Environmental Resources Group
28003 Center Oaks Court • Suite 106 • Wixom, MI • 48393
Phone: 248-773-7986 • Fax: 248-924-3108

PHASE II ENVIRONMENTAL SITE ASSESSMENT

BAKER COMMONS

106 PACKARD STREET

ANN ARBOR, MICHIGAN 48104

ERG PROJECT 1125.001

PREPARED FOR:
NORSTAR DEVELOPMENT USA, L.P.
733 BROADWAY
ALBANY, NEW YORK 12207

AUGUST 14, 2013

Environmental Resources Group
28003 Center Oaks Court • Suite 106 • Wixom, MI • 48393
Phone: 248-773-7986 • Fax: 248-924-3108

August 14, 2013

Mr. Richard Higgins
Norstar Development USA, L.P.
733 Broadway
Albany, New York 12207

Re: Phase II Environmental Site Assessment
Baker Commons
106 Packard Street, Ann Arbor, Michigan
Environmental Resources Group, LLC Project 1125.001

Dear Mr. Higgins:

Environmental Resources Group, LLC (ERG) has completed the Phase II Environmental Site Assessment (ESA) of the Baker Commons Housing Development in Ann Arbor, Washtenaw County, Michigan. The results of the Phase II ESA are presented in the attached Report.

The Report was prepared for the exclusive use of NORSTAR DEVELOPMENT USA, L.P., ANN ARBOR HOUSING COMMISSION, and the MICHIGAN STATE HOUSING DEVELOPMENT AUTHORITY, each of whom may rely on the Report's contents.

We are pleased to provide this service and hope that we can be of service in the future. Should you have any questions or require further information, please do not hesitate to call Mr. Foerg at (248) 773-7986.

Sincerely,
Environmental Resources Group, LLC

Andrew J. Foerg, CPG
Senior Project Manager

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1.0 INTRODUCTION

Norstar Development USA, L.P. (Norstar), retained Environmental Resources Group, LLC (ERG) to conduct a Phase II Environmental Site Assessment (Phase II ESA) of a property located at 106 Packard Street, Ann Arbor, Michigan (subject property). This Phase II ESA was conducted in accordance with Michigan State Housing Development Authority (MSHDA) Environmental Review Requirements for 2013 and American Society for Testing and Materials (ASTM) Designation E 1903 "*Standard Guide for Environmental Site Assessments: Phase II Environmental Site Assessment Process*."

This Phase II ESA scope of work is intended to evaluate the recognized environmental conditions (RECs) identified in ERG's July 2013 Phase I ESA, which are presented in Section 2.5.

The Report was prepared for the exclusive use of NORSTAR DEVELOPMENT USA, L.P., ANN ARBOR HOUSING COMMISSION, and the MICHIGAN STATE HOUSING DEVELOPMENT AUTHORITY, each of whom may rely on the Report's contents.

2.0 BACKGROUND

2.1 SITE DESCRIPTION AND PHYSICAL SETTING

The subject property contains approximately 0.66 acres and is located south of Packard Street and east of Main Street in Ann Arbor, Michigan. The subject property is located in Section 29, Township 2 South, Range 6 East, Ann Arbor, Washtenaw County, Michigan.

The Subject Property is developed with a multi-tenant apartment building and associated parking area and landscaping. The adjoining properties are developed with commercial and residential properties.

Refer to Figure 1 for a Location Map. See Figure 2 for a Site Map with soil boring locations.

2.2 SUBJECT PROPERTY HISTORY AND LAND USE

Reasonably ascertainable records for the subject property extended back to approximately 1902. Standard historical sources were able to document the first developed use of the subject property occurred prior to 1902. The property was used for residential purposes from at least 1902 to at least 1955. The property was used as a municipal parking lot from 1955 to 1979. The current multi-tenant apartment building was constructed in 1980.

2.3 ADJACENT PROPERTY LAND USE

As determined during ERG's July 2013 Phase I ESA, the current uses of the adjoining properties are as follows:

North: Packard Street with the Edison Center (425 S. Main Street), a commercial office building beyond
South: Whitney's Collision Center (521 S. Main Street)
East: Residential housing
West: S. Main Street with the following commercial businesses beyond (from north to south):

- 440-444 S. Main St. - Rdo (office building)
- 450 S. Main St. - Multi-tenant office building
- 500 S. Main St. - office building
- 504 S. Main St. - Tom Thompson Flowers
- 512 S. Main St. - LA KYS Salon

2.4 PREVIOUS ENVIRONMENTAL INVESTIGATIONS

No previous environmental investigations were provided to ERG for review.

