ethylbenzene	U		µg/kg	50	1.0	08/15/14	VH14H15A	08/15/14	VH14H15A	DAR
36. Ethylene Dibromide	U		µg/kg	57	1.0	08/15/14	VH14H15A	08/15/14	VH14H15A	DAR
37. 2-Hexanone	U		µg/kg	2500	1.0	08/15/14	VH14H15A	08/15/14	VH14H15A	DAR
38. Isopropylbenzene	U		µg/kg	250	1.0	08/15/14	VH14H15A	08/15/14	VH14H15A	DAR
39. Methylene Chloride	U		µg/kg	100	1.0	08/15/14	VH14H15A	08/15/14	VH14H15A	DAR
40. 4-Methyl-2-pentanone	U		µg/kg	2500	1.0	08/15/14	VH14H15A	08/15/14	VH14H15A	DAR
41. MTBE	U		µg/kg	250	1.0	08/15/14	VH14H15A	08/15/14	VH14H15A	DAR
42. Naphthalene	U		µg/kg	330	1.0	08/15/14	VH14H15A	08/15/14	VH14H15A	DAR
43. n-Propylbenzene	U		µg/kg	100	1.0	08/15/14	VH14H15A	08/15/14	VH14H15A	DAR
44. Styrene	U		µg/kg	50	1.0	08/15/14	VH14H15A	08/15/14	VH14H15A	DAR
45. 1,1,1,2-Tetrachloroethane	U		µg/kg	100	1.0	08/15/14	VH14H15A	08/15/14	VH14H15A	DAR
46. 1,1,2,2-Tetrachloroethane	U		µg/kg	50	1.0	08/15/14	VH14H15A	08/15/14	VH14H15A	DAR
47. Tetrachloroethene	U		µg/kg	50	1.0	08/15/14	VH14H15A	08/15/14	VH14H15A	DAR
48. Toluene	U		µg/kg	50	1.0	08/15/14	VH14H15A	08/15/14	VH14H15A	DAR
49. 1,2,4-Trichlorobenzene	U		µg/kg	330	1.0	08/15/14	VH14H15A	08/15/14	VH14H15A	DAR
50. 1,1,1-Trichloroethane	U		µg/kg	50	1.0	08/15/14	VH14H15A	08/15/14	VH14H15A	DAR
51. 1,1,2-Trichloroethane	U		µg/kg	50	1.0	08/15/14	VH14H15A	08/15/14	VH14H15A	DAR
52. Trichloroethene	U		µg/kg	50	1.0	08/15/14	VH14H15A	08/15/14	VH14H15A	DAR
53. Trichlorofluoromethane	U		µg/kg	100	1.0	08/15/14	VH14H15A	08/15/14	VH14H15A	DAR

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Analytical Laboratory Report  
Laboratory Project Number: 63716  
Laboratory Sample Number: 63716-001

Order: 63716  
Page: 4 of 11  
Date: 08/20/14

Client Identification:	Soil and Materials Engineers, Inc. - Plymouth	Sample Description:	S6	Chain of Custody:	132960
Client Project Name:	Balmoral (061377.03)	Sample No:	1	Collect Date:	08/13/14
Client Project No:	061377.03	Sample Matrix:	Soil/Solid	Collect Time:	10:00
Sample Comments:	Soil results have been calculated and reported on a dry weight basis unless otherwise noted.				
Definitions:	Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.				

Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035A/EPA 8260B)						Aliquot ID: 63716-001A		Matrix: Soil/Solid		
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		
						P. Date	P. Batch	A. Date	A. Batch	Init.
54. 1,2,3-Trichloropropane	U		µg/kg	100	1.0	08/15/14	VH14H15A	08/15/14	VH14H15A	DAR
‡ 55. 1,2,3-Trimethylbenzene	U		µg/kg	100	1.0	08/15/14	VH14H15A	08/15/14	VH14H15A	DAR
56. 1,2,4-Trimethylbenzene	U		µg/kg	100	1.0	08/15/14	VH14H15A	08/15/14	VH14H15A	DAR
57. 1,3,5-Trimethylbenzene	U		µg/kg	100	1.0	08/15/14	VH14H15A	08/15/14	VH14H15A	DAR
58. Vinyl Chloride	U		µg/kg	40	1.0	08/15/14	VH14H15A	08/15/14	VH14H15A	DAR
59. Xylenes	U		µg/kg	150	1.0	08/15/14	VH14H15A	08/15/14	VH14H15A	DAR

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3546/EPA 8270C)						Aliquot ID: 63716-001		Matrix: Soil/Solid		
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		
						P. Date	P. Batch	A. Date	A. Batch	Init.
1. Acenaphthene (SIM)	U		µg/kg	330	10	08/19/14	PS14H19A	08/19/14	S514H19A	BDA
2. Acenaphthylene (SIM)	U		µg/kg	330	10	08/19/14	PS14H19A	08/19/14	S514H19A	BDA
3. Anthracene (SIM)	U		µg/kg	330	10	08/19/14	PS14H19A	08/19/14	S514H19A	BDA
4. Benzo(a)anthracene (SIM)	U		µg/kg	330	10	08/19/14	PS14H19A	08/19/14	S514H19A	BDA
5. Benzo(a)pyrene (SIM)	U		µg/kg	330	10	08/19/14	PS14H19A	08/19/14	S514H19A	BDA
6. Benzo(b)fluoranthene (SIM)	U		µg/kg	330	10	08/19/14	PS14H19A	08/19/14	S514H19A	BDA
7. Benzo(ghi)perylene (SIM)	U		µg/kg	330	10	08/19/14	PS14H19A	08/19/14	S514H19A	BDA
8. Benzo(k)fluoranthene (SIM)	U		µg/kg	330	10	08/19/14	PS14H19A	08/19/14	S514H19A	BDA
9. Chrysene (SIM)	U		µg/kg	330	10	08/19/14	PS14H19A	08/19/14	S514H19A	BDA
10. Dibenzo(a,h)anthracene (SIM)	U		µg/kg	330	10	08/19/14	PS14H19A	08/19/14	S514H19A	BDA
11. Fluoranthene (SIM)	U		µg/kg	330	10	08/19/14	PS14H19A	08/19/14	S514H19A	BDA
12. Fluorene (SIM)	U		µg/kg	330	10	08/19/14	PS14H19A	08/19/14	S514H19A	BDA
13. Indeno(1,2,3-cd)pyrene (SIM)	U		µg/kg	330	10	08/19/14	PS14H19A	08/19/14	S514H19A	BDA
14. 2-Methylnaphthalene (SIM)	U		µg/kg	330	10	08/19/14	PS14H19A	08/19/14	S514H19A	BDA
15. Phenanthrene (SIM)	U		µg/kg	330	10	08/19/14	PS14H19A	08/19/14	S514H19A	BDA
16. Pyrene (SIM)	U		µg/kg	330	10	08/19/14	PS14H19A	08/19/14	S514H19A	BDA

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Analytical Laboratory Report  
Laboratory Project Number: 63716  
Laboratory Sample Number: 63716-002

Order: 63716  
Page: 5 of 11  
Date: 08/20/14

Client Identification:	Soil and Materials Engineers, Inc. - Plymouth	Sample Description:	S7	Chain of Custody:	132960
Client Project Name:	Balmoral (061377.03)	Sample No:	2	Collect Date:	08/13/14
Client Project No:	061377.03	Sample Matrix:	Soil/Solid	Collect Time:	10:05
Sample Comments:	Soil results have been calculated and reported on a dry weight basis unless otherwise noted.				
Definitions:	Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.				

Dry Weight Determination (ASTM D 2974-87)						Aliquot ID: 63716-002		Matrix: Soil/Solid		
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		Init.
						P. Date	P. Batch	A. Date	A. Batch	
‡ 1. Percent Moisture (Water Content)	9.2		%	0.1	1.0	08/18/14	MC140818	08/19/14	MC140818	BMG

RCRA Elements by ICP/MS (EPA 0200.2-M/EPA 6020A)						Aliquot ID: 63716-002		Matrix: Soil/Solid		
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		Init.
						P. Date	P. Batch	A. Date	A. Batch	
1. Arsenic	5600		µg/kg	100	20	08/19/14	PT14H19C	08/20/14	T414H20A	JLH
2. Barium	42000		µg/kg	1000	20	08/19/14	PT14H19C	08/20/14	T414H20A	JLH
3. Cadmium	100		µg/kg	50	20	08/19/14	PT14H19C	08/20/14	T414H20A	JLH
4. Chromium	14000		µg/kg	500	20	08/19/14	PT14H19C	08/20/14	T414H20A	JLH
5. Lead	6500		µg/kg	1000	20	08/19/14	PT14H19C	08/20/14	T414H20A	JLH
6. Selenium	280		µg/kg	200	20	08/19/14	PT14H19C	08/20/14	T414H20A	JLH
7. Silver	U		µg/kg	100	20	08/19/14	PT14H19C	08/20/14	T414H20A	JLH

Mercury by CVAAS (EPA 7471B)						Aliquot ID: 63716-002		Matrix: Soil/Solid		
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		Init.
						P. Date	P. Batch	A. Date	A. Batch	
1. Mercury	U		µg/kg	50	9.7	08/19/14	PM14H19A	08/19/14	M614H19A	JLP

Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035A/EPA 8260B)						Aliquot ID: 63716-002A		Matrix: Soil/Solid		
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		Init.
						P. Date	P. Batch	A. Date	A. Batch	
1. Acetone	U		µg/kg	1000	1.0	08/15/14	VH14H15A	08/15/14	VH14H15A	DAR
‡ 2. Acrylonitrile	U		µg/kg	110	1.0	08/15/14	VH14H15A	08/15/14	VH14H15A	DAR
3. Benzene	U		µg/kg	50	1.0	08/15/14	VH14H15A	08/15/14	VH14H15A	DAR
4. Bromobenzene	U		µg/kg	100	1.0	08/15/14	VH14H15A	08/15/14	VH14H15A	DAR
5. Bromochloromethane	U		µg/kg	100	1.0	08/15/14	VH14H15A	08/15/14	VH14H15A	DAR
6. Bromodichloromethane	U		µg/kg	100	1.0	08/15/14	VH14H15A	08/15/14	VH14H15A	DAR
7. Bromoform	U		µg/kg	110	1.0	08/15/14	VH14H15A	08/15/14	VH14H15A	DAR
8. Bromomethane	U		µg/kg	200	1.0	08/15/14	VH14H15A	08/15/14	VH14H15A	DAR
9. 2-Butanone	U		µg/kg	750	1.0	08/15/14	VH14H15A	08/15/14	VH14H15A	DAR
10. n-Butylbenzene	U		µg/kg	50	1.0	08/15/14	VH14H15A	08/15/14	VH14H15A	DAR
11. sec-Butylbenzene	U		µg/kg	50	1.0	08/15/14	VH14H15A	08/15/14	VH14H15A	DAR
12. tert-Butylbenzene	U		µg/kg	50	1.0	08/15/14	VH14H15A	08/15/14	VH14H15A	DAR
13. Carbon Disulfide	U		µg/kg	250	1.0	08/15/14	VH14H15A	08/15/14	VH14H15A	DAR
14. Carbon Tetrachloride	U		µg/kg	55	1.0	08/15/14	VH14H15A	08/15/14	VH14H15A	DAR
15. Chlorobenzene	U		µg/kg	55	1.0	08/15/14	VH14H15A	08/15/14	VH14H15A	DAR

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Analytical Laboratory Report  
Laboratory Project Number: 63716  
Laboratory Sample Number: 63716-002

Order: 63716  
Page: 6 of 11  
Date: 08/20/14

Client Identification:	Soil and Materials Engineers, Inc. - Plymouth	Sample Description:	S7	Chain of Custody:	132960
Client Project Name:	Balmoral (061377.03)	Sample No:	2	Collect Date:	08/13/14
Client Project No:	061377.03	Sample Matrix:	Soil/Solid	Collect Time:	10:05

Sample Comments: Soil results have been calculated and reported on a dry weight basis unless otherwise noted.

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035A/EPA 8260B)

Aliquot ID: 63716-002A

Matrix: Soil/Solid

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		
						P. Date	P. Batch	A. Date	A. Batch	Init.
16. Chloroethane	U		µg/kg	280	1.0	08/15/14	VH14H15A	08/15/14	VH14H15A	DAR
17. Chloroform	U		µg/kg	50	1.0	08/15/14	VH14H15A	08/15/14	VH14H15A	DAR
18. Chloromethane	U		µg/kg	250	1.0	08/15/14	VH14H15A	08/15/14	VH14H15A	DAR
19. 2-Chlorotoluene	U		µg/kg	50	1.0	08/15/14	VH14H15A	08/15/14	VH14H15A	DAR
20. Dibromochloromethane	U		µg/kg	110	1.0	08/15/14	VH14H15A	08/15/14	VH14H15A	DAR
‡ 21. 1,2-Dibromo-3-chloropropane (SIM)	U		µg/kg	110	1.0	08/15/14	VH14H15A	08/15/14	VH14H15A	DAR
22. Dibromomethane	U		µg/kg	250	1.0	08/15/14	VH14H15A	08/15/14	VH14H15A	DAR
23. 1,2-Dichlorobenzene	U		µg/kg	100	1.0	08/15/14	VH14H15A	08/15/14	VH14H15A	DAR
24. 1,3-Dichlorobenzene	U		µg/kg	100	1.0	08/15/14	VH14H15A	08/15/14	VH14H15A	DAR
25. 1,4-Dichlorobenzene	U		µg/kg	110	1.0	08/15/14	VH14H15A	08/15/14	VH14H15A	DAR
26. Dichlorodifluoromethane	U		µg/kg	250	1.0	08/15/14	VH14H15A	08/15/14	VH14H15A	DAR
27. 1,1-Dichloroethane	U		µg/kg	50	1.0	08/15/14	VH14H15A	08/15/14	VH14H15A	DAR
28. 1,2-Dichloroethane	U		µg/kg	50	1.0	08/15/14	VH14H15A	08/15/14	VH14H15A	DAR
29. 1,1-Dichloroethene	U		µg/kg	50	1.0	08/15/14	VH14H15A	08/15/14	VH14H15A	DAR
30. cis-1,2-Dichloroethene	U		µg/kg	50	1.0	08/15/14	VH14H15A	08/15/14	VH14H15A	DAR
31. trans-1,2-Dichloroethene	U		µg/kg	50	1.0	08/15/14	VH14H15A	08/15/14	VH14H15A	DAR
32. 1,2-Dichloropropane	U		µg/kg	50	1.0	08/15/14	VH14H15A	08/15/14	VH14H15A	DAR
33. cis-1,3-Dichloropropene	U		µg/kg	50	1.0	08/15/14	VH14H15A	08/15/14	VH14H15A	DAR
34. trans-1,3-Dichloropropene	U		µg/kg	50	1.0	08/15/14	VH14H15A	08/15/14	VH14H15A	DAR
35. Ethylbenzene	U		µg/kg	50	1.0	08/15/14	VH14H15A	08/15/14	VH14H15A	DAR
36. Ethylene Dibromide	U		µg/kg	55	1.0	08/15/14	VH14H15A	08/15/14	VH14H15A	DAR
37. 2-Hexanone	U		µg/kg	2500	1.0	08/15/14	VH14H15A	08/15/14	VH14H15A	DAR
38. Isopropylbenzene	U		µg/kg	250	1.0	08/15/14	VH14H15A	08/15/14	VH14H15A	DAR
39. Methylene Chloride	U		µg/kg	100	1.0	08/15/14	VH14H15A	08/15/14	VH14H15A	DAR
40. 4-Methyl-2-pentanone	U		µg/kg	2500	1.0	08/15/14	VH14H15A	08/15/14	VH14H15A	DAR
41. MTBE	U		µg/kg	250	1.0	08/15/14	VH14H15A	08/15/14	VH14H15A	DAR
42. Naphthalene	U		µg/kg	330	1.0	08/15/14	VH14H15A	08/15/14	VH14H15A	DAR
43. n-Propylbenzene	U		µg/kg	100	1.0	08/15/14	VH14H15A	08/15/14	VH14H15A	DAR
44. Styrene	U		µg/kg	50	1.0	08/15/14	VH14H15A	08/15/14	VH14H15A	DAR
45. 1,1,1,2-Tetrachloroethane	U		µg/kg	100	1.0	08/15/14	VH14H15A	08/15/14	VH14H15A	DAR
46. 1,1,2,2-Tetrachloroethane	U		µg/kg	50	1.0	08/15/14	VH14H15A	08/15/14	VH14H15A	DAR
47. Tetrachloroethene	U		µg/kg	50	1.0	08/15/14	VH14H15A	08/15/14	VH14H15A	DAR
48. Toluene	U		µg/kg	50	1.0	08/15/14	VH14H15A	08/15/14	VH14H15A	DAR
49. 1,2,4-Trichlorobenzene	U		µg/kg	330	1.0	08/15/14	VH14H15A	08/15/14	VH14H15A	DAR
50. 1,1,1-Trichloroethane	U		µg/kg	50	1.0	08/15/14	VH14H15A	08/15/14	VH14H15A	DAR
51. 1,1,2-Trichloroethane	U		µg/kg	50	1.0	08/15/14	VH14H15A	08/15/14	VH14H15A	DAR
52. Trichloroethene	U		µg/kg	50	1.0	08/15/14	VH14H15A	08/15/14	VH14H15A	DAR
53. Trichlorofluoromethane	U		µg/kg	100	1.0	08/15/14	VH14H15A	08/15/14	VH14H15A	DAR

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Analytical Laboratory Report  
Laboratory Project Number: 63716  
Laboratory Sample Number: 63716-002

Order: 63716  
Page: 7 of 11  
Date: 08/20/14

Client Identification:	Soil and Materials Engineers, Inc. - Plymouth	Sample Description:	S7	Chain of Custody:	132960
Client Project Name:	Balmoral (061377.03)	Sample No:	2	Collect Date:	08/13/14
Client Project No:	061377.03	Sample Matrix:	Soil/Solid	Collect Time:	10:05
Sample Comments:	Soil results have been calculated and reported on a dry weight basis unless otherwise noted.				
Definitions:	Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.				

Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035A/EPA 8260B)						Aliquot ID: 63716-002A		Matrix: Soil/Solid		
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		
						P. Date	P. Batch	A. Date	A. Batch	Init.
54. 1,2,3-Trichloropropane	U		µg/kg	100	1.0	08/15/14	VH14H15A	08/15/14	VH14H15A	DAR
‡ 55. 1,2,3-Trimethylbenzene	U		µg/kg	100	1.0	08/15/14	VH14H15A	08/15/14	VH14H15A	DAR
56. 1,2,4-Trimethylbenzene	U		µg/kg	100	1.0	08/15/14	VH14H15A	08/15/14	VH14H15A	DAR
57. 1,3,5-Trimethylbenzene	U		µg/kg	100	1.0	08/15/14	VH14H15A	08/15/14	VH14H15A	DAR
58. Vinyl Chloride	U		µg/kg	40	1.0	08/15/14	VH14H15A	08/15/14	VH14H15A	DAR
59. Xylenes	U		µg/kg	150	1.0	08/15/14	VH14H15A	08/15/14	VH14H15A	DAR

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3546/EPA 8270C)						Aliquot ID: 63716-002		Matrix: Soil/Solid		
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		
						P. Date	P. Batch	A. Date	A. Batch	Init.
1. Acenaphthene (SIM)	U		µg/kg	330	10	08/19/14	PS14H19A	08/19/14	S514H19A	BDA
2. Acenaphthylene (SIM)	U		µg/kg	330	10	08/19/14	PS14H19A	08/19/14	S514H19A	BDA
3. Anthracene (SIM)	U		µg/kg	330	10	08/19/14	PS14H19A	08/19/14	S514H19A	BDA
4. Benzo(a)anthracene (SIM)	U		µg/kg	330	10	08/19/14	PS14H19A	08/19/14	S514H19A	BDA
5. Benzo(a)pyrene (SIM)	U		µg/kg	330	10	08/19/14	PS14H19A	08/19/14	S514H19A	BDA
6. Benzo(b)fluoranthene (SIM)	U		µg/kg	330	10	08/19/14	PS14H19A	08/19/14	S514H19A	BDA
7. Benzo(ghi)perylene (SIM)	U		µg/kg	330	10	08/19/14	PS14H19A	08/19/14	S514H19A	BDA
8. Benzo(k)fluoranthene (SIM)	U		µg/kg	330	10	08/19/14	PS14H19A	08/19/14	S514H19A	BDA
9. Chrysene (SIM)	U		µg/kg	330	10	08/19/14	PS14H19A	08/19/14	S514H19A	BDA
10. Dibenzo(a,h)anthracene (SIM)	U		µg/kg	330	10	08/19/14	PS14H19A	08/19/14	S514H19A	BDA
11. Fluoranthene (SIM)	U		µg/kg	330	10	08/19/14	PS14H19A	08/19/14	S514H19A	BDA
12. Fluorene (SIM)	U		µg/kg	330	10	08/19/14	PS14H19A	08/19/14	S514H19A	BDA
13. Indeno(1,2,3-cd)pyrene (SIM)	U		µg/kg	330	10	08/19/14	PS14H19A	08/19/14	S514H19A	BDA
14. 2-Methylnaphthalene (SIM)	U		µg/kg	330	10	08/19/14	PS14H19A	08/19/14	S514H19A	BDA
15. Phenanthrene (SIM)	U		µg/kg	330	10	08/19/14	PS14H19A	08/19/14	S514H19A	BDA
16. Pyrene (SIM)	U		µg/kg	330	10	08/19/14	PS14H19A	08/19/14	S514H19A	BDA

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Analytical Laboratory Report  
Laboratory Project Number: 63716  
Laboratory Sample Number: 63716-003

Order: 63716  
Page: 8 of 11  
Date: 08/20/14

Client Identification:	Soil and Materials Engineers, Inc. - Plymouth	Sample Description:	S8	Chain of Custody:	132960
Client Project Name:	Balmoral (061377.03)	Sample No:	3	Collect Date:	08/13/14
Client Project No:	061377.03	Sample Matrix:	Soil/Solid	Collect Time:	10:10
Sample Comments:	Soil results have been calculated and reported on a dry weight basis unless otherwise noted.				
Definitions:	Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.				

Dry Weight Determination (ASTM D 2974-87)						Aliquot ID: 63716-003		Matrix: Soil/Solid		
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		Init.
						P. Date	P. Batch	A. Date	A. Batch	
‡ 1. Percent Moisture (Water Content)	9.6		%	0.1	1.0	08/18/14	MC140818	08/19/14	MC140818	BMG

RCRA Elements by ICP/MS (EPA 0200.2-M/EPA 6020A)						Aliquot ID: 63716-003		Matrix: Soil/Solid		
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		Init.
						P. Date	P. Batch	A. Date	A. Batch	
1. Arsenic	6700		µg/kg	100	20	08/19/14	PT14H19C	08/20/14	T414H20A	JLH
2. Barium	43000		µg/kg	1000	20	08/19/14	PT14H19C	08/20/14	T414H20A	JLH
3. Cadmium	98		µg/kg	50	20	08/19/14	PT14H19C	08/20/14	T414H20A	JLH
4. Chromium	13000		µg/kg	500	20	08/19/14	PT14H19C	08/20/14	T414H20A	JLH
5. Lead	7000		µg/kg	1000	20	08/19/14	PT14H19C	08/20/14	T414H20A	JLH
6. Selenium	U		µg/kg	200	20	08/19/14	PT14H19C	08/20/14	T414H20A	JLH
7. Silver	U		µg/kg	100	20	08/19/14	PT14H19C	08/20/14	T414H20A	JLH

Mercury by CVAAS (EPA 7471B)						Aliquot ID: 63716-003		Matrix: Soil/Solid		
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		Init.
						P. Date	P. Batch	A. Date	A. Batch	
1. Mercury	U		µg/kg	50	9.1	08/19/14	PM14H19A	08/19/14	M614H19A	JLP

Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035A/EPA 8260B)						Aliquot ID: 63716-003A		Matrix: Soil/Solid		
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		Init.
						P. Date	P. Batch	A. Date	A. Batch	
1. Acetone	U		µg/kg	1000	1.0	08/15/14	VH14H15A	08/15/14	VH14H15A	DAR
‡ 2. Acrylonitrile	U		µg/kg	110	1.0	08/15/14	VH14H15A	08/15/14	VH14H15A	DAR
3. Benzene	U		µg/kg	50	1.0	08/15/14	VH14H15A	08/15/14	VH14H15A	DAR
4. Bromobenzene	U		µg/kg	100	1.0	08/15/14	VH14H15A	08/15/14	VH14H15A	DAR
5. Bromochloromethane	U		µg/kg	100	1.0	08/15/14	VH14H15A	08/15/14	VH14H15A	DAR
6. Bromodichloromethane	U		µg/kg	100	1.0	08/15/14	VH14H15A	08/15/14	VH14H15A	DAR
7. Bromoform	U		µg/kg	110	1.0	08/15/14	VH14H15A	08/15/14	VH14H15A	DAR
8. Bromomethane	U		µg/kg	200	1.0	08/15/14	VH14H15A	08/15/14	VH14H15A	DAR
9. 2-Butanone	U		µg/kg	750	1.0	08/15/14	VH14H15A	08/15/14	VH14H15A	DAR
10. n-Butylbenzene	U		µg/kg	50	1.0	08/15/14	VH14H15A	08/15/14	VH14H15A	DAR
11. sec-Butylbenzene	U		µg/kg	50	1.0	08/15/14	VH14H15A	08/15/14	VH14H15A	DAR
12. tert-Butylbenzene	U		µg/kg	50	1.0	08/15/14	VH14H15A	08/15/14	VH14H15A	DAR
13. Carbon Disulfide	U		µg/kg	250	1.0	08/15/14	VH14H15A	08/15/14	VH14H15A	DAR
14. Carbon Tetrachloride	U		µg/kg	55	1.0	08/15/14	VH14H15A	08/15/14	VH14H15A	DAR
15. Chlorobenzene	U		µg/kg	55	1.0	08/15/14	VH14H15A	08/15/14	VH14H15A	DAR

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Analytical Laboratory Report  
Laboratory Project Number: 63716  
Laboratory Sample Number: 63716-003

Order: 63716  
Page: 9 of 11  
Date: 08/20/14

Client Identification:	Soil and Materials Engineers, Inc. - Plymouth	Sample Description:	S8	Chain of Custody:	132960
Client Project Name:	Balmoral (061377.03)	Sample No:	3	Collect Date:	08/13/14
Client Project No:	061377.03	Sample Matrix:	Soil/Solid	Collect Time:	10:10
Sample Comments:	Soil results have been calculated and reported on a dry weight basis unless otherwise noted.				
Definitions:	Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.				

Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035A/EPA 8260B)						Aliquot ID: 63716-003A		Matrix: Soil/Solid		
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		
						P. Date	P. Batch	A. Date	A. Batch	Init.
16. Chloroethane	U		µg/kg	280	1.0	08/15/14	VH14H15A	08/15/14	VH14H15A	DAR
17. Chloroform	U		µg/kg	50	1.0	08/15/14	VH14H15A	08/15/14	VH14H15A	DAR
18. Chloromethane	U		µg/kg	250	1.0	08/15/14	VH14H15A	08/15/14	VH14H15A	DAR
19. 2-Chlorotoluene	U		µg/kg	50	1.0	08/15/14	VH14H15A	08/15/14	VH14H15A	DAR
20. Dibromochloromethane	U		µg/kg	110	1.0	08/15/14	VH14H15A	08/15/14	VH14H15A	DAR
‡ 21. 1,2-Dibromo-3-chloropropane (SIM)	U		µg/kg	110	1.0	08/15/14	VH14H15A	08/15/14	VH14H15A	DAR
22. Dibromomethane	U		µg/kg	250	1.0	08/15/14	VH14H15A	08/15/14	VH14H15A	DAR
23. 1,2-Dichlorobenzene	U		µg/kg	100	1.0	08/15/14	VH14H15A	08/15/14	VH14H15A	DAR
24. 1,3-Dichlorobenzene	U		µg/kg	100	1.0	08/15/14	VH14H15A	08/15/14	VH14H15A	DAR
25. 1,4-Dichlorobenzene	U		µg/kg	110	1.0	08/15/14	VH14H15A	08/15/14	VH14H15A	DAR
26. Dichlorodifluoromethane	U		µg/kg	250	1.0	08/15/14	VH14H15A	08/15/14	VH14H15A	DAR
27. 1,1-Dichloroethane	U		µg/kg	50	1.0	08/15/14	VH14H15A	08/15/14	VH14H15A	DAR
28. 1,2-Dichloroethane	U		µg/kg	50	1.0	08/15/14	VH14H15A	08/15/14	VH14H15A	DAR
29. 1,1-Dichloroethene	U		µg/kg	50	1.0	08/15/14	VH14H15A	08/15/14	VH14H15A	DAR
30. cis-1,2-Dichloroethene	U		µg/kg	50	1.0	08/15/14	VH14H15A	08/15/14	VH14H15A	DAR
31. trans-1,2-Dichloroethene	U		µg/kg	50	1.0	08/15/14	VH14H15A	08/15/14	VH14H15A	DAR
32. 1,2-Dichloropropane	U		µg/kg	50	1.0	08/15/14	VH14H15A	08/15/14	VH14H15A	DAR
33. cis-1,3-Dichloropropene	U		µg/kg	50	1.0	08/15/14	VH14H15A	08/15/14	VH14H15A	DAR
34. trans-1,3-Dichloropropene	U		µg/kg	50	1.0	08/15/14	VH14H15A	08/15/14	VH14H15A	DAR
35. Ethylbenzene	U		µg/kg	50	1.0	08/15/14	VH14H15A	08/15/14	VH14H15A	DAR
36. Ethylene Dibromide	U		µg/kg	55	1.0	08/15/14	VH14H15A	08/15/14	VH14H15A	DAR
37. 2-Hexanone	U		µg/kg	2500	1.0	08/15/14	VH14H15A	08/15/14	VH14H15A	DAR
38. Isopropylbenzene	U		µg/kg	250	1.0	08/15/14	VH14H15A	08/15/14	VH14H15A	DAR
39. Methylene Chloride	U		µg/kg	100	1.0	08/15/14	VH14H15A	08/15/14	VH14H15A	DAR
40. 4-Methyl-2-pentanone	U		µg/kg	2500	1.0	08/15/14	VH14H15A	08/15/14	VH14H15A	DAR
41. MTBE	U		µg/kg	250	1.0	08/15/14	VH14H15A	08/15/14	VH14H15A	DAR
42. Naphthalene	U		µg/kg	330	1.0	08/15/14	VH14H15A	08/15/14	VH14H15A	DAR
43. n-Propylbenzene	U		µg/kg	100	1.0	08/15/14	VH14H15A	08/15/14	VH14H15A	DAR
44. Styrene	U		µg/kg	50	1.0	08/15/14	VH14H15A	08/15/14	VH14H15A	DAR
45. 1,1,1,2-Tetrachloroethane	U		µg/kg	100	1.0	08/15/14	VH14H15A	08/15/14	VH14H15A	DAR
46. 1,1,2,2-Tetrachloroethane	U		µg/kg	50	1.0	08/15/14	VH14H15A	08/15/14	VH14H15A	DAR
47. Tetrachloroethene	U		µg/kg	50	1.0	08/15/14	VH14H15A	08/15/14	VH14H15A	DAR
48. Toluene	U		µg/kg	50	1.0	08/15/14	VH14H15A	08/15/14	VH14H15A	DAR
49. 1,2,4-Trichlorobenzene	U		µg/kg	330	1.0	08/15/14	VH14H15A	08/15/14	VH14H15A	DAR
50. 1,1,1-Trichloroethane	U		µg/kg	50	1.0	08/15/14	VH14H15A	08/15/14	VH14H15A	DAR
51. 1,1,2-Trichloroethane	U		µg/kg	50	1.0	08/15/14	VH14H15A	08/15/14	VH14H15A	DAR
52. Trichloroethene	U		µg/kg	50	1.0	08/15/14	VH14H15A	08/15/14	VH14H15A	DAR
53. Trichlorofluoromethane	U		µg/kg	100	1.0	08/15/14	VH14H15A	08/15/14	VH14H15A	DAR

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Analytical Laboratory Report  
Laboratory Project Number: 63716  
Laboratory Sample Number: 63716-003

Order: 63716  
Page: 10 of 11  
Date: 08/20/14

Client Identification:	Soil and Materials Engineers, Inc. - Plymouth	Sample Description:	S8	Chain of Custody:	132960
Client Project Name:	Balmoral (061377.03)	Sample No:	3	Collect Date:	08/13/14
Client Project No:	061377.03	Sample Matrix:	Soil/Solid	Collect Time:	10:10
Sample Comments:	Soil results have been calculated and reported on a dry weight basis unless otherwise noted.				
Definitions:	Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.				

Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035A/EPA 8260B)						Aliquot ID: 63716-003A		Matrix: Soil/Solid		
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		
						P. Date	P. Batch	A. Date	A. Batch	Init.
54. 1,2,3-Trichloropropane	U		µg/kg	100	1.0	08/15/14	VH14H15A	08/15/14	VH14H15A	DAR
‡ 55. 1,2,3-Trimethylbenzene	U		µg/kg	100	1.0	08/15/14	VH14H15A	08/15/14	VH14H15A	DAR
56. 1,2,4-Trimethylbenzene	U		µg/kg	100	1.0	08/15/14	VH14H15A	08/15/14	VH14H15A	DAR
57. 1,3,5-Trimethylbenzene	U		µg/kg	100	1.0	08/15/14	VH14H15A	08/15/14	VH14H15A	DAR
58. Vinyl Chloride	U		µg/kg	40	1.0	08/15/14	VH14H15A	08/15/14	VH14H15A	DAR
59. Xylenes	U		µg/kg	150	1.0	08/15/14	VH14H15A	08/15/14	VH14H15A	DAR

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3546/EPA 8270C)						Aliquot ID: 63716-003		Matrix: Soil/Solid		
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		
						P. Date	P. Batch	A. Date	A. Batch	Init.
1. Acenaphthene (SIM)	U		µg/kg	330	10	08/19/14	PS14H19A	08/19/14	S514H19A	BDA
2. Acenaphthylene (SIM)	U		µg/kg	330	10	08/19/14	PS14H19A	08/19/14	S514H19A	BDA
3. Anthracene (SIM)	U		µg/kg	330	10	08/19/14	PS14H19A	08/19/14	S514H19A	BDA
4. Benzo(a)anthracene (SIM)	U		µg/kg	330	10	08/19/14	PS14H19A	08/19/14	S514H19A	BDA
5. Benzo(a)pyrene (SIM)	U		µg/kg	330	10	08/19/14	PS14H19A	08/19/14	S514H19A	BDA
6. Benzo(b)fluoranthene (SIM)	U		µg/kg	330	10	08/19/14	PS14H19A	08/19/14	S514H19A	BDA
7. Benzo(ghi)perylene (SIM)	U		µg/kg	330	10	08/19/14	PS14H19A	08/19/14	S514H19A	BDA
8. Benzo(k)fluoranthene (SIM)	U		µg/kg	330	10	08/19/14	PS14H19A	08/19/14	S514H19A	BDA
9. Chrysene (SIM)	U		µg/kg	330	10	08/19/14	PS14H19A	08/19/14	S514H19A	BDA
10. Dibenzo(a,h)anthracene (SIM)	U		µg/kg	330	10	08/19/14	PS14H19A	08/19/14	S514H19A	BDA
11. Fluoranthene (SIM)	U		µg/kg	330	10	08/19/14	PS14H19A	08/19/14	S514H19A	BDA
12. Fluorene (SIM)	U		µg/kg	330	10	08/19/14	PS14H19A	08/19/14	S514H19A	BDA
13. Indeno(1,2,3-cd)pyrene (SIM)	U		µg/kg	330	10	08/19/14	PS14H19A	08/19/14	S514H19A	BDA
14. 2-Methylnaphthalene (SIM)	U		µg/kg	330	10	08/19/14	PS14H19A	08/19/14	S514H19A	BDA
15. Phenanthrene (SIM)	U		µg/kg	330	10	08/19/14	PS14H19A	08/19/14	S514H19A	BDA
16. Pyrene (SIM)	U		µg/kg	330	10	08/19/14	PS14H19A	08/19/14	S514H19A	BDA

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**Definitions/ Qualifiers:**

- A:** Spike recovery or precision unusable due to dilution.
- B:** The analyte was detected in the associated method blank.
- E:** The analyte was detected at a concentration greater than the calibration range, therefore the result is estimated.
- J:** The concentration is an estimated value.
- M:** Modified Method
- U:** The analyte was not detected at or above the reporting limit.
- X:** Matrix Interference has resulted in a raised reporting limit or distorted result.
- W:** Results reported on a wet-weight basis.
- \*:** Value reported is outside QA limits

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**Exception Summary:**

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Accreditation Number(s):

**E-10395 (KS)**

**T104704518-13-1 (TX)**

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Quality Control Report  
Preparation Batch QC Summary  
Cold Vapor Atomic Absorption Spectrometry  
Soil/Solid

Batch ID: PM14H19A  
Page: 1 of 1  
Date: 01/27/15

Preparation Batch: PM14H19A

Preparation Date: 08/19/14

Parameter	Method Blank (MB)			Laboratory Control Sample (LCS)					LCS Duplicate (LCD)				Run Code		
	Result	RL	Q	Result	Spike	Rec.	LCL - UCL		Rec.	RPD	UCL	Q	MB	LCS	LCD
	µg/kg	µg/kg		µg/kg	µg/kg	%	%		%	%	%				
1. Mercury	U	50		191	200	96	85 - 115						MB-2	LCS-2	

**Definitions/ Qualifiers:**

U: The analyte was not detected at or above the Reporting Limit (RL).  
\*: Value reported is outside QC limits

**Run Code (Analysis Sequence/Run Time):**

MB-2 M614H19A 08/19/14 12:16  
LCS-2 M614H19A 08/19/14 12:18

**Exception Summary:**

Exceptions have been properly noted on reported results or affected samples have been scheduled for reanalysis when appropriate.