2.5 IDENTIFIED RECOGNIZED ENVIRONMENTAL CONDITIONS (RECS)

ERG's July 2013 Phase I ESA identified the following RECs:

On-Site RECs

No RECs were identified on the Subject Property.

Off-Site RECs

1. The historical resources indicated that a filling station and associated USTs were located on the north adjoining property.
2. The historical resources indicated that two filling stations were located to the north northwest of the Subject Property.
3. The historical resources indicated that a vulcanizing and auto repair operation with associated USTs were located on the west adjoining property.
4. An auto repair business was observed on the south adjoining property.

   Based on the close proximity of the use and storage of petroleum products, the former operations on the north, northwest, west, and south adjoining properties are considered RECs to the Subject Property.

No other RECs were identified on the adjoining or nearby properties.

3.0 PHASE II ENVIRONMENTAL SITE ASSESSMENT ACTIVITIES

3.1 SCOPE OF ASSESSMENT

To evaluate the RECs, ERG conducted a subsurface investigation of the subject property that included: (1) advancing five soil borings, (2) installing three soil gas collection points, and (3) collecting seven soil samples and three soil gas samples. The samples were submitted for laboratory analyses of one or more of the following: VOCs, PNAs, PCBs,

The following table summarizes each REC, the site investigation activities performed to address each REC, and the laboratory parameters used to address each REC.

Summary of ERG's Scope of Investigation

REC #	Environmental Concern	Investigation Activity	Analytical Parameters
RECs 1 and 2	Former filling stations to north and northwest	SB-4 and SB-5	VOCs and VOCs (soil gas)
REC 3	Former vulcanizing and auto repair operation/ USTs to west	SB-3	VOCs and VOCs (soil gas),
REC 4	Auto repair business on the south adjoining property	SB-1 and SB-2	VOCs, PNAs, PCBs and VOCs (soil gas)

3.1.1 Soil Evaluation

On July 19, 2013, Fibertec advanced five soil borings (SB-1 through SB-5) at the subject property. Fibertec used hydraulic drive/direct-push (Geoprobe®) and hand auger sampling techniques and followed the drilling procedures outlined in ASTM publication D 6282-98 "*Standard Guide for Direct Push Soil Sampling for Environmental Site Characterizations*".

Continuous soil samples were collected from the soil borings in five-foot intervals to the maximum depth explored of 30 feet bgs. ERG personnel inspected, field-screened, and logged the samples collected at each soil boring location. Refer to Figure 2 for a Site Map with soil boring locations. Soil boring logs are provided in Appendix B.

3.1.2 Soil Gas Evaluation

The soil gas evaluation was conducted to assess potential soil gas associated with the off Site RECs.

The soil gas evaluation activities were conducted in general accordance with the guidelines established by the American Society for Testing and Materials (ASTM) in the Standard Practice for Vapor Encroachment Screening on Property Involved in Real Estate Transactions Designation E 2600-10 (ASTM Standard Practice E 2600-10) and MDEQ Remediation and Redevelopment Division Guidance Document for the Vapor Intrusion Pathway, May 2013. This included performing a leak check using a helium chamber and purging three (3) gas point/sand pack volumes at low-flow (200 ml/minute) from each soil gas monitoring point, followed by the collection of one (1) soil gas sample, using vacuum bottle methods, for laboratory analysis of VOCs. The vacuum bottles were regulated with a flow rate of 200 ml/minute, which was pre-set at the laboratory.

Three soil gas samples (SB-2, SB-3 and SB-5) were collected and submitted for laboratory analysis of VOCs. Refer to Figure 2 for the locations of the sub-surface soil gas points.

3.2 QUALITY ASSURANCE/QUALITY CONTROL

To ensure the accuracy of data collected during on site activities, ERG employed proper quality assurance/quality control (QA/QC) measures. The QA/QC procedures included, but were not limited to, (1) decontamination of sampling equipment before and between sampling events, (2) calibration of field equipment, (3) documentation of field activities, and (4) sample preservation techniques.

3.2.1 Decontamination of Equipment

During sample collection, ERG adhered to proper decontamination procedures. Sampling equipment was decontaminated using the following methods to minimize potential cross-contamination of soil samples:

- Steam-cleaning or washing and scrubbing the equipment with non-phosphate detergent
- Rinsing the equipment
- Air-drying the equipment

3.2.2 Calibration of Field Equipment

All field instruments were calibrated prior to first use on-site to ensure accuracy. Field instruments utilized during investigation activities at this subject property included a photoionization detector (PID). During ERG's Phase II ESA, the PID was used to screen all soil samples. The PID was maintained in a calibrated condition using 100 parts per million (ppm) isobutylene span gas prior to the subsurface investigation.

3.2.3 Documentation of Activities

During ERG's Phase II ESA activities, subject property conditions (i.e., soil boring locations, weather conditions) were documented. ERG visually inspected the soil and groundwater samples and prepared a geologic log for each soil boring. The logs include soil characteristics such as (1) color, (2) composition (e.g., sand, clay, or gravel), (3) soil moisture and water table depth, and (4) signs of possible contamination (i.e., stained or discolored soil, odors). All soil samples were delivered to a laboratory under chain-of-custody documentation. See Appendix B for ERG's soil boring logs. See Figure 2 for a Site Map with soil boring locations.

3.2.4 Sample Preservation Techniques

ERG collected soil samples according to USEPA Publication SW-846, "*Test Methods for Evaluating Solid Waste*." Soil samples were collected in laboratory-supplied containers, stored on ice or at approximately four degrees Celsius, and submitted under chain-of-custody documentation. Soil samples collected for VOC analyses were field preserved with methanol in accordance with U.S. EPA Method 5035.

3.3 LABORATORY ANALYSES AND METHODS

ERG submitted seven soil and three soil gas samples for laboratory analyses. The following table summarizes the location, depth, matrix, and laboratory analysis for each sample.

Summary of Laboratory Analyses

Sample Name/ Depth	Matrix	VOCs	PNAs	PCBs	VOCs (soil gas)
SB-1 (14-15')	Soil	x	x	x	
SB-2 (9-10')	Soil	x	x	x	
SB-2 (10')	Soil Gas				x
SB-3 (0-1')	Soil	x			
SB-3 (19-20')	Soil	x			
SB-3 (10')	Soil Gas				x
SB-4 (10-11')	Soil	x			
SB-5 (1-2')	Soil	x			
SB-5 (11-12')	Soil	x			
SB-5 (10')	Soil Gas				x

The laboratory analyzed the soil samples for: (1) VOCs in accordance with USEPA Method 5035/8260B; (2) PNAs in accordance with USEPA Method 3546/8270C; and (3) PCBs in accordance with USEPA Method 3535A/8082A. Soil gas samples were analyzed for VOCs by method TO-15.

4.0 EVALUATION AND PRESENTATION OF RESULTS

4.1 SUBSURFACE CONDITIONS

4.1.1 Soil and Groundwater Conditions Based on Published Material

The United States Geological Survey Division (U.S.G.S.) 7.5-Minute Topographic Map of the Ann Arbor East, Michigan Quadrangle, 1965 (photo revised in 1983) for the subject property was reviewed in accordance with the ASTM standards (Figure 1). Based on the topographic map, the subject property is located at an elevation of 840 feet above mean sea level. The immediate subject property area appears to slope to the south southwest.

The "Quaternary Geology of Southern Michigan", Department of Geological Sciences, University of Michigan, Ann Arbor, Michigan (1982); and "Bedrock Geology of Southern Michigan", Michigan Department of Natural Resources, Geological Survey Division (1987) were reviewed.

According to the aforementioned sources, in this area of Washtenaw County, quaternary deposits are underlain by bedrock composed of Coldwater Shale. Bedrock is covered by end moraines of medium textured till. The surface sediments in the area of the site generally consist of end moraines of medium-textured till, gray to reddish brown, non-sorted glacial debris. The matrix is dominantly loam and silty loam texture with variable amounts of cobbles and boulders. It occurs in narrow linear belts of hummocky relief marking former stillstands of ice-sheet margins and includes small areas of ground moraine as well as outwash. The drift thickness is approximately 20 to 30 meters.

ERG's research did not identify known groundwater supply or monitor wells on the subject property.

4.1.2 Soil and Groundwater Conditions Based on Field Observations

During drilling activities, ERG encountered the following soil types:

- FILL from ground surface, or just below the topsoil or concrete, to depths ranging from 4 to 15 feet bgs. In general, the fill consisted of sand with fragments of brick, concrete and/or glass.
- SAND from below the fill to depths of up to 30 feet bgs, the maximum depth explored. The sand was generally coarse and moist.

No groundwater was encountered in any of the borings.

Positive PID readings were recorded at the following soil intervals:

- SB-3 at 1.0 feet bgs (185.5 ppm), 3.0 feet bgs (3.3 ppm) and 4.0 feet bgs (0.3 ppm)
- SB-5 at 0-5 feet bgs (3.4 to 67.4 ppm) and 12.0 feet bgs (17.2 ppm)

No visual evidence of impacts was recorded at any of the boring locations. Olfactory indications of potential impacts included a "pine" odor in the upper 4 to 5 feet in SB-3 and SB-5.

See Figure 2 for a site map with soil boring locations. See Appendix A for soil boring logs.