**Report Generated By:**

Amanda Petrovsky  
Client Services Representative  
Tuesday, January 27, 2015  
5:00:50 PM

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Quality Control Report  
Preparation Batch QC Summary  
Gas Chromatography - Mass Spectrometry (Semivolatiles)  
Soil/Solid

Batch ID: PS14H19A  
Page: 1 of 1  
Date: 01/27/15

Preparation Batch: PS14H19A

Preparation Date: 08/19/14

Parameter	Method Blank (MB)			Laboratory Control Sample (LCS)					LCS Duplicate (LCD)				Run Code		
	Result µg/kg	RL µg/kg	Q	Result µg/kg	Spike µg/kg	Rec. %	LCL - UCL %	Q	Rec. %	RPD %	UCL %	Q	MB	LCS	LCD
1. Acenaphthene	U	330		4,101	5,333	77	50 - 114						MB-3	LCS-3	
2. Acenaphthylene	U	330		4,332	5,333	81	53 - 115						MB-3	LCS-3	
3. Anthracene	U	330		4,375	5,333	82	48 - 119						MB-3	LCS-3	
4. Benzo(a)anthracene	U	330		4,284	5,333	80	56 - 120						MB-3	LCS-3	
5. Benzo(a)pyrene	U	330		4,987	5,333	94	57 - 122						MB-3	LCS-3	
6. Benzo(b)fluoranthene	U	330		4,825	5,333	90	50 - 131						MB-3	LCS-3	
7. Benzo(ghi)perylene	U	330		4,346	5,333	81	41 - 132						MB-3	LCS-3	
8. Benzo(k)fluoranthene	U	330		4,759	5,333	89	39 - 137						MB-3	LCS-3	
9. Chrysene	U	330		4,448	5,333	83	53 - 124						MB-3	LCS-3	
10. Dibenzo(a,h)anthracene	U	330		4,511	5,333	85	53 - 126						MB-3	LCS-3	
11. Fluoranthene	U	330		4,385	5,333	82	48 - 135						MB-3	LCS-3	
12. Fluorene	U	330		4,289	5,333	80	49 - 126						MB-3	LCS-3	
13. Indeno(1,2,3-cd)pyrene	U	330		4,827	5,333	90	51 - 132						MB-3	LCS-3	
14. 2-Methylnaphthalene	U	330		4,269	5,333	80	46 - 105						MB-3	LCS-3	
15. Phenanthrene	U	330		4,063	5,333	76	53 - 119						MB-3	LCS-3	
16. Pyrene	U	330		4,669	5,333	88	55 - 127						MB-3	LCS-3	

System Monitoring Compounds (Surrogates):	Method Blank (MB)				Laboratory Control Sample (LCS)					LCS Duplicate (LCD)				Run Code		
	Result µg/kg	Spike µg/kg	Rec. %	Q	Result µg/kg	Spike µg/kg	Rec. %	LCL - UCL %	Q	Rec. %	RPD %	UCL %	Q	MB	LCS	LCD
1. 2-Fluorobiphenyl(S)	3,824	5,333	72		4,238	5,333	79	49 - 115						MB-3	LCS-3	
2. 4-Terphenyl-d14(S)	4,455	5,333	84		4,524	5,333	85	48 - 117						MB-3	LCS-3	
3. 1-Fluoronaphthalene(S)	3,663	5,333	69		4,029	5,333	76	46 - 114						MB-3	LCS-3	

**Definitions/ Qualifiers:**

U: The analyte was not detected at or above the Reporting Limit (RL).  
\*: Value reported is outside QC limits

**Run Code (Analysis Sequence/Run Time):**

MB-3 S514H19A 08/19/14 13:04  
LCS-3 S514H19A 08/19/14 13:37

**Exception Summary:**

Exceptions have been properly noted on reported results or affected samples have been scheduled for reanalysis when appropriate.

**Report Generated By:**

Amanda Petrovsky  
Client Services Representative  
Tuesday, January 27, 2015  
5:00:50 PM

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Quality Control Report  
Preparation Batch QC Summary  
Inductively Coupled Plasma - Mass Spectrometry  
Soil/Solid

Batch ID: PT14H19C  
Page: 1 of 1  
Date: 01/27/15

Preparation Batch: PT14H19C

Preparation Date: 08/19/14

Parameter	Method Blank (MB)			Laboratory Control Sample (LCS)					LCS Duplicate (LCD)				Run Code		
	Result µg/kg	RL µg/kg	Q	Result µg/kg	Spike µg/kg	Rec. %	LCL - UCL %	Q	Rec. %	RPD %	UCL %	Q	MB	LCS	LCD
1. Arsenic	U	100		9,605	10,000	96	85 - 115						MB-5	LCS-4	
2. Barium	U	1000		47,238	50,000	94	85 - 115						MB-5	LCS-4	
3. Cadmium	U	50		9,597	10,000	96	85 - 115						MB-5	LCS-4	
4. Chromium	U	500		19,111	20,000	96	85 - 115						MB-5	LCS-4	
5. Lead	U	1000		19,528	20,000	98	85 - 115						MB-5	LCS-4	
6. Selenium	U	200		9,540	10,000	95	85 - 115						MB-5	LCS-4	
7. Silver	U	100		9,493	10,000	95	85 - 115						MB-5	LCS-4	

**Definitions/ Qualifiers:**

U: The analyte was not detected at or above the Reporting Limit (RL).  
\*: Value reported is outside QC limits

**Run Code (Analysis Sequence/Run Time):**

MB-5 T414H20A 08/20/14 09:03  
LCS-4 T414H20A 08/20/14 09:05

**Exception Summary:**

Exceptions have been properly noted on reported results or affected samples have been scheduled for reanalysis when appropriate.

**Report Generated By:**

Amanda Petrovsky  
Client Services Representative  
Tuesday, January 27, 2015  
5:00:50 PM

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**Quality Control Report**  
**Preparation Batch QC Summary**  
**Gas Chromatography - Mass Spectrometry (Volatiles)**  
**Soil/Solid**

Batch ID: VH14H15A  
Page: 1 of 2  
Date: 01/27/15

Preparation Batch: VH14H15A

Preparation Date: 08/15/14

Parameter	Method Blank (MB)			Laboratory Control Sample (LCS)					LCS Duplicate (LCD)				Run Code		
	Result µg/kg	RL µg/kg	Q	Result µg/kg	Spike µg/kg	Rec. %	LCL - UCL %	Q	Rec. %	RPD %	UCL %	Q	MB	LCS	LCD
1. Acetone	U	1000		3,344	5,000	67	50 - 145		75	11	20		MB-1	LCS-1	LCD-1
2. Acrylonitrile	U	100		5,342	5,000	107	66 - 139		108	1	20		MB-1	LCS-1	LCD-1
3. Benzene	U	50		5,363	5,000	107	70 - 130		108	1	20		MB-1	LCS-1	LCD-1
4. Bromobenzene	U	100		4,909	5,000	98	70 - 130		98	0	20		MB-1	LCS-1	LCD-1
5. Bromochloromethane	U	100		5,074	5,000	101	62 - 134		100	1	20		MB-1	LCS-1	LCD-1
6. Bromodichloromethane	U	100		5,556	5,000	111	70 - 130		110	1	20		MB-1	LCS-1	LCD-1
7. Bromoform	U	100		4,586	5,000	92	70 - 130		92	0	20		MB-1	LCS-1	LCD-1
8. Bromomethane	U	200		5,743	5,000	115	56 - 135		114	1	20		MB-1	LCS-1	LCD-1
9. 2-Butanone	U	750		5,095	5,000	102	56 - 141		104	2	20		MB-1	LCS-1	LCD-1
10. n-Butylbenzene	U	50		5,707	5,000	114	70 - 141		112	2	20		MB-1	LCS-1	LCD-1
11. sec-Butylbenzene	U	50		5,539	5,000	111	70 - 130		109	2	20		MB-1	LCS-1	LCD-1
12. tert-Butylbenzene	U	50		5,476	5,000	110	70 - 130		108	2	20		MB-1	LCS-1	LCD-1
13. Carbon Disulfide	U	250		5,998	5,000	120	70 - 132		119	1	20		MB-1	LCS-1	LCD-1
14. Carbon Tetrachloride	U	50		5,635	5,000	113	70 - 143		112	1	20		MB-1	LCS-1	LCD-1
15. Chlorobenzene	U	50		4,874	5,000	97	70 - 130		98	1	20		MB-1	LCS-1	LCD-1
16. Chloroethane	U	250		5,356	5,000	107	60 - 150		103	4	20		MB-1	LCS-1	LCD-1
17. Chloroform	U	50		5,173	5,000	103	71 - 126		103	0	20		MB-1	LCS-1	LCD-1
18. Chloromethane	U	250		5,754	5,000	115	63 - 137		110	4	20		MB-1	LCS-1	LCD-1
19. 2-Chlorotoluene	U	50		5,230	5,000	105	70 - 130		104	1	20		MB-1	LCS-1	LCD-1
20. Dibromochloromethane	U	100		5,540	5,000	111	70 - 130		110	1	20		MB-1	LCS-1	LCD-1
21. 1,2-Dibromo-3-chloropropane	U	100		4,146	5,000	83	70 - 134		86	4	20		MB-1	LCS-1	LCD-1
22. Dibromomethane	U	250		5,313	5,000	106	70 - 130		106	0	20		MB-1	LCS-1	LCD-1
23. 1,2-Dichlorobenzene	U	100		5,142	5,000	103	70 - 130		102	1	20		MB-1	LCS-1	LCD-1
24. 1,3-Dichlorobenzene	U	100		5,167	5,000	103	70 - 130		102	1	20		MB-1	LCS-1	LCD-1
25. 1,4-Dichlorobenzene	U	100		4,884	5,000	98	70 - 130		97	1	20		MB-1	LCS-1	LCD-1
26. Dichlorodifluoromethane	U	250		6,870	5,000	137	70 - 144		133	3	20		MB-1	LCS-1	LCD-1
27. 1,1-Dichloroethane	U	50		5,310	5,000	106	70 - 130		105	1	20		MB-1	LCS-1	LCD-1
28. 1,2-Dichloroethane	U	50		4,955	5,000	99	69 - 130		99	0	20		MB-1	LCS-1	LCD-1
29. 1,1-Dichloroethene	U	50		5,635	5,000	113	72 - 131		110	3	20		MB-1	LCS-1	LCD-1
30. cis-1,2-Dichloroethene	U	50		5,362	5,000	107	70 - 131		107	0	20		MB-1	LCS-1	LCD-1
31. trans-1,2-Dichloroethene	U	50		5,563	5,000	111	70 - 131		109	2	20		MB-1	LCS-1	LCD-1
32. 1,2-Dichloropropane	U	50		5,336	5,000	107	80 - 127		107	0	20		MB-1	LCS-1	LCD-1
33. cis-1,3-Dichloropropene	U	50		6,266	5,000	125	70 - 131		126	1	20		MB-1	LCS-1	LCD-1
34. trans-1,3-Dichloropropene	U	50		6,286	5,000	126	70 - 132		125	1	20		MB-1	LCS-1	LCD-1
35. Ethylbenzene	U	50		5,264	5,000	105	80 - 120		106	1	20		MB-1	LCS-1	LCD-1
36. Ethylene Dibromide	U	50		5,303	5,000	106	70 - 130		108	2	20		MB-1	LCS-1	LCD-1
37. 2-Hexanone	U	2500		5,181	5,000	104	68 - 138		110	6	20		MB-1	LCS-1	LCD-1
38. Isopropylbenzene	U	250		5,564	5,000	111	70 - 130		112	1	20		MB-1	LCS-1	LCD-1
39. Methylene Chloride	U	100		4,706	5,000	94	62 - 130		92	2	20		MB-1	LCS-1	LCD-1
40. 4-Methyl-2-pentanone	U	2500		5,323	5,000	106	70 - 133		111	5	20		MB-1	LCS-1	LCD-1
41. MTBE	U	250		5,450	5,000	109	61 - 142		110	1	20		MB-1	LCS-1	LCD-1
42. Naphthalene	U	330		5,270	5,000	105	70 - 136		108	3	20		MB-1	LCS-1	LCD-1
43. n-Propylbenzene	U	100		5,272	5,000	105	70 - 130		106	1	20		MB-1	LCS-1	LCD-1
44. Styrene	U	50		5,640	5,000	113	70 - 130		114	1	20		MB-1	LCS-1	LCD-1
45. 1,1,1,2-Tetrachloroethane	U	100		5,533	5,000	111	70 - 130		111	0	20		MB-1	LCS-1	LCD-1
46. 1,1,2,2-Tetrachloroethane	U	50		5,158	5,000	103	70 - 130		106	3	20		MB-1	LCS-1	LCD-1
47. Tetrachloroethene	U	50		5,378	5,000	108	70 - 130		108	0	20		MB-1	LCS-1	LCD-1
48. Toluene	U	50		5,124	5,000	102	79 - 120		103	1	20		MB-1	LCS-1	LCD-1
49. 1,2,4-Trichlorobenzene	U	330		5,275	5,000	105	70 - 133		104	1	20		MB-1	LCS-1	LCD-1
50. 1,1,1-Trichloroethane	U	50		5,507	5,000	110	70 - 130		110	0	20		MB-1	LCS-1	LCD-1
51. 1,1,2-Trichloroethane	U	50		5,183	5,000	104	70 - 130		104	0	20		MB-1	LCS-1	LCD-1

1914 Holloway Drive  
11766 E. Grand River  
8660 S. Mackinaw Trail

Holt, MI 48842  
Brighton, MI 48116  
Cadillac, MI 49601

T: (517) 699-0345  
T: (810) 220-3300  
T: (231) 775-8368

F: (517) 699-0388  
F: (810) 220-3311  
F: (231) 775-8584



Quality Control Report  
Preparation Batch QC Summary  
Gas Chromatography - Mass Spectrometry (Volatiles)  
Soil/Solid

Batch ID: VH14H15A  
Page: 2 of 2  
Date: 01/27/15

Preparation Batch: VH14H15A

Preparation Date: 08/15/14

Parameter	Method Blank (MB)			Laboratory Control Sample (LCS)					LCS Duplicate (LCD)				Run Code		
	Result µg/kg	RL µg/kg	Q	Result µg/kg	Spike µg/kg	Rec. %	LCL - UCL %	Q	Rec. %	RPD %	UCL %	Q	MB	LCS	LCD
52. Trichloroethene	U	50		5,353	5,000	107	70 - 130		108	1	20		MB-1	LCS-1	LCD-1
53. Trichlorofluoromethane	U	100		4,770	5,000	95	50 - 150		94	1	20		MB-1	LCS-1	LCD-1
54. 1,2,3-Trichloropropane	U	100		5,307	5,000	106	70 - 130		108	2	20		MB-1	LCS-1	LCD-1
55. 1,2,3-Trimethylbenzene	U	100		5,303	5,000	106	70 - 130		106	0	20		MB-1	LCS-1	LCD-1
56. 1,2,4-Trimethylbenzene	U	100		5,516	5,000	110	70 - 130		110	0	20		MB-1	LCS-1	LCD-1
57. 1,3,5-Trimethylbenzene	U	100		5,492	5,000	110	70 - 130		109	1	20		MB-1	LCS-1	LCD-1
58. Vinyl Chloride	U	40		6,039	5,000	121	70 - 137		118	3	20		MB-1	LCS-1	LCD-1
59. m&p-Xylene	U	100		10,827	10,000	108	70 - 130		108	0	20		MB-1	LCS-1	LCD-1
60. o-Xylene	U	50		5,485	5,000	110	70 - 130		111	1	20		MB-1	LCS-1	LCD-1

System Monitoring Compounds (Surrogates):	Method Blank (MB)				Laboratory Control Sample (LCS)					LCS Duplicate (LCD)				Run Code		
	Result µg/kg	Spike µg/kg	Rec. %	Q	Result µg/kg	Spike µg/kg	Rec. %	LCL - UCL %	Q	Rec. %	RPD %	UCL %	Q	MB	LCS	LCD
1. Dibromofluoromethane(S)	4,784	5,000	96		4,980	5,000	100	77 - 120		98	2	20		MB-1	LCS-1	LCD-1
2. 1,2-Dichloroethane-d4(S)	4,960	5,000	99		4,905	5,000	98	65 - 131		98	0	20		MB-1	LCS-1	LCD-1
3. Toluene-d8(S)	5,021	5,000	100		5,049	5,000	101	75 - 121		101	0	20		MB-1	LCS-1	LCD-1
4. 4-Bromofluorobenzene(S)	5,085	5,000	102		5,142	5,000	103	80 - 120		104	1	20		MB-1	LCS-1	LCD-1

**Definitions/ Qualifiers:**

U: The analyte was not detected at or above the Reporting Limit (RL).  
\*: Value reported is outside QC limits

**Run Code (Analysis Sequence/Run Time):**

MB-1 VH14H15A 08/15/14 14:14  
LCS-1 VH14H15A 08/15/14 10:50  
LCD-1 VH14H15A 08/15/14 11:16

**Exception Summary:**

Exceptions have been properly noted on reported results or affected samples have been scheduled for reanalysis when appropriate.

**Report Generated By:**

Amanda Petrovsky  
Client Services Representative  
Tuesday, January 27, 2015  
5:00:50 PM

1914 Holloway Drive  
11766 E. Grand River  
8660 S. Mackinaw Trail

Holt, MI 48842  
Brighton, MI 48116  
Cadillac, MI 49601

T: (517) 699-0345  
T: (810) 220-3300  
T: (231) 775-8368

F: (517) 699-0388  
F: (810) 220-3311  
F: (231) 775-8584

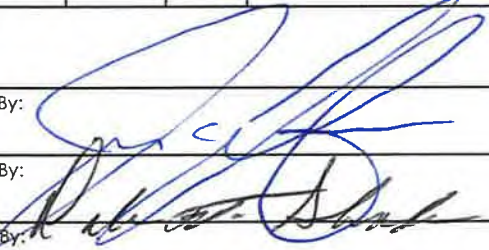
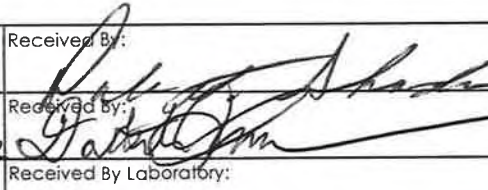
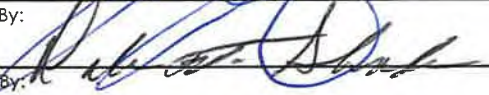
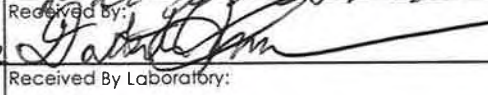



<b>1914 Holloway Drive</b>	<b>8660 S. Mackinaw Trail</b>
<b>Holt, MI 48842</b>	<b>Cadillac, MI 49601</b>
<b>Phone: 517 699 0345</b>	<b>Phone: 231 775 8368</b>
<b>Fax: 517 699 0388</b>	<b>Fax: 231 775 8584</b>
<b>email: <a href="mailto:lab@bertec.us">lab@bertec.us</a></b>	

**Industrial Hygiene Services, Inc.**  
1914 Holloway Drive  
Holt, MI 48842  
Phone: 517 699 0345  
Fax: 517 699 0382  
email: [asbestos@ibertec.us](mailto:asbestos@ibertec.us)

**Geoprobe**  
11766 E. Grand River  
Brighton, MI 48116  
Phone: 810 220 3300  
Fax: 810 220 3311

Chain of Custody #  
132960  
PAGE 1 of 1

Client Name: <b>SME</b>		PARAMETERS										Turnaround		Matrix Code		Deliverables					
Contact Person: <b>JASON LAFAYETTE</b>												24 hour RUSH (surcharge applies)		<input checked="" type="checkbox"/> Soil	<input checked="" type="checkbox"/> Ground Water	<input type="checkbox"/> Level 2					
Project Name/ Number: <b>BALUBAL / 061377.03</b>												48 hour RUSH (surcharge applies)		<input type="checkbox"/> Air	<input type="checkbox"/> Surface Water	<input type="checkbox"/> Level 3					
QUOTE#												72 hour RUSH (surcharge applies)		<input type="checkbox"/> Oil	<input type="checkbox"/> Waste Water	<input type="checkbox"/> Level 4					
												Standard (5-7 bus. days)		<input type="checkbox"/> Wipe	<input type="checkbox"/> Other: Specify						
Purchase Order#												<input checked="" type="checkbox"/> Other: Specify		<input type="checkbox"/> FES Drilling Services		<input type="checkbox"/> EDD					
Lab Sample #	Date	Time	Client Sample #	Client Sample Descriptor	MATRIX (SEE RIGHT CORNER FOR CODE)	# OF CONTAINERS	PRESERVED (Y/N)											Remarks:			
	8/13/14	10:00		56																	
	↓	10:05		57																	
	↓	10:10		58																	
Comments:																					
Relinquished By: 					Date/ Time			Received By: 										8/14/14 10:40			
Relinquished By: 					Date/ Time			Received By: 													
Relinquished By: 					Date/ Time			Received By Laboratory:													
LAB USE ONLY:																					
Fibertec project number: 512 <sup>96</sup>																					
Laboratory Tracking: 637116																					
Temperature at Receipt:																					
COC Revision: February, 2013																					

TERMS &amp; CONDITIONS ON BACK



*Passionate People Building  
and Revitalizing our World*



July 21, 2016

Jana Ecker  
Planning Director  
City of Birmingham  
151 Martin Street  
P.O. Box 3001  
Birmingham, Michigan, 48012

**Subject: Brownfield TIF Request for Reimbursement, dated April 1, 2016, for The Balmoral**

Dear Ms. Ecker,

The City of Birmingham Brownfield Redevelopment Authority (BRA) received a reimbursement request dated April 1, 2016, for the Brownfield site located at 34901-34953 Woodward Avenue ("subject property"). At the BRA's request, AKT Peerless has reviewed the costs to ensure that (1) they are eligible activity costs included in the subject property's approved Brownfield Plan; (2) to ensure they are costs allowed under Michigan's Brownfield statute (Public Act 381 of 1996, as amended); and (3) they are in accordance with the BRA's policy.

The total request, \$618,325.33, is within the total budget amount approved in the subject property's Brownfield Plan and Act 381 Work Plan, \$696,615.00.

Based upon our review, AKT Peerless offers the following findings and recommendations:

1. The party to be reimbursed is the developer, Woodward Brown Associates, LLC, as identified in the reimbursement agreement. However, invoicing documentation submitted does not all demonstrate the connection between the invoiced entities and the developer. The invoices and signed contracts submitted are addressed to multiple entities including Weiss Samona, Royal Restoration & Waterproofing LLC, Aielli Construction Company, Inc. and Ronnisch Construction Group, Inc. Moreover, the submittal does not include proof of payment documentation provided in the request (e.g., canceled checks, lien waivers). **AKT Peerless recommends that the BRA request to see documentation that properly demonstrates proof of payment, and that shows the costs were incurred by the developer.**
2. It is unclear from the documentation provided what eligible activity the \$194,368.25, as recorded in Table 1 (Pg. 5 of the PDF), is related to. **AKT Peerless recommends that the BRA request additional explanation for this line item.**
3. The documentation provided for line item \$263.62 for excavation equipment decontamination and waste water handling is a delivery receipt. **AKT Peerless recommends that the BRA request an invoice and proof of payment for this amount.**
4. Backup documentation for the following line items is either missing or incomplete:
  - a. \$21.14 for excavation equipment decontamination and waste water handling
  - b. \$901.00 for groundwater management
  - c. \$560.00 for brownfield site and financial management
  - d. \$646.33 for preparation of the Brownfield Plan
  - e. \$966.91 for preparation of the Brownfield Plan

5. The request includes \$440,069.29 for soil management and \$16,430.00 for securing the remediation work area. The BRA should note that these incurred amounts significantly exceed the estimated budgets approved for these specific line items. Although the costs incurred for these specific activities exceed their respective budgets, other activity costs incurred were far below their respective estimated budgets. As a result, total due care costs incurred are within the total due care budget. **In AKT Peerless' opinion, these are legitimate requests; we are noting this issue only because of recent inquiries by the BRA regarding actual project costs vs. estimates provided in Brownfield Plans.**
6. The request includes \$23,832.82 for Brownfield site and financial management. This exceeds the amount approved for this activity. Moreover, the invoices provided as backup documentation for this request describe the work as being related to the general Brownfield consulting as well as the Michigan Business Tax Credit (MBT) application and Community Revitalization Program (CRP) application. MBT Credit and CRP applications are typically understood to fall outside of the eligible activity category of "reasonable costs of developing and preparing brownfield plans, combined brownfield plans, and work plans". **AKT Peerless recommends the BRA request additional detail to show how the costs included in this category are related to specific eligible activities.**
7. The request includes \$22,736.59 for the preparation of the subject property's Brownfield Plan and Act 381 Work Plan. The BRA should note that this amount, while eligible, exceeds the amount approved for this activity; however, the BRA could include the excess as contingency. In addition, Table 1 suggests that all costs incurred prior the Brownfield Plan must be reimbursed with only local tax increment revenue, but Act 381 does not place such time restraints for the preparation of Brownfield Plan and Act 381 Work Plans. **AKT Peerless recommends reimbursing all costs related to the preparation of the subject property's Brownfield Plan and Act 381 Work Plan with local and state revenue.**
8. The request includes \$19.09 for late charges on outstanding invoices. **AKT Peerless recommends that the BRA whether it wishes to approve reimbursement for any late charges accrued on outstanding invoices.**

AKT Peerless recommends that the above referenced findings be properly addressed before making any reimbursements to the developer. It's been a pleasure working with you. If you have any questions please call me at (248) 302-1398.

Sincerely,



Bret Stuntz  
Regional Manager  
AKT Peerless

## **REIMBURSEMENT AGREEMENT**

THIS REIMBURSEMENT AGREEMENT ("Agreement") is made and entered into as of October 4, 2011, by and between Woodward Brown Associates, LLC, a Michigan limited liability company ("Developer"); the City of Birmingham, Michigan, a Michigan municipal corporation ("City"); and the City of Birmingham Brownfield Redevelopment Authority, a Michigan municipal corporation ("Authority").

### **RECITALS:**

- A. Developer owns and has an interest in developing a certain parcel of land situated in the City of Birmingham, as more particularly described on the attached Exhibit A and hereinafter referred to as the "Property."
- B. The Property is a "facility" as defined in the Brownfield Redevelopment Financing Act, 1996 Mich. Pub. Acts 381 as amended ("Act 381"), M.C.L. 125.2652(p), M.C.L. 125.2652(r), and is "eligible property" as defined in Act 381, M.C.L. 125.2652(n).
- C. Developer will incur costs, including the costs of eligible activities as defined in Act 381, M.C.L. 125.2652(m) ("Eligible Expenses"), on the Property to develop a new business on the Property (the "Project").
- D. The Property is subject to the capture of incremental taxes pursuant to a Brownfield Plan recommended for approval by the Authority on September 15, 2011 and approved by the City Commission of the City on September 26, 2011 (hereinafter, the "Brownfield Plan"). The Brownfield Plan provides for capture by the Authority of taxes on the Property for use of such taxes by the Authority to reimburse Developer for its Eligible Expenses in an amount not to exceed \$797,167 that are described in the Brownfield Plan.
- E. Any descriptions or depictions of the Project are conceptual as of the date of this Agreement and subject to change. Any changes in the Project will be in accordance with all zoning and building ordinances of the City.

### **NOW, THEREFORE, IT IS AGREED AS FOLLOWS:**

1. Developer shall develop or cause to be redeveloped the Property only in accordance with the Brownfield Plan, this Agreement, City ordinances and all other applicable laws and

ordinances, hereinafter referred to as the "Approval Requirements." In the event that some or all of the Property is developed by a person other than Developer, such other person shall develop the Property only in accordance with the Approval Requirements.

2. All activities undertaken by or on behalf of Developer or its affiliates for which reimbursement is sought shall only be for Eligible Expenses incurred as described in paragraph 3 below. Any reimbursement to or on behalf of Developer or its affiliates may occur only to the extent that the Property generates "tax increment revenues" as defined in Act 381, M.C.L. 125.2652(ee) ("Tax Increments"). Neither the City nor the Authority is obligated to reimburse Developer's Eligible Expenses from any other source if Tax Increments are insufficient.

3. Developer shall be reimbursed for those Eligible Expenses of the type described in Exhibit B attached hereto only if they are incurred consistent with the procedures set forth on Exhibit B.

4. (a) From time to time, but not more frequently than quarterly without approval of the Authority, Developer may submit to the Authority a statement of costs of Eligible Activities paid or incurred for reimbursement in accordance with this Agreement and the Brownfield Plan. The final statement shall be provided no later than ninety (90) days after the completion of all Eligible Activities other than the final report of the environmental consultant, unless waived by the Authority. Such statements shall include a narrative of the Eligible Expenses performed and an explanation of why such activities qualify for reimbursement under this Agreement and the Brownfield Plan, and a copy of invoices for the work described in such statement.

(b) Within sixty (60) days after its receipt of such statement and supporting invoices, the Authority shall determine whether such activities qualify as Eligible Activities for reimbursement under this Agreement and the Brownfield Plan and advise Developer in writing if any activities do not so qualify, including the specific reasons why the Authority believes that such activities do not so qualify. To the extent that such submission is approved, the Authority shall cause Developer or, as designated by Developer, its affiliates to be paid from Tax Increments the amounts approved.

(c) To the extent Tax Increments are available, the unreimbursed approved amount shall be paid from "winter tax" collections by no later than April 15 and from "summer tax" collections by no later than October 31 of each year.

(d) To the extent that any portion of such submission is not approved within such sixty (60) day period, any authorized representative of the Authority and Developer shall, upon the request of either party, meet promptly to discuss the conditions pursuant to which Developer can obtain approval of such disputed request. If a disputed request is not resolved within an additional sixty (60) days, either party may seek any legal recourse it may have.

(e) The rights of Developer to obtain reimbursement for completed Eligible Activities are not conditioned upon the completion of any other Eligible Activities or any other particular improvements at any point in time. If Developer is proceeding in good faith according to the Approval Requirements, reimbursement under this Section shall be permitted from the available

Tax Increments.

5. The Authority shall use Tax Increments from the Property each tax year to pay or reimburse the following:

(a) First, from school taxes, Developer's unreimbursed Eligible Expenses and interest thereon at the simple, un compounded rate of five percent (5%) per annum, subject to limits under Act 381 and applicable approvals by the Michigan Economic Growth Authority; and

(b) Second, from non-school taxes, the balance of Developer's unreimbursed Eligible Expenses and interest thereon at the simple, un compounded rate of five percent (5%) per annum.

Payments shall be applied first to accrued interest. Non-school taxes shall be used to reimburse any Eligible Expenses and interest not reimbursed with school taxes.

6. The rights of Developer to reimbursement described herein for Eligible Expenses incurred shall not be affected by any of the following:

A. The sale or other conveyance by Developer of all or part of the Property; and

B. Any foreclosure or deed in lieu thereof.

7. Upon receiving written notice from the City and/or Authority of a final judicial determination requiring that the State of Michigan or any other taxing jurisdiction be repaid or refunded any levy that has been captured as Tax Increments and paid to Developer as a reimbursement payment under this Agreement, Developer shall promptly refund such Tax Increments to the Authority. The City and/or Authority shall provide Developer with written notice of the initiation of any inquiry or proceedings that may require Developer to refund any Tax Increments to the Authority under this paragraph and the opportunity for Developer to participate in any such inquiry or proceedings.

8. This Agreement shall be binding upon and inure to the benefit of Developer, the City and the Authority, and their respective successors, assigns and transferees.

9. The rights of any party under this Agreement may be freely assigned, but any duties to perform under this Agreement shall be delegated only upon the written consent of all parties, which consent shall not be unreasonably withheld.

10. Developer, the City and the Authority, with the assistance of their respective legal counsel, have negotiated together to reach the terms of this Agreement, participated in the drafting of this Agreement and acknowledge that this Agreement is the product of the joint effort of all parties. Developer, the City and the Authority fully accept and agree to the final terms, conditions, requirements and obligations of this Agreement.

11. This Agreement shall be interpreted and construed in accordance with Michigan law and shall be subject to interpretation and enforcement only in the courts of the State of Michigan.

12. No delay or failure by either party to exercise any right under this Agreement, and no partial or single exercise of that right, shall constitute a waiver of that or any other right, unless provided expressly herein.

13. If any part of this Agreement is determined to be invalid by a court of competent jurisdiction, that determination shall apply only to the voided part and not to the Agreement as a whole.

14. This Agreement may be executed in counterparts, each of which shall be deemed an original, but which together shall constitute one and the same instrument.

15. Notices and reimbursements shall be sent to the following addresses:

Developer:

Woodward Brown Associates, LLC  
32820 Woodward Avenue, Ste, 200  
Royal Oak, Michigan 48073

Authority:

City of Birmingham Brownfield Redevelopment  
Authority  
151 Martin Street  
Birmingham, Michigan 48012

[End of Page]

WOODWARD BROWN ASSOCIATES, LLC

By: 

Najib Samona  
Its Manager


STATE OF MICHIGAN )

)ss.

COUNTY OF OAKLAND )

The foregoing Reimbursement Agreement was acknowledged before me this 5<sup>th</sup> day of October, 2011, by Najib Samona, manager of Woodward Brown Associates, LLC.

Derek Anthony Putrus  
NOTARY PUBLIC - STATE OF MICHIGAN  
COUNTY OF OAKLAND  
My Commission Expires September 29, 2012  
Acting in the County of Oakland

  
Notary Public  
Oakland County, Michigan  
My Commission Expires 9/29/2012

CITY OF BIRMINGHAM,  
a Michigan Municipal Corporation

By: [Signature]  
Gordon Rinschler  
Its Mayor

And: [Signature]  
Laura Broski  
Its City Clerk

STATE OF MICHIGAN           )  
  )ss.  
COUNTY OF OAKLAND       )

The foregoing Reimbursement Agreement was acknowledged before me this 11<sup>th</sup> day of October, 2011, by Gordon Rinschler, the Mayor, and Laura Broski, the City Clerk, of the City of Birmingham, Michigan.