4.2 MDEQ RELEVANT EXPOSURE PATHWAYS AND APPLICABLE CRITERIA

4.2.1 Relevant Exposure Pathways

As defined in Michigan Public Act 451 Part 201, "relevant pathway" means an exposure pathway that is reasonable and relevant because there is a reasonable potential for exposure to a hazardous substance. The analysis of potential exposure pathways is based on known existing conditions at the subject property. The following subsections identify the relevant exposure pathways based on the subject property conditions observed.

Ingestion of Groundwater Pathway
Groundwater was not encountered to a depth of approximately 30 feet bgs at the subject property. Therefore, Ingestion of Groundwater is not considered a relevant exposure pathway.

Groundwater Venting to Surface Water Pathway
Groundwater Venting to Surface Water is not a human exposure pathway, but rather an exposure pathway based on aquatic toxicity. Groundwater was not encountered to a depth of approximately 30 feet bgs at the subject property. Therefore, Groundwater Venting to Surface Water is not a relevant exposure pathway.

Groundwater Contact Pathway
Groundwater was not encountered to a depth of approximately 30 feet bgs at the subject property. Therefore Groundwater Contact is not a relevant exposure pathway.

Volatilization to Indoor Air Inhalation Pathway
Volatilization to Indoor Air Inhalation is a relevant exposure pathway.

Volatilization to Ambient Air Pathway
Volatilization to Ambient Air is a relevant exposure pathway.

Particulate Inhalation Pathway
Particulate Inhalation is a relevant exposure pathway.

Direct Contact Pathway
Direct Contact is a relevant exposure pathway.

4.2.2 Applicable Criteria

Applicable criterion means a cleanup criterion for a relevant pathway. A criterion is not applicable if the exposure pathway is not relevant. Based on the exposure pathway evaluation, the applicable pathways at the subject property include:

- Soil Volatilization to Indoor Air Inhalation (SVIAI);
- Infinite Source Volatile Soil Inhalation (VSIC);
- Particulate Soil Inhalation (PSI); and
- Soil Direct Contact (DC)

4.3 LABORATORY ANALYTICAL RESULTS

ERG collected soil samples for the purpose of determining if the subject property meets the definition of a *facility*. Analytical results were compared with MDEQ GRCC provided in MDEQ RRD's Operational Memorandum No. 1, Table 1.

ERG collected soil gas samples for the purpose of evaluating potential off-Site vapor sources. Soil gas results were compared to MDEQ Vapor Intrusion Deep Soil Gas Screening Levels provided in MDEQ Remediation and Redevelopment Division Guidance Document for the Vapor Intrusion Pathway, May 2013.

4.3.1 Soil Analytical Results

ERG submitted seven soil samples for laboratory analysis of one or more of the following: VOCs, PNAs and/or PCBs. No reported concentrations exceeded relevant and applicable GRCC.

Refer to Table 1 for a summary of soil analytical results and a comparison to GRCC. Refer to Appendix B for the analytical laboratory report.

4.3.2 Soil Gas Analytical Results

ERG submitted three soil gas samples for laboratory analysis of VOCs. No reported concentrations of VOCs in soil gas exceeded the applicable MDEQ Vapor Intrusion Deep Soil Gas Screening Levels.

Refer to Table 2 for a summary of soil gas analytical results and a comparison to MDEQ Vapor Intrusion Deep Soil Gas Screening Levels. Refer to Appendix D for the analytical laboratory report.

5.0 SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

5.1 SUMMARY OF ENVIRONMENTAL CONCERNS

ERG's July 2013 Phase I ESA identified the following RECs:

1. The historical resources indicated that a filling station and associated USTs were located on the north adjoining property.
2. The historical resources indicated that two filling stations were located to the north northwest of the Subject Property.
3. The historical resources indicated that a vulcanizing and auto repair operation with associated USTs were located on the west adjoining property.
4. An auto repair business was observed on the south adjoining property.

5.2 SUMMARY OF SUBSURFACE INVESTIGATION

To evaluate the RECs, ERG conducted a subsurface investigation of the subject property that included: (1) advancing five soil borings, and (2) installing three soil gas collection points, and (3) collecting seven soil samples and three soil gas samples. The samples were submitted for laboratory analyses of one or more of the following: VOCs, PNAs and/or PCBs.

5.3 CONCLUSIONS

ERG conducted soil and soil gas sampling in areas most likely to be impacted by contaminants based on the past use of the subject property. The results of the investigation indicate the following:

- No reported soil concentrations exceeded any relevant and applicable GRCC.
- No reported concentrations of VOCs in soil gas exceeded the applicable MDEQ Vapor Intrusion Deep Soil Gas Screening Levels.