[Signature]  
Notary Public  
Oakland County, Michigan  
My Commission Expires 7/23/14

Approved as to form:

[Signature]  
Robert J. Bruner, Jr.  
City Manager

[Signature]  
Sharon Ostin  
Finance Director

[Signature]  
Timothy J. Currier  
City Attorney

DOREEN ANN MARTIN  
NOTARY PUBLIC, STATE OF MI  
COUNTY OF OAKLAND  
MY COMMISSION EXPIRES JUL 23, 2014  
ACTING IN COUNTY OF Oakland

THE CITY OF BIRMINGHAM  
BROWNFIELD REDEVELOPMENT  
AUTHORITY,  
a Michigan municipal corporation

By: Beth Gotthelf

Beth Gotthelf  
Its Chairperson

STATE OF MICHIGAN )

)ss.

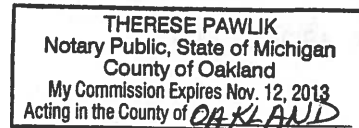
COUNTY OF OAKLAND )

The foregoing Reimbursement Agreement was acknowledged before me this 14 day of October, 2011, by Beth Gotthelf,\*the Chairperson of the City of Birmingham Brownfield Redevelopment Authority. \*who is personally known to me

Therese Pawlik  
Notary Public  
Oakland County, Michigan  
My Commission Expires \_\_\_\_\_

Drafted by and when recorded return to:

Richard A. Barr, Esq.  
Honigman Miller Schwartz and Cohn LLP  
660 Woodward Avenue  
2290 First National Building  
Detroit, MI 48226  
(313) 465-7308



**Exhibit A**  
**Legal Description**

**PARCEL 1:**

Lot 14 and the Southerly 1/2 of Lot 13 of BROWNELL SUBDIVISION, according to the plat thereof recorded in Liber 4 of the Plats, page 35 of Oakland County Records.

Tax Item No. 19-36-207-006.

**PARCEL 2:**

Lots 15, 16 and 17 of BROWNELL SUBDIVISION, according to the plat thereof recorded in Liber 4 of plats, page 35, Oakland County Records, except that part of Lots 16 and 17, described as; beginning at the Southwest corner of Lot 17; thence North 55 degrees 30 minutes 00 seconds East 117.00 feet; thence North 89 degrees 26 minutes 45 seconds West 122.17 feet (recorded as West 123.00 feet); thence South 21 degrees 36 minutes 00 seconds East 70.00 feet to the point of beginning. Also except the Southerly 5.00 feet, measured at right angles taken for widening of Forest Avenue (now Brown Road), as recorded in Liber 4998, page 232, Oakland County Records.

Said parcel above also being described as; beginning at the Northeast corner of Lot 15 of BROWNELL SUBDIVISION, according to the plat thereof recorded in Liber 4 of plats, page 35, Oakland County Records; thence South 68 degrees 24 minutes 00 seconds West 137.41 feet; thence South 21 degrees 36 minutes 00 seconds East 66.64 feet; thence North 89 degrees 26 minutes 45 seconds East 131.51 feet; thence North 55 degrees 30 minutes 00 seconds East 5.76 feet; thence North 17 degrees 00 minutes 00 seconds West 112.95 feet to the point of beginning.

Tax Item No. 19-36-207-007

**Exhibit B**  
***Agreed Procedures***

The parties agree that Eligible Expenses for costs of the types described below shall be reimbursable only if incurred pursuant to the following procedures:

**(1) Remediation bid specifications and bidding**

Developer will submit copies of the invoices for remediation bid specifications and bidding and include a narrative of the expenses and an explanation of why they qualify for reimbursement under this Agreement and the Brownfield Plan.

**(2) Secure remediation work area**

Developer will submit copies of the signage invoices and include a narrative of the expenses and an explanation of why they qualify for reimbursement under this Agreement and the Brownfield Plan.

**(3) Remediation contractor general conditions**

Developer will submit copies of the remediation contractor general conditions invoices and include a narrative of the expenses and an explanation of why they qualify for reimbursement under this Agreement and the Brownfield Plan.

**(4) Excavation Shoring**

Developer will conduct a pre-construction evaluation of the groundwater conditions to determine if standard earth retention methods are appropriate or if sealed sheet piles are necessary to prevent exacerbation of contaminated groundwater on the south-adjoining Jax Car Wash property. The Developer's current plan, which is subject to change, will be to install sentinel wells along the south property boundary prior to conducting dewatering. The sentinel wells will be used to monitor influence of the dewatering on the downgradient groundwater. For example, if contaminants above residential levels are detected in the sentinel wells during dewatering, the dewatering will be stopped and sealed sheet piles will be installed before dewatering will be re-started. If sealed sheet piles are necessary, Developer will submit results of the groundwater evaluation demonstrating the need to prevent exacerbation of contaminated groundwater. Developer will subsequently submit copies of the sealed sheet pile invoices including a narrative of the expenses and an explanation of why they qualify for reimbursement under this Agreement and Brownfield Plan.

**(5) Soil waste characterization/disposal approval**

Soil waste characterization samples will be collected during construction, prior to off-site disposal, to determine the appropriate location for disposal (i.e. type II landfill or off-site reuse). Soil samples collected for waste characterization will be submitted to an analytical laboratory for

analysis of total volatile organic compounds (VOCs), total semi volatile compounds (SVOCs), and toxicity characteristic leachate procedure (TCLP) arsenic, barium, cadmium, chromium, lead, mercury, selenium, and silver. Developer will submit copies of the soil waste characterization results and invoices and include a narrative of the expenses and an explanation of why they qualify for reimbursement under this Agreement and the Brownfield Plan.

**(6) Soil Management**

Some fill soil is known to be contaminated at levels requiring off-site disposal in a landfill. Developer will provide copies of the invoices for fill soil excavation, hauling and disposal along with copies of the truck tickets and waste manifests for soil hauled off-site for disposal in a type II landfill. The submittal will also include a spreadsheet which will show the cost differential between soil management at the brownfield site (a combination of landfill disposal and non-landfill disposal) and soil management at a greenfield site (non landfill disposal). The submittal will include a narrative of the expenses and an explanation of why they qualify for reimbursement under this Agreement and the Brownfield Plan.

**(7) Heating Oil UST Removal**

If a heating oil underground storage tank is encountered during construction, Developer will provide documentation of the existence of the tank to the Authority. The documentation may consist of photographs and drawings or other appropriate and relevant documents. Developer will provide invoices for the removal, cleaning, hauling, and off-site disposal of the tank and include a narrative of the expenses and an explanation of why they qualify for reimbursement under this Agreement and the Brownfield Plan.

**(8) Excavation Equipment Decontamination and Decon Waste Water Handling**

Developer will submit copies of the excavation equipment decontamination and decon waste water handling invoices and include a narrative of the expenses and an explanation of why they qualify for reimbursement under this Agreement and the Brownfield Plan.

**(9) Remediation Excavation, Observation and Verification**

Developer will submit copies of excavation monitoring and verification (clean check) sampling invoices. Excavation monitoring expenses shall only be eligible during removal of contaminated soil. Excavation monitoring costs will not be submitted for reimbursement after it has been determined the contaminated fill soil has been removed. If previously undocumented contaminated soil is encountered after completion of clean check sampling, soil samples will be collected and submitted for laboratory analysis and copies of the laboratory results will be provided to the Authority. Invoices for contaminated soil excavation observation and verification sampling will be submitted along with a narrative of the expenses and an explanation of why they qualify for reimbursement under this Agreement and the Brownfield Plan.

#### **(10) Groundwater Management**

Due to the history of the property, the previously detected contaminants in groundwater, and the unacceptable risk associated with contaminating storm water, the Developer will discharge groundwater to the municipal sanitary sewer or combined storm and sanitary sewer. Discharge to the sanitary sewer or combined sewer requires a permit from the City of Detroit Water and Sewerage Department (DWSD); therefore, prior to dewatering, groundwater will be collected and analyzed in accordance with DWSD requirements. Groundwater will be discharged to the municipal sanitary/combined sewer if results are below the thresholds set by the DWSD. If groundwater sampling results exceed DWSD thresholds, pre-discharge treatment will be required and additional groundwater testing demonstrating the treatment is sufficient will be needed to receive approval for discharge by the DWSD. Developer will submit copies of groundwater analytical results and a copy of the DWSD discharge permit, which will outline the pre-treatment requirements, to the Authority. Developer will subsequently submit invoices for groundwater sampling, permit preparation, and other related expenses along with a narrative of the expenses and an explanation of why they qualify for reimbursement under this Agreement and the Brownfield Plan.

#### **(11) Site specific Health and Safety Plan**

Developer will submit a copy of the site specific health and safety plan invoice and include a narrative of the expense and an explanation of why it qualifies for reimbursement under this Agreement and the Brownfield Plan.

#### **(12) Due Care Plans (construction and future use)**

Developer will submit a copy of the due care plan invoice and include a narrative of the expense and an explanation of why it qualifies for reimbursement under this Agreement and the Brownfield Plan.

#### **(13) Brownfield Financial Management**

Developer will submit copies of the brownfield financial management invoices and include a narrative of the expenses and an explanation of why they qualify for reimbursement under this Agreement and the Brownfield Plan.

#### **(14) Summary Report Preparation**

Developer will submit a copy of the summary report invoice and include a narrative of the expense and an explanation of why it qualifies for reimbursement under this Agreement and the Brownfield Plan.

#### **(15) Brownfield Plan**

Developer will submit a copy of the Brownfield Plan invoice and include a narrative of the expense and an explanation of why it qualifies for reimbursement under this Agreement and the Brownfield Plan.

**(16) Work Plans**

Developer will submit a copy of the Work Plan invoice and include a narrative of the expense and an explanation of why it qualifies for reimbursement under this Agreement and the Brownfield Plan.



**BIRMINGHAM CITY COMMISSION  
REGULAR MEETING, SEPTEMBER 26, 2011  
RESOLUTION # 09-253-11**

Present: Mayor Rinschler, Commissioners Dilgard, Hoff, McDaniel, Moore, and Nickita  
Absent: Commissioner Sherman

**MOTION:** Motion by Moore, seconded by Nickita:  
Resolution approving the Brownfield plan and related reimbursement agreement for the property located at 34901 and 34953 Woodward Avenue, Birmingham, MI:

WHEREAS, the property located at 34901 - 34953 Woodward Avenue, Birmingham, Michigan ("Property") is owned by Woodward Brown Associates, LLC, which intends to construct a five-story mixed-use building on the site, and

WHEREAS, the Property is considered an "eligible property" as defined by Public Act 381 of 1996, as amended, because the Property is defined as a facility, as defined by Act 381, based upon the presence of volatile organic compounds (VOCs) and lead in the soil and/or groundwater at concentrations that exceed the cleanup criteria for residential property, and

WHEREAS, Soil and Materials Engineers, Inc. has prepared, on behalf of Woodward Brown Associates, LLC, a Brownfield Plan for the Property, and

WHEREAS, the City of Birmingham Brownfield Redevelopment Authority, established under Act 381, has reviewed and approved the Brownfield Plan and a reimbursement agreement, which provides for capture of incremental taxes and payment of eligible expenses as defined in Act 381 to Woodward Brown Associates, LLC, and

WHEREAS, notice was sent and a public hearing was held pursuant to Act 381,

NOW THEREFORE BE IT RESOLVED, the Birmingham City Commission determines that the Brownfield Plan for the property located at 34901 - 34953 Woodward Avenue, Birmingham, Michigan constitutes a public purpose, and

BE IT FURTHER RESOLVED, the Brownfield Plan meets the requirements of Section 13 of Act 381, and

BE IT FURTHER RESOLVED, the proposed method of financing the costs of eligible activities in the Brownfield Plan is feasible and the Authority has the ability to arrange the financing, and

BE IT FURTHER RESOLVED, the costs of eligible activities proposed are reasonable and necessary to carry out the purposes of Act 381, and

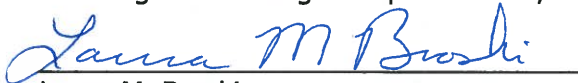
BE IT FURTHER RESOLVED, the amount of captured taxable value estimated to result from adoption of the Brownfield Plan is reasonable, and

BE IT FURTHER RESOLVED, the Birmingham City Commission approves the Brownfield Plan for the property located at 34901 - 34953 Woodward Avenue, Birmingham, Michigan, and.

BE IT FURTHER RESOLVED, the Birmingham City Commission approves reimbursement agreement pertaining to the Brownfield Plan for the property located at 34901 - 34953 Woodward Avenue, Birmingham, Michigan.

VOTE:        Yeas, 6  
              Nays, None  
              Absent, 1 (Sherman)

I, Laura M. Broski, City Clerk of the City of Birmingham, do hereby certify that the above is a true and correct copy of a resolution adopted by the Birmingham City Commission at their regular meeting of September 26, 2011.

  
\_\_\_\_\_  
Laura M. Broski  
City Clerk





## MEMORANDUM

Planning Division

**DATE:** September 16, 2016

**TO:** Brownfield Redevelopment Authority

**FROM:** Jana L. Ecker, Planning Director

**SUBJECT:** Review of Brownfield Plan for 856 N. Old Woodward – The Pearl

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In July 2016, the owner of the above-captioned property submitted a draft Brownfield Plan ("the Plan") to the City in anticipation of the construction of a new mixed use, four story development proposed for the site. The Brownfield Plan outlines numerous environmental concerns on the site, including historical operations and contamination of the adjacent sites, and contamination on the subject site, including the presence of benzene, tetrachloroethylene, arsenic, selenium, and mercury in the soil, benzene, lead, vinyl chloride and silver in the groundwater on site, and m-dichlorobenzene and tetrachloroethylene in the soil gas samples taken on site.

City staff, the City Attorney and our environmental consultants at AKT Peerless reviewed the draft Plan and requested additional information on the extent of the contamination. The applicant submitted a more detailed Plan, and the City provided comments and suggested several changes. On September 16, 2016, the applicant submitted a revised Plan reflecting the changes discussed, but also making amendments based on new information on an increased volume of soil removal, and disposal costs. The applicant is now requesting the reimbursement of \$2,981,610 in environmental cleanup costs in order to clean up the site to meet the Michigan Department of Environmental Quality standards.

Both the City's legal counsel and the City's environmental consultant have reviewed the Brownfield Plan for 856 N. Old Woodward, and all previously requested amendments have been made by the applicant. However, AKT and legal counsel will provide updated comments on the increased costs now included and will discuss same with the authority at the meeting. A copy of the Brownfield Plan and the proposed Reimbursement Agreement are attached for your review.

### **SUGGESTED ACTION:**

To adopt the following resolution:

Whereas, the City of Birmingham has created a Brownfield Redevelopment Authority and appointed members to serve on the Authority, pursuant to 1996 PA 381, and

Whereas, the Brownfield Redevelopment Authority is charged with the review of Brownfield Plans for Brownfield projects in the City of Birmingham, and

Whereas, FLS Properties #5 LLC, the owner and developer of 856 N. Old Woodward Avenue, Birmingham, Michigan, intends to develop a mixed-use residential/retail building with underground parking at 856 N. Old Woodward Avenue, and has determined that the subject property needs approximately \$2,981,610 in environmental costs in order to meet Michigan Department of Environmental Quality standards, and

Whereas, PM Environmental has prepared a Brownfield Plan for the site, dated July 26, 2016, and

Whereas, the Brownfield Redevelopment Authority has reviewed the Brownfield Plan.

NOW THEREFORE BE IT RESOLVED THAT:

The Brownfield Redevelopment Authority approves the Brownfield Plan for 856 N. Old Woodward Avenue and requests the City Clerk to forward the Brownfield Plan and associated Reimbursement Agreement to the Birmingham City Commission for its review and approval pursuant to Act 381.

## **PART A: INITIAL SCREENING**

### **1. Is the property currently vacant? If so, how long has it been vacant?**

Yes. The property has been vacant for approximately 28 years, with the last known use being in 1988.

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### **2. What is the source of the contamination, constituents of concern and extent of the contamination?**

- a. Was the contamination generated on site?
- b. Is the contamination migrating from another site?
- c. What is the proximity of the site to a river, stream, or floodplain?
- d. What is the proximity of the site to residential uses?

The contamination identified on site is associated with former automotive service operations on-site and an adjoining drycleaner site to the north. The property is in close proximity to the Rouge River to the east.

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The site is located in an area characterized by commercial development, with residential properties located west of the site (approximately 150-200 feet across North Old Woodward Avenue).

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### **3. Has the contamination migrated onto any City property, including parks, alleys, and other rights of way?**

No known contamination migration has been identified on any City owned property.

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### **4. Was the property last purchased or will it be purchased at a discount compared to its applicable fair market value or true cash value?**

- a. What was or will be the purchase price?
- b. Does the purchase price reflect the true fair market value of the property or has it been reduced because of known or potential contamination or other environmental issues?
- c. How much of a price reduction, if any, was or will be related to environmental issues?

Approximately \$800,000 purchase price. Based on User information provided by FLS Properties #5 LLC as part of the completion of an AAI Phase I ESA, it is believed that the purchase price is reflective of the true fair market value.

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**5. Break down soil transportation and disposal costs, tipping fees, etc.**

- a. How much would it cost per ton if the soil was completely clean (i.e., greenfield)?  
b. If the site is contaminated, how much would it cost per ton?

Please see Section A of the Brownfield Plan for cost comparison breakdown.

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**6. Compare the development costs, including environmental cleanup costs, of the proposed project to development costs for the site if no contamination was present. (For example, demonstrate the cost difference between brownfield and greenfield cleanup for excavation, tipping, disposal, and vapor barrier expenses.)**

Please see Section A and Table 1 of the Brownfield Plan for demonstration of cost differences.

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**7. What amount of the environmental costs are being incurred solely because of the proposed development? (For example, would excavation be required for the development even if no environmental cleanup was required? And if such excavation was required for construction, are the costs of excavation and disposal increased due to contamination?)**

All costs being sought for reimbursement through the proposed Brownfield Plan are related to environmental related expenses. Only the incremental cost increases due to the contamination are included and outlined in Section A and Table 1 of the Brownfield Plan.

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**8. Are there environmental cleanup costs proposed that are within the structure? (Such as asbestos removal, removal of a heating oil tank in the building versus the removal of contaminated soil on site arising from prior use of an external heating oil tank.)**

N/A; no buildings present.

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## **BROWNFIELD REDEVELOPMENT AUTHORITY PROJECT APPLICATION**

*This application form must be completed and signed by the applicant in order to initiate the project review process by the City of Birmingham Brownfield Redevelopment Authority. Please submit Application; \$1,500 Application Fee; other applicable fees; and supplemental materials to the Birmingham Brownfield Redevelopment Authority, P.O. Box 3001, Birmingham, MI 48012.*

### **APPLICANT INFORMATION**

**Company Name:** FLS Properties #5, LLC

**Contact Person:** Frank Simon

**Mailing Address:** 2950 Walnut Lake Road  
West Bloomfield, MI 48323

**Telephone Number:** 248-720-0290

**Fax Number:** \_\_\_\_\_

**E-mail Address:** fsimon@simonpm.com

### **PROPERTY OWNER INFORMATION**

**Company Name:** Same as above

**Contact Person:** \_\_\_\_\_

**Mailing Address:** \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Telephone Number:** \_\_\_\_\_

**Fax Number:** \_\_\_\_\_

**E-mail Address:** \_\_\_\_\_

### Project Information

**Project Address:** 856 North Old Woodward Ave, Birmingham, MI 48009

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**Parcel ID Number(s):** 08-19-25-328-001

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**Legal Description:** T2N, R10E, SEC 25 ASSESSOR'S PLAT NO 29 LOTS 3 & 4, ALSO PART OF  
NW 1/4 BEG AT PT DIST S 88-16-00 E 10.15 FT FROM NW  
COR OF SD LOT 3, TH S 88-16-00 E 124.70 FT, TH N 49-21-00 W 46.41  
FT,

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**Proposed Project Description:**

The proposed project entails the new construction of a 4-story mixed-use commercial/residential property. The development includes the creation of 27 residential units as well as an approximately 3,500 square foot retail space on the first floor. Each residential unit ranges in size from 900 to 1,900 square feet. Successful completion of this project will result in the elimination of an eyesore in the City. This brownfield site has been vacant for decades.

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**Proposed Redevelopment Use(s):**

Mixed-use, residential apartments with first floor retail

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**Anticipated Project Schedule and Critical Dates:**

Construction is proposed for end of 2016

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**Status of Development Permits and Applications:**

None pulled at this time.

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**Description of Known, or Suspected Environmental Contamination Concerns:**

The subject property is a facility, according to Part 201 of P.A. 451, as amended,  
and the rules promulgated thereunder

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Please see attached documentation for additional information

- *Attach additional pages if needed, and supporting documents or reports, if available.*

**Summary of Needed Eligible Activities and Projected Costs (if known):**

Please see attached

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- *Attach additional pages if needed, and supporting documents or reports, if available.*

**Projected Private Investment in Redevelopment:**

Approximately \$14-16 million

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**Anticipated Job Creation or Retention Impacts:**

20-30 jobs are anticipated following redevelopment in association with the retail portion.

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**Other Significant Project Information:**

This property has sat vacant for decades. Furthermore the current sink hole at the property presents risks with human health hazards. Successful redevelopment will provide the City with additional residential and commercial space in a key corridor as well as remediate and eliminate the existing, hazardous conditions.

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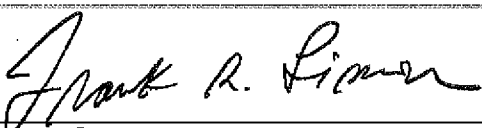
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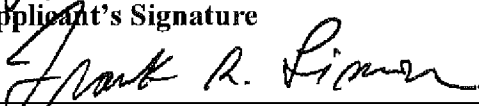
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Applicant's Signature

2-1-16

Date



Property Owner's Signature

2-1-16

Date

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## Attachments

*Please check each box to indicate that the required materials have been included with this application. All attached documents should be listed here.*

- ☐ If the property owner is not the Applicant, a signed and notarized letter from the property owner, authorizing the Applicant to submit this application form must be submitted.
- ☒ A copy of the current title commitment and proof of ownership.
- ☒ Copies of proposed preliminary site development, or concept plans, to illustrate how the proposed redevelopment and land uses will be situated on the subject property, and documenting access to all necessary utilities and infrastructure.
- ☐ A detailed project budget illustrating all related project expenses, sources of funding, and project financial needs.
- ☒ Other: Documentation of Contamination
- ☒ Other: Eligible Reimbursed Activities and Expenses
- ☐ Other: \_\_\_\_\_
- ☐ Other: \_\_\_\_\_
- ☐ Other: \_\_\_\_\_

### Office Use Only

Date Application Received: \_\_\_\_\_

Date Application Fee Received: \_\_\_\_\_ By: \_\_\_\_\_

Date of Final Site Plan Approval by Planning Board (if required): \_\_\_\_\_

Date of Initial Brownfield Redevelopment Authority Meeting: \_\_\_\_\_

Date of Approval by Brownfield Redevelopment Authority: \_\_\_\_\_

Date of Final Approval by City Commission: \_\_\_\_\_

Notes:

CITY OF BIRMINGHAM  
ORDINANCE NO. 1868

AN ORDINANCE TO AMEND APPENDIX A - FEES, CHARGES, BONDS AND INSURANCE, SECTION 7.33, LICENSES FOR (A-D), OF THE CODE OF THE CITY OF BIRMINGHAM ESTABLISHING AN APPLICATION FEE FOR A BROWNFIELD DEVELOPMENT.

THE CITY OF BIRMINGHAM ORDAINS:

Section 7.33 of Appendix A, Fees, Charges, Bonds and Insurance, of the Code of the City of Birmingham shall be amended by adding the following:

Fee

Brownfield Developments:

Application fee (non-refundable and non-reimbursable).....\$1,500.00

ORDAINED this 27th day of June, 2005, to become effective upon publication.

Rackeline J. Hoff, Mayor

Nancy Weiss, City Clerk

CITY OF BIRMINGHAM  
ORDINANCE NO.1869

AN ORDINANCE TO AMEND APPENDIX A - FEES, CHARGES, BONDS AND INSURANCE, OF THE CODE OF THE CITY OF BIRMINGHAM BY ADDING A NEW SECTION 7.40, WHICH REQUIRES THE REIMBURSEMENT OF THE CITY'S OUTSIDE CONSULTANT FEES.

THE CITY OF BIRMINGHAM ORDAINS:

Appendix A, Fees, Charges, Bonds and Insurance, of the Code of the City of Birmingham shall be amended by adding a new Section 7.40 as follows:

[Sec.] 7.40 Outside Consultant Fees Reimbursement.

Where a review of applications, plans, construction documents, Brownfield development documents or any other documents is performed by outside consultants engaged by the city, a review fee shall be charged at 1.05 times the actual cost. Payment shall be in advance of the review based on estimated cost.

ORDAINED this 27th day of June, 2005, to become effective upon publication.

Rackeline J. Hoff, Mayor

Nancy Weiss, City Clerk

QUITCLAIM DEED

GRANTOR: BIRMINGHAM BLOOMFIELD CHAI CENTER, a Michigan ecclesiastical corporation  
Address: 2520 Industrial Drive, Troy, MI 48084

GRANTEE: FLS PROPERTIES #5, LLC, a Michigan limited liability company  
Address: 2950 Walnut Lake Road, West Bloomfield, MI 48323

Grantor quit claims to Grantee all of Grantors' rights, title and interests in and to the following legally described premises situated in the City of Birmingham, Oakland County, State of Michigan, to wit:

[SEE EXHIBIT A (1 page) ATTACHED HERETO]

Commonly known as: 856 North Old Woodward Avenue, Birmingham, MI  
Tax Parcel No: 08-19-25-328-001

Together with all improvements and appurtenances thereto, if any. The consideration paid by Grantee to Grantor for this conveyance is \$0. This deed is related to an assignment of vendee's interest in an inchoate land contract transfer.

The Grantor grants to the Grantee the right to make all available division(s) under section 108 of the land division act, Act No. 288 of the Public Acts of 1967, as amended.

Dated this 17<sup>th</sup> day of June, 2015

BIRMINGHAM BLOOMFIELD CHAI CENTER,  
a Michigan ecclesiastical corporation

Gerald C. Borsand  
By: Gerald Borsand  
Its: President

STATE OF Michigan )  
COUNTY OF Oakland ) ss

On this 17<sup>th</sup> day of June, 2015, before me, the subscriber, personally appeared Gerald Borsand, known to me to be the person described in and who executed the within and foregoing instrument and acknowledged the same to be his free act and deed.

CHRISTINA M. LOMBERA  
NOTARY PUBLIC, STATE OF MI  
COUNTY OF OAKLAND  
MY COMMISSION EXPIRES Aug 24, 2018  
ACTING IN COUNTY OF Oakland

Christina M. Lomberra  
Notary Public  
Oakland County, MI  
My commission expires: 8/24/2018  
Acting in Oakland County, MI

Prepared by:  
William E. Hosler, Esq.  
380 N. Old Woodward Avenue, Suite 300  
Birmingham, MI 48009  
(248) 642-0333

When recorded return to: Grantee

State transfer taxes are: Exempt per MCL 207.526(o); County transfer taxes are: Exempt per MCL 207.505(m)

EXHIBIT A  
LEGAL DESCRIPTION

The land situated in the City of Birmingham, County of Oakland, State of Michigan, described as follows:

Lots 3 and 4, ASSESSOR'S PLAT NO. 29 as recorded in Liber 6, Page 45 of Plats, Oakland County Records, ALSO part of the Northwest ¼ of Section 25, Town 2 North, Range 10 East, City of Birmingham, Oakland County, Michigan, described as beginning at a point distant South 88 degrees 16 minutes 00 seconds East 10.15 feet from the Northwest corner of said Lot 3; thence South 88 degrees 16 minutes 00 seconds East 124.70 feet; thence North 49 degrees 21 minutes 00 seconds West 46.41 feet; thence South 73 degrees 32 minutes 00 seconds West 93.28 feet to beginning.

Commonly known as: 865 North Old Woodward Avenue, Birmingham, Michigan  
Tax Parcel No.: 08-19-25-328-001

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**CITY OF BIRMINGHAM  
BROWNFIELD REDEVELOPMENT AUTHORITY**

**BROWNFIELD PLAN**

**MIXED USE DEVELOPMENT  
LOCATED AT 856 NORTH OLD WOODWARD AVENUE  
BIRMINGHAM, MICHIGAN**

**July 26, 2016  
Revised September 16, 2016**

Approved by BRA:  
Approved by City Council:

**Prepared on Behalf of:**

**FLS Properties #5, LLC**  
2950 Walnut Lake Road  
Contact Person: Mr. Frank Simon  
Telephone: (248) 720-0290

**Prepared By:**

**PM Environmental, Inc.**  
4080 West Eleven Mile Road  
Berkley, Michigan 48072  
Contact Person: Elizabeth Masserang  
Telephone: (248) 414-1441

**PM Environmental, Inc.**  
4080 West Eleven Mile Road  
Berkley, Michigan 48072  
Contact Person: Adam Patton, CHMM  
Telephone: (248) 336-9988



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## **APPENDICES**

Appendix A	Legal Description
Appendix B	“Facility” Status Documentation
Appendix C	Site Maps
Appendix D	Preliminary Site Plans
Appendix E	Tax Increment Financing Tables

## **PROJECT SUMMARY**

Project Name:	Proposed Mixed-use Development
Project Location:	The property is located at 856 North Old Woodward Avenue in Birmingham, Oakland County, Michigan.
Type of Eligible Property:	Facility
Eligible Activities:	Baseline Environmental Assessments, Due Care Activities, and Preparation of a Brownfield Plan.
Reimbursable Costs:	Up to \$2,981,610
Years to Complete Reimbursement:	Approximately 14 Years
Estimated Capital Investment:	Approximately \$14-16 million
Project Overview:	<p>This project includes response activities for the remediation and redevelopment of a brownfield site, which currently consists of a vacant, underutilized eyesore for the city. The existing site conditions and contamination have deterred several past attempts to bring the vacant site into successful reuse.</p> <p>The proposed redevelopment entails the new construction of a mixed-use residential/retail building with underground parking. The proposed redevelopment involves significant investment. Remediation and redevelopment is anticipated to commence in late 2016/early 2017 and create 20 to 30 permanent jobs.</p>

## **I. INTRODUCTION AND PURPOSE**

In order to promote the revitalization of environmentally distressed areas within the boundaries of Birmingham (“the City”), the City has established the Birmingham Brownfield Redevelopment Authority (BBRA) the “Authority” pursuant to the Brownfield Redevelopment Financing Act, Michigan Public Act (PA) 381 of 1996, as amended.

The primary purpose of this Brownfield Plan (“Plan”) is to promote the redevelopment of and private investment in certain “Brownfield” properties within the City. Inclusion of property within this Plan will facilitate financing of environmental response and other eligible activities at eligible properties, and will also provide tax incentives to eligible tax payers willing to invest in revitalization of eligible sites, commonly referred to as Brownfields. By facilitating redevelopment of Brownfield properties, this Plan is intended to promote economic growth for the benefit of the residents of the City.

The Property is currently zoned O-2 Office Commercial and within the Downtown Overlay Boundary, is currently vacant property that is an underutilized eyesore, and is located at the intersection of North Old Woodward Avenue and Oak Avenue. The surrounding area is characterized by commercial and residential properties.

This Plan is intended to apply to the eligible property identified in this Plan and, to identify and authorize the eligible activities to be funded. Any change in the proposed use of the eligible property shall not necessitate an amendment to this Plan, affect the application of this Plan to the eligible property, or impair the rights available to the Authority under this Plan.

This Plan is intended to be a living document which may be modified or amended as necessary to achieve the purposes of PA 381. The applicable sections of PA 381 are noted throughout the Plan for reference purposes.

This Brownfield Plan contains information required by Section 13(1) of PA 381.

## **II. GENERAL DEFINITIONS AS USED IN THIS PLAN**

Terms used in this Brownfield Plan are defined as provided in the following statutes, as appropriate:

*The Brownfield Redevelopment Financing Act, 1996 Mich. Pub. Acts. 502 which amended Pub. Act 381, M.C.L. § 125.2651 et seq., as amended.*

### **III. BROWNFIELD PROJECT**

#### **DESCRIPTION OF THE ELIGIBLE PROPERTY AND THE PROJECT**

The Eligible Property consists of one legal parcel totaling 0.57 acres with a street address of 856 North Old Woodward Avenue in Birmingham, Oakland County, Michigan and the tax ID number of 08-19-25-328-001 (the "Property").

This parcel and all tangible personal property located thereon will comprise the eligible property and is referred to herein as the "Property." The legal description is included in Appendix A.

FLS Properties #5 LLC or any affiliate, as approved by the Authority, are collectively the project developer ("Developer").

The property is currently vacant land, located between North Old Woodward Avenue and the Rouge River, south of Oak Avenue. The Property was used as a gas station from 1937 to 1940, a gift shop from 1940 to 1949, and a restaurant from 1949 to 1988, when the former building was demolished. Since that time, the property has been used as a debris and dumping site and is currently a vacant underutilized eyesore. Numerous impediments have deterred developer investment in to subject property due to known contamination and challenging geotechnical conditions.

The proposed redevelopment includes site improvements and new construction of a four story mixed-use commercial and residential property. The new building includes the creation of approximately 27 residential units with an anticipated 3,500 square feet of retail space on the first floor and underground parking. Each residential unit will range in size from 900 to 1,900 square feet. This project will result in the elimination of an eyesore in the City that has been vacant for decades. Redevelopment of this vacant underutilized property, will provide additional residential and commercial space in a key corridor, Old Woodward Avenue, as well as remediate and eliminate the existing conditions. The proposed underground parking creates a significant added cost to the developer while benefiting the surrounding area by increasing density.

Redevelopment activities are proposed for the end of 2016/early 2017. The developer will invest an estimated \$12-14 Million dollars in the redevelopment and create approximately 20-25 construction jobs, and 20-30 permanent jobs.

Appendix C includes site maps of the parcel and an eligible property boundary map. Preliminary site plans are included in Appendix D.

#### **BASIS OF ELIGIBILITY**

The Property is considered "Eligible Property" as defined by Act 381, Section 2 because: (a) the Property was previously utilized as a commercial property; and (b) the parcel comprising the Property has been determined to be a "facility."

A Baseline Environmental Assessment (BEA) was completed in September 2015 and documents the following information. A copy of the BEA text, figures, and tables are also provided in Appendix B.

Subsurface investigations were completed on the subject property between 1996 and 2002, and in 2006 and 2015. Concentrations of benzene, tetrachloroethene, xylenes, arsenic, chromium, selenium, and mercury were detected in soil samples collected from the subject property above the Part 201 Residential and Nonresidential Drinking Water Protection (DWP), Groundwater Surface Water Interface Protection (GSIP), and/or the Residential Direct Contact (DC) cleanup criteria. Concentrations of benzene, methyl-tert-butyl ether (MTBE), vinyl chloride, lead, and silver were detected in groundwater samples collected from the subject property above the Part 201 Residential and Nonresidential Drinking Water (DW) and/or Groundwater Surface Water Interface (GSI) cleanup criteria. Concentrations of m-dichlorobenzene and tetrachloroethylene were detected in soil gas samples collected from the subject property above the Part 201 Residential Vapor Intrusion Screening Levels (VISLs). The concentrations detected are consistent with contaminants from gasoline dispensing stations, dry cleaning operations, and fill material.