The data collected and observations made during the Phase II ESA provide sufficient information to support a professional opinion that there is no reasonable basis for suspecting the disposal or release of hazardous substances or petroleum products at the site with respect to the recognized environmental conditions assessed, and that no further assessment is necessary or that with respect to the recognized environmental conditions assessed, hazardous substances or petroleum products have been released or disposed at the Property.

5.4 RECOMMENDATIONS

Based on the data collected and observations made during the Phase II ESA no further investigation is warranted.

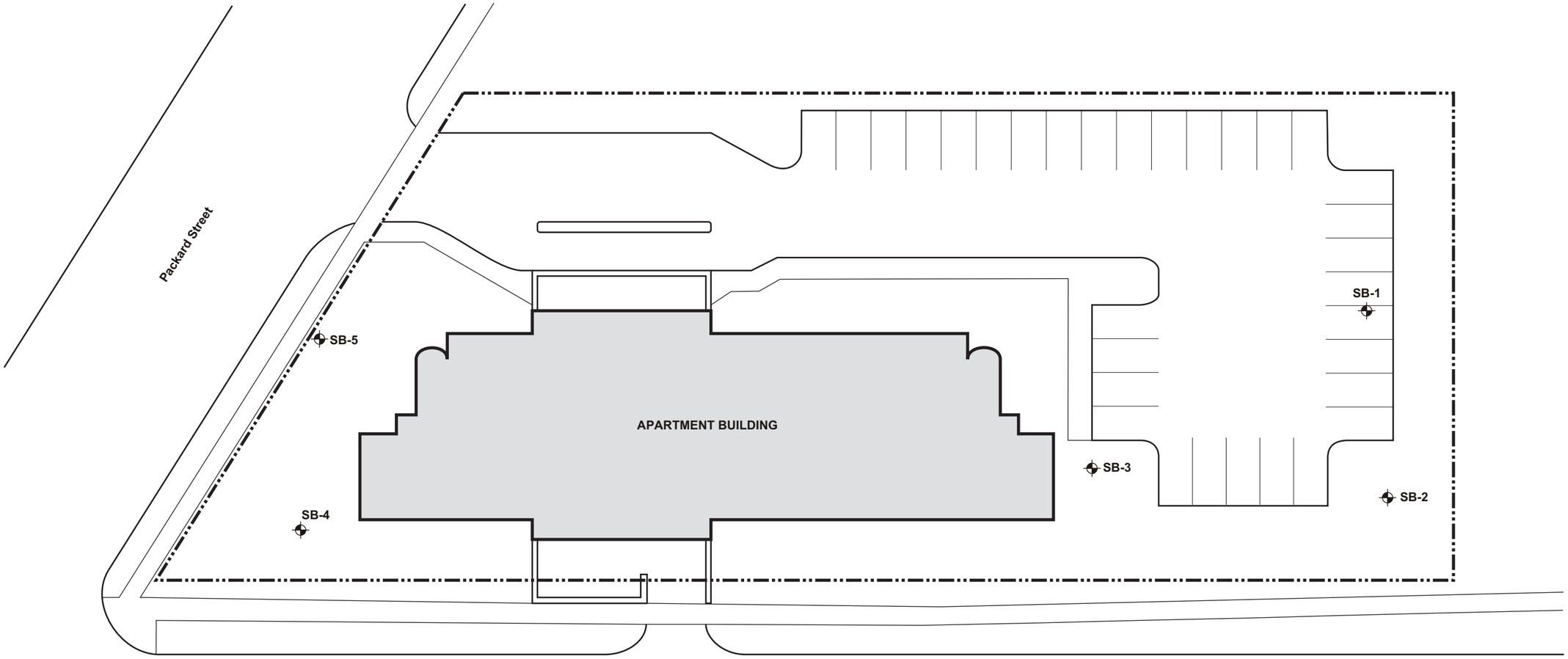
FIGURES

ERG Environmental Resources Group
28003 Center Oaks Court • Suite 106 • Wixom, MI • 48393
Phone: 248-773-7986 • Fax: 248-924-3108

Figure : 1 - Site Vicinity Map
Baker Commons
106 Packard Street, Ann Arbor, Michigan

Source: USGS Ann Arbor East and Ann Arbor West 7.5 Minute Topographic Map

N
NTS



Legend:

Property Line

Soil Boring Location

Note:

1. Source: Herrmann & Holman, Inc., Landscape Plan dated 7/17/90.

Scale:

1-Inch = ~30-Feet

Drawn By: S Bennett

Date: 8/4/13

Soil Boring Diagram

Baker Commons
106 Packard St.
Ann Arbor, MI

ERG Environmental Resources Group
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TABLES

Table 1: Soil Analytical Data Summary Table
Table 2: Soil Gas Analytical Data Summary Table

Environmental Resources Group
Assessment • Remediation • Compliance • Risk Management

TABLE 1: SOIL
Norstar Development
Phase II ESA
Project Number: 1125.001
Baker Commons, 106 Packard St., Ann Arbor, Michigan
July 2013

Constituent	Chemical Abstract Service Number	Statewide Default Background Levels	MDEQ GENERIC RESIDENTIAL CLEANUP CRITERIA: Drinking Water Protection Criteria & RBSLs	Groundwater Surface Water Interface Protection Criteria & RBSLs	Groundwater Contact Protection Criteria & RBSLs	Soil Volatilization to Indoor Air Inhalation Criteria & RBSLs	Infinite Source Volatile Soil Inhalation Criteria (VSIC) & RBSLs	Direct Contact Criteria & RBSLs	Particulate Soil Inhalation Criteria & RBSLs	Sample Identification	SB-1 (14-15')	SB-2 (9-10')	SB-3 (0-1')	SB-3 (19-20')	SB-4 (10-11')	SB-5 (1-2')	SB-5 (11-12')
										Collection Date	7/19/2013	7/19/2013	7/19/2013	7/19/2013	7/19/2013	7/19/2013	7/19/2013
										Depth	14'-15'	9'-10'	0-1'	19'-20'	10'-11'	1'-2'	11'-12'
Volatiles																	
Acetone (I)	67-64-1	NA	15,000	34,000	1.1E+8 (C)	1.1E+8 (C)	1.3E+8	2.3E+7	1.7E+11		<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000
Acrylonitrile (I)	107-13-1	NA	100 (M); 52	100 (M); 40	2.8E+5	6,600	5,000	16,000	5.8E+7		<100	<100	<100	<100	<100	<100	<100
Benzene (I)	71-43-2	NA	100	4,000 (X)	2.2E+5	1,600	13,000	1.8E+5	4.7E+8		<50	<50	<50	<50	<50	<50	<50
Bromobenzene (I)	108-86-1	NA	550	NA	3.6E+5	3.1E+5	4.5E+5	5.4E+5	2.4E+8		<100	<100	<100	<100	<100	<100	<100
Bromochloromethane	74-97-5	NA	NA	NA	NA	NA	NA	NA	NA		<110	<110	<110	<100	<110	<110	<100
Bromodichloromethane	75-27-4	NA	1,600 (W)	ID	2.8E+5	1,200	9,100	1.1E+5	1.1E+8		<100	<100	<100	<100	<100	<100	<100
Bromoform	75-25-2	NA	1,600 (W)	ID	8.7E+5 (C)	1.5E+5	9.0E+5	8.2E+5	3.6E+9		<110	<110	<110	<100	<110	<110	<100
Bromomethane	74-83-9	NA	200	700	1.4E+6	860	11,000	3.2E+5	1.5E+8		<200	<200	<200	<200	<200	<200	<200
2-Butanone (MEK) (I)	78-93-3	NA	2.6E+5	44,000	2.7E+7 (C)	2.7E+7 (C)	2.9E+7	2.7E+7 (C,DD)	2.9E+10		<750	<750	<750	<750	<750	<750	<750
n-Butylbenzene	104-51-8	NA	1,600	ID	1.2E+5	ID	ID	2.5E+6	8.8E+8		<50	<50	<50	<50	<50	<50	<50
sec-Butylbenzene	135-98-8	NA	1,600	ID	88,000	ID	ID	2.5E+6	1.8E+8		<50	<50	<50	<50	<50	<50	<50
tert-Butylbenzene (I)	98-06-6	NA	1,600	ID	1.8E+5	ID	ID	2.5E+6	2.9E+8		<50	<50	<50	<50	<50	<50	<50
Carbon disulfide (I,R)	75-15-0	NA	16,000	ID	2.8E+5 (C)	76,000	1.3E+6	2.8E+5 (C,DD)	2.1E+10		<250	<250	<250	<250	<250	<250	<250
Carbon tetrachloride	56-23-5	NA	100	900 (X)	92,000	190	3,500	96,000	1.7E+8		<54	<56	<53	<52	<53	<54	<52
Chlorobenzene (I)	108-90-7	NA	2,000	500	2.6E+5 (C)	1.2E+5	7.7E+5	2.6E+5 (C)	2.1E+9		<54	<56	<53	<52	<53	<54	<52
Chloroethane	75-00-3	NA	8,600	22,000 (X)	9.5E+5 (C)	9.5E+5 (C)	3.0E+7	9.5E+5 (C)	2.9E+11		<270	<280	<270	<260	<270	<270	<260
Chloroform	67-66-3	NA	1,600 (W)	7,000	1.5E+6 (C)	7,200	45,000	1.2E+6	1.6E+9		<54	<56	<53	<52	<53	<54	<52
Chloromethane (I)	74-87-3	NA	5,200	ID	1.1E+6 (C)	2,300	40,000	1.1E+6 (C)	2.6E+9		<250	<250	<250	<250	<250	<250	<250
o-Chlorotoluene (I)	95-49-8	NA	3,300	ID	5.0E+5 (C)	2.7E+5	1.2E+6	5.0E+5 (C)	2.1E+9		<50	<50	<50	<50	<50	<50	<50
Dibromochloromethane	124-48-1	NA	1,600 (W)	ID	3.6E+5	3,900	24,000	1.1E+5	1.6E+8		<100	<100	<100	<100	<100	<100	<100
Dibromochloropropane	96-12-8	NA	10 (M); 4.0	ID	1,200 (C)	220	260	1,200 (C)	7.0E+5		<27	<28	<27	<26	<27	<27	<26
Dibromomethane	74-95-3	NA	1,600	NA	2.0E+6 (C)	ID	ID	2.0E+6 (C)	ID		<250	<250	<250	<250	<250	<250	<250
1,2-Dichlorobenzene	95-50-1	NA	14,000	280	2.1E+5 (C)	2.1E+5 (C)	3.9E+7	2.1E+5 (C)	4.4E+10		<100	<100	<100	<100	<100	<100	<100
1,3-Dichlorobenzene	541-73-1	NA	170	680	51,000	26,000	79,000	1.7E+5 (C)	8.8E+7		<100	<100	<100	<100	<100	<100	<100
1,4-Dichlorobenzene	106-46-7	NA	1,700	360	1.4E+5	19,000	77,000	4.0E+5	5.7E+8		<100	<100	<100	<100	<100	<100	<100