A location where a hazardous substance is present in excess of the concentrations, which satisfy the requirements of subsection 20120a(1)(a) or (17), is a facility pursuant to Part 201. Section 20120a(1)(a) requirements are the Cleanup Criteria for unrestricted residential usage. Based upon the documented exceedances of the Part 201 cleanup criteria and MDEQ VISLs, the subject property is a facility under Part 201 of P.A. 451, as amended, and the rules promulgated thereunder.

**A. Description of Costs to Be Paid for With Tax Increment Revenues and Summary of Eligible Activities**

Tax Increment Financing revenues will be used to reimburse the costs of “eligible activities” (as defined by Section 2 of PA 381) as permitted under the Brownfield Redevelopment Financing Act that include: Due Care Activities, Additional Response Activities, and preparation of a Brownfield Plan and inclusion of interest as described in this Plan. An itemization of these activity expenses is included in Table 1 of Appendix E.

The project redevelopment activities are slated to commence late 2016/early 2017, with a completion goal of 2018.

The following eligible activities and budgeted costs are intended as part of the development of the property and are to be financed solely by the developer. The Authority is not responsible for any cost of eligible activities and will incur no debt.

1. Baseline Environmental Assessments; including a Phase I Environmental Site Assessment (ESA), Phase II ESA, BEA, and Documentation of Due Care Compliance (DDCC) at a cost of \$16,155.
2. Due Care Activities; including cost difference for the transportation and disposal of approximately 13,390 tons of soil to a Type II Landfill (in comparison to the disposal of clean soil), the additional delineation of tetrachloroethylene contamination in soil and groundwater and the excavation, transport, and disposal of approximately 6,705 tons (of the total 20,095 tons) of soil as listed hazardous waste, excavation equipment decon, the associated oversight, sampling, and reporting, the management and disposal of up to 30,000 gallons of contaminated groundwater, and costs associated with brownfield and post-due care project management, for an estimated cost of \$2,130,515.

- a. Excavation of up to 6,705 tons of hazardous material totaling **\$270,547**
  - i. Excavation at a cost differential of \$40.35/ton when compared to a similar excavation occurring at a greenfield site.
- b. Transport of 20,095 tons of contaminated soil totaling **\$412,553**
  - i. Transport of up to 13,390 tons of soil to a Type II Landfill at \$7/ton totaling \$93,730.
  - ii. Transport of up to 6,705 tons of hazardous material at \$47.55/ton totaling \$318,823.
- c. Disposal of 20,095 tons of contaminated soil totaling **\$1,159,735**:
  - i. Disposal of up to 13,390 tons of soil to a Type II Landfill at \$11.50/ton totaling \$153,985.
  - ii. Disposal of up to 6,705 tons of hazardous material at \$150/ton totaling \$1,005,750.
- d. Excavation equipment decon and decon waste water handling totaling **\$7,500**.
- e. Additional delineation sampling of tetrachloroethylene soil concentrations identified along the northern and eastern subject property boundaries and totaling **\$21,945**:
  - i. Mobilization, onsite labor for oversight, screening, and sample collection at an estimated \$2,550
  - ii. Consultant equipment and supplies at an estimated \$600
  - iii. Data evaluation and project management for reporting at an estimated \$3,500
  - iv. Drilling and operations at an estimated \$5,275
  - v. Lab analysis of 36 samples for VOCs at an estimated \$2,520
  - vi. Project management associated with hazardous material at an estimated \$7,500
- f. Associated excavation oversight, excavation verification sampling, and reporting accounts for the following and totaling **\$28,475**:
  - i. Mobilization, oversight, and sample collection at an estimated \$12,375.
  - ii. Consultant Equipment and Supplies at an estimated \$1,200.
  - iii. Data Evaluation, project management, and report preparation at an estimated \$4,500.
  - iv. Sampling for VOCs, PNAs, PCBs, Michigan 10 metals at an estimated \$9,800 (28 samples at \$350/sample)
  - v. Up to one sample for TCLP at an estimated \$600.
- g. Management and disposal of up to 30,000 gallons of contaminated groundwater and totaling **\$49,260**
  - i. On-site storage management at an estimated \$7,500.
  - ii. Disposal at an estimated \$1.40 per gallon, totaling \$41,760.

- h. The installation of chemcially resistant gaskets for sub-grade utilities to minimize degradation and installation of a chemically resistant vapor barrier with passive venting to cover the entire lower floor level to include the sub-grade vertical wall along the adjoining dry cleaner property to prevent vertical migration along preferential vertical pathways (i.e. stairwells, elevators, utilities, etc.) following the proposed soil removal and installation of gaskets resistant to chemical breakdown by the identified contamination, for an estimated cost of **\$172,500**.
  - i. Installation of chemically resistant gaskets for sub-grade utilities at an estimated \$10,000
  - ii. Design, bid specification, and coordination at an estimated \$5,000
  - iii. Vapor barrier installation and initial testing at an estimated \$125,000
  - iv. Vapor installation oversight at an estimated \$10,000
  - v. Post installation testing at an estimated \$7,500
  - vi. Project management and reporting at an estimated \$15,000
- i. Costs associated with project management and brownfield financial management, for an estimated cost of **\$3,000**.
- j. Post-construction due care plan for an estimated cost of **\$5,000**.

Under Section 7a of Part 201, the current owner has “due care” obligations to prevent unacceptable human exposures, prevent exacerbation, and take reasonable precautions against the reasonably foreseeable acts or omissions of a third party relative to existing contamination and the activities at the subject property. Contaminated soil and groundwater cannot be relocated or moved from one portion of the subject property to another without proper characterization, appropriate notices and/or the use of engineering controls (i.e., liners, surface cover, etc.), in accordance with Section 20c of Part 201, or offsite disposal at a licensed disposal facility in accordance with Parts 111 and/or 115, as applicable.

PM completed a Phase II ESA, which documented that the existing soils are contaminated (identified above Part 201 Residential and Nonresidential Drinking Water Protection (DWP), Groundwater Surface Water Interface Protection (GSIP), and/or the Residential Direct Contact (DC) cleanup criteria).

### **Excavation of hazardous material**

Typical excavation would not be considered an eligible brownfield activity since the activity is required regardless of the environmental impact at the property. However, a portion of contaminated soils (approximately 6,705 of the identified 20,095 tons) proposed for excavation and located along the northern property boundary are anticipated to require special considerations as a listed hazardous waste. This includes additional costs associated with personal protective equipment (PPE), labor, handling, and equipment (including roll off box rental and liners). Only the cost difference associated is included in the Brownfield Plan.

### **Transport and disposal of contaminated soils**

Based on existing soil conditions, topography, and the preliminary grading plan, approximately 20,095 tons of soils require transportation and disposal. Should this development have occurred, the same amount of clean soil removal would have been required. Therefore, this Brownfield

Plan accounts only for the added expense of proper transport and disposal of contaminated soils at a Type II Landfill. In comparison, should the soils anticipated for removal have been clean (as assumed if found on a greenfield site), the cost to the developer would be zero sum (i.e. the coordination of disposal costs negated by the successful reuse at another site). A portion of contaminated soils (approximately 6,705 of the identified 20,095 tons), located along the northern property boundary are anticipated to require disposal as a listed hazardous waste.

### **Excavation Equipment Decon and Decon Wastewater Handling**

It will be required that all excavation equipment is decontaminated because site soils are contaminated. Costs included within this estimate account for mud mat and truck waste removal from excavation equipment which is necessary to prevent migration of contamination off-site.

### **Additional delineation and sampling of Tetrachloroethylene soils**

Additional delineation activities are to be completed to fully define the extent of the hazardous waste concentrations to allow compliant handling and disposal and to avoid over excavation of soils at the increased hazardous waste disposal rate.

### **Associated excavation oversight, verification sampling, and reporting**

Assessment, oversight, sampling, and reporting is also included to document and verify site conditions following soil removal activities and provide guidance for the removal of soil identified as listed hazardous waste.

### **Transport and disposal of contaminated groundwater**

Development activities require the excavation of/handling of groundwater present within excavated areas of the subject property; therefore, the developer is required to properly to handle and dispose of contaminated media encountered/generated in association with the proposed redevelopment. This is necessary to ensure successful completion of project.

The incremental difference between clean versus dirty pumping and digging cannot be substantiated. Therefore, the requested expenses are only associated with additional costs required for the on-site storage management and disposal of contaminated groundwater.

### **Installation of a vapor barrier and gaskets resistant to chemical breakdown**

This brownfield plan includes the installation of a chemically resistant vapor barrier with passive venting prior to occupancy. The installation of a vapor barrier will occur to control migration via potential preferential vertical migration pathways including stairwells and elevator pits covering an estimated 20,000 square feet of floor space and 1,500 square feet of the northwestern wall following the proposed soil removal. This also includes the installation of gaskets resistant to chemical breakdown by the identified contamination. PCE contaminated soils are being removed; however, PCE concentrations will not be completely remediated by the removal activities.

## **Brownfield project and financial management**

Costs associated with brownfield project and financial management of this project are included. Activities consist of coordination of proper and compliant financial tracking and reporting, as required in relation to due care, additional response, and brownfield related activities being submitted for reimbursement.

### **Post-construction due care plan**

Preparation of a post-construction due care plan is also included, which will document and verify site conditions and owner obligations following redevelopment activities.

3. Preparation of Brownfield Plan and 381 Work Plan and associated activities (e.g. meetings with BBRA, etc.) at a cost of approximately \$9,000.

Should the use of school taxes not be approved, reimbursement of the eligible expense shall be made utilizing tax increment revenues from local tax capture, if, and as available during the duration of this Brownfield Plan.

All activities are intended to be "Eligible Activities" under the Brownfield Redevelopment Financing Act. The total estimated cost of Eligible Activities subject to reimbursement from tax increment revenues is approximately \$2,153,670. This plan as includes a 15% contingency of \$319,577 and interest (\$508,364). This totals a not-to-exceed amount of \$2,981,610.

### **B. Estimate of Captured Taxable Value and Tax Increment Revenues**

Incremental taxes on real property included in the redevelopment project will be captured under this Brownfield Plan to reimburse eligible activity expenses. Tax increment revenue capture is estimated to begin in 2018. The taxable value of the real property for base year 2016 is \$322,450; no personal property is associated with the site. The estimated taxable value of the completed development is \$5,000,000. This assumes a one-year phase-in for completion of the redevelopment, which has been incorporated into the tax increment financing assumptions for this plan. An annual increase in taxable value of 1% has been used for calculation of future tax increments in this plan.

### **C. Estimated Impact of Tax Increment Financing on Revenues of Taxing Jurisdictions**

Taxes will continue to be generated to taxing jurisdictions on local captured millages at the base taxable value of \$322,450 throughout the duration of this plan totaling approximately \$108,346 or \$7,739 annually.

Non-capturable millages; including debt millages, the zoo authority and art institute, will see an immediate increase in tax revenue following redevelopment and will provide anticipated new tax revenue of \$369,683 throughout the duration of this plan.

For a complete breakdown of the captured millages and developer reimbursement please see "Table 2" in Appendix E.

**D. Method of Financing and Description of Advances by the Municipality**

Redevelopment activities at the property will be funded by FLS Properties #5 LLC. Costs for eligible activities funded by FLS Properties #5 LLC will be repaid with incremental taxes generated by future development of the property and administered through the BBRA. No advances will be made by the BBRA for this project. All reimbursements authorized under this Brownfield Plan shall be governed by the Reimbursement Agreement.

**E. Maximum Amount of Note or Bonded Indebtedness**

No note or bonded indebtedness will be incurred by any local unit of government for this project.

**F. Duration of Brownfield Plan**

In no event shall the duration of the Plan exceed 35 years following the date of the resolution approving the Plan, nor shall the duration of the tax capture exceed the lesser of the period authorized under subsection (4) and (5) of Section 13 of Act 381 or 30 years. Further, in no event shall the beginning date of the capture of tax increment revenues be later than five years after the date of the resolution approving the Plan.

**G. Effective Date of Inclusion in Brownfield Plan**

The Property will become part of this Plan on the date this Plan is approved by the City of Birmingham City Commission.

**H. Displacement/Relocation of Individuals on Eligible Property**

There will be no displacement or relocation of persons or businesses under this Plan.

**I. Local Site Remediation Revolving Fund ("LSRRF")**

The BBRA has not established a Local Site Remediation Revolving Fund (LSRRF), therefore, use of a Local Site Remediation Revolving Fund is not part of the scope of this project.

**J. Other Material that the Authority or Governing Body Considers Pertinent**

The Developer and its affiliates shall comply with all applicable laws, ordinances, executive orders, or other regulations imposed by the City or any other properly constituted governmental authority with respect to the Property and shall use the Property in accordance with this Plan.

The use of school taxes will be utilized to reimburse activities associated with baseline environmental activities, which does not require MDEQ approval, under Act 381.

At this time, the developer intends to seek approval from the MDEQ for the use of school millages. If the MDEQ 381 Workplan is not approved; local millages will be used to reimburse eligible activities as described throughout this plan.

# Appendix A

**LEGAL DESCRIPTION**

T2N, R10E, SEC 25 ASSESSOR'S PLAT NO 29 LOTS 3 & 4, ALSO PART OF NW 1/4 BEG AT  
PT DIST S 88-16-00 E 10.15 FT FROM NW COR OF SD LOT 3, TH S 88-16-00 E 124.70 FT, TH  
N 49-21-00 W 46.41 FT, TH S 73-32-00 W 93.28 FT TO BEG

## Appendix B



**Detroit**  
4080 W. 11 Mile Road  
Berkley, MI 48072  
f: 877.884.6775  
t: 248.336.9988

**Lansing**  
3340 Ranger Road  
Lansing, MI 48906  
f: 877.884.6775  
t: 517.321.3331

**Grand Rapids**  
560 5<sup>th</sup> Street NW,  
Suite 301  
Grand Rapids, MI 49504  
f: 877.884.6775  
t: 616.285.8857

September 4, 2015

District Supervisor  
Michigan Department of Environmental Quality  
Southeastern Michigan District Office  
27700 Donald Court  
Warren, Michigan 48092

**RE: Baseline Environmental Assessment for the Vacant Land located at  
856 North Old Woodward Avenue, Birmingham, Michigan  
Parcel ID: 08-19-25-328-001  
PM Environmental, Inc. Project No. 01-5889-0-001**

Dear District Supervisor:

Enclosed is a copy of the Baseline Environmental Assessment prepared for the above referenced subject property in accordance with Section 20126(1)(c) of Part 201, Environmental Remediation, of the Natural Resources and Environmental Protection Act (NREPA), P.A. 451 of 1994 (Part 201), as amended.

If you have any questions regarding the information in this report, please contact us at 248-336-9988.

Sincerely,  
**PM ENVIRONMENTAL, INC.**

Nicole Kane  
Staff Scientist

Jennifer Ritchie, CPG  
Regional Site Investigation Manager

Enclosure



**Detroit**  
4080 W. 11 Mile Road  
Berkley, MI 48072  
f: 877.884.6775  
t: 248.336.9988

**Lansing**  
3340 Ranger Road  
Lansing, MI 48906  
f: 877.884.6775  
t: 517.321.3331

**Grand Rapids**  
560 5<sup>th</sup> Street NW,  
Suite 301  
Grand Rapids, MI 49504  
f: 877.884.6775  
t: 616.285.8857

September 4, 2015

Mr. Frank R. Simon  
FLS Properties #5, LLC  
P.O. Box 689  
Bloomfield Hills, Michigan 48303

**RE: Baseline Environmental Assessment for the Vacant Land located at  
856 North Old Woodward Avenue, Birmingham, Michigan  
Parcel ID: 08-19-25-328-001  
PM Environmental, Inc. Project No. 01-5889-0-001**

Mr. Simon:

Enclosed is a copy of the above-referenced document prepared in accordance with Section 20126(1)(c) of Part 201, Environmental Remediation, of the Natural Resources and Environmental Protection Act (NREPA), P.A. 451 of 1994 (Part 201), as amended.

**THIS BASELINE ENVIRONMENTAL ASSESSMENT WAS PERFORMED FOR THE EXCLUSIVE USE OF FLS PROPERTIES #5, LLC, WHO MAY RELY ON THE REPORT'S CONTENTS.**

If you have any questions regarding the information in this report, please contact our office at 248-336-9988.

Sincerely,  
**PM ENVIRONMENTAL, INC.**

Nicole Kane  
Staff Scientist

Jennifer Ritchie, CPG  
Regional Site Investigation Manager

Enclosure

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## **1.0 INTRODUCTION AND DISCUSSION**

PM Environmental, Inc. (PM) completed a Baseline Environmental Assessment (BEA) for the vacant land (Parcel ID: 08-19-25-328-001) located at 856 North Old Woodward Avenue, Birmingham, Oakland County, Michigan 48009 (hereafter referred to as the subject property). The subject property consists of one 0.57 acre parcel and is located east of North Old Woodward, west of the Rouge River and Woodward Avenue, and south of Oak Avenue (Figure 1). The subject property consists of vacant land with asphalt paved parking in the northeastern portion, remnants of a building foundation in the northern portion, and grass in the remaining portions (Figure 2). The property has a down-gradient slope from North Old Woodward Avenue east to where it adjoins the Rouge River, which is an elevation difference of approximately 15 feet.

Standard and other historical sources documented that the subject property was developed in at least 1937 with a gasoline dispensing station and one other structure, likely a residential dwelling, in the northern and eastern portions of the subject property. In 1940, the gasoline dispensing station was converted to a gift shop. By 1946, a residential dwelling was reportedly converted into a tea room and restaurant in the western portion of the subject property. The gift shop appears to have been demolished by 1949. The tea room and restaurant operated until 1988, when the commercial building was demolished.

### **1.1 Owner/Operator Information**

FLS Properties #5, LLC, P.O. Box 689, Bloomfield Hills, Michigan 48303 purchased the property July 28, 2015.

### **1.2 Intended Use of the Subject Property**

FLS Properties #5, LLC intends to redevelop the property for mixed commercial and residential use with no significant chemical use and storage greater than household quantities. The proposed building will consist of open underground parking, first floor parking with limited commercial space, and second, third, and fourth floor residential apartments. The intended use is consistent with a residential and nonresidential property use in accordance with Part 201.

Municipal water and sewer, as well as natural gas, and electrical utilities are available to the subject property. No water supply wells exist or will be installed in association with the subject property.

### **1.3 Summary of All Appropriate Inquiry Phase I Environmental Assessment**

ASTI Environmental (ASTI) performed a Phase I Environmental Site Assessment (ESA) for the subject property dated April 10, 2015, in conformance with the scope and limitations of ASTM Practice E 1527-13 (i.e., the 'ASTM Standard'). A copy of the April 2015 Phase I ESA, including photographs of the subject property, is included in Appendix A.

The following onsite recognized environmental conditions (RECs) were identified in ASTI's April 2015, Phase I ESA:

- Review of historical records document that the subject property was occupied by a gasoline dispensing station from at least 1937 to 1940. No records are available documenting the presence or removal of former underground storage tanks (USTs). No documentation of site assessment activities were available for review documenting

assessment of the former fueling and UST areas. Based on this information, the potential exists for orphan USTs to be present and/or for releases to have occurred from the UST systems and/or former fueling operations.

- Review of historical records document a permit was issued for the use of a 220-gallon fuel oil tank in May 1947 in association with the former commercial building in the western portion of the subject property. An investigation as to the presence of a buried fuel oil tank has not been conducted. The potential exists that the former commercial building was heated with fuel oil stored within an aboveground storage tank (AST) or UST. The potential exists for an orphan UST to be present on the subject property and/or for a release of fuel oil to have occurred.
- The subject property is an Inventory site and a BEA site as a result of previous site assessment activities completed between 2002 and 2006 that document soil and groundwater contamination onsite above the current Michigan Department of Environmental Quality (MDEQ) Part 201 Residential and Nonresidential cleanup criteria. Based on these analytical results, the subject property meets the definition of a “facility,” in accordance with Part 201 of P.A. 451 of the Michigan Natural Resources Environmental Protection Act (NREPA), as amended.
- Fill material was identified on the subject property ranging in depths between 5.0 feet below ground surface (bgs) to 24.0 feet bgs, containing construction-like rubble increasing in quantity toward the northern portion of the subject property. Based on this information, the potential exists for landfilling to have also occurred on the subject property and for contamination to be present from buried materials and/or leachate generated as a result of the percolation of water through waste. Additionally, landfill gas (i.e. methane) could be present due to decomposition of the waste.

The following adjoining and/or nearby RECs were identified:

- The northeast adjoining property, 35975 Woodward Avenue, was occupied by a gasoline dispensing station from at least 1960 to the early 2000s and is an open Leaking Underground Storage Tank (LUST) site. Previous site assessment activities completed in 2005 and 2006 document soil and groundwater contamination remains onsite above the current MDEQ Part 213 RBSLs. Additionally, at least four monitoring wells were installed on the subject property in association with the adjoining open LUST site. The monitoring wells were sampled in 2004 and groundwater contamination above the current MDEQ Part 213 RBSLs was documented to have migrated onto the subject property from the northeast adjoining property.
- The north adjoining property, 900 North Old Woodward Avenue, has been occupied by a dry cleaner since at least 1970. Dry cleaning operations commonly involve the usage of general hazardous substances and/or petroleum products, which, if improperly managed and/or disposed of, can be a source of contamination. The potential exists that a release has occurred on this property and migrated onto the subject property.
- The west adjoining property, 887 North Old Woodward Avenue, was occupied by a gasoline service station from at least 1930 to the early 1950s. No documentation of site assessment activities were available for review documenting assessment of the former fueling, UST, and automotive service areas. Based on this information and the close

proximity of the west adjoining property to the subject property, the potential exists that contamination has migrated onto the property.

### **1.3.1 Phase I ESA Exceptions or Deletions**

There were no exceptions or deletions from the Federal All Appropriate Inquiry Rule under 40 CFR 312, or the ASTM Standard during the completion of the ASTI's April 2015 Phase I ESA. No special terms or conditions applied to the preparation of the Phase I ESA.

### **1.3.2 Phase I ESA Data Gaps**

ASTI did not identify any significant data gaps during the completion of the April 2015 Phase I ESA.

## **1.4 Summary of Previous Site Investigations**

PM reviewed the following previous environmental reports for the subject property which are included within ASTI's April 2015 Phase I ESA, which is included within Appendix A. Tables and figures from the previous subsurface investigations are included within Appendix B.

<b>Name of Report</b>	<b>Date of Report</b>	<b>Company that Prepared Report</b>
Phase I ESA	October 23, 2006	Soils and Materials Engineers, Inc. (SME)
BEA	November 6, 2006	SME

**Phase I ESA, October 2006, SME** – SME completed a Phase I ESA dated October 23, 2006. At the time of SME's Phase I ESA, the subject property was vacant land. SME identified RECs in association with the 1) debris and fill material located on the subject property; 2) the fuel oil tank identified in historical records; 3) volatile organic compounds (VOCs) and lead detected in soil and groundwater samples collected from the subject property above the Part 201 Residential and Nonresidential cleanup criteria; and, 4) the north adjoining dry cleaner.

**BEA, November 2006, SME** – SME completed a BEA dated November 6, 2006. The BEA summarizes subsurface investigation activities completed by SME on September 26, 2006 to assess the RECs identified in the September 2006 Phase I ESA, a Geotechnical Investigation report dated October 20, 2006 completed as part of a proposed future development at the time, and two previous subsurface investigations completed in 2002 and 2005.

On September 26, 2006 SME completed a scope of work that consisted of the advancement of seven soil borings (SP1 through SP7), the installation of four temporary monitoring wells (SP1, SP2, SP4, and SP7), and the collection of six soil samples and three groundwater samples for laboratory analysis of VOCs, polynuclear aromatic compounds (PNAs), and metals (cadmium, chromium, and lead) to assess the RECs identified in the September 2006 Phase I ESA. Concentrations of benzene, tetrachloroethene, and xylenes were detected in the soil sample collected at SP6 (7.0-8.0 feet bgs) above the Part 201 Residential and Nonresidential Drinking Water Protection (DWP) and Groundwater Surface Water Interface Protection (GSIP) cleanup criteria. Concentrations of benzene, lead, and MTBE were detected in the groundwater samples collected at SP2 and SP7 above the Part 201 Residential and Nonresidential Drinking Water (DW) and Groundwater Surface Water Interface (GSI) cleanup criteria. No other concentrations of

VOCs, PNAs, and metals were detected in the soil and groundwater samples collected from the subject property above the laboratory method detection limits (MDLs) and/or the most restrictive Part 201 Residential cleanup criteria.

SME completed a Geotechnical Investigation dated October 20, 2006, in which on September 21 and 22, 2006 SME completed a scope of work consisting of the advancement of six soil borings (B1 through B6) as part of a proposed future development. The soil stratigraphy at the subject property was identified as consisting of sand/clay fill containing concrete, brick, asphalt, and cinder fragment with trace amount of organics to 26.0 feet bgs in the northeastern portion of the subject property, 10.0 feet bgs in the southeastern portion of the subject property, 3.5 feet bgs in the northwestern and southwestern portions of the subject property, and 11.0 feet bgs in the central portion of the subject property. The fill material was identified as being underlain by native interbedded clay and sand to a depth of 74.0 feet bgs, the maximum depth explored. Perched and discontinuous groundwater was encountered at various depths between 9.0 and 29.5 feet bgs within the fill material and the native sand seams. SME recommended a partial undercut of the existing fill within the below-grade parking and other pavement areas, installing soldier piles and lagging to protect adjacent structures during construction, not using the existing fill material as engineered fill, completing moisture conditioning for suitable compaction of the native clay, drilling piers to support the proposed building, and using standard sump and pit methods or crushed aggregate to prevent disturbance from groundwater accumulation.

A subsurface investigation was reportedly completed on the subject property in 2002, in which the scope of work consisted of the advancement of six soil borings and the installation of four monitoring wells. Concentrations of benzene, ethylbenzene, methyl-tert-butyl ether (MTBE), naphthalene, and lead were detected in the samples collected from the subject property above the Part 213 Risk-Based Screening Levels (RBSLs) in the northern portion of the subject property; however, these analytical results were not available for review. The concentrations reportedly migrated onto the subject property from the northeast adjoining gasoline dispensing station and open Leaking Underground Storage Tank (LUST) site identified as 35975 Woodward Avenue.

Delta Environmental Consultants, Inc. (Delta) installed five monitoring wells (TW-1, TM3, TW-4, OW-10, and OW-11) on the subject property in 1996 as part of LUST investigation activities for the northeast adjoining open LUST site. Subsequent to installation a series of groundwater monitoring events were completed on the subject property between 1996 and 2006. The most recent documented events available for review occurred in October 2005, February 2006, and April 2006 and were completed by PM. Groundwater samples were collected from TW-1, TW-4, and OW-11 and submitted for laboratory analysis of VOCs and lead, or some combination thereof. TW-3 and OW-10 did not produce groundwater sufficient for groundwater collection. Concentrations of benzene, MTBE, vinyl chloride, and lead were detected in the groundwater samples collected at TW-1 and TW-4 above the Part 213 Residential and Nonresidential DW and/or GSI RBSLs. No concentrations of other VOCs were detected in the groundwater samples collected at TW-1 and TW-4 above the laboratory MDLs or the most restrictive Part 213 Residential RBSLs. No concentrations of VOCs were detected in the groundwater sample collected at OW-11 above the laboratory MDLs. Groundwater flow was calculated to flow southeast towards the Rouge River. PM was unable to locate the permanent monitoring wells during the August 2015 subsurface investigation, discussed below and in Section 1.5.

## **1.5 Current Site Investigation**

Prior to the commencement of field activities, MISSDIG, a utility locating service, was contacted to locate utilities on or adjacent to the subject property. Utilities were marked by the respective utility companies where they entered or were located adjacent to the subject property. In addition, PM cleared all soil boring locations of private utilities with ground penetrating radar (GPR).

### **1.5.1 Geophysical Survey Investigation**

On August 11, 2015 PM completed a geophysical survey utilizing GPR at the subject property (Figure 2) to investigate the presence of potential orphan USTs. The Geophysical Survey Investigation Report is included as Appendix C.

No anomalies consistent with orphan USTs were identified. A suspect fill port pipe was visually identified during PM's GPR survey in the central portion of the subject property and the pipe was traced using a PL 2000 cable locator. PM advanced a shallow hand auger to 5.0 feet bgs in the area where the pipe terminated, and no anomalies were encountered.

Based upon the results of PM's GPR survey, orphan USTs are not believed to be present at the subject property. However, the potential exists that USTs could be present and not identified by the GPR survey if the location was directly below a limitation as indicated within the GPR report, located outside of the survey area, and/or deeper than the 3.5 feet bgs physical limits of the GPR survey. If orphan USTs are identified during redevelopment activities, the UST will be properly removed in accordance with state guidelines.

### **1.5.2 Subsurface Investigation**

On August 13, 2015 PM completed a scope of work consisting of the advancement of six soil borings (SB-1 through SB-6), the installation of two temporary monitoring wells (TMW-1 and TMW-2), the installation of six soil gas sampling points (SG-1 through SG-6), and the collection of seven soil samples, two groundwater samples, and six soil gas samples for laboratory analysis of VOCs, PNAs, polychlorinated biphenyls (PCBs), and Michigan Ten Metals (arsenic, barium, cadmium, chromium, copper, lead, mercury, selenium, silver, and zinc), and methane, or some combination thereof, to assess the RECs identified in ASTI's April 2015 Phase I ESA.

Figures 3, 4, and 5 depict the location of the soil borings/temporary monitoring wells/soil gas sampling points installed at the subject property by PM along with a summary of the analytical results.

The soil boring logs, which depicts site-specific geology, PID readings, and soil, groundwater, and soil gas sample intervals are included within Appendix D.

The table below summarizes the Phase II ESA activities conducted by PM, including location, sample depth, analysis, objective, and sample selection justification.

### Description of Soil Boring/Temporary Monitoring Well/Soil Gas Locations

Location and Total Depth (feet bgs)	Sample/Screen Depth [DTW] (feet bgs)	Analysis	Objectives	Sample Selection (Justification)
SB/TMW/SG-1 (20.0)	<b>Soil</b> 5.5-6.5	VOCs, PNAs, PCBs, and Michigan Ten Metals	Assess fill material and former fuel oil tank	<b>Soil:</b> A sample was collected above crushed stone debris and saturated soil. <b>GW:</b> Sampled. <b>Soil Gas:</b> Sampled.
	<b>GW</b> 5.00-10.00 [6.57]	VOCs, PNAs, and Michigan Ten Metals		
	<b>Soil Gas</b> 5.5	Methane	Assess a potential vapor intrusion condition	
SB/TMW/SG-2 (20.0)	<b>Soil</b> 6.0-7.0	VOCs, PNAs, PCBs, and Michigan Ten Metals	Assess fill material and former gasoline dispensing operations	<b>Soil:</b> A sample was collected at the shallow sand/clay interface below concrete debris. <b>GW:</b> Sampled. <b>Soil Gas:</b> Sampled.
	<b>GW</b> 10.00-15.00 [12.57]	VOCs, PNAs, and Michigan Ten Metals		
	<b>Soil Gas</b> 4.5	VOCs	Assess a potential vapor intrusion condition	
SB/SG-3 (20.0)	<b>Soil</b> 19.0-20.0	VOCs, PNAs, PCBs, and Michigan Ten Metals	Assess fill material and potential migration of contamination from west adjoining former gasoline service station	<b>Soil:</b> Based on the absence of field evidence of impact, a sample was collected at the end of the boring. <b>GW:</b> Not encountered. <b>Soil Gas:</b> Sampled.
	<b>Soil Gas</b> 3.5	VOCs and Methane	Assess a potential vapor intrusion condition	
SB/SG-4 (20.0)	<b>Soil</b> 7.5-8.5 and 13.0-14.0	VOCs, PNAs, PCBs, and Michigan Ten Metals	Assess fill material, former gasoline dispensing operations, and migration of contamination from north adjoining dry cleaner	<b>Soil:</b> Samples were collected at the shallow and deeper sand/clay interfaces below concrete debris. <b>GW:</b> Not encountered. <b>Soil Gas:</b> Sampled.
	<b>Soil Gas</b> 7.5	VOCs and Methane	Assess a potential vapor intrusion condition	
SB/SG-5 (16.0)	<b>Soil</b> 15.0-16.0	VOCs, PNAs, PCBs, and Michigan Ten Metals	Assess fill material and migration of contamination from northeast adjoining open LUST site	<b>Soil:</b> A deep sample was collected within stained soil below concrete debris. <b>GW:</b> Not encountered. <b>Soil Gas:</b> Sampled.
	<b>Soil Gas</b> 3.5	VOCs and Methane	Assess a potential vapor intrusion condition	

Location and Total Depth (feet bgs)	Sample/ Screen Depth [DTW] (feet bgs)	Analysis	Objectives	Sample Selection (Justification)
SB/SG-6 (20.0)	<b>Soil</b> 4.0-5.0	VOCs, PNAs, PCBs, and Michigan Ten Metals	Assess fill material and migration of contamination from northeast adjoining open LUST site	<b>Soil:</b> A sample was collected at concrete debris. <b>GW:</b> Not encountered. <b>Soil Gas:</b> Sampled.
	<b>Soil Gas</b> 5.5	Methane	Assess a potential vapor intrusion condition	

bgs – below ground surface; DTW – depth to water; GW – Groundwater

### 1.5.3 Investigation Techniques and Quality Control/Quality Assurance (QA/QC)

The soil borings were advanced to the desired depth using a model 6712-DT Geoprobe® drill rig. Soil sampling was performed for soil classification, verification of subsurface geologic conditions, and for investigating the potential and/or extent of soil and groundwater contamination at the subject property. Soil samples were generally collected on a continuous basis using a 5-foot long macro-core sampler.

During drilling operations, the drilling equipment was cleaned to minimize the possibility of cross contamination. These procedures included cleaning equipment with a phosphate free solution (i.e., Alkanox®) and rinsing with distilled water after each sample collection. Drilling and sampling equipment was also cleaned in this manner prior to initiating field activities. Soil collected from 1-foot sample intervals was screened using a photoionization detector (PID) to determine if VOCs were present. Soil from specific depths was placed in plastic bags and allowed to volatilize. The headspace within each bag was then monitored with the PID. The PID is able to detect trace levels of organic compounds in the air space within the plastic bag. Soil samples for VOC analysis were preserved with methanol, in accordance with U.S. Environmental Protection Agency (EPA) method 5035.

Temporary monitoring wells were installed at two of the six soil boring locations (TMW-1 and TMW-2) for groundwater sample collection. At each location, a new well assembly, consisting of a 5-foot 0.010-inch slot, schedule 40, poly-vinyl chloride (PVC) screen and PVC casing was lowered into the borehole to intersect the water table. After the screen for the well was set to the desired depth, an artificial sand pack or natural sands were allowed to collapse around the well screen. The groundwater samples were collected with care taken to avoid the potential for cross contamination between the samples and to prevent loss of volatiles to the atmosphere. The groundwater samples for laboratory analyses were transferred directly from the low-flow pump discharge line into appropriately labeled sample containers with Teflon lined lids. Purge water was maintained separate and returned to the wells.

The soil and groundwater samples were placed in appropriately labeled containers with Teflon® lined lids and/or sanitized glass jars and then placed in an ice-packed cooler and transported under chain of custody procedures for laboratory analysis within applicable holding times.

The soil gas sampling was completed in general accordance with the guidelines established in the May 2013 MDEQ Guidance Document for the Vapor Intrusion Pathway.

Sampling of soil gas points consisted of using of a polyethylene implant approximately two inches in length and affixed to appropriate length tubing for sample collection. Upon completion of the bore hole, a sampling interval is established by filling the hole with bentonite to the desired lower depth, as needed, inserting the sample implant and tubing, creating a sand pack of no more than one foot with the sampling implant in the center, and filling the remainder of the bore hole with bentonite.

Prior to the collection of each soil gas sample, the sampling apparatus was determined to be leak free utilizing an isolation chamber that encompassed tubing and associated connections as well as the sampling point. The chamber was charged with helium prior to purging the sampling point of a maximum of three volumes. A helium detector was then applied to the sampling line to ensure no leaks had occurred. The sample was collected using vacuum canister methods, for laboratory analysis of VOCs. The vacuum canisters were regulated with a flow rate of 200 ml/minute, which was pre-set at the laboratory. Soil gas samples were transported under chain of custody procedures for laboratory analysis within applicable holding times.

Upon completion of the investigation, the temporary monitoring well/soil gas sampling point material was removed and the soil borings were abandoned by placing the soil cuttings back into the borehole, filling the void with bentonite chips, hydrating the chips, resurfacing and returning the area to its pre-drilling condition.

## **1.6 Geology and Hydrogeology**

Based on review of PM's August 2015 soil boring logs, the soil stratigraphy at the subject property generally consists of sand and/or clay fill to depth ranging between 8.0 feet bgs and 18.0 feet bgs, underlain by native sand and clay lenses to a depth of at least 20.0 feet bgs, the maximum depth explored. Fill material was encountered at a depth of approximately 8.0 feet bgs at SB-1 and SB-4, 6.5 feet bgs at SB-2, 16.0 feet bgs at SB-5, and 18.0 feet bgs at SB-6. In general, the fill material increases in quantity and depth towards the northeastern portion of the subject property. Discontinuous and perched groundwater was encountered at SB-1 at a depth of approximately 7.0 feet bgs and at SB-2 at a depth of approximately 14.0 feet bgs. No groundwater was encountered in the remaining four soil borings advanced by PM. Additionally, the eastern portion of the subject property is located within a floodway area that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights. The base flood elevation is approximately 740 feet per the FEMA Flood Insurance Study (FIS). This geology is consistent with the geology encountered in previous subsurface investigations discussed in Section 1.4 above.

The soil boring logs are included in Appendix D, which consist of site specific geology, sample depths, and temporary monitoring well details.

## **2.0 LOCATION OF CONTAMINATED MEDIA ON THE SUBJECT PROPERTY**

PM compared the soil and groundwater analytical results collected during PM's August 2015 site investigation with the MDEQ cleanup criteria as presented in Part 201 Rules 299.1 through 299.50, dated December 30, 2013 entitled "Cleanup Criteria Requirements for Response Activity", in accordance with Section 20120a(1) using the Residential and Nonresidential cleanup criteria. PM compared the soil gas analytical results collected during PM's August 2015 site investigation

with the MDEQ Residential and Nonresidential Vapor Intrusion Screening Levels (VISLs) as presented in the Guidance Document for the Vapor Intrusion Pathway, dated May 2013.

The analytical results from the site investigation activities completed by PM are summarized in Tables 1 through 4 (including CAS#) and on Figures 3 through 5. Appendix E contains the laboratory analytical report.

### Summary of Soil/Groundwater/Soil Gas Exceedances

Location and Total Depth (feet bgs)	Sample/Screen Depth [DTW] (feet bgs)	Analysis	Objectives	MDEQ Part 201 Generic Cleanup Criteria and/or VISLs Exceedances
SB/TMW/SG-1 (20.0)	<b>Soil</b> 5.5-6.5	VOCs, PNAs, PCBs, and Michigan Ten Metals	Assess fill material and former fuel oil tank	<b>Arsenic: DWP, GSIP, (R) DC</b>
	<b>GW</b> 5.00-10.00 [6.57]	VOCs, PNAs, and Michigan Ten Metals		<b>Silver: GSI</b>
	<b>Soil Gas</b> 5.5	Methane	Assess a potential vapor intrusion condition	NONE
SB/TMW/SG-2 (20.0)	<b>Soil</b> 6.0-7.0	VOCs, PNAs, PCBs, and Michigan Ten Metals	Assess fill material and former gasoline dispensing operations	<b>Arsenic: DWP, GSIP, (R) DC Selenium: GSIP</b>
	<b>GW</b> 10.00-15.00 [12.57]	VOCs, PNAs, and Michigan Ten Metals		<b>Silver: GSI</b>
	<b>Soil Gas</b> 4.5	VOCs	Assess a potential vapor intrusion condition	NONE
SB/SG-3 (20.0)	<b>Soil:</b> 19.0-20.0	VOCs, PNAs, PCBs, and Michigan Ten Metals	Assess fill material and potential migration of contamination from west adjoining former gasoline service station	<b>Arsenic: DWP, GSIP, (R) DC Chromium: GSIP</b>
	<b>Soil Gas</b> 3.5	VOCs and Methane	Assess a potential vapor intrusion condition	NONE
SB/SG-4 (20.0)	<b>Soil:</b> 7.5-8.5	VOCs, PNAs, PCBs, and Michigan Ten Metals	Assess fill material, former gasoline dispensing operations, and migration of contamination from north adjoining dry cleaner	<b>Tetrachloroethene: DWP, GSIP Arsenic: DWP, GSIP, (R) DC Selenium: GSIP</b>
	<b>Soil:</b> 13.0-14.0			<b>Tetrachloroethene: DWP Arsenic: DWP, GSIP, (R) DC Chromium: GSIP</b>
	<b>Soil Gas</b> 7.5	VOCs and Methane	Assess a potential vapor intrusion condition	NONE

<b>Location and Total Depth (feet bgs)</b>	<b>Sample/ Screen Depth [DTW] (feet bgs)</b>	<b>Analysis</b>	<b>Objectives</b>	<b>MDEQ Part 201 Generic Cleanup Criteria and/or VISLs Exceedances</b>
SB/SG-5 (16.0)	<b>Soil:</b> 15.0-16.0	VOCs, PNAs, PCBs, and Michigan Ten Metals	Assess fill material and migration of contamination from northeast adjoining open LUST site	<b>Arsenic: DWP, GSIP, (R) DC Selenium: GSIP</b>
	<b>Soil Gas</b> 3.5	VOCs and Methane	Assess a potential vapor intrusion condition	<b>Tetrachloroethene: (R) VISLs</b>
SB/SG-6 (20.0)	<b>Soil:</b> 4.0-5.0	VOCs, PNAs, PCBs, and Michigan Ten Metals	Assess fill material and migration of contamination from northeast adjoining open LUST site	<b>Arsenic: DWP, GSIP, (R) DC Chromium and Mercury: GSIP</b>
	<b>Soil Gas</b> 5.5	Methane	Assess a potential vapor intrusion condition	NONE

bgs – below ground surface; DTW – depth to water; (R) – Residential; DC – Direct Contact; GW – Groundwater; GSI – Groundwater Surface Water Interface; VISLs – Vapor Intrusion Screening Levels; GSIP – Groundwater Surface Water Interface Protection; (NR) - Nonresidential

## 2.1 Soil Analytical Results

The soil analytical results are summarized in Tables 1 and 2 and on Figure 3.

Concentrations of tetrachloroethylene were detected in the soil samples collected at SB-4 (7.5-8.5 feet bgs) and (13.0-14.0 feet bgs) above the Part 201 Residential and Nonresidential DWP and/or GSIP cleanup criteria. Concentrations of other various VOCs were detected in the soil samples collected at SB-4 (7.5-8.5 feet bgs), SB-5 (15.0-16.0 feet bgs), and SB-6 (4.0-5.0 feet bgs) above the laboratory method detection limits (MDLs), but below the most restrictive Part 201 Residential cleanup criteria. No concentrations of VOCs were detected in the remaining soil sample collected from the subject property above laboratory MDLs.

Concentrations of various PNAs were detected in the soil samples collected SB-5 (15.0-16.0 feet bgs) and SB-6 (4.0-5.0 feet bgs) above laboratory MDLs, but below the most restrictive Part 201 Residential cleanup criteria. No concentrations of PNAs were detected in the remaining soil samples collected above laboratory MDLs.

No concentrations of PCBs were detected in any of the selected soil samples collected from the subject property above the laboratory MDLs.

Concentrations of arsenic were detected in all of the soil samples collected from the subject property above the Part 201 Residential and Nonresidential DWP, GSIP and Residential DC cleanup criteria. Concentrations of chromium were detected in the soil samples collected at SB-3 (19.0-20.0 feet bgs), SB-4 (13.0-14.0 feet bgs), and SB-6 (4.0-5.0 feet bgs) above the Part 201 GSIP cleanup criteria. Concentrations of selenium were detected in the soil samples collected at SB-2 (6.0-7.0 feet bgs), SB-4 (7.5-8.5 feet bgs), and SB-5 (15.0-16.0 feet bgs) above the Part 201 GSIP cleanup criteria. A concentration of mercury was detected in the soil sample collected at SB-6 (4.0-5.0 feet bgs) above the Part 201 GSIP cleanup criteria. Concentrations of chromium and selenium were detected in the remaining soil samples collected from the subject property

above the laboratory MDLs, but below the Michigan Statewide Default Background Levels (SDBLs). No concentrations of barium, cadmium, copper, lead, mercury, silver, and zinc were detected in any of the soil samples collected from the subject property above the laboratory MDLs, the Michigan SDBLs, and/or the most restrictive Part 201 Residential cleanup criteria.

## **2.2 Groundwater Analytical Results**

The groundwater analytical results are summarized in Table 3 and on Figure 4.

No concentrations of VOCs and PNAs were detected in any of the groundwater samples collected from the subject property above the laboratory MDLs.

Concentrations of silver were detected in both groundwater samples collected from the subject property above the Part 201 GSI cleanup criteria. No concentrations of arsenic, barium, cadmium, chromium, copper, lead, mercury, and zinc were detected in the groundwater samples collected from the subject property above the laboratory MDLs and/or the most restrictive Part 201 Residential cleanup criteria.

## **2.3 Soil Gas Analytical Results**

The soil gas analytical results are summarized in Table 4 and on Figure 5.

A concentration of tetrachloroethylene was detected in the soil gas sample collected at SG-5 (3.5 feet bgs) above the Part 201 Residential VISLs, and not ten times below the Part 201 Nonresidential VISLs. A concentration of tetrachloroethylene was detected in the soil gas sample collected at SG-4 (7.5 feet bgs) below the Part 201 Residential and Nonresidential VISLs, but not at a concentration ten times below the Part 201 Residential VISLs. No concentrations of tetrachloroethylene were detected in the remaining soil gas samples collected from the subject property. Concentrations of m-dichlorobenzene and trichloroethylene were detected in the soil gas samples collected at SG-3 (3.5 feet bgs) and/or SG-5 (3.5 feet bgs) below the Part 201 Residential and Nonresidential VISLs, but not at concentrations ten times below the Part 201 Residential VISLs. Various concentrations of other VOCs were detected in the remaining soil gas samples collected from the subject property above the laboratory MDLs, but below the Part 201 Residential and Nonresidential VISLs and at concentrations ten times below the Residential VISLs.

No concentrations of methane were detected in the selected soil gas samples collected from the subject property above the laboratory MDLs.

Based on the planned redevelopment of the subject property for residential use, further investigation may be warranted of the soil gas concentrations detected at SG-3, SG-4, and SG-5 that are not below the Residential VISLs and/or ten times below the Residential VISLs. Further investigation would be contingent upon the future site plans and remediation activities.

## **2.4 Subject Property Facility Status**

A location where a hazardous substance is present in excess of the concentrations, which satisfy the requirements of subsection 20120a(1)(a) or (17), is a facility pursuant to Part 201. Section 20120a(1)(a) requirements are the Cleanup Criteria for unrestricted residential usage.

Contaminant concentrations identified on the subject property in soil and groundwater indicate exceedances to the Part 201 Residential and Nonresidential DWP, GSI/GSIP and Residential DC cleanup criteria. Additionally, contaminant concentrations were identified in soil gas samples collected from the subject property above the Residential VISLs and/or not ten times below the Residential and/or Nonresidential VISLs. Therefore, the subject property is a facility under Part 201 of P.A. 451, as amended, and the rules promulgated thereunder.

### **3.0 PROPERTY INFORMATION**

#### **3.1 Legal Description of Subject Property**

A copy of the legal description is included in Appendix F as part of the assessing information.

#### **3.2 Map of Subject Property**

Refer to Figure 1, Property Location Map; and Figure 2, Generalized Diagram of the Subject Property and Surrounding Area with GPR Survey Area which depicts the property/parcel boundaries.

#### **3.3 Subject Location and Analytical Summary Maps**

Figures 3, 4, and 5 provide scaled maps of the subject property with site structures and soil boring, temporary monitoring well, and soil gas sampling point locations with analytical results.

#### **3.4 Subject Property Location Map**

Figures 1 and 2 provide scaled area maps depicting the subject property location in relation to the surrounding area.

#### **3.5 Subject Property Address**

As indicated in Section 1.0, the subject property (Parcel ID: 08-19-25-328-001) is located at 856 North Old Woodward Avenue, Birmingham, Oakland County, Michigan 48009 (Figure 1).

#### **3.6 Subject Spatial Data**

As depicted on Figure 1, the subject property is located in township two North (T.2N), range 10 East (R.10E), section 25, northwest quarter, southeast quarter-quarter, Birmingham, Oakland County, Michigan.

According to the MDEQ Groundwater Mapping Project Website, the center of the subject property is located at latitude 42.5532 and a longitude of -83.2190.

### **4.0 FACILITY STATUS OF SUBJECT PROPERTY**

As indicated in Section 2.1, based upon documented soil and groundwater exceedances to the Part 201 Residential and Nonresidential DWP, GSI/GSIP and Residential DC cleanup criteria. Additionally, contaminant concentrations were identified in soil gas samples collected from the subject property above the Residential VISLs and/or not ten times below the Residential and/or Nonresidential VISLs. Therefore, the subject property is a facility under Part 201 of P.A. 451, as amended, and the rules promulgated thereunder.

#### **4.1 Summary Data Tables**

The analytical results were compared with the MDEQ cleanup criteria and Screening Levels as presented in Part 201 Rules 299.1 through 299.50, dated August 30, 2014 entitled "Cleanup Criteria Requirements for Response Activity", in accordance with Section 20120a(1) using the Residential and Nonresidential cleanup criteria. PM compared the soil gas analytical results collected during PM's August 2015 site investigation with the MDEQ Residential and Nonresidential VISLs as presented in the Guidance Document for the Vapor Intrusion Pathway, dated May 2013.

The soil, groundwater, and soil gas analytical results as compared to current cleanup criteria are summarized in Tables 1 through 4. A summary of Part 201 cleanup criteria exceedances are included in Section 2.0.

#### **4.2 Laboratory Reports and Chain of Custody Documentation**

Soil, groundwater, and soil gas samples collected were submitted to Brighton Analytical, LLC in Brighton, Michigan for chemical analysis under chain of custody procedures and within applicable holding times. Refer to the laboratory analytical in Appendix E for the associated chain of custody documentation.

#### **5.0 IDENTIFICATION OF BEA AUTHOR**

This BEA was conducted on September 4, 2015, by Ms. Nicole Kane and reviewed by Ms. Jennifer Ritchie, CPG, Regional Manager of Site Investigation Services, PM Environmental, Inc., which is prior to or within 45 days of becoming the owner or operator. Qualification statements are provided as Appendix G.

I declare that, to the best of my professional knowledge and belief, I meet the definition of *Environmental Professional* as defined in §312.10 of 40 CFR 312 and I have the specific qualifications based on education, training, and experience to assess a property of the nature, history, and setting of the subject property. I have developed and performed the all appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312.



Jennifer L. Ritchie, CPG  
Regional Site Investigation Manager

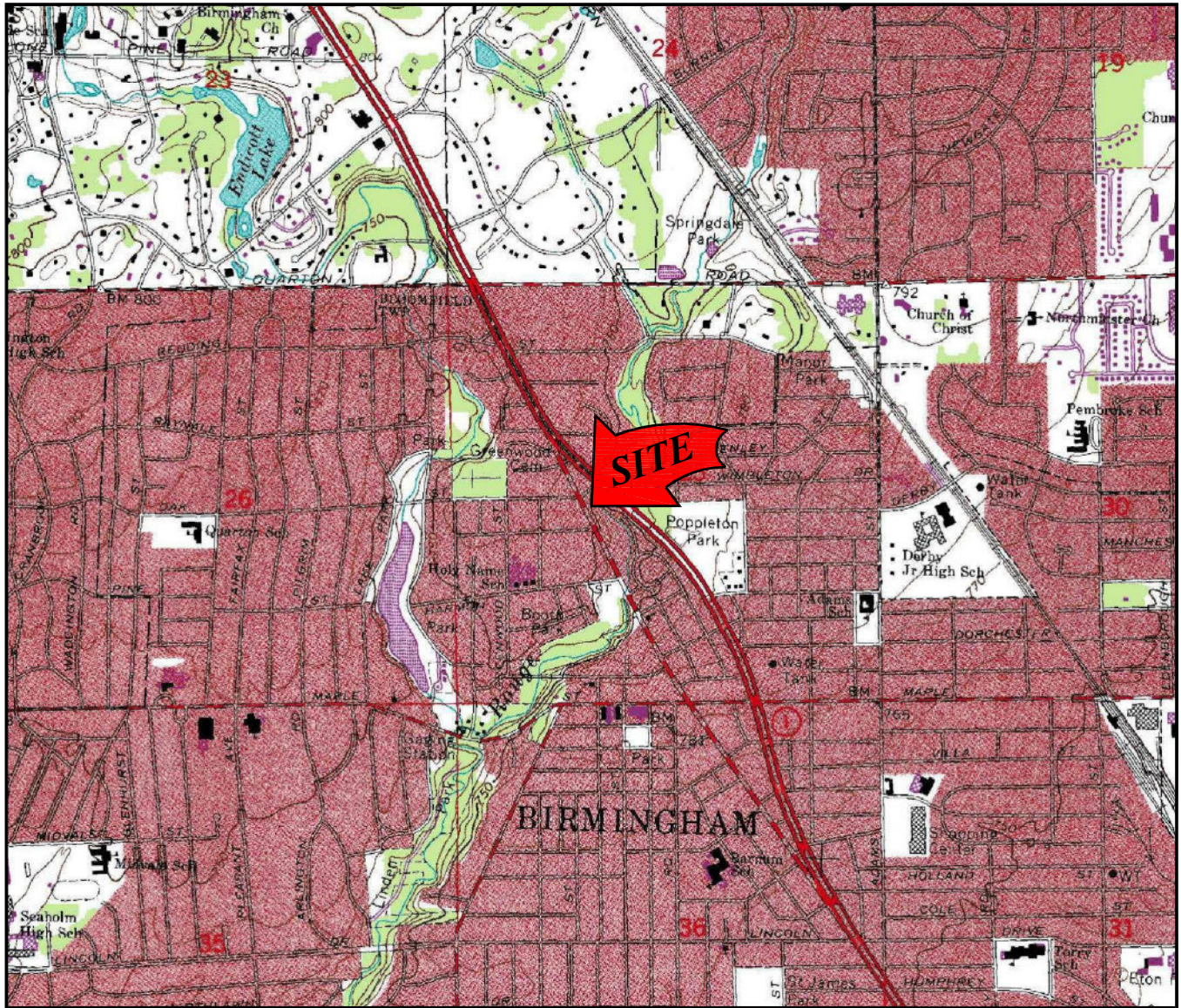
#### **6.0 AAI REPORT OR ASTM PHASE I ESA**

As indicated in Section 1.3, ASTI performed a Phase I ESA of the subject property dated April 10, 2015, in accordance with the United States Environmental Protection Agency (EPA) 40 CFR Part 312: Standards and Practices for All Appropriate Inquiries; Final Rule (AAI) and the scope and limitations of ASTM Practice E 1527-13 of the subject property (Parcel ID: 08-19-25-328-001) located at 856 North Old Woodward Avenue, Birmingham, Oakland County, Michigan 48009. The scope of the Phase I ESA included consideration of hazardous substances as defined in Section 20101(1)(y) of P.A 451 of 1994, as amended, and constituted the performance of an All Appropriate Inquiry in conformance with the standards and practices set forth in 40 CFR Part 312.

A copy of ASTI's April 10, 2015 Phase I ESA is included in Appendix A.

## **7.0 REFERENCES**

- “Part 201 Cleanup Criteria and Part 213 Risk-based Screening Levels,” Revised August 2014 and in accordance with Section 20120a(1);
- MDEQ Operational Memorandum No. 4 “Site Characterization and Remediation Verification – Attachment 10, Peer Review Draft Groundwater Not in an Aquifer,” February 2007;
- MDEQ Operational Memorandum No. 2 “Sampling and Analysis,” October 22, 2004, Revised July 5, 2007;
- MDEQ Guidance Document for the Vapor Intrusion Pathway, May 2014;
- Baseline Environmental Submittal Form (EQP 4025), February 2015;
- Phase I ESA, SME, October 23, 2006;
- BEA, SME, November 6, 2006; and,
- Phase I ESA, April 10, 2015, ASTI.



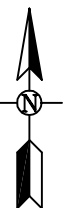
## OAKLAND COUNTY

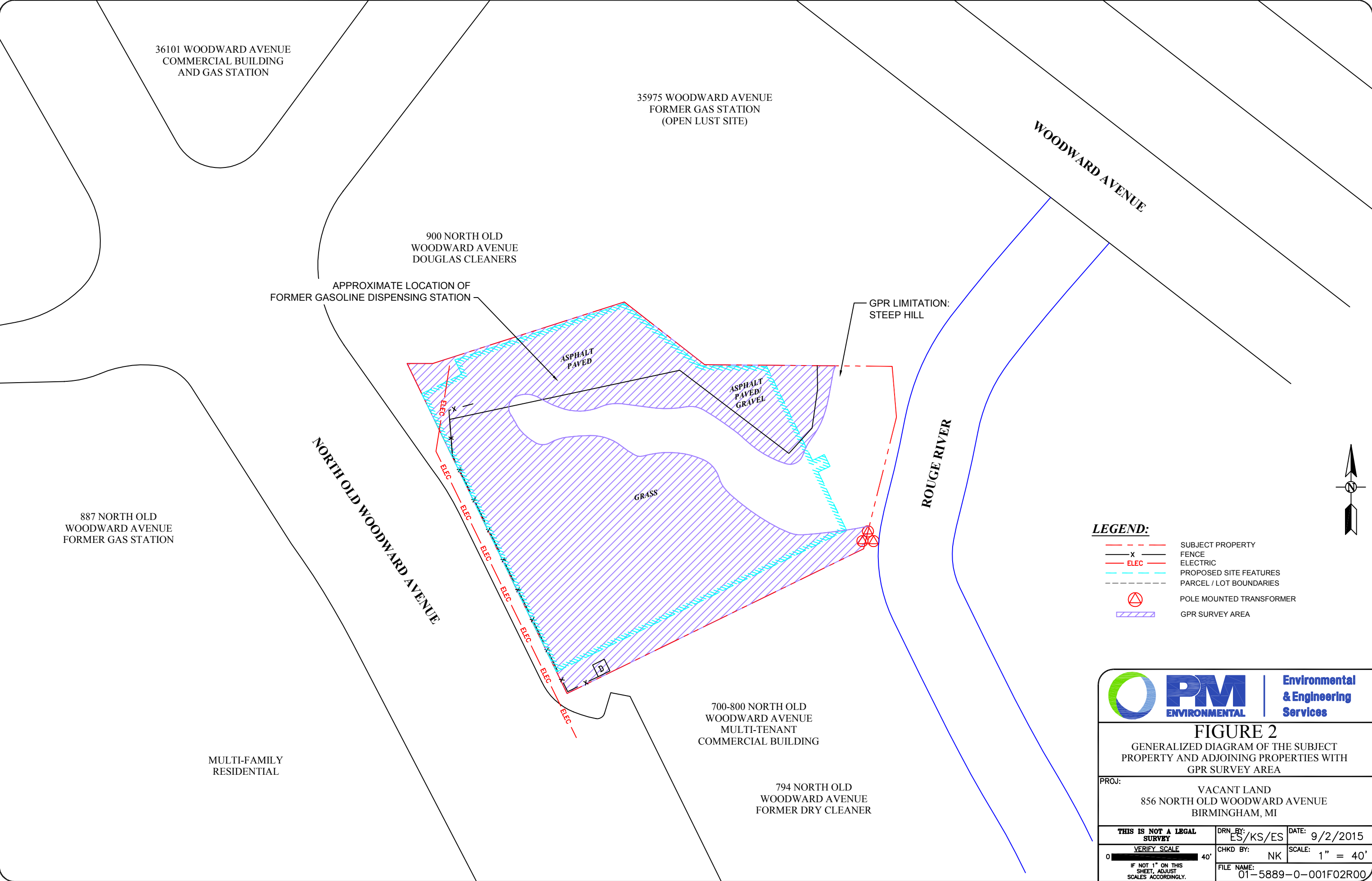


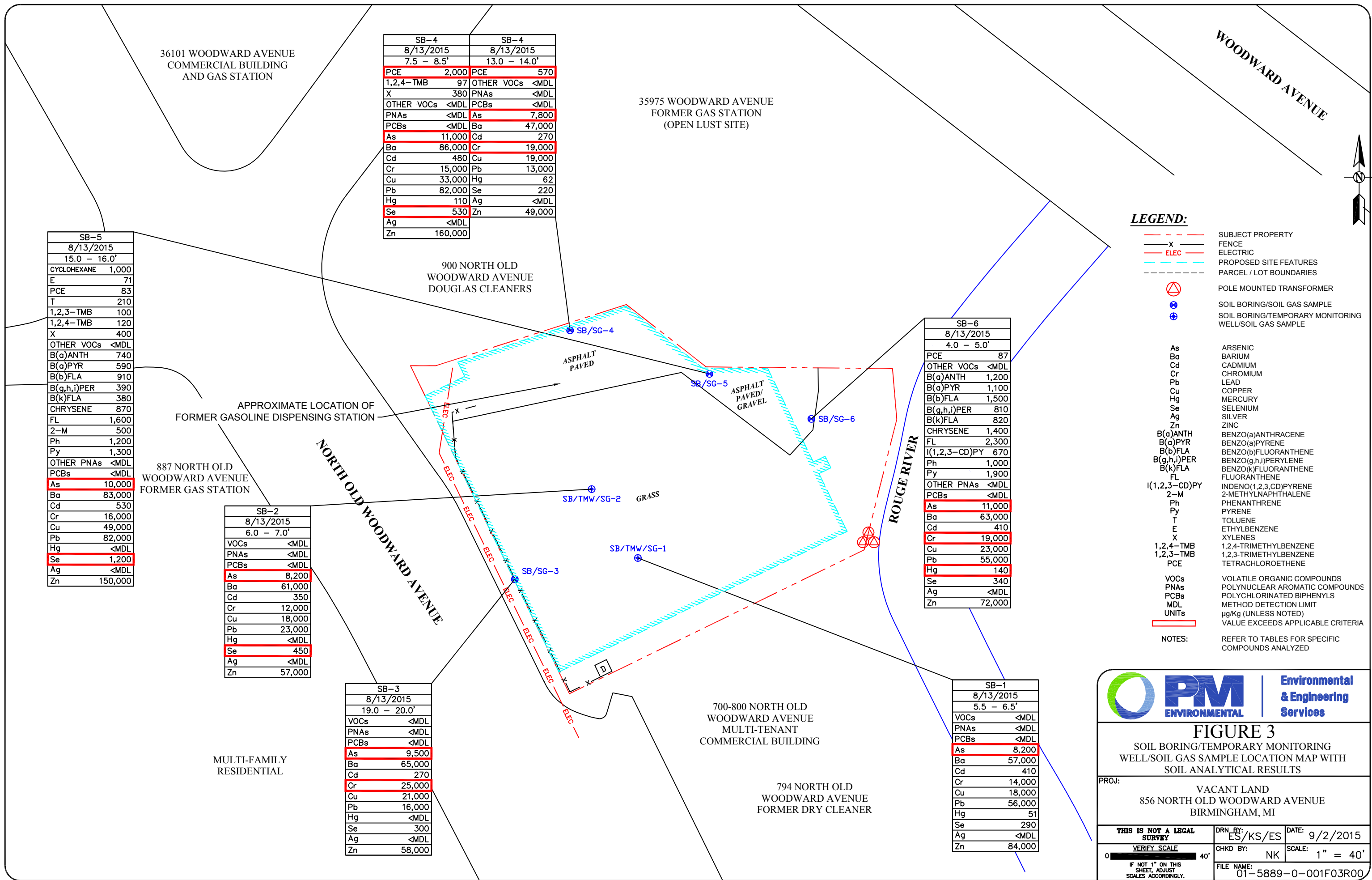
MICHIGAN QUADRANGLE LOCATION




FIGURE 1  
PROPERTY VICINITY MAP  
USGS, 7.5 MINUTE SERIES  
BIRMINGHAM, MI QUADRANGLE, 1968. PHOTO REVISED 1981.









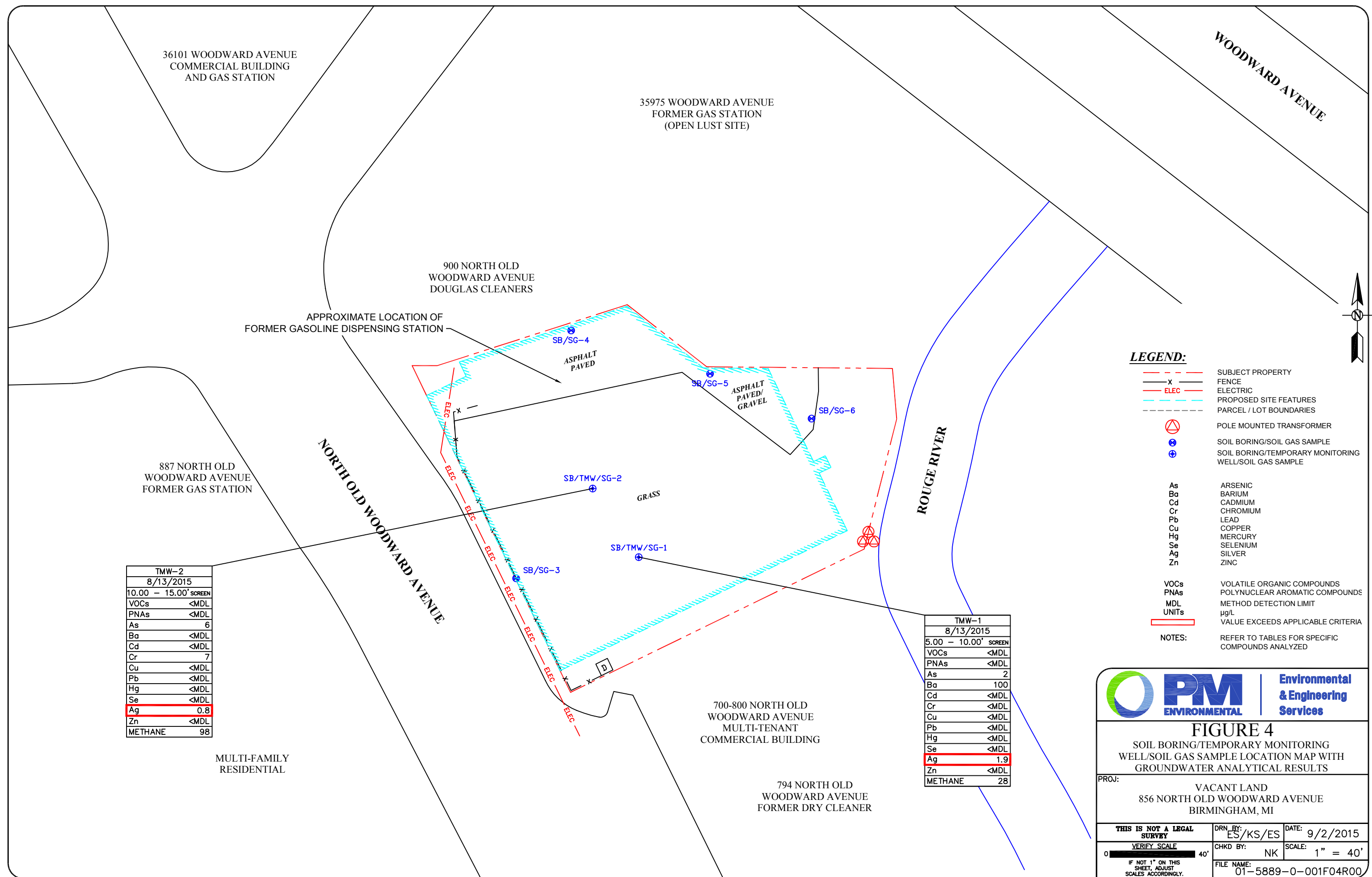
Environmental  
& Engineering  
Services

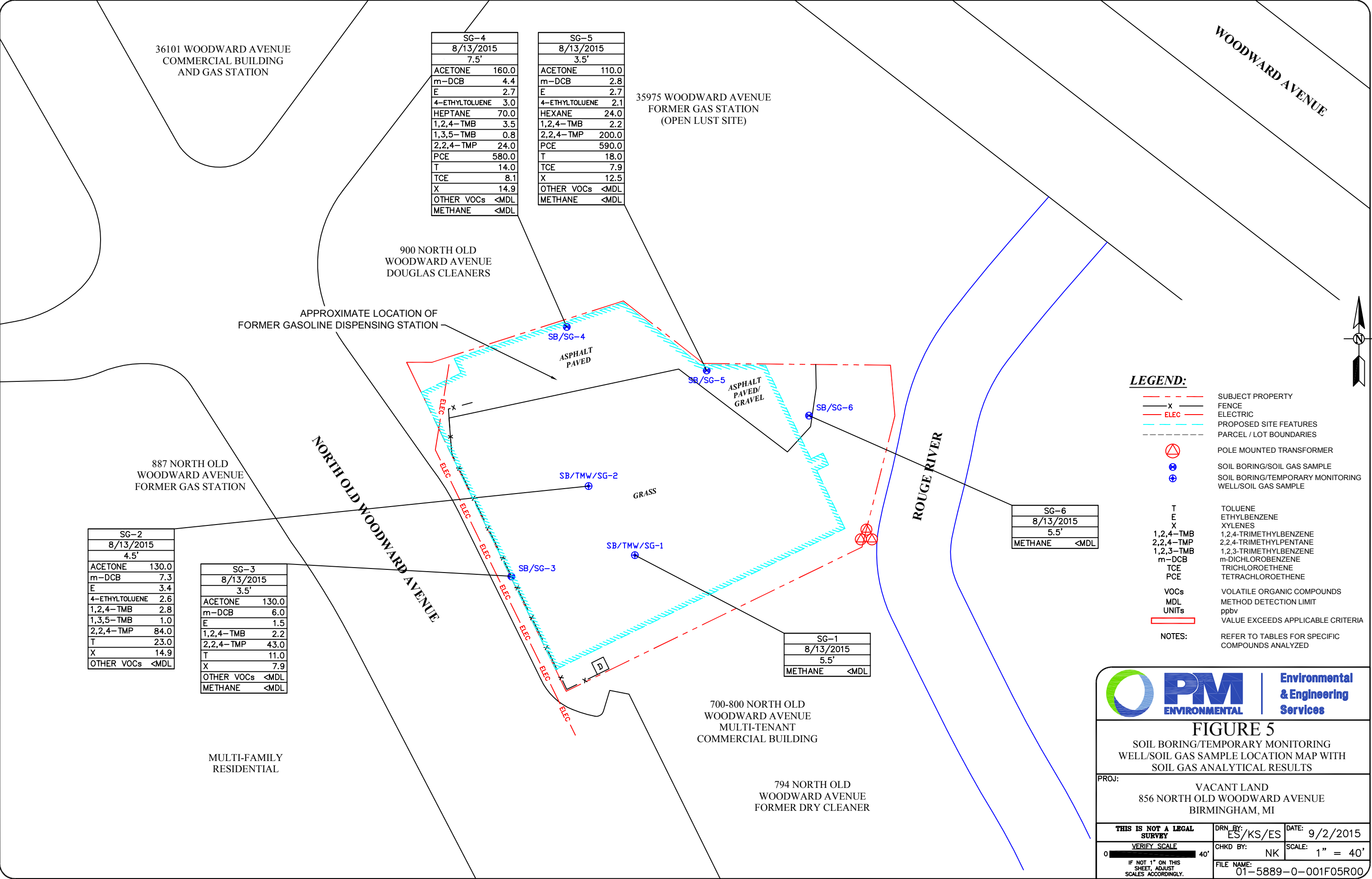
### FIGURE 3

SOIL BORING/TEMPORARY MONITORING  
WELL/SOIL GAS SAMPLE LOCATION MAP WITH  
SOIL ANALYTICAL RESULTS

PROJ: VACANT LAND  
856 NORTH OLD WOODWARD AVENUE  
BIRMINGHAM, MI

THIS IS NOT A LEGAL SURVEY	DRN BY: ES/KS/ES	DATE: 9/2/2015
VERIFY SCALE 0 40'	CHKD BY: NK	SCALE: 1" = 40'
IF NOT 1" ON THIS SHEET, ADJUST SCALES ACCORDINGLY.		
FILE NAME: 01-5889-0-001F03R00		