Units in µg/kg = parts per billion (ppb)
See attached for MDEQ Part 201/213 footnotes
< = Analyte wasa not detected at or above the specified reporting limit
Bolded values = Analyte concentration above reporting limit.
Shaded values = Analyte concentration exceeds applicable Generic Residential Cleanup Criteria

TABLE 1: SOIL
Norstar Development
Phase II ESA
Project Number: 1125.001
Baker Commons, 106 Packard St., Ann Arbor, Michigan
July 2013

Constituent	Chemical Abstract Service Number	Statewide Default Background Levels	MDEQ GENERIC RESIDENTIAL CLEANUP CRITERIA: Drinking Water Protection Criteria & RBSLs	Groundwater Surface Water Interface Protection Criteria & RBSLs	Groundwater Contact Protection Criteria & RBSLs	Soil Volatilization to Indoor Air Inhalation Criteria & RBSLs	Infinite Source Volatile Soil Inhalation Criteria (VSIC) & RBSLs	Direct Contact Criteria & RBSLs	Particulate Soil Inhalation Criteria & RBSLs	Sample Identification	SB-1 (14-15')	SB-2 (9-10')	SB-3 (0-1')	SB-3 (19-20')	SB-4 (10-11')	SB-5 (1-2')	SB-5 (11-12')
										Collection Date	7/19/2013	7/19/2013	7/19/2013	7/19/2013	7/19/2013	7/19/2013	7/19/2013
										Depth	14'-15'	9'-10'	0-1'	19'-20'	10'-11'	1'-2'	11'-12'
Volatiles																	
Dichlorodifluoromethane	75-71-8	NA	95,000	ID	1.0E+6 (C)	9.0E+5	5.3E+7	1.0E+6 (C)	1.5E+12		<250	<250	<250	<250	<250	<250	<250
1,1-Dichloroethane	75-34-3	NA	18,000	15,000	8.9E+5 (C)	2.3E+5	2.1E+6	8.9E+5 (C)	1.5E+10		<54	<56	<53	<52	<53	<54	<52
1,2-Dichloroethane (I)	107-06-2	NA	100	7,200 (X)	3.8E+5	2,100	6,200	91,000	1.5E+8		<54	<56	<53	<52	<53	<54	<52
cis-1,2-Dichloroethylene	156-59-2	NA	1,400	12,000	6.4E+5 (C)	22,000	1.8E+5	6.4E+5 (C)	1.0E+9		<50	<50	<50	<50	<50	<50	<50
trans-1,2-Dichloroethylene	156-60-5	NA	2,000	30,000 (X)	1.4E+6 (C)	23,000	2.8E+5	1.4E+6 (C)	2.1E+9		<50	<50	<50	<50	<50	<50	<50
1,1-Dichloroethylene (I)	75-35-4	NA	140	2,600	2.2E+5	62	1,100	2.0E+5	7.8E+7		<50	<50	<50	<50	<50	<50	<50
1,2-Dichloropropane (I)	78-87-5	NA	100	4,600 (X)	3.2E+5	4,000	25,000	1.4E+5	1.2E+8		<54	<56	<53	<52	<53	<54	<52
cis-1,3-Dichloropropylene	10061-01-5	NA	NA	NA	NA	NA	NA	NA	NA		<54	<56	<53	<52	<53	<54	<52
trans-1,3-Dichloropropylene	10061-02-6	NA	NA	NA	NA	NA	NA	NA	NA		<54	<56	<53	<52	<53	<54	<52