**FIGURE 5**

SOIL BORING/TEMPORARY MONITORING  
WELL/SOIL GAS SAMPLE LOCATION MAP WITH  
SOIL GAS ANALYTICAL RESULTS

PROJ: VACANT LAND 856 NORTH OLD WOODWARD AVENUE BIRMINGHAM, MI		
THIS IS NOT A LEGAL SURVEY	DRN BY: ES/KS/ES	DATE: 9/2/2015
VERIFY SCALE 0 40'	CHKD BY: NK	SCALE: 1" = 40'
IF NOT 1" ON THIS SHEET, ADJUST SCALES ACCORDINGLY.		
FILE NAME: 01-5889-0-001F05R00		

TABLE 1  
SUMMARY OF SOIL ANALYTICAL RESULTS  
VOLATILE ORGANIC COMPOUNDS AND POLYNUCLEAR AROMATIC COMPOUNDS  
856 NORTH OLD WOODWARD AVENUE, BIRMINGHAM, MICHIGAN  
PM PROJECT # 01-5889-0-001

VOLATILE ORGANIC COMPOUNDS (VOCs), POLYNUCLEAR AROMATIC COMPOUNDS (PNAs),  (µg/Kg)			Cyclohexane	Ethyl benzene	Tetrachloroethene	Toluene	1,2,3-Trimethylbenzene <sup>1</sup>	1,2,4-Trimethylbenzene	Xylenes	Other VOCs	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Chrysene	Fluoranthene	Indeno(1,2,3-cd)pyrene	2-Methylnaphthalene	Phenanthrene	Pyrene
Chemical Abstract Service Number (CAS#)			110827	100414	127184	108883	526738	95636	1330207	Various	56553	50328	205992	191242	207089	218019	206440	193395	91576	85018	129000
Sample ID	Sample Date	Sample Depth (feet bgs)	VOCs								PNAs										
SB-1	8/13/2015	5.5-6.5	<500	<50	<50	<50	<50	<50	<150	ND	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330
SB-2	8/13/2015	6.0-7.0	<500	<50	<50	<50	<50	<50	<150	ND	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330
SB-3	8/13/2015	19.0-20.0	<500	<50	<50	<50	<50	<50	<150	ND	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330
SB-4	8/13/2015	7.5-8.5	<500	<50	2,000	<50	<50	97	380	ND	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330
SB-4	8/13/2015	13.0-14.0	<500	<50	570	<50	<50	<50	<150	ND	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330
SB-5	8/13/2015	15.0-16.0	1,000	71	83	210	100	120	400	ND	740	590	910	390	380	870	1,600	<330	500	1,200	1,300
SB-6	8/13/2015	4.0-5.0	<500	<50	87	<50	<50	<50	<150	ND	1,200	1,100	1,500	810	820	1,400	2,300	670	<330	1,000	1,900
Cleanup Criteria Requirements for Response Activity (R 299.1 - R 299.50) Generic Soil Cleanup Criteria Tables 2 and 3: Residential and Non-Residential Part 201 Generic Cleanup Criteria and Screening Levels/Part 213 Risk-Based Screening Levels, December 30, 2013 MDEQ Guidance Document For The Vapor Intrusion Pathway, Policy and Procedure Number: 09-017, Appendix D Vapor Intrusion Screening Values, May 2013																					
Residential (µg/Kg)																					
Statewide Default Background Levels	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Drinking Water Protection (Res DWP)	NL	1,500	100	16,000	1,800	2,100	5,600	Various	NLL	NLL	NLL	NLL	NLL	NLL	NLL	7.30E+05	NLL	57,000	56,000	4.80E+05	
Groundwater Surface Water Interface Protection (GSIP)	NL	360	1,200 {X}	5,400	570	570	820	Various	NLL	NLL	NLL	NLL	NLL	NLL	NLL	5,500	NLL	4,200	2,100	ID	
Soil Volatilization to Indoor Air Inhalation (Res SVII)	NL	87,000	11,000	3.3E+05 {C}	2.6E+06 {C}	4.3E+06 {C}	6.3E+06 {C}	Various	NLV	NLV	ID	NLV	NLV	ID	1.0E+9 {D}	NLV	2.70E+06	2.8E+06	1.0E+9 {D}		
Ambient Air Infinite Source Volatile Soil Inhalation (Res VSI)	NL	7.20E+05	1.70E+05	2.80E+06	1.60E+07	2.10E+07	4.60E+07	Various	NLV	NLV	ID	NLV	NLV	ID	7.40E+08	NLV	1.50E+06	1.60E+05	6.5E+08		
Ambient Air Finite VSI for 5 Meter Source Thickness	NL	1.00E+06	4.80E+05	5.10E+06	3.80E+08	5.00E+08	6.10E+07	Various	NLV	NLV	ID	NLV	NLV	ID	7.4E+08	NLV	1.50E+06	1.60E+05	6.5E+08		
Ambient Air Finite VSI for 2 Meter Source Thickness	NL	2.20E+06	1.1E+06	1.20E+07	3.80E+08	5.00E+08	1.30E+08	Various	NLV	NLV	ID	NLV	NLV	ID	7.4E+08	NLV	1.50E+06	1.60E+05	6.5E+08		
Ambient Air Particulate Soil Inhalation (Res PSI)	NL	1.00E+10	2.7E+09	2.70E+10	8.20E+10	8.20E+10	2.90E+11	Various	ID	1.5E+06	ID	8.0E+08	ID	ID	9.3E+09	ID	6.70E+08	6.7E+06	6.7E+09		
Direct Contact (Res DC)	NL	2.2E+07 {C}	2.0E+05 {C}	5.0E+07 {C}	3.2E+07 {C}	3.2E+07 {C}	4.1E+08 {C}	Various	20,000	2,000	20,000	2.5E+06	2.00E+05	2.0E+06	4.6E+07	20,000	8.10E+06	1.6E+06	2.9E+07		
Nonresidential (µg/Kg)																					
Drinking Water Protection (Nonres DWP)	NL	1,500	100	16,000	1,800	2,100	5,600	Various	NLL	NLL	NLL	NLL	NLL	NLL	NLL	7.30E+05	NLL	1.70E+05	1.60E+05	4.80E+05	
Soil Volatilization to Indoor Air Inhalation (Nonres SVII)	NL	4.6E+05 {C}	21,000	6.1E+05 {C}	4.8E+06 {C}	8.0E+06 {C}	1.2E+07 {C}	Various	NLV	NLV	ID	NLV	NLV	ID	1.0E+9 {D}	NLV	4.90E+06	5.1E+06	1.0E+9 {D}		
Ambient Air Infinite Source Volatile Soil Inhalation (Nonres VSI)	NL	2.40E+06	2.10E+05	3.30E+06	1.90E+07	2.50E+07	5.40E+07	Various	NLV	NLV	ID	NLV	NLV	ID	8.9E+08	NLV	1.80E+06	1.90E+05	7.8E+08		
Ambient Air Finite VSI for 5 Meter Source Thickness	NL	3.10E+06	4.90E+05	3.60E+07	4.60E+08	6.00E+08	6.50E+07	Various	NLV	NLV	ID	NLV	NLV	ID	8.8E+08	NLV	1.80E+06	1.90E+05	7.8E+08		
Ambient Air Finite VSI for 2 Meter Source Thickness	NL	6.50E+06	1.1E+06	3.60E+07	4.60E+08	6.00E+08	1.30E+08	Various	NLV	NLV	ID	NLV	NLV	ID	8.8E+08	NLV	1.80E+06	1.90E+05	7.8E+08		
Ambient Air Particulate Soil Inhalation (Nonres PSI)	NL	1.30E+10	1.2E+09	1.20E+10	3.60E+10	3.60E+10	1.30E+11	Various	ID	1.9E+06	ID	3.5E+08	ID	ID	4.1E+09	ID	2.90E+08	2.9E+06	2.9E+09		
Direct Contact (Nonres DC)	NL	7.1E+07 {C}	9.3E+05 {C}	1.6E+08 {C}	1.0E+08 {C}	1.0E+08 {C}	1.0E+09 {C}	Various	80,000	8,000	80,000	7.0E+06	8.00E+05	8.0E+06	1.3E+08	80,000	2.60E+07	5.2E+06	8.4E+07		
Screening Levels (µg/Kg)																					
Soil Saturation Concentration Screening Levels (Csat)	NL	1.40E+05	88,000	2.50E+05	94,000	1.10E+05	1.50E+05	Various	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Residential Vapor Intrusion Soil Screening Levels (S <sub>VI-res</sub> )	NL	200	52	10,000	3,200	2,200	290	Various	NL	NL	NL	NL	NL	NL	NL	NL	7,500	5,100	6.47E+07		
Nonresidential Vapor Intrusion Soil Screening Levels (S <sub>VI-nr</sub> )	NL	4,000	1,000	1.69E+05	53,000	37,000	4,900	Various	NL	NL	NL	NL	NL	NL	NL	NL	1.26E+05	86,000	1.09E+09		

Applicable Criterion/RBSL Exceeded

**BOLD**

Value Exceeds Applicable Criterion/RBSL

bgs

Below Ground Surface (feet)

1

1,2,3-Trimethylbenzene RBSLs based on the more restrictive of 1,2,4-trimethylbenzene and 1,3,5-trimethylbenzene.

ND

Non-detected at levels above laboratory method detection limit (MDL)

NA/NL/ID

Not Applicable/Not Listed/Insufficient Data

NLL/NLV

Not Likely to Leach/Not Likely to Volatilizae

**TABLE 2**  
**SUMMARY OF SOIL ANALYTICAL RESULTS**  
**POLYCHLORINATED BIPHENYLS AND MICHIGAN TEN METALS**  
**856 NORTH OLD WOODWARD AVENUE, BIRMINGHAM, MICHIGAN**  
**PM PROJECT # 01-5889-0-001**

POLYCHLORINATED BIPHENYLS (PCBs) AND MICHIGAN TEN METALS (µg/Kg)			PCBs	Arsenic	Barium	Cadmium	Chromium	Copper	Lead	Mercury	Selenium	Silver	Zinc
Chemical Abstract Service Number (CAS#)			1336363	7440382	7440393	7440439	16065831	7440508	7439921	7439976	7782492	7440224	7440666
Sample ID	Sample Date	Sample Depth (feet bgs)	PCBs	Michigan Ten Metals									
SB-1	8/13/2015	5.5-6.5	ND	<b>8,200</b>	57,000	410	14,000	18,000	56,000	51	290	<100	84,000
SB-2	8/13/2015	6.0-7.0	ND	<b>8,200</b>	61,000	350	12,000	18,000	23,000	<50	<b>450</b>	<100	57,000
SB-3	8/13/2015	19.0-20.0	ND	<b>9,500</b>	65,000	270	<b>25,000</b>	21,000	16,000	<50	300	<100	58,000
SB-4	8/13/2015	7.5-8.5	ND	<b>11,000</b>	86,000	480	15,000	33,000	82,000	110	<b>530</b>	<100	160,000
SB-4	8/13/2015	13.0-14.0	ND	<b>7,800</b>	47,000	270	<b>19,000</b>	19,000	13,000	62	220	<100	49,000
SB-5	8/13/2015	15.0-16.0	ND	<b>10,000</b>	83,000	530	16,000	49,000	82,000	<50	<b>1,200</b>	<100	150,000
SB-6	8/13/2015	4.0-5.0	ND	<b>11,000</b>	63,000	410	<b>19,000</b>	23,000	55,000	<b>140</b>	340	<100	72,000
Cleanup Criteria Requirements for Response Activity (R 299.1 - R 299.50) Generic Soil Cleanup Criteria Tables 2 and 3: Residential and Non-Residential Part 201 Generic Cleanup Criteria and Screening Levels/Part 213 Risk-Based Screening Levels, December 30, 2013 MDEQ Guidance Document For The Vapor Intrusion Pathway, Policy and Procedure Number: 09-017, Appendix D Vapor Intrusion Screening Values, May 2013													
Residential (µg/Kg)													
Statewide Default Background Levels	NA	5,800	75,000	1,200	18,000	32,000	21,000	130	410	1,000	47,000		
Drinking Water Protection (Res DWP)	NLL	4,600	1.30E+06	6,000	30,000	5.80E+06	7.00E+05	1,700	4,000	4,500	2.40E+06		
Groundwater Surface Water Interface Protection (GSIP)	NLL	4,600	1.3E+06 (G)	7,700 (G,X)	3,300	1.8E+05 (G)	8.2E+06 (G,X)	50 (M); 1.2	400	100 (M); 27	3.9E+05 (G)		
Soil Volatilization to Indoor Air Inhalation (Res SVII)	3.0E+06	NLV	NLV	NLV	NLV	NLV	NLV	48,000	NLV	NLV	NLV		
Ambient Air Infinite Source Volatile Soil Inhalation (Res VSI)	2.40E+05	NLV	NLV	NLV	NLV	NLV	NLV	52,000	NLV	NLV	NLV		
Ambient Air Finite VSI for 5 Meter Source Thickness	7.9E+06	NLV	NLV	NLV	NLV	NLV	NLV	52,000	NLV	NLV	NLV		
Ambient Air Finite VSI for 2 Meter Source Thickness	7.9E+06	NLV	NLV	NLV	NLV	NLV	NLV	52,000	NLV	NLV	NLV		
Ambient Air Particulate Soil Inhalation (Res PSI)	5.2E+06	7.20E+05	3.30E+08	1.70E+06	2.60E+05	1.30E+08	1.00E+08	2.00E+07	1.30E+08	6.70E+06	ID		
Direct Contact (Res DC)	{T}	7,600	3.70E+07	5.50E+05	2.50E+06	2.00E+07	4.00E+05	1.60E+05	2.60E+06	2.50E+06	1.70E+08		
Nonresidential (µg/Kg)													
Drinking Water Protection (Nonres DWP)	NLL	4,600	1.30E+06	6,000	30,000	5.80E+06	7.00E+05	1,700	4,000	4,500	5.00E+06		
Soil Volatilization to Indoor Air Inhalation (Nonres SVII)	1.6E+07	NLV	NLV	NLV	NLV	NLV	NLV	89,000	NLV	NLV	NLV		
Ambient Air Infinite Source Volatile Soil Inhalation (Nonres VSI)	8.10E+05	NLV	NLV	NLV	NLV	NLV	NLV	62,000	NLV	NLV	NLV		
Ambient Air Finite VSI for 5 Meter Source Thickness	2.8E+07	NLV	NLV	NLV	NLV	NLV	NLV	62,000	NLV	NLV	NLV		
Ambient Air Finite VSI for 2 Meter Source Thickness	2.8E+07	NLV	NLV	NLV	NLV	NLV	NLV	62,000	NLV	NLV	NLV		
Ambient Air Particulate Soil Inhalation (Nonres PSI)	6.5E+06	9.10E+05	1.50E+08	2.20E+06	2.40E+05	5.90E+07	4.40E+07	8.80E+06	5.90E+07	2.90E+06	ID		
Direct Contact (Nonres DC)	{T}	37,000	1.30E+08	2.10E+06	9.20E+06	7.30E+07	9.0E+5 (DD)	5.80E+05	9.60E+06	9.00E+06	6.30E+08		
Screening Levels (µg/Kg)													
Soil Saturation Concentration Screening Levels (Csat)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
Residential Vapor Intrusion Soil Screening Levels (S <sub>VI-res</sub> )	1,900	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL		
Nonresidential Vapor Intrusion Soil Screening Levels (S <sub>VI-nr</sub> )	39,000	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL		

  Applicable Criterion/RBSL Exceeded  
**BOLD** Value Exceeds Applicable Criterion/RBSL  
 bgs Below Ground Surface (feet)  
 ND Non-detected at levels above laboratory method detection limit (MDL)  
 NA/NL/ID Not Applicable/Not Listed/Insufficient Data  
 NLL/NLV Not Likely to Leach/Not Likely to Volatilize  
 {G} Metal GSIP Criteria for Surface Water Not Protected for Drinking Water Use based on 418 mg/L CaCO3 Hardness: Station ID 630003, Rouge River, near Troy, MI

**TABLE 3**  
**SUMMARY OF GROUNDWATER ANALYTICAL RESULTS**  
**VOLATILE ORGANIC COMPOUNDS, POLYNUCLEAR AROMATIC COMPOUNDS, MICHIGAN TEN METALS, AND METHANE**  
**856 NORTH OLD WOODWARD AVENUE, BIRMINGHAM, MICHIGAN**  
**PM PROJECT # 01-5889-0-001**

VOLATILE ORGANIC COMPOUNDS (VOCs), POLYNUCLEAR AROMATIC COMPOUNDS (PNAs), MICHIGAN TEN METALS, AND METHANE (µg/L)				VOCs	PNAs	Arsenic	Barium	Cadmium	Chromium	Copper	Lead	Mercury	Selenium	Silver	Zinc	Methane
Chemical Abstract Service Number (CAS#)				Various	Various	7440382	7440393	7440439	16065831	7440508	7439921	7439976	7782492	7440224	7440666	74828
Sample ID	Sample Date	Screen Depth (feet bgs)	Depth to Groundwater (feet bgs)	VOCs	PNAs	Michigan Ten Metals										Methane
TMW-1	8/13/2015	5.00-10.00	6.57	ND	ND	2	100	<0.2	<5	<4	<3	<0.2	<5	1.9	<10	28
TMW-2	8/13/2015	10.00-15.00	12.57	ND	ND	6	<100	<0.2	7	<4	<3	<0.2	<5	0.8	<10	98
Cleanup Criteria Requirements for Response Activity (R 299.1 - R 299.50) Generic Groundwater Cleanup Criteria Table 1: Residential and Non-Residential Part 201 Generic Cleanup Criteria and Screening Levels/Part 213 Risk-Based Screening Levels, December 30, 2013 MDEQ Guidance Document For The Vapor Intrusion Pathway, Policy and Procedure Number: 09-017, Appendix D Vapor Intrusion Screening Values, May 2013																
Residential/Nonresidential (µg/L)																
Residential Drinking Water (Res DW)				Various	Various	10 (A)	2,000 (A)	5.0 (A)	100 (A)	1,000 (E)	4.0 (L)	2.0 (A)	50 (A)	34	2,400	ID
Residential Health Based Drinking Water Values				Various	Various	NL	NL	NL	NL	1,400 (E)	NL	NL	NL	NL	NL	NL
Nonresidential Drinking Water (Nonres DW)				Various	Various	10 (A)	2,000 (A)	5.0 (A)	100 (A)	1,000 (E)	4.0 (L)	2.0 (A)	50 (A)	98	5,000 (E)	ID
Nonresidential Health Based Drinking Water Values				Various	Various	NL	NL	NL	NL	4,000 (E)	NL	NL	NL	NL	NL	NL
Groundwater Surface Water Interface (GSI)				Various	Various	10	2,000 (G)	6.4 (G,X)	11	30 (G)	47 (G,X)	0.0013	5.0	0.2 (M); 0.06	400 (G)	NA
Residential Groundwater Volatilization to Indoor Air Inhalation (Res GVII) <sup>2</sup>				Various	Various	NLV	NLV	NLV	NLV	NLV	NLV	56 (S)	NLV	NLV	NLV	(K)
Nonresidential Groundwater Volatilization to Indoor Air Inhalation (Nonres GVII) <sup>2</sup>				Various	Various	NLV	NLV	NLV	NLV	NLV	NLV	56 (S)	NLV	NLV	NLV	(K)
Screening Levels (µg/L)																
Residential Groundwater Vapor Intrusion Screening Levels (GW <sub>VI-res</sub> ) <sup>3</sup>				Various	Various	NL	NL	NL	NL	NL	NL	ID	NL	NL	NL	520
Nonresidential Groundwater Vapor Intrusion Screening Levels (GW <sub>VI-nr</sub> ) <sup>3</sup>				Various	Various	NL	NL	NL	NL	NL	NL	ID	NL	NL	NL	520
Residential Vapor Intrusion Shallow Groundwater Screening Levels (GW <sub>VI-sump-res</sub> ) <sup>4</sup>				Various	Various	NL	NL	NL	NL	NL	NL	ID	NL	NL	NL	520
Nonresidential Vapor Intrusion Shallow Groundwater Screening Levels (GW <sub>VI-sump-nr</sub> ) <sup>4</sup>				Various	Various	NL	NL	NL	NL	NL	NL	ID	NL	NL	NL	520
Water Solubility				Various	Various	NA	NA	NA	NA	NA	NA	56	NA	NA	NA	NA
Flammability and Explosivity Screening Level				Various	Various	ID	ID	ID	ID	ID	ID	ID	ID	ID	ID	28,000
Acute Vapor Intrusion Screening Levels for Groundwater (µg/L)																
IRASL Groundwater (AGW <sub>VI</sub> )				Various	Various	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL
IRASL Groundwater In Contact With Structure (AGW <sub>VI-sump</sub> )				Various	Various	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL

Applicable Criteria/RBSL Exceeded

**BOLD** Value Exceeds Applicable Criteria

bgs Below Ground Surface (feet)

ND Not detected at levels above the laboratory Method Detection Limit (MDL) or Minimum Quantitative Level (MQL)

<sup>1</sup> Rule 323.1057 of Part 4 Water Quality Standards

<sup>2</sup> Tier 1 GVII Criteria based on 3 meter (or greater) groundwater depth

<sup>3</sup> (2013 Vapor Intrusion Guidance) Screening Levels based on depth to groundwater less than 1.5 meters and not in contact with building foundation

<sup>4</sup> (2013 Vapor Intrusion Guidance) Screening levels based on groundwater in contact with the building foundation or within a sump

NA/NL/ID Not Applicable/Not Listed/Insufficient Data

NLV Not Likely to Volatilize

{G} Metal GSIP Criteria for Surface Water Not Protected for Drinking Water Use based on 418 mg/L CaCO<sub>3</sub> Hardness: Station ID 630003, Rouge River, near Troy, MI

TABLE 4  
SUMMARY OF SOIL VAPOR ANALYTICAL RESULTS  
VOLATILE ORGANIC COMPOUNDS AND METHANE  
856 NORTH OLD WOODWARD AVENUE, BIRMINGHAM, MICHIGAN  
PM PROJECT # 01-5889-0-001

VOLATILE ORGANIC COMPOUNDS (VOCs) AND METHANE  (ppbv)			Acetone	m-Dichlorobenzene	Ethylbenzene	4-Ethyltoluene	Heptane	Hexane	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	2,2,4-Trimethylpentane	Tetrachloroethylene	Toluene	Trichloroethylene	m,p-Xylene	o-Xylene	Xylenes (total)	Other VOCs	Methane
Chemical Abstract Service Number (CAS#)			67641	541731	100414	622968	142825	110543	95636	108678	540841	127184	108883	79016	1330207	95476	1330207	Various	74828
Sample ID	Sample Date	Sample Depth (feet bgs)	VOCs																Methane
SG-1	8/13/2015	5.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND
SG-2	8/13/2015	4.5	130.0	7.3	3.4	2.6	<0.80	<0.80	2.8	1.0	84.0	<0.16	23.0	<0.16	11.0	3.9	14.9	ND	NA
SG-3	8/13/2015	3.5	130.0	6.0	1.5	<0.80	<0.80	<0.80	2.2	<0.80	43.0	<0.16	11.0	<0.16	5.7	2.2	7.9	ND	ND
SG-4	8/13/2015	7.5	160.0	4.4	2.7	3.0	70.0	<0.80	3.5	0.8	24.0	580.0	14.0	8.1	11.0	3.9	14.9	ND	ND
SG-5	8/13/2015	3.5	110.0	2.8	2.7	2.1	<0.80	24.0	2.2	<0.80	200.0	590.0	18.0	7.9	9.3	3.2	12.5	ND	ND
SG-6	8/13/2015	5.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	A	NA	NA	ND
MDEQ Guidance Document For The Vapor Intrusion Pathway, Policy and Procedure Number: 09-017, Appendix D Vapor Intrusion Screening Values, May 2013																			
Residential Screening Levels (ppbv)																			
Vapor Intrusion Indoor Air Screening Levels (IA <sub>vi</sub> )			2,500	0.49	19	NDC	850	200	44	44	740	5.0	1,300	0.37	23	23	23	Various	1.25E+04 (g)
Vapor Intrusion Shallow Sub-Slab Soil Gas Screening Levels (≤ 1.5m bgs) (SG <sub>vi-ss</sub> )			82,000	16	640	NDC	28,000	6,600	1,500	1,500	25,000	170	44,000	12	760	760	760	Various	1.25E+04 (g)
Vapor Intrusion Deep Soil Gas Screening Levels (SG <sub>vi</sub> )			8.20E+05	160	6,400	NDC	2.80E+05	66,000	15,000	15,000	2.50E+05	1,700	4.40E+05	120	7,600	7,600	7,600	Various	1.25E+04 (g)
Nonresidential Screening Levels (ppbv)																			
Vapor Intrusion Indoor Air Screening Levels (IA <sub>vi</sub> )			10,000	2.1	96	NDC	3,600	830	190	190	3,100	25	5,500	1.5	96	96	96	Various	1.25E+04 (g)
Vapor Intrusion Shallow Sub-Slab Soil Gas Screening Levels (≤ 1.5m bgs) (SG <sub>vi-ss</sub> )			1.40E+06	280	13,000	NDC	4.70E+05	1.10E+05	25,000	25,000	4.20E+05	3,300	7.40E+05	210	13,000	13,000	13,000	Various	1.25E+04 (g)
Vapor Intrusion Deep Soil Gas Screening Levels (SG <sub>vi</sub> )			1.40E+07	2,800	1.30E+05	NDC	4.70E+06	1.10E+06	2.50E+05	2.50E+05	4.20E+06	33,000	7.40E+06	2,100	1.30E+05	1.30E+05	1.30E+05	Various	1.25E+04 (g)
DRAFT Acute Vapor Intrusion Screening Levels for Indoor Air and Soil Gas; Residential and Nonresidential Land Use, February 2013 (ppbv)																			
IRASL Indoor Air (AIA <sub>vi</sub> )			25,000	NDC	NDC	NDC	NDC	NDC	NDC	NDC	NDC	2,800	9,300	74,000	4,800	4,800	4,800	Various	NDC
IRASL Soil Gas (ASG <sub>vi</sub> )			8.28E+05	NDC	NDC	NDC	NDC	NDC	NDC	NDC	NDC	93,000	3.10E+05	2.48E+06	1.60E+05	1.60E+05	1.60E+05	Various	NDC

Applicable Criteria/RBSL Exceeded

**BOLD**

Value Exceeds Applicable Criteria

bgs

Below Ground Surface (feet)

ND

Not detected at levels above the laboratory Method Detection Limit (MDL) or Minimum Quantitative Level (MQL)

NA

Not Applicable

NDC

"No Defined Criteria" by the Michigan Department of Environmental Quality (MDEQ)

<sup>1</sup>

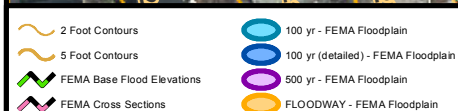
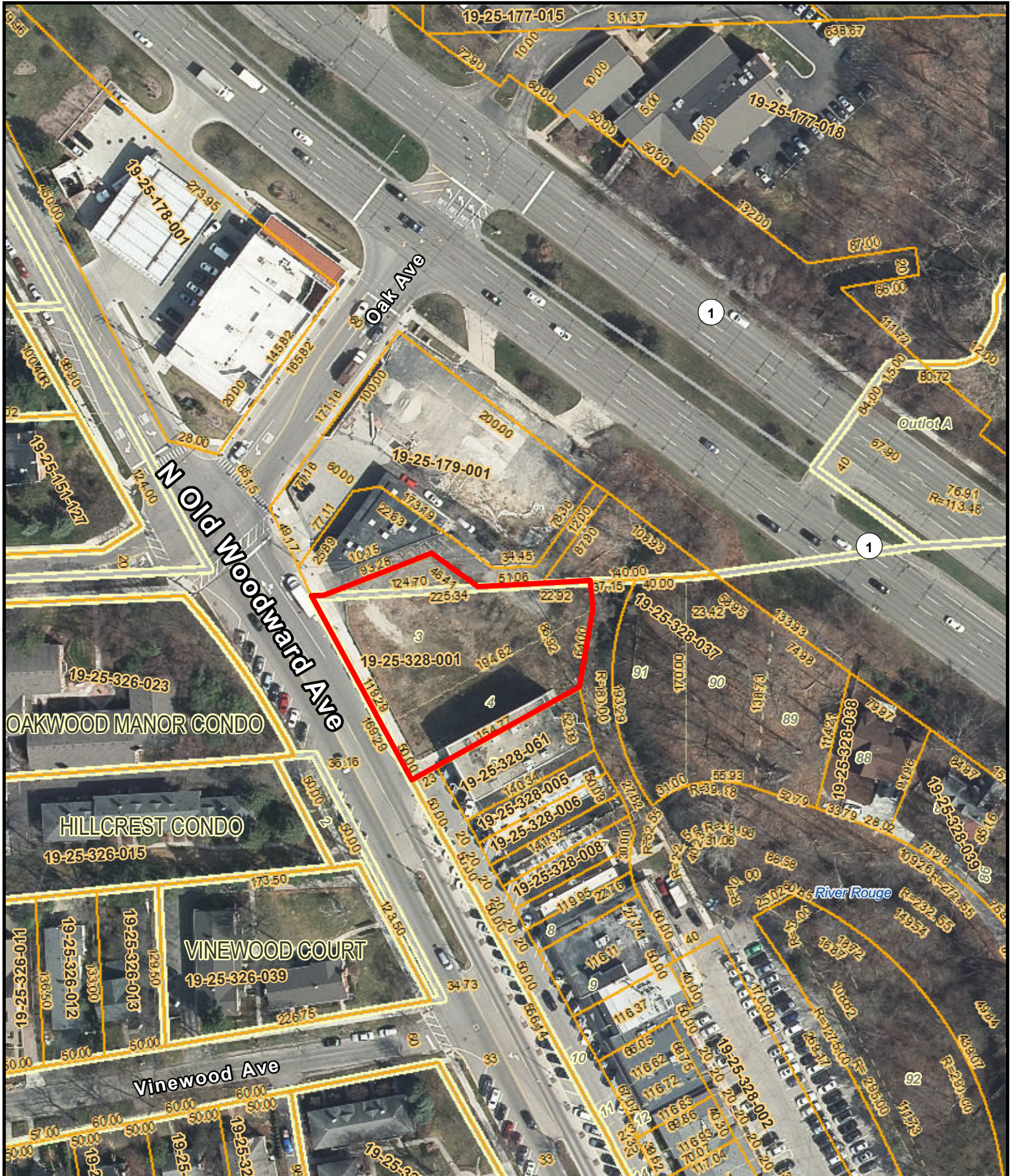
The IAC and SGC presented in this table are health-based values. The applicable IAC and SGC are based on the higher of the health-based value and the appropriate analytical reporting limit.

IRASL

Immediate Response Acute Vapor Intrusion Screening Levels

## Appendix C

# Assessors Map



Disclaimer: The information provided herewith has been compiled from recorded deeds, plats, tax maps, surveys and other public records. It is not a legally recorded map or survey and is not intended to be used as one. Users should consult the information sources mentioned above when questions arise. FEMA Floodplain data may not always be present on the map.

**OAKLAND COUNTY**  
Economic Development & Community Affairs  
**L. Brooks Patterson**  
Oakland County Executive

Date Created: 4/20/2016  
**NORTH**  
1 inch = 100 feet

## Appendix D



SOURCE: USGS MAPS

LOCATION MAP

SCALE: 1" = 2,000'±



SOURCE: GOOGLE EARTH PRO

AERIAL MAP

SCALE: 1" = 100'±

PLAN REFERENCE MATERIALS:

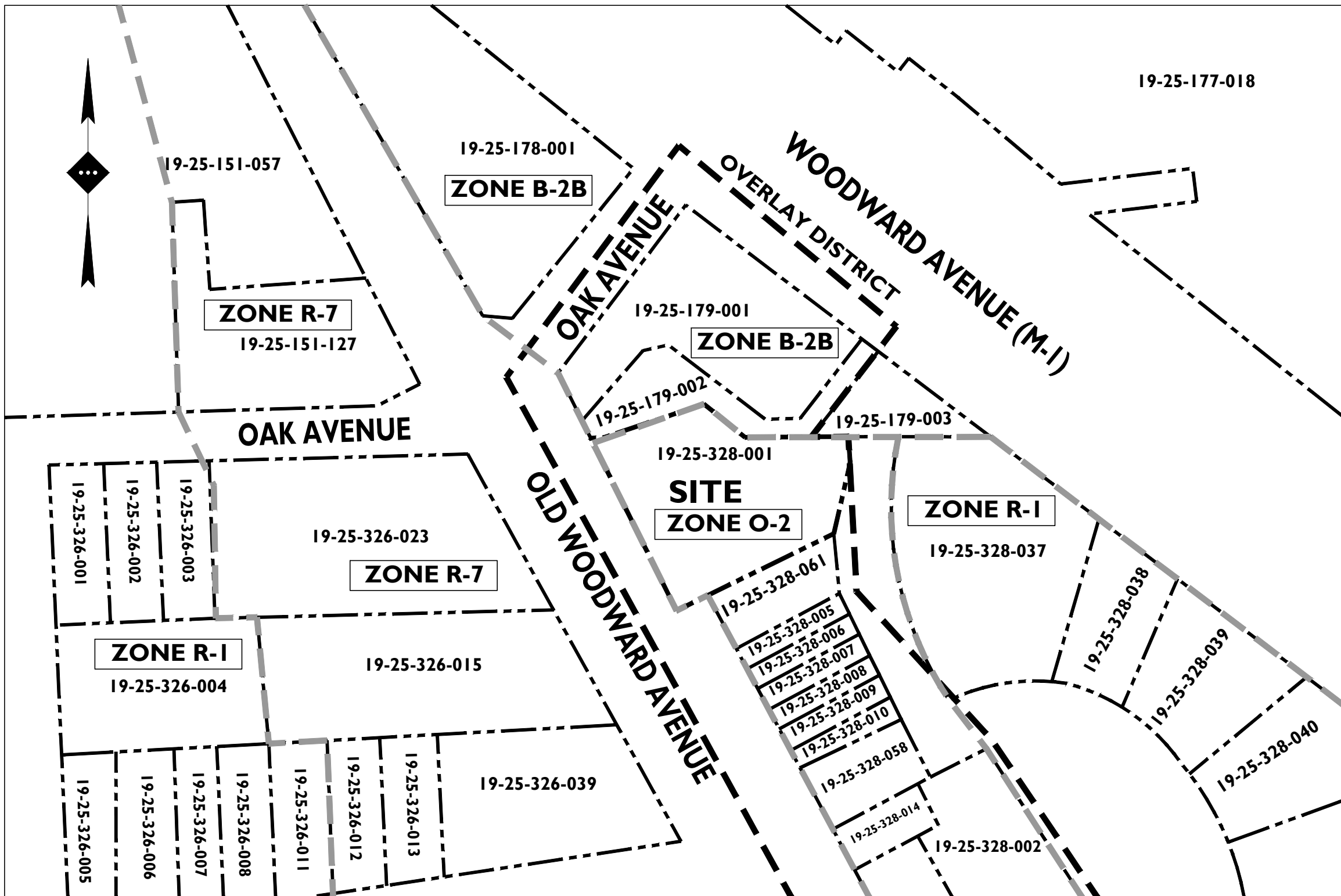
1. THIS PLAN SET REFERENCES THE FOLLOWING DOCUMENTS INCLUDING, BUT NOT LIMITED TO:
- ALTA/ACSM & TOPOGRAPHIC SURVEY PREPARED BY KEM-TEC ASSOCIATES, LAST REVISED 11/05/2015.
  - ARCHITECTURAL PLANS PREPARED BY MARUSICH ARCHITECTURE
  - GEOTECHNICAL REPORT PREPARED BY G2 CONSULTING GROUP
  - TRAFFIC REPORT PREPARED BY STONEFIELD ENGINEERING & DESIGN, LLC
  - BASILINE ENVIRONMENTAL ASSESSMENT PREPARED BY PM ENVIRONMENTAL
  - AERIAL MAP OBTAINED FROM GOOGLE EARTH PRO
  - ZONING MAP OBTAINED FROM THE CITY OF BIRMINGHAM ZONING MAP & OAKLAND COUNTY PROPERTY VIEWER
  - LOCATION MAP OBTAINED FROM USGS MAPS ONLINE
2. ALL REFERENCE MATERIAL LISTED ABOVE SHALL BE CONSIDERED A PART OF THIS PLAN SET AND ALL INFORMATION CONTAINED WITHIN THESE MATERIALS SHALL BE UTILIZED IN CONJUNCTION WITH THIS PLAN SET. THE CONTRACTOR IS RESPONSIBLE TO OBTAIN A COPY OF EACH REFERENCE AND REVIEW IT THOROUGHLY PRIOR TO THE START OF CONSTRUCTION.



Know what's below  
Call before you dig.

SITE DEVELOPMENT PLANS  
FOR  
856 OLD NORTH WOODWARD  
PROPOSED 4 STORY MULTI-FAMILY  
BUILDING WITH RETAIL

PARCEL ID: 19-25-328-001  
856 NORTH OLD WOODWARD AVENUE  
CITY OF BIRMINGHAM, OAKLAND COUNTY, MICHIGAN

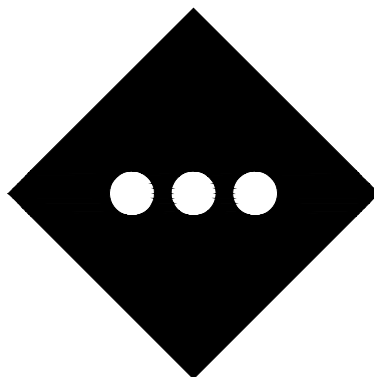


SOURCE: BIRMINGHAM ZONING MAPS & OAKLAND COUNTY PROPERTY GATEWAY

ZONING MAP

SCALE: 1" = 100'±

PLANS PREPARED BY:



STONEFIELD  
engineering & design, llc.

Bloomfield Hills, MI · Rutherford, NJ · Farmingdale, NY  
www.stonefieldeng.com

2350 Franklin Road, Suite 210, Bloomfield Hills, MI 48302  
Phone 248.247.1115

APPLICANT/OWNER

FLS PROPERTIES #5, LLC  
2950 WALNUT LAKE ROAD  
WEST BLOOMFIELD, MICHIGAN 48323

SURVEYOR

KEM-TEC ASSOCIATES  
22556 GRATIOT AVENUE  
EASTPOINTE, MICHIGAN 48021

REVISION	DATE	BY	DESCRIPTION
5	04/12/2016	JAM	REVISED PER CITY COMMENTS & ZONING BOARD SUBMISSION
4	03/10/2016	JAM	REVISED PER CITY COMMENTS & ZONING BOARD SUBMISSION
3	02/17/2016	JAM	REVISED PER CITY COMMENTS
2	01/06/2016	JAM	REVISED PER CITY REVIEW LETTER COMMENTS
1	11/11/2015	JAM	SUBMISSION FOR PRELIMINARY SITE PLAN APPROVAL

NOT APPROVED FOR CONSTRUCTION

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Phone 248.247.1115

SITE DEVELOPMENT PLANS

856 OLD NORTH WOODWARD  
PROPOSED 4 STORY MULTI-FAMILY  
BUILDING WITH RETAIL

PARCEL ID: 19-25-328-001  
856 NORTH OLD WOODWARD ROAD  
CITY OF BIRMINGHAM  
OAKLAND COUNTY, MICHIGAN

MICHIGAN LICENSE No. 6201061061  
LICENSED PROFESSIONAL ENGINEER



SCALE: AS SHOWN PROJECT ID: M-15120

TITLE:

COVER SHEET

DRAWING:

C-1

SHEET INDEX	
DRAWING TITLE	SHEET #
COVER SHEET	C-1
EXISTING CONDITIONS PLAN	C-2
FIRST FLOOR SITE PLAN	C-3
GRADING PLAN	C-4
UTILITY PLAN	C-5
SOIL EROSION & SEDIMENT CONTROL PLAN	C-6

V:\PROJECTS\15124\BRT-TEC\856 N. OLD WOODWARD, BIRMINGHAM, MICHIGAN\LOT20P-856NOT.DWG

### PARCEL AREA

24719± SQUARE FEET = 0.57± ACRES

### BASIS OF BEARING

SOUTH 23°57'44" EAST, BEING THE NORTHERLY RIGHT OF WAY LINE OF N. OLD WOODWARD AVENUE.

### BENCHMARK

NORTHWEST BOLT OF STREET LIGHT, LOCATED ON THE EASTERLY SIDE OF N. OLD WOODWARD AVENUE. ELEVATION = 756.31' (CITY OF BIRMINGHAM DATUM)

### FLOOD NOTE

SUBJECT PARCEL LIES WITHIN:

SPECIAL FLOOD HAZARD AREA (ZONE AE): BASE FLOOD ELEVATIONS DETERMINED.

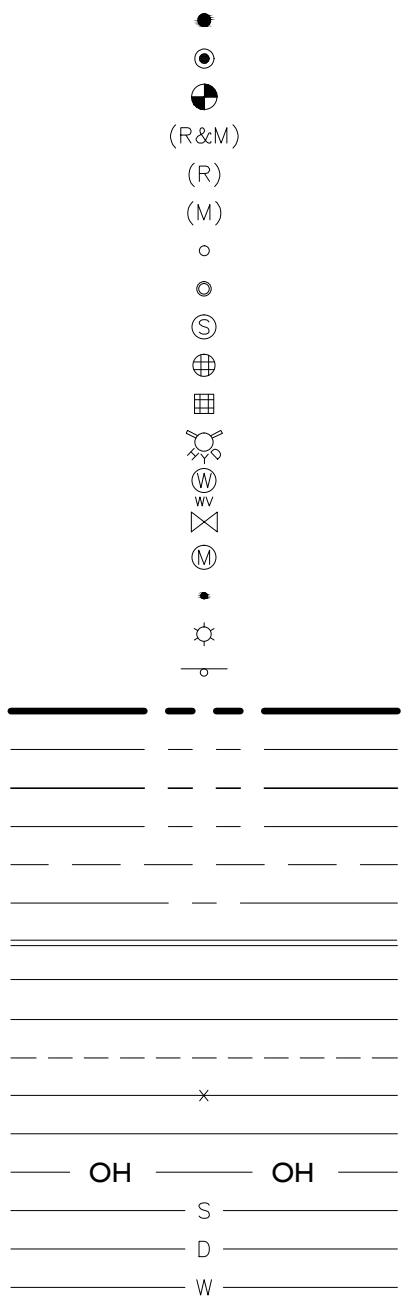
FLOODWAY AREAS IN ZONE AE: THE FLOODWAY IS THE CHANNEL OF A STREAM PLUS ANY ADJACENT FLOODPLAIN AREAS THAT MUST BE KEPT FREE OF ENCROACHMENT SO THAT THE 1% ANNUAL CHANCE FLOOD CAN BE CARRIED WITHOUT SUBSTANTIAL INCREASES IN FLOOD HEIGHTS.

ZONE X: AREAS DETERMINED TO BE OUTSIDE OF THE 0.2% ANNUAL CHANCE FLOODPLAIN.

AS SHOWN ON FLOOD INSURANCE RATE MAP: MAP NUMBER 26125C0537F, COMMUNITY - PANEL NUMBER 260168 0537 F, DATED SEPTEMBER 29, 2006, PUBLISHED BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY.



### SYMBOL



### DESCRIPTION

SET 1/2" REBAR WITH CAP P.S. 47976  
FOUND MONUMENT (AS NOTED)  
FOUND SECTION CORNER (AS NOTED)  
RECORD AND MEASURED DIMENSION  
RECORD DIMENSION  
MEASURED DIMENSION  
UTILITY POLE  
GAS LINE MARKER  
SANITARY MANHOLE  
ROUND CATCH BASIN  
SQUARE CATCH BASIN  
FIRE HYDRANT  
WATER GATE MANHOLE  
WATER VALVE  
UNKNOWN MANHOLE  
BOLLARD  
LIGHTPOST/LAMP POST  
SINGLE POST SIGN  
PARCEL BOUNDARY LINE  
PLATTED LOT LINE  
ADJOINER PARCEL LINE  
SECTION LINE  
EASEMENT (AS NOTED)  
EASEMENT CENTERLINE  
CONCRETE CURB  
EDGE OF CONCRETE (CONC.)  
EDGE OF ASPHALT (ASPH.)  
EDGE OF GRAVEL  
FENCE (AS NOTED)  
WALL (AS NOTED)  
OVERHEAD UTILITY LINE  
SANITARY LINE  
STORM LINE  
WATER LINE

### PROPERTY DESCRIPTION

LAND SITUATED IN THE CITY OF BIRMINGHAM, COUNTY OF OAKLAND, STATE OF MICHIGAN IS DESCRIBED AS FOLLOWS:

LOTS 3 AND 4, ASSESSOR'S PLAT No. 29 AS RECORDED IN LIBER 6, PAGE 45 OF PLATS, OAKLAND COUNTY RECORDS. ALSO PART OF THE NORTHWEST 1/4 OF SECTION 25, TOWN 2 NORTH, RANGE 10 EAST, CITY OF BIRMINGHAM, OAKLAND COUNTY, MICHIGAN, DESCRIBED AS BEGINNING AT A POINT DISTANT SOUTH 88 DEGREES 16 MINUTES 00 SECONDS EAST 10.15 FEET FROM THE NORTHWEST CORNER OF SAID LOT 3; THENCE SOUTH 88 DEGREES 16 MINUTES 00 SECONDS EAST 124.70 FEET; THENCE NORTH 49 DEGREES 21 MINUTES 00 SECONDS WEST 46.41 FEET; THENCE SOUTH 73 DEGREES 32 MINUTES 00 SECONDS WEST 93.28 FEET TO BEGINNING.

### TITLE REPORT NOTE

ONLY THOSE EXCEPTIONS CONTAINED WITHIN THE LAND TITLE AGENCY, LLC COMMITMENT No. 201523630, DATED MAY 25, 2015, AND RELISTED BELOW WERE CONSIDERED FOR THIS SURVEY. NO OTHER RECORDS RESEARCH WAS PERFORMED BY THE CERTIFYING SURVEYOR.

5. TERMS AND CONDITIONS OF EASEMENT AGREEMENT AS DISCLOSED BY INSTRUMENT RECORDED IN LIBER 43760, PAGE(i) 251, OAKLAND COUNTY RECORDS. (AS SHOWN)

6. TERMS AND CONDITIONS OF AGREEMENT RESPECTING LAND AS DISCLOSED BY INSTRUMENT RECORDED IN LIBER 42730, PAGE(i) 32, OAKLAND COUNTY RECORDS. (AS SHOWN, SEE DOCUMENT FOR TERMS AND CONDITIONS)

7. BUILDING AND USE RESTRICTIONS AND OTHER PROVISIONS, BUT OMITTING RESTRICTIONS, IF ANY, BASED ON RACE, COLOR, RELIGION OR NATIONAL ORIGIN, AS CONTAINED IN THE INSTRUMENT RECORDED IN LIBER 3890, PAGE(i) 335, OAKLAND COUNTY RECORDS, WHICH APPLY SPECIFICALLY TO OTHER LANDS BUT MAY CONSTITUTE A GENERAL PLAN OF DEVELOPMENT. (DOCUMENT NOT PROVIDED AT TIME OF SURVEY)

### SURVEYOR'S CERTIFICATION

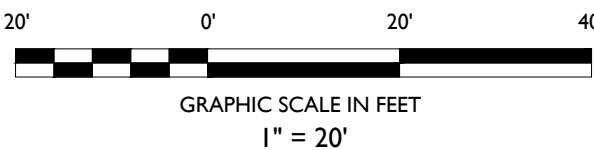
TO FLS PROPERTIES #5, LLC, OLD REPUBLIC NATIONAL TITLE INSURANCE COMPANY AND LAND TITLE AGENCY, LLC:

THIS IS TO CERTIFY THAT THIS MAP OR PLAT AND THE SURVEY ON WHICH IT IS BASED WERE MADE IN ACCORDANCE WITH THE 2011 MINIMUM STANDARD DETAIL REQUIREMENTS FOR ALTA/ACSM LAND TITLE SURVEYS, JOINTLY ESTABLISHED AND ADOPTED BY ALTA AND NSPS, AND INCLUDED ITEMS 1, 2, 4, 5, 7A, 8, 9 AND 11B OF TABLE A, THEREOF. THE FIELD WORK WAS COMPLETED ON AUGUST 21, 2015.

DATE OF PLAT OR MAP: AUGUST 25, 2015

### SURVEY NOTES:

1. THE SURVEY LISTED WITHIN THE PLAN REFERENCES ON THE COVER SHEET SHALL BE CONSIDERED A PART OF THIS PLAN SET AND ALL INFORMATION CONTAINED WITHIN THE SURVEY AND ASSOCIATED DOCUMENTS SHALL BE UTILIZED IN CONJUNCTION WITH THIS PLAN SET. THE CONTRACTOR IS RESPONSIBLE TO OBTAIN A COPY OF THE SURVEY AND REVIEW IT THOROUGHLY PRIOR TO THE START OF CONSTRUCTION.



### SITE DEVELOPMENT PLANS

## 856 OLD NORTH WOODWARD PROPOSED 4 STORY MULTI-FAMILY BUILDING WITH RETAIL

PARCEL ID: 19-25-328-001  
856 NORTH OLD WOODWARD ROAD  
CITY OF BIRMINGHAM  
OAKLAND COUNTY, MICHIGAN

MICHIGAN LICENSE No. 6201061061  
LICENSED PROFESSIONAL ENGINEER

**STONEFIELD**  
engineering & design, llc.

SCALE: 1" = 20' PROJECT ID: M-15120

TITLE:  
**EXISTING CONDITIONS  
PLAN**

DRAWING:

**C-2**

**STONEFIELD**  
engineering & design, llc.

Rutherford, NJ · Farmingdale, NY · Bloomfield Hills, MI  
www.stonefieldeng.com

2350 Franklin Road, Suite 210, Bloomfield Hills, MI 48302  
Phone 248.247.1115

NOT APPROVED FOR CONSTRUCTION

DESCRIPTION

DATE

ISSUE

BY

DATE

ISSUE

DATE

ISSUE

DATE

ISSUE

DATE

ISSUE

DATE

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DATE

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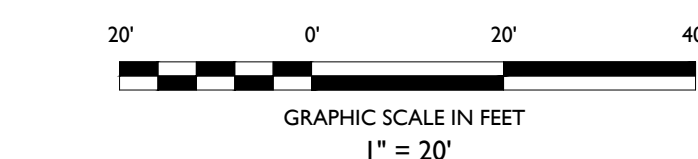
ISSUE





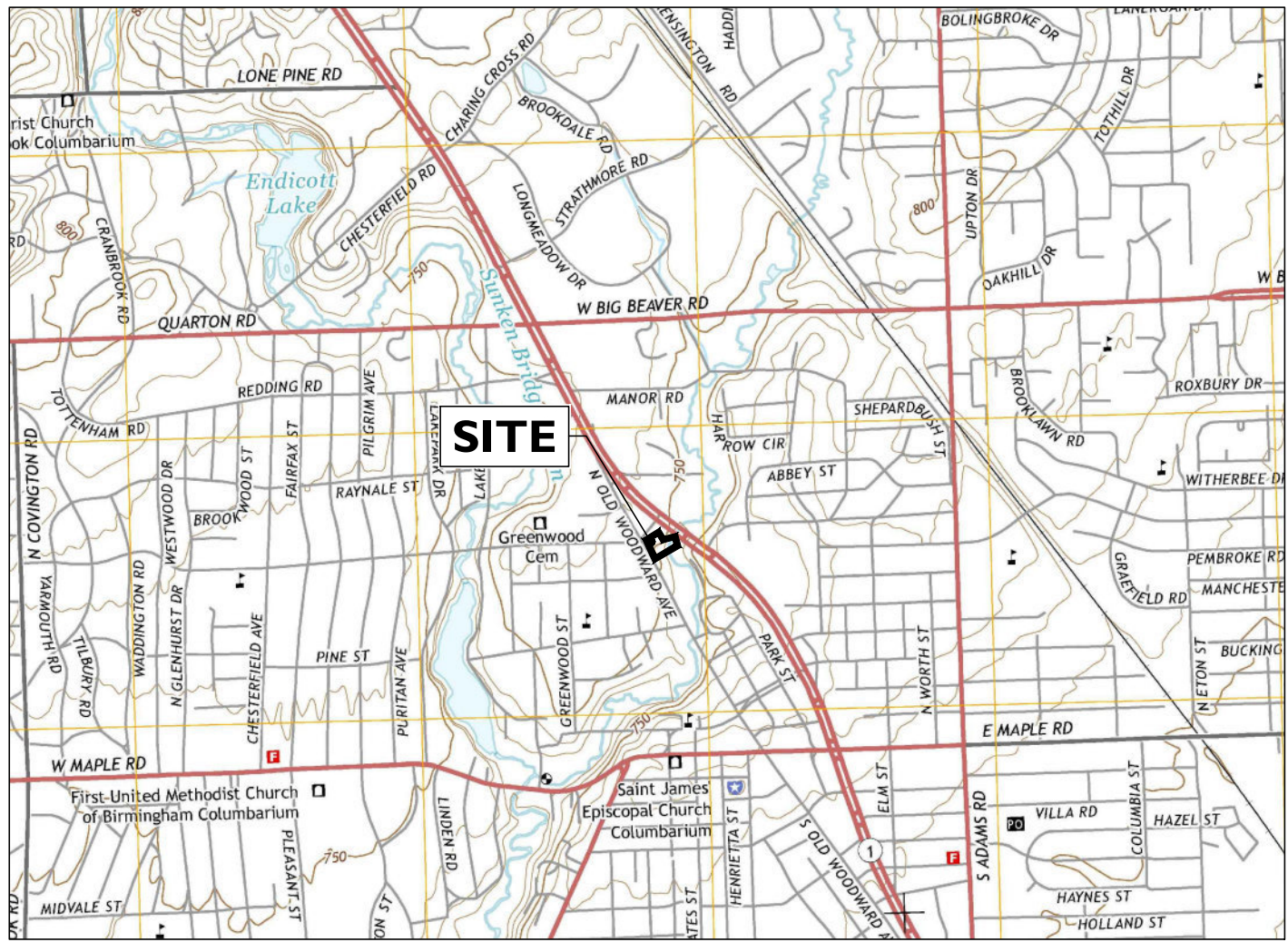


NOT TO SCALE



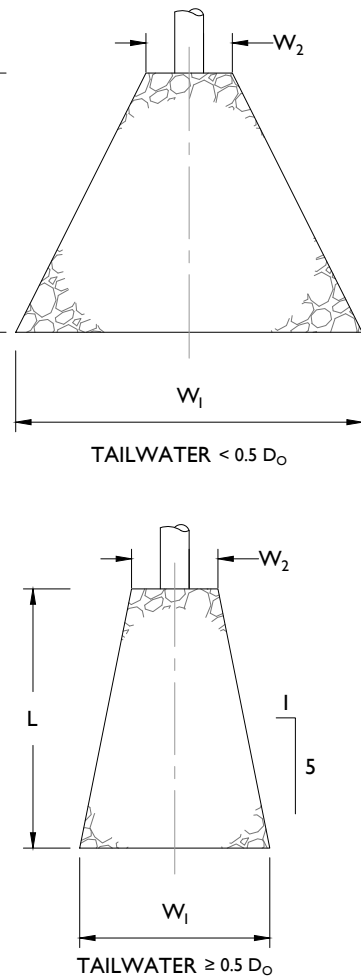
1. THE CONTRACTOR IS REQUIRED TO CALL THE APPROPRIATE AUTHORITY FOR NOTICE OF CONSTRUCTION/EXCAVATION AND MAKE OUT PRIOR TO THE START OF CONSTRUCTION IN ACCORDANCE WITH STATE LAW. CONTRACTOR IS REQUIRED TO NOTIFY THE HORNBACH GROUP OF ANY EXISTING UTILITIES IN THE FIELD. SHOULD A DISCREPANCY EXIST BETWEEN THE FIELD LOCATION OF A UTILITY AND THE LOCATION SHOWN ON THE PLAN SET OR SURVEY, THE CONTRACTOR SHALL NOTIFY STONEFIELD ENGINEERING & DESIGN, LLC IN WRITING.
2. THE CONTRACTOR IS RESPONSIBLE TO PROTECT AND MAINTAIN IN OPERATION ALL UTILITIES NOT DESIGNATED TO BE REMOVED.
3. THE CONTRACTOR IS RESPONSIBLE FOR REPAIRING ANY DAMAGE TO EXISTING UTILITIES OCCURRING WHILE WORKING WITHIN THE LIMITS OF THE PROPOSED WORK DURING CONSTRUCTION.
4. A MINIMUM HORIZONTAL SEPARATION OF 10 FEET IS REQUIRED BETWEEN ANY SANITARY SEWER SERVICE AND ANY WATER LINES IF ANY ENCASEMENT IS NOT PROVIDED. IF AN ENCASEMENT IS PROVIDED, AN ENCASEMENT SHALL BE UTILIZED FOR THE SANITARY SEWER SERVICE AS APPROVED BY STONEFIELD ENGINEERING & DESIGN, LLC.
5. ALL WATER LINES SHALL BE VERTICALLY SEPARATED ABOVE SANITARY SEWERS BY A MINIMUM OF 18 INCHES. IF A MINIMUM OF 18 INCH SEPARATION CANNOT BE PROVIDED, A CONCRETE ENCASEMENT SHALL BE UTILIZED FOR THE SANITARY SEWER SERVICE AS APPROVED BY STONEFIELD ENGINEERING & DESIGN, LLC.
6. THE CONTRACTOR SHALL CONDUCT TEST PIT PRIOR TO CONSTRUCTION (RECOMMEND 30 DAYS PRIOR) AT LOCATIONS OF EXISTING UTILITY CROSSINGS FOR WATER AND SANITARY SEWER CONNECTION IMPROVEMENTS. SHOULD A CONFLICT EXIST, THE CONTRACTOR SHALL NOTIFY STONEFIELD ENGINEERING & DESIGN, LLC IN WRITING.
7. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING GAS, ELECTRIC AND TELECOMMUNICATION CONNECTIONS WITH THE APPROPRIATE GOVERNMENT AGENCIES.
8. THE CONTRACTOR SHALL START CONSTRUCTION OF ANY GRAVITY SEWER AT THE LOWEST INVERT AND WORK UP-GRADIENT.
9. THE CONTRACTOR IS RESPONSIBLE TO MAINTAIN A RECORD SET OF THE EXISTING UTILITIES, THE LOCATION OF EXCAVATIONS, AND THE DAMAGE/REMOVAL ACTIVITIES REQUIRED IN THIS PLAN SET. THIS DOCUMENT SHALL BE PROVIDED TO THE OWNER FOLLOWING COMPLETION OF WORK.
10. THE CONTRACTOR IS RESPONSIBLE TO MAINTAIN A RECORD OF THE AS-BUILT LOCATIONS OF ALL PROPOSED UNDERGROUND INFRASTRUCTURE. THE CONTRACTOR SHALL NOTE ANY DISCREPANCIES BETWEEN THE FIELD LOCATION OF UTILITIES AND THE LOCATIONS DEPICTED WITHIN THE PLAN SET. THIS RECORD SHALL BE PROVIDED TO THE OWNER FOLLOWING COMPLETION OF WORK.

**C-5**



## LOCATION MAP

SCALE: 1" = 2000'±

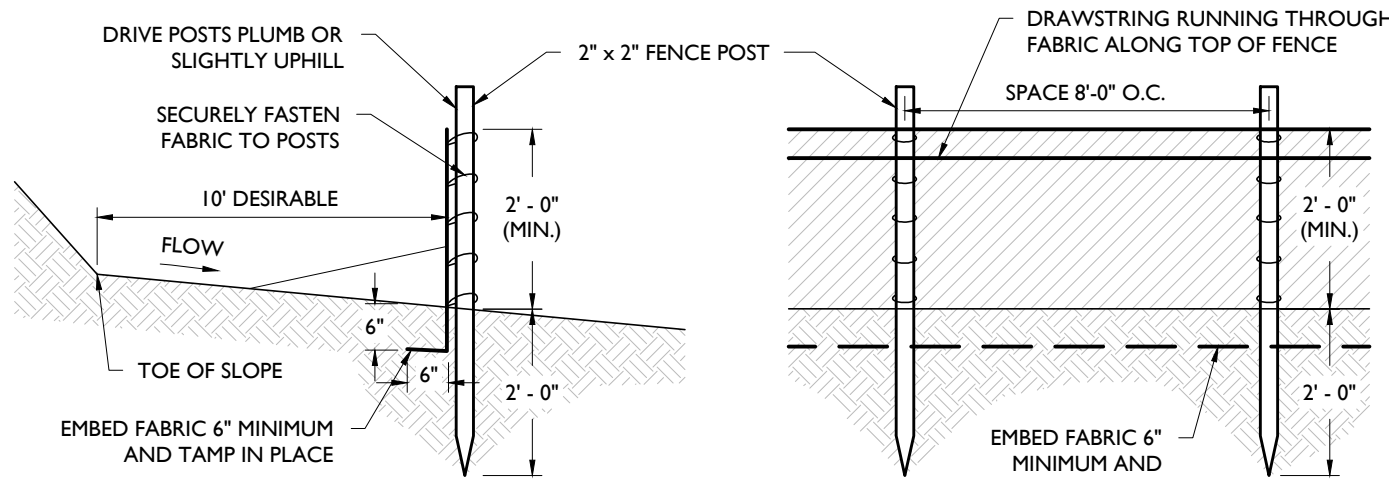
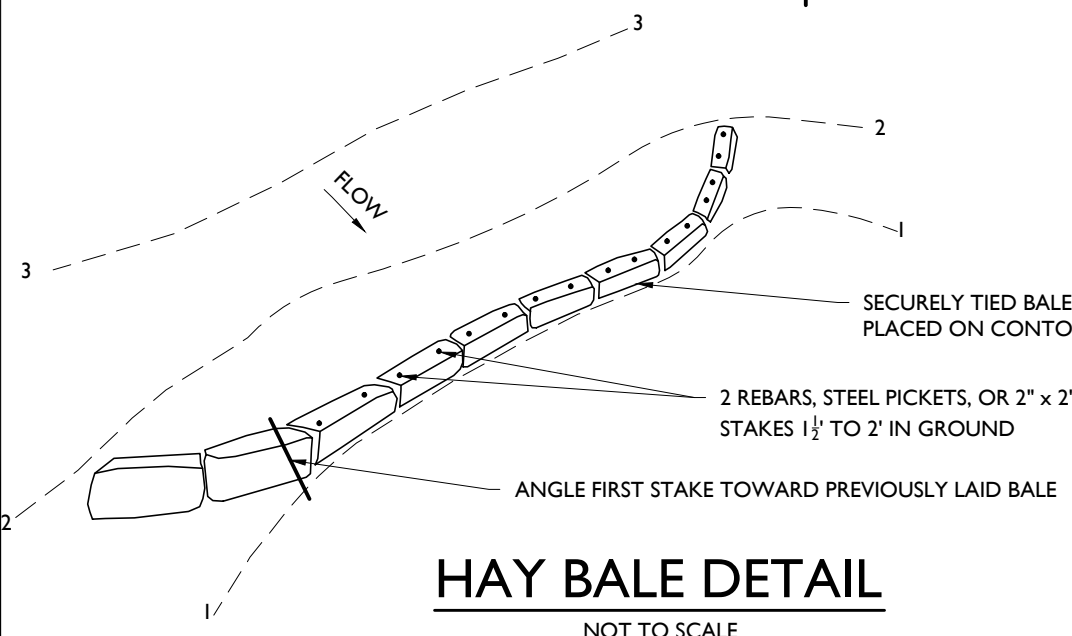
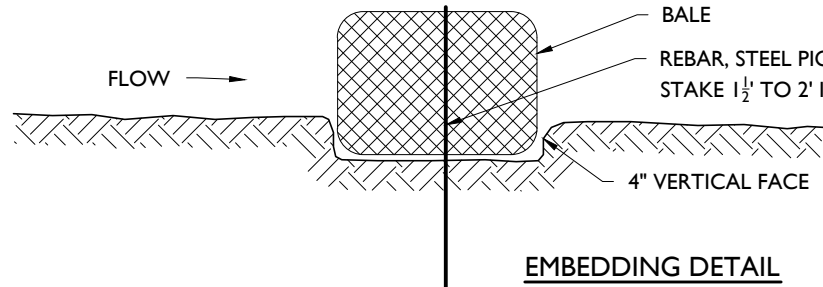


RIP-RAP SIZING CHART						
FES #	L (ft)	W1 (ft)	W2 (ft)	D50 (in)	Th* (in)	
1	10.0	15.0	4.0	6.0	12.0	
2	11.0	15.0	3.0	6.0	12.0	
3	14.0	18.0	3.0	6.0	12.0	
4	14.0	16.0	5.0	6.0	12.0	

(\*) = MINIMUM APRON THICKNESS SHALL BE TWO TIMES THE D50 SIZE FOR THE APRON.

### RIP-RAP PAD

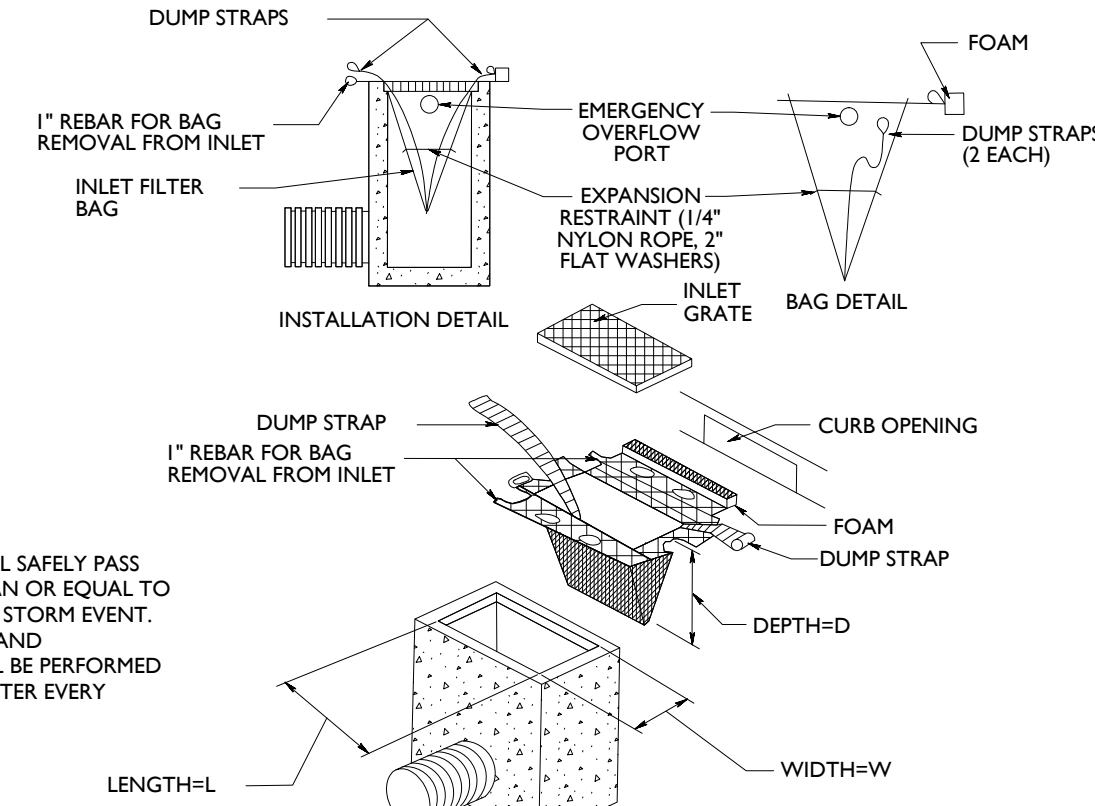
NOT TO SCALE



- NOTES:
1. SECURELY FASTEN GEOTEXTILE TO FENCE POST BY USE OF WIRE TIES, HOG RINGS, STAPLES OR POCKETS. FOUR TO SIX FASTENERS PER POST.
  2. GEOTEXTILE FABRIC TO BE EMBEDDED 6\"/>

### SILT FENCE DETAIL

NOT TO SCALE



### INLET FILTER BAG DETAIL

NOT TO SCALE

### SYMBOL DESCRIPTION

— LOD —	LIMIT OF DISTURBANCE
— SF —	SILT FENCE
	PROPOSED INLET FILTER

### 59 - URBAN LAND

SOIL CHARACTERISTICS	
HYDROLOGIC SOIL GROUP	D
DEPTH TO RESTRICTIVE LAYER	MORE THAN 200 INCHES
SOIL PERMEABILITY	N/A
DEPTH TO WATER TABLE	MORE THAN 80 INCHES

### SEQUENCE OF CONSTRUCTION

1. INSTALL SILT FENCE AND CONSTRUCTION ENTRANCE (2 DAYS).
2. DEMOLISH EXISTING STRUCTURES, PAVEMENT, AND GRAVEL (45 DAYS).
3. ROUGH GRADING AND TEMPORARY SEEDING (20 DAYS).
4. EXCAVATE AND INSTALL UNDERGROUND BASIN, WATER QUALITY UNIT, DRAINAGE PIPING, AND INLETS (20 DAYS).
5. INSTALL INLET FILTERS (1 DAY).
6. BUILDING CONSTRUCTION AND SITE IMPROVEMENTS (275 DAYS).
7. CONSTRUCT RIGHT OF WAY IMPROVEMENTS (180 DAYS).
8. LANDSCAPING IMPROVEMENTS AND FINAL SEEDING (7 DAYS).
9. REMOVE SOIL EROSION MEASURES (1 DAY).

NOTE: TIME DURATIONS ARE APPROXIMATE AND ARE INTENDED TO ACT AS A GENERAL GUIDE TO THE CONSTRUCTION TIMELINE. ALL DURATIONS ARE SUBJECT TO CHANGE BY CONTRACTOR. CONTRACTOR SHALL SUBMIT CONSTRUCTION SCHEDULE TO TOWNSHIP AND ENGINEER. CONTRACTOR SHALL PHASE CONSTRUCTION ACCORDINGLY.

### FLOOD HAZARD AREA NOTES:

1. THERE ARE NO RIPARIAN ZONES ON SITE.
2. THERE ARE FLOODWAYS ON SITE.
3. PORTIONS OF THE SITE ARE WITHIN THE 100-YR FLOOD AREA.
4. ALL ELEVATIONS SHOWN ARE BASED ON THE CITY OF BIRMINGHAM DATUM.

### ENVIRONMENTAL NOTES:

1. THERE ARE NO WETLANDS ON SITE.
2. THE ROUGE RIVER IS LOCATED ON SITE.
3. REFER TO STORMWATER MANAGEMENT REPORT FOR SOIL INFORMATION AND LAND USE FOR SURROUNDING AREA.

### PARCEL AREA

24,719± SQUARE FEET = 0.57± ACRES

### BASIS OF BEARING

SOUTH 23°57'44" EAST, BEING THE NORTHERLY RIGHT OF WAY LINE OF N. OLD WOODWARD AVENUE.

### BENCHMARK

NORTHWEST BOLT OF STREET LIGHT, LOCATED ON THE EASTERLY SIDE OF N. OLD WOODWARD AVENUE. ELEVATION = 756.31' (CITY OF BIRMINGHAM DATUM)

### FLOOD NOTE

SUBJECT PARCEL LIES WITHIN:

SPECIAL FLOOD HAZARD AREA (ZONE AE): BASE FLOOD ELEVATIONS DETERMINED.

FLOODWAY AREAS IN ZONE AE: THE FLOODWAY IS THE CHANNEL OF A STREAM PLUS ANY ADJACENT FLOODPLAIN AREAS THAT MUST BE KEPT FREE OF ENCROACHMENT SO THAT THE 1% ANNUAL CHANCE FLOOD CAN BE CARRIED WITHOUT SUBSTANTIAL INCREASES IN FLOOD HEIGHTS.

ZONE X: AREAS DETERMINED TO BE OUTSIDE OF THE 0.2% ANNUAL CHANCE FLOODPLAIN.

AS SHOWN ON FLOOD INSURANCE RATE MAP: MAP NUMBER 26125C0537F, COMMUNITY - PANEL NUMBER 260168 0537 F, DATED SEPTEMBER 29, 2006, PUBLISHED BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY.

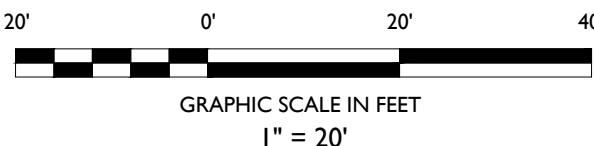
### PROPERTY DESCRIPTION

LAND SITUATED IN THE CITY OF BIRMINGHAM, COUNTY OF OAKLAND, STATE OF MICHIGAN IS DESCRIBED AS FOLLOWS:

LOTS 3 AND 4, ASSESSOR'S PLAT No. 29 AS RECORDED IN LIBER 6, PAGE 45 OF PLATS, OAKLAND COUNTY RECORDS, ALSO PART OF THE NORTHWEST 1/4 OF SECTION 25, TOWN 2 NORTH, RANGE 10 EAST, CITY OF BIRMINGHAM, OAKLAND COUNTY, MICHIGAN, DESCRIBED AS BEGINNING AT A POINT DISTANT SOUTH 88 DEGREES 16 MINUTES 00 SECONDS EAST 10.15 FEET FROM THE NORTHWEST CORNER OF SAID LOT 3; THENCE SOUTH 88 DEGREES 16 MINUTES 00 SECONDS EAST 124.70 FEET; THENCE NORTH 49 DEGREES 21 MINUTES 00 SECONDS WEST 46.41 FEET; THENCE SOUTH 73 DEGREES 32 MINUTES 00 SECONDS WEST 93.28 FEET TO BEGINNING.

### EROSION AND SEDIMENT CONTROL NOTES

1. THE CONTRACTOR IS RESPONSIBLE FOR SOIL EROSION AND SEDIMENT CONTROL IN ACCORDANCE WITH LOCAL, STATE, AND FEDERAL REQUIREMENTS.
2. THE CONTRACTOR IS RESPONSIBLE FOR DUST CONTROL AND COMPLIANCE WITH LOCAL, STATE, AND FEDERAL AIR QUALITY STANDARDS.
3. THE CONTRACTOR IS RESPONSIBLE TO INSPECT ALL SOIL EROSION MEASURES WEEKLY AND AFTER A PRECIPITATION EVENT GREATER THAN 1 INCH. THE CONTRACTOR SHALL MAINTAIN AN INSPECTION LOG ON SITE AND DOCUMENT CORRECTIVE ACTION AS REQUIRED TAKEN THROUGHOUT THE COURSE OF CONSTRUCTION.



### SITE DEVELOPMENT PLANS

## 856 OLD NORTH WOODWARD PROPOSED 4 STORY MULTI-FAMILY BUILDING WITH RETAIL

PARCEL ID: 19-35-378-001  
856 NORTH OLD WOODWARD ROAD  
CITY OF BIRMINGHAM  
OAKLAND COUNTY, MICHIGAN

MICHIGAN LICENSE No. 6201061061  
LICENSED PROFESSIONAL ENGINEER

**STONEFIELD**  
engineering & design, llc.

SCALE: 1" = 20' PROJECT ID: M-15120

TITLE:  
**SOIL EROSION &  
SEDIMENT CONTROL  
PLAN**

DRAWING:

**C-6**

**STONEFIELD**  
engineering & design, llc.

Rutherford, NJ · Farmingdale, NY · Bloomfield Hills, MI

www.stonefieldeng.com

2350 Franklin Road, Suite 210, Bloomfield Hills, MI 48302  
Phone 248.247.1115

NOT APPROVED FOR CONSTRUCTION

REVISED PER CITY COMMENTS & ZONING BOARD SUBMISSION	REVISED PER CITY COMMENTS & ZONING BOARD SUBMISSION	REVISED PER CITY COMMENTS	REVISED PER CITY REVW LETTER COMMENTS	SUBMISSION FOR PRELIMINARY SITE PLAN APPROVAL	DESCRIPTION
5	04/12/2016	JAM			BY
4	03/10/2016	JAM			DATE
3	02/17/2016	JAM			ISSUE
2	01/06/2016	JAM			
1	11/11/2015	JAM			

## Appendix E

**Table 1: 856 North Old Woodward Ave, Birmingham - Eligible Activities Cost Estimates (incl. School Tax Capture)**

Item/Activity	Brownfield Quantity	Greenfield Quantity	Units	Unit Cost (Brownfield)	Unit Cost (Greenfield)	Brownfield (Contaminated) Site Cost	Greenfield (Uncontaminated) Site Cost	Eligible Brownfield Cost (cost difference)
<b>Baseline Environmental Assessments</b>								
(a) Phase I ESA, Phase II ESA, BEA, DDCC	1	0	ea	\$ 16,155.00	\$ 2,000.00	\$ 16,155	\$ 2,000	\$ 14,155
<b>Due Care Activities</b>								
(a) Excavation of hazardous material	6,705	6,705	tons	\$ 63.35	\$ 23.00	\$ 424,762	\$ 154,215	\$ 270,547
(b) Transportation of contaminated soils								
Transport of soil to a Type II Landfill	13,390	13,390	tons	\$ 7.00	\$0.00	\$ 93,730	\$ -	\$ 93,730
Transport of hazardous material	6,705	6,705	tons	\$ 47.55	\$0.00	\$ 318,823	\$ -	\$ 318,823
(c) Disposal of contaminated soils								
Disposal of soil to a Type II Landfill	13,390	13,390	tons	\$ 11.50	\$0.00	\$ 153,985	\$ -	\$ 153,985
Disposal of hazardous material	6,705	6,705	tons	\$ 150.00	\$0.00	\$ 1,005,750	\$ -	\$ 1,005,750
(d) Excavation Equipment Decon and Decon Wastewater Handling	1	-	ea	\$ 7,500.00	\$0.00	\$ 7,500	\$ -	\$ 7,500
(e) Additional delineation and sampling of Tetrachloroethylene soil concentrations								
Mobilization, onsite labor for oversight, screening, and sample collection	1	0	ea	\$ 2,550.00	\$0.00	\$ 2,550	\$ -	\$ 2,550
Consultant equipment and supplies	1	0	ea	\$ 600.00	\$0.00	\$ 600	\$ -	\$ 600
Data evaluation and project management for reporting	1	0	ea	\$ 3,500.00	\$0.00	\$ 3,500	\$ -	\$ 3,500
Drilling and operations	1	0	ea	\$ 5,275.00	\$0.00	\$ 5,275	\$ -	\$ 5,275
Lab analysis of 36 samples for VOCs	36	0	samples	\$ 70.00	\$0.00	\$ 2,520	\$ -	\$ 2,520
Project management associated with hazardous material	1	0	ea	\$ 7,500.00	\$0.00	\$ 7,500	\$ -	\$ 7,500
(f) Associated excavation oversight, excavation verification sampling, and reporting								
Mobilization, oversight, and sample collection	1	0	ea	\$ 12,375.00	\$0.00	\$ 12,375	\$ -	\$ 12,375
Consultant equipment and supplies	1	0	ea	\$ 1,200.00	\$0.00	\$ 1,200	\$ -	\$ 1,200
Data Evaluation, project management, and report preparation	1	0	ea	\$ 4,500.00	\$0.00	\$ 4,500	\$ -	\$ 4,500
Sampling for VOCs, PNAs, PCBs, Michigan 10 metals	28	0	samples	\$ 350.00	\$0.00	\$ 9,800	\$ -	\$ 9,800
Up to one sample for TCLP	1	0	samples	\$ 600.00	\$0.00	\$ 600	\$ -	\$ 600
(g) Management and disposal of up to 30,000 gallons of contaminated groundwater								
On-site storage management	1	1	ea	\$ 7,500.00	\$0.00	\$ 7,500	\$ -	\$ 7,500
Disposal	30,000	30,000	gallons	\$ 1.40	\$0.01	\$ 42,000	\$ 240	\$ 41,760
(h) Installation of a vapor barrier and gaskets resistant to chemical breakdown								
Installation of chemically resistant gaskets	10	0	ea	\$ 1,000.00	\$0.00	\$ 10,000	\$ -	\$ 10,000
Design, bid specification, and coordination	1	0	ea	\$ 5,000.00	\$0.00	\$ 5,000	\$ -	\$ 5,000
Vapor barrier installation and initial testing	1	0	ea	\$ 125,000.00	\$0.00	\$ 125,000	\$ -	\$ 125,000
Vapor installation oversight	1	0	ea	\$ 10,000.00	\$0.00	\$ 10,000	\$ -	\$ 10,000
Post installation testing	1	0	ea	\$ 7,500.00	\$0.00	\$ 7,500	\$ -	\$ 7,500
Project management and reporting	1	0	ea	\$ 15,000.00	\$0.00	\$ 15,000	\$ -	\$ 15,000
(i) Costs associated with project management brownfield financial management	1	0	ea	\$ 3,000.00	\$0.00	\$ 3,000	\$ -	\$ 3,000
(j) Post-construction due care plan and associated management and reporting	1	0	ea	\$ 5,000.00	\$0.00	\$ 5,000	\$ -	\$ 5,000
							<b>Sub-total</b>	<b>\$ 2,130,515</b>
<b>Preparation of Brownfield Plan</b>								
(a) Brownfield Plan/381 Workplan	1	0	ea	\$ 9,000.00	\$ -	\$ 9,000	\$ -	\$ 9,000
<b>Project Sub-Total</b>								<b>\$2,153,670</b>
15% Contingency*								\$ 319,577
<b>Project Sub-Totals with Contingency</b>								<b>\$2,473,247</b>
3% Interest								\$ 508,364
<b>Total Cost of Developer Eligible Activities to be Funded Through TIF</b>								<b>\$ 2,981,610</b>

\*Excludes contingencies for Baseline Environmental Assessment Activities and Brownfield Plan Preparation

Table 2: TIF Table

		2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	
			YR1	YR2	YR3	YR4	YR5	YR6	YR7	YR8	YR9	YR10	YR11	YR12	YR13	YR14	
Base Taxable Value		\$ 322,450	\$ 322,450	\$ 322,450	\$ 322,450	\$ 322,450	\$ 322,450	\$ 322,450	\$ 322,450	\$ 322,450	\$ 322,450	\$ 322,450	\$ 322,450	\$ 322,450	\$ 322,450	\$ 322,450	
Estimated New Taxable Value (estimated increase of 1%/year)		\$ 2,500,000	\$ 2,500,000	\$ 5,000,000	\$ 5,050,000	\$ 5,100,500	\$ 5,151,505	\$ 5,203,020	\$ 5,255,050	\$ 5,307,601	\$ 5,360,677	\$ 5,414,284	\$ 5,468,426	\$ 5,523,111	\$ 5,578,342	\$ 5,634,125	
Incremental Difference (New Taxable Value <i>minus</i> Taxable Value)		\$ 2,177,550	\$ 2,177,550	\$ 4,677,550	\$ 4,727,550	\$ 4,778,050	\$ 4,829,055	\$ 4,880,570	\$ 4,932,600	\$ 4,985,151	\$ 5,038,227	\$ 5,091,834	\$ 5,145,976	\$ 5,200,661	\$ 5,255,892	\$ 5,311,675	
<b>Local Taxes - Millage</b>																	
County Operating	4.0900	\$ 8,906	\$ 19,131	\$ 19,336	\$ 19,542	\$ 19,751	\$ 19,962	\$ 20,174	\$ 20,389	\$ 20,606	\$ 20,826	\$ 21,047	\$ 21,271	\$ 21,497	\$ 21,725	\$ 21,953	\$ 654,721
OIS Allocated	0.1999	\$ 435	\$ 935	\$ 945	\$ 955	\$ 965	\$ 976	\$ 986	\$ 997	\$ 1,007	\$ 1,018	\$ 1,029	\$ 1,040	\$ 1,051	\$ 1,062	\$ 1,073	\$ 32,000
OIS Voted	3.1634	\$ 6,888	\$ 14,797	\$ 14,955	\$ 15,115	\$ 15,276	\$ 15,439	\$ 15,604	\$ 15,770	\$ 15,938	\$ 16,108	\$ 16,279	\$ 16,452	\$ 16,626	\$ 16,803	\$ 16,983	\$ 506,392
OCC Voted	1.5819	\$ 3,445	\$ 7,399	\$ 7,479	\$ 7,558	\$ 7,639	\$ 7,721	\$ 7,803	\$ 7,886	\$ 7,970	\$ 8,055	\$ 8,140	\$ 8,227	\$ 8,314	\$ 8,403	\$ 8,493	\$ 253,228
City Operating	11.4943	\$ 25,029	\$ 53,765	\$ 54,340	\$ 54,920	\$ 55,507	\$ 56,099	\$ 56,697	\$ 57,301	\$ 57,911	\$ 58,527	\$ 59,149	\$ 59,778	\$ 60,413	\$ 61,054	\$ 61,699	\$ 1,839,990
Refuse	0.9170	\$ 1,997	\$ 4,289	\$ 4,335	\$ 4,381	\$ 4,428	\$ 4,475	\$ 4,523	\$ 4,571	\$ 4,620	\$ 4,669	\$ 4,719	\$ 4,769	\$ 4,820	\$ 4,871	\$ 4,922	\$ 146,792
Library	1.1000	\$ 2,395	\$ 5,145	\$ 5,200	\$ 5,256	\$ 5,312	\$ 5,369	\$ 5,426	\$ 5,484	\$ 5,542	\$ 5,601	\$ 5,661	\$ 5,721	\$ 5,781	\$ 5,843	\$ 5,904	\$ 176,086
County Pk & Rec	0.2410	\$ 525	\$ 1,127	\$ 1,139	\$ 1,152	\$ 1,164	\$ 1,176	\$ 1,189	\$ 1,201	\$ 1,214	\$ 1,227	\$ 1,240	\$ 1,253	\$ 1,267	\$ 1,280	\$ 1,294	\$ 38,579
HCMA	0.2146	\$ 467	\$ 1,004	\$ 1,015	\$ 1,025	\$ 1,036	\$ 1,047	\$ 1,059	\$ 1,070	\$ 1,081	\$ 1,093	\$ 1,104	\$ 1,116	\$ 1,128	\$ 1,140	\$ 1,153	\$ 34,353
OCPTA	0.9998	\$ 2,177	\$ 4,677	\$ 4,727	\$ 4,777	\$ 4,828	\$ 4,880	\$ 4,932	\$ 4,984	\$ 5,037	\$ 5,091	\$ 5,145	\$ 5,200	\$ 5,255	\$ 5,311	\$ 5,366	\$ 160,046
Total Local Taxes (capturable)	24.0019	\$ 52,265	\$ 112,270	\$ 113,470	\$ 114,682	\$ 115,906	\$ 117,143	\$ 118,392	\$ 119,653	\$ 120,927	\$ 122,214	\$ 123,513	\$ 124,826	\$ 126,151	\$ 127,490	\$ 128,825	\$ 3,842,187
<b>School Taxes</b>																	
School Operating	18.0000	\$ 39,196	\$ 84,196	\$ 85,096	\$ 86,005	\$ 86,923	\$ 87,850	\$ 88,787	\$ 89,733	\$ 90,688	\$ 91,653	\$ 92,628	\$ 93,612	\$ 94,606	\$ 95,610	\$ 96,625	\$ 1,206,582
SET	6.0000	\$ 13,065	\$ 28,065	\$ 28,365	\$ 28,668	\$ 28,974	\$ 29,283	\$ 29,596	\$ 29,911	\$ 30,229	\$ 30,551	\$ 30,876	\$ 31,204	\$ 31,535	\$ 31,870	\$ 32,205	\$ 402,194
Total School Taxes	24.0000	\$ 52,261	\$ 112,261	\$ 113,461	\$ 114,673	\$ 115,897	\$ 117,134	\$ 118,382	\$ 119,644	\$ 120,917	\$ 122,204	\$ 123,503	\$ 124,816	\$ 126,141	\$ 127,480	\$ 128,830	\$ 1,608,776
<b>Non-Capturable Millages</b>																	
School Debt	3.9000	\$ 8,492	\$ 18,242	\$ 18,437	\$ 18,634	\$ 18,833	\$ 19,034	\$ 19,237	\$ 19,442	\$ 19,649	\$ 19,858	\$ 20,069	\$ 20,283	\$ 20,498	\$ 20,716	\$ 20,935	\$ 261,426
City Debt	1.3156	\$ 2,865	\$ 6,154	\$ 6,220	\$ 6,286	\$ 6,353	\$ 6,421	\$ 6,489	\$ 6,558	\$ 6,628	\$ 6,699	\$ 6,770	\$ 6,842	\$ 6,915	\$ 6,988	\$ 7,062	\$ 88,188
Zoo Authority	0.0998	\$ 217	\$ 467	\$ 472	\$ 477	\$ 482	\$ 487	\$ 492	\$ 498	\$ 503	\$ 508	\$ 514	\$ 519	\$ 525	\$ 530	\$ 536	\$ 6,690
Art Institute	0.1996	\$ 435	\$ 934	\$ 944	\$ 954	\$ 964	\$ 974	\$ 985	\$ 995	\$ 1,006	\$ 1,016	\$ 1,027	\$ 1,038	\$ 1,049	\$ 1,060	\$ 1,071	\$ 13,380
Total Non-Capturable Millages	5.5150	\$ 12,009	\$ 25,797	\$ 26,072	\$ 26,351	\$ 26,632	\$ 26,916	\$ 27,203	\$ 27,493	\$ 27,786	\$ 28,081	\$ 28,380	\$ 28,682	\$ 28,986	\$ 29,294	\$ 29,600	\$ 369,683
<b>Local Annual Tax Increment Revenue</b>																	
3 Mills of SET to State Brownfield Redevelopment Fund	3.0000	\$ 6,533	\$ 14,033	\$ 14,183	\$ 14,334	\$ 14,487	\$ 14,642	\$ 14,798	\$ 14,955	\$ 15,115	\$ 15,276	\$ 15,438	\$ 15,602	\$ 15,768	\$ 15,935	\$ 16,103	\$ 15,935
School Annual Tax Increment Revenue (after State BF Fund)		\$ 45,729	\$ 98,229	\$ 99,279	\$ 100,339	\$ 101,410	\$ 102,492	\$ 103,585	\$ 104,688	\$ 105,803	\$ 106,929	\$ 108,066	\$ 109,214	\$ 110,374	\$ 111,545	\$ 112,721	\$ 111,545
Annual Tax Increment Revenue		\$ 97,994	\$ 210,499	\$ 212,749	\$ 215,021	\$ 217,317	\$ 219,635	\$ 221,976	\$ 224,341	\$ 226,730	\$ 229,142	\$ 231,579	\$ 234,040	\$ 236,525	\$ 239,035	\$ 241,568	\$ 241,568
Annual Cumulative Incremental Taxes		\$ 97,994	\$ 308,493	\$ 521,241	\$ 736,263	\$ 953,579	\$ 1,173,214	\$ 1,395,191	\$ 1,619,532	\$ 1,846,262	\$ 2,075,404	\$ 2,306,982	\$ 2,541,022	\$ 2,777,547	\$ 3,016,583	\$ 3,259,151	\$ 3,259,151
<b>MDEQ Reimbursed Expenses</b>																	
Local Taxes		\$ 52,265	\$ 112,270	\$ 113,470	\$ 114,682	\$ 115,906	\$ 117,143	\$ 118,392	\$ 119,653	\$ 120,927	\$ 122,214	\$ 123,513	\$ 124,826	\$ 126,151	\$ 127,490	\$ 128,825	\$ 1,313,571
School Taxes		\$ 45,729	\$ 98,229	\$ 99,279	\$ 100,339	\$ 101,410	\$ 102,492	\$ 103,585	\$ 104,688	\$ 105,803	\$ 106,929	\$ 108,066	\$ 109,214	\$ 110,374	\$ 111,545	\$ 112,721	\$ 1,159,675
Unreimbursed Eligible Expenses		\$ 2,473,247	\$ 2,375,253	\$ 2,164,754	\$ 1,952,005	\$ 1,736,984	\$ 1,519,667	\$ 1,300,033	\$ 1,078,056	\$ 853,715	\$ 626,985	\$ 397,843	\$ 166,264	\$ -	\$ -	\$ -	\$ 2,473,247
<b>Simple 3% Interest</b>																	
Annual Interest														\$ 67,775	\$ 236,525	\$ 204,063	\$ 508,364
Unreimbursed Interest		\$ 508,364	\$ 508,364	\$ 508,364	\$ 508,364	\$ 508,364	\$ 508,364	\$ 508,364	\$ 508,364	\$ 508,364	\$ 508,364	\$ 508,364	\$ 508,364	\$ 508,364	\$ 508,364	\$ 508,364	\$ 508,364

Tax Ratio	Millages	Percentage
Local Tax	24.0019	50.00%
School Tax	24.0000	50.00%
Total	48.0019	100.00%

**RESOLUTION APPROVING THE BROWNFIELD PLAN FOR  
856 N. OLD WOODWARD AVENUE**

Whereas, the City of Birmingham has created a Brownfield Redevelopment Authority and appointed members to serve on the Authority, pursuant to 1996 PA 381, and

Whereas, the Brownfield Redevelopment Authority is charged with the review of Brownfield Plans for Brownfield projects in the City of Birmingham, and

Whereas, FLS Properties #5 LLC, the owner and developer of 856 N. Old Woodward Avenue, Birmingham, Michigan, intends to develop a mixed-use residential/retail building with underground parking at 856 N. Old Woodward Avenue, and

Whereas, PM Environmental has prepared a Brownfield Plan for the site, dated July 26, 2016, as revised September 16, 2016, that estimates that eligible activities on this property will cost approximately \$\_\_\_\_\_, and

Whereas, the Brownfield Redevelopment Authority has reviewed the Brownfield Plan.

NOW THEREFORE BE IT RESOLVED THAT:

The Brownfield Redevelopment Authority approves the Brownfield Plan for 856 N. Old Woodward Avenue and requests the City Clerk to forward the Brownfield Plan and associated Reimbursement Agreement to the Birmingham City Commission for its review and approval pursuant to Act 381.

Ayes: \_\_\_\_\_

Nays: \_\_\_\_\_

Abstain: \_\_\_\_\_

## **BROWNFIELD REIMBURSEMENT AGREEMENT**

THIS AGREEMENT (the “Agreement”) dated \_\_\_\_\_, is entered into between the **CITY OF BIRMINGHAM** (“City”) and the **CITY OF BIRMINGHAM BROWNFIELD REDEVELOPMENT AUTHORITY** (the “Authority”), an authority established pursuant to Act 381 of Public Acts of 1996, as amended (“Act 381”), whose addresses are 151 Martin Street, Birmingham, Michigan 48009; and **FLS PROPERTIES #5 LLC** (the “Developer”), a Michigan limited liability company, whose address is 2950 Walnut Lake Road, West Bloomfield, Michigan 48323.

### **Recitals**

A. In accordance with Act 381, the Authority has adopted a Brownfield Plan for 856 N. Old Woodward Avenue, Birmingham, Michigan, that the City Commission of the City has approved (the “Brownfield Plan”).

B. The Developer owns property in the City located at 856 N. Old Woodward Avenue, Birmingham, Michigan (the “Property”), which is legally described on the attached Exhibit A. The Property is included in the Brownfield Plan as an eligible Property because it is a Facility due to the presence of hazardous substances on the Property as described in the Brownfield Plan.

C. The Developer plans to redevelop the Property by constructing a mixed-use residential/retail building with underground parking (the “Improvements”). The Improvements are intended to create temporary construction jobs and new full time jobs, increase the tax base of the City, and otherwise enhance the economic vitality and quality of life of the City.

D. Act 381, as amended, authorizes the Authority to reimburse a developer for the costs of Eligible Activities on Eligible Property using Tax Increment Revenues generated by the redevelopment of the property.

E. To make the Improvements on the Property, the Developer may incur costs to conduct Eligible Activities—including Baseline Environmental Assessment Activities, Due Care Activities, Additional Response Activities, Asbestos Abatement, and the reasonable costs to prepare the Brownfield Plan—each of which will require the services of contractors, engineers, environmental consultants, attorneys and other professionals (the “Eligible Costs”). The Developer estimates the Eligible Costs, including contingencies, to be \$\_\_\_\_\_.

F. The Brownfield Plan authorizes the use of Tax Increment Revenues that are generated by Local and School Taxes imposed on the Property to reimburse the Developer for Eligible Costs.

G. The parties are entering into this Agreement to establish the procedure for reimbursing the Eligible Costs and using Tax Increment Revenues in accordance with Act 381, as amended, and the Brownfield Plan.

Accordingly, the parties agree with each other as follows:

1. The Brownfield Plan. The Brownfield Plan is attached as Exhibit B and incorporated herein. To the extent provisions of the Brownfield Plan conflict with this Agreement, the terms and conditions of this Agreement control. To the extent provisions of the Brownfield Plan or this Agreement conflict with Act 381, as amended, Act 381 controls.

2. Term of Agreement. In accordance with the Brownfield Plan, the Authority will capture the Tax Increment Revenues generated by the Improvements on the Property to reimburse the Eligible Costs until the earlier of the date that all the Eligible Costs are fully

reimbursed under this Agreement or 30 years after the date the Authority begins to capture Tax Increment Revenues under the Brownfield Plan.

3. Eligible Activities. The Authority will reimburse the Developer for Eligible Costs identified in the Brownfield Plan that were incurred before the Birmingham City Commission approves the Brownfield Plan if permitted under Act 381, as amended. The Developer must diligently pursue completion of the Eligible Activities set forth in the Brownfield Plan.

4. Reimbursement Source. During the term of this Agreement, the Authority will capture the Tax Increment Revenues generated by the Improvements from Local and School Taxes imposed on the Property and any personal property located on the Property and use those Tax Increment Revenues to reimburse the Eligible Costs (including interest) in accordance with the Brownfield Plan and this Agreement.

5. Reimbursement Process. (a) On a quarterly basis, the Developer may submit to the Authority a request for cost reimbursement for the Eligible Costs the Developer incurred during the prior period. This request will be in the form attached as Exhibit C (“Petition”). The Petition will identify whether the Eligible Activities are: (1) Baseline Environmental Assessment Activities; (2) Due Care Activities; (3) Additional Response Activities; (4) Asbestos Abatement; (5) the reasonable costs to prepare the Brownfield Plan; or (6) interest. The Petition must describe each activity claimed as an Eligible Activity and the associated costs of that activity. Documentation of the costs incurred must be included with the Petition, including proof of payment and detailed invoices for the costs incurred sufficient to determine whether the costs incurred were for Eligible Activities. The Petition must be signed by a duly authorized representative of Developer.

(b) The Authority will review a Petition within 60 days after receiving the Petition. The Developer will cooperate with the Authority by providing information and documentation to supplement the Petition as requested by, and as deemed reasonable and necessary by, the Authority. Within such 60 days, the Authority will identify in writing to Developer (i) all costs approved for reimbursement, and (ii) any costs deemed ineligible for reimbursement and the basis for the determination. The Developer then has 45 days to provide supplemental information or documents to support of any costs deemed ineligible by the Authority. Within 30 days after the Developer provides the supplemental information or documents, the Authority will make a decision on the eligibility of the disputed cost and inform the Developer in writing of its determination. The Developer may appeal the Authority's decision pursuant to law.

(c) Twice a year, after the summer and winter taxes are collected on the Property, the Authority will capture the Tax Increment Revenues in accordance with the Brownfield Plan and will use those Tax Increment Revenues to reimburse the Developer for approved Eligible Costs (including accrued interest). The Authority is not obligated to reimburse the Developer for any approved Eligible Costs during any period of time that the Developer is delinquent in the payment of real or personal property taxes imposed on the Property or delinquent in the payment to the City for administrative, legal, or other costs invoiced to the Developer.

(d) If there are insufficient funds available from Tax Increment Revenues captured under subparagraph (c) at any time to pay all the Developer's unreimbursed Eligible Costs and accrued interest, the Authority is not required to reimburse the Developer from any other source. The Authority will, however, make additional payments toward the Developer's remaining unreimbursed Eligible Costs and accrued interest in accordance with this Agreement as Tax Increment Revenues become available under subparagraph (c).

(e) Subject to Section 5(d), payment of Eligible Costs to the Developer is not conditioned on the completion of any of the Improvements at any time or in any sequence so long as Developer is in compliance with its obligations and duties under this Agreement.

(f) The Authority shall reimburse the Developer for Eligible Costs as follows:

Check shall be payable to: \_\_\_\_\_

Delivered to the following address: \_\_\_\_\_

Attn: \_\_\_\_\_

By certified mail.

(g) Developer may assign its payments to any person by providing 45 days' prior notice to the Authority of such assignment. Any such assignment does not discharge or release Developer from any of its obligations and duties under this Agreement.

6. Information. The Developer will provide to the Authority any information the Authority considers necessary to fulfill any reporting obligation to the State of Michigan under Act 381, as amended.

7. Legislative Authorization. This Agreement is governed by and subject to the restrictions set forth in Act 381, as amended. If legislation is enacted in the future that alters or affects the terms of this Agreement, including, but not limited to, the amount of Tax Increment Revenues subject to capture or the definition of Eligible Property or Eligible Activity, then the Developer's rights and the Authority's obligations under this Agreement may be modified accordingly by agreement of the parties.

8. Freedom of Information Act. All Petitions and documentation submitted by Developer are open to the public under the Freedom of Information Act, 1976 PA 442, as amended, MCL 15.231 *et seq.* The Developer will not bring any claim of trade secrets or other

privilege or exception to the Freedom of Information Act related to such Petitions and documentation.

9. Plan Modification. The Brownfield Plan may be modified to the extent allowed under Act 381, as amended, by mutual agreement of the parties.

10. Notices. All notices shall be given by registered or certified mail addressed to the parties at their respective addresses as shown above. Either party may change the address by written notice sent by registered or certified mail to the other party.

11. Assignment. The interest of any party under this Agreement shall not be assignable without the other party's written consent, which shall not be unreasonably withheld, except that the Developer may assign this Agreement for purposes of securing financing for the Improvements without the prior consent of the Authority.

12. Entire Agreement; Amendment. This Agreement constitutes the entire agreement between the parties. No other agreements, written, oral, express or implied, have been made or entered into by the parties concerning the subject matter of this Agreement. This Agreement may be modified or amended only by subsequent written agreement executed by all of the parties hereto. This Agreement has been the subject of negotiations between the parties and may not be construed against any party as drafter.

13. Non-waiver. No delay or failure by either party to exercise any right under this Agreement, and no partial or single exercise of that right, will constitute a waiver of that or any other right, unless otherwise expressly provided herein.

14. Headings. Headings in this Agreement are for convenience only and may not be used to interpret or construe its provisions.

15. Governing Law. This Agreement is to be construed in accordance with and governed by the laws of the State of Michigan.

16. Counterparts. This Agreement may be executed in two or more counterparts, each of which shall be deemed an original but all of which together constitute one and the same instrument.

17. Binding Effect. The provisions of this Agreement are binding upon and inure to the benefit of each of the parties and their respective heirs, legal representatives, successors, and assigns.

18. Definitions. Unless otherwise defined in this Agreement, the following terms have the definitions given to them by Act 381, as amended:

- (a) “Additional Response Activities” is defined by Section 2(a) of Act 381;
- (b) “Baseline Environmental Assessment” is defined by Section 2(c) of Act 381;
- (c) “Baseline Environmental Assessment Activities” is defined by Section 2(d) of Act 381;
- (d) “Brownfield Plan” is defined by Section 2(g) of Act 381;
- (e) “Due Care Activities” is defined by Section 2(l) of Act 381;
- (f) “Eligible Activities” is defined by Section 2(n) of Act 381;
- (g) “Eligible Property” is defined by Section 2(o) of Act 381;
- (h) “Facility” is defined by Section 2(q) of Act 381;
- (i) “Local Taxes” is defined by Section 2(y) of Act 381;
- (j) “Tax Increment Revenues” is defined by Section 2(ii) of Act 381;

Subject to Section 1, if these definitions are amended during the term of this Agreement, the defined terms shall be construed to the fullest extent possible to conform to the provisions of this Agreement.

The parties have executed this Agreement of the dates set forth below.

**CITY OF BIRMINGHAM**

By: \_\_\_\_\_

Title: \_\_\_\_\_

By: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

**CITY OF BIRMINGHAM BROWNFIELD  
REDEVELOPMENT AUTHORITY**

By: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

**FLS PROPERTIES #5 LLC**

By: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

## **Exhibit A**

### Property Description

Located in the City of Birmingham, County of Oakland, State of Michigan, and described as:

T2N, R10E, SEC 25 ASSESSOR'S PLAT NO 29 LOTS 3 & 4, ALSO PART OF NW 1/4  
BEG AT PT DIST S 88-16-00 E 10.15 FT FROM NW COR OF SD LOT 3, TH S 88-16-00  
E 124.70 FT, TH N 49-21-00 W 46.41 FT, TH S 73-32-00 W 93.28 FT TO BEG

Tax ID #08-19-25-328-001

## **Exhibit B**

Brownfield Plan

## Exhibit C

### Brownfield Request for Cost Reimbursement For Eligible Activities

Date: \_\_\_\_\_

Listed below are total costs expended for each eligible activity category for the expenses being submitted with this request. Attached is evidence of each cost item, including proof of payment and detailed invoices.

Eligible Activity Category		Total Cost
1.	Phase I/Phase II/BEA	
2.	Due Care Activities	
3.	Additional Response Activities	
4.	Asbestos Abatement	
5.	Brownfield Plan preparation	
6.	Interest	
	Total Cost Reimbursement Request	

I certify that the information submitted on and with this Request for Cost Reimbursement is accurate and is an eligible cost described in the Brownfield Plan for this project approved by the City Council of the City of Birmingham.

**Developer:** \_\_\_\_\_

**Signature:** \_\_\_\_\_

**Title:** \_\_\_\_\_

**Address:** \_\_\_\_\_

\_\_\_\_\_