Ethylbenzene (I)	100-41-4	NA	1,500	360	1.4E+5 (C)	87,000	7.2E+5	1.4E+5 (C)	1.3E+10		<50	<50	<50	<50	<50	<50	<50
Ethylene dibromide	106-93-4	NA	20 (M); 1.0	110 (X)	500	670	1,700	92	1.8E+7		<54	<56	<53	<52	<53	<54	<52
2-Hexanone	591-78-6	NA	20,000	ID	2.5E+6 (C)	9.9E+5	1.1E+6	2.5E+6 (C)	1.2E+9		<2,500	<2,500	<2,500	<2,500	<2,500	<2,500	<2,500
Isopropyl benzene	98-82-8	NA	91,000	3,200	3.9E+5 (C)	3.9E+5 (C)	1.7E+6	3.9E+5 (C)	2.6E+9		<250	<250	<250	<250	<250	<250	<250
Methyl Iodide	74-88-4	NA	NA	NA	NA	NA	NA	NA	NA		<110	<110	<110	<100	<110	<110	<100
4-Methyl-2-pentanone (MIBK) (I)	108-10-1	NA	36,000	ID	2.7E+6 (C)	2.7E+6 (C)	4.5E+7	2.7E+6 (C)	6.0E+10		<2,500	<2,500	<2,500	<2,500	<2,500	<2,500	<2,500
Methylene chloride	75-09-2	NA	100	30,000 (X)	2.3E+6 (C)	45,000	2.1E+5	1.3E+6	8.3E+9		<100	<100	<100	<100	<100	<100	<100
2-Methylnaphthalene	91-57-6	NA	57,000	4,200	5.5E+6	2.7E+6	1.5E+6	8.1E+6	2.9E+8		<330	<330	<330	<330	<330	<330	<330
Methyl-tert-butyl ether (MTBE)	1634-04-4	NA	800	1.4E+5 (X)	5.9E+6 (C)	5.9E+6 (C)	2.5E+7	1.5E+6	8.8E+10		<250	<250	<250	<250	<250	<250	<250
Naphthalene	91-20-3	NA	35,000	730	2.1E+6	2.5E+5	3.0E+5	1.6E+7	8.8E+7		<330	<330	<330	<330	<330	<330	<330
n-Propylbenzene (I)	103-65-1	NA	1,600	ID	3.0E+5	ID	ID	2.5E+6	5.9E+8		<100	<100	<100	<100	<100	<100	<100
Styrene	100-42-5	NA	2,700	2,100 (X)	2.7E+5	2.5E+5	9.7E+5	4.0E+5	6.9E+9		<50	<50	<50	<50	<50	<50	<50
1,1,1,2-Tetrachloroethane	630-20-6	NA	1,500	ID	4.4E+5 (C)	6,200	36,000	4.4E+5 (C)	5.3E+8		<100	<100	<100	<100	<100	<100	<100
1,1,2,2-Tetrachloroethane	79-34-5	NA	170	1,600 (X)	94,000	4,300	10,000	53,000	6.8E+7		<54	<56	<53	<52	<53	<54	<52
Tetrachloroethylene	127-18-4	NA	100	1,200 (X)	88,000 (C)	11,000	1.7E+5	88,000 (C)	1.2E+9		<50	<50	<50	<50	<50	<50	<50
Toluene (I)	108-88-3	NA	16,000	5,400	2.5E+5 (C)	2.5E+5 (C)	2.8E+6	2.5E+5 (C)	1.2E+10		<50	<50	<50	<50	<50	<50	<50

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TABLE 1: SOIL
Norstar Development
Phase II ESA
Project Number: 1125.001
Baker Commons, 106 Packard St., Ann Arbor, Michigan
July 2013

Constituent	Chemical Abstract Service Number	Statewide Default Background Levels	MDEQ GENERIC RESIDENTIAL CLEANUP CRITERIA: Drinking Water Protection Criteria & RBSLs	Groundwater Surface Water Interface Protection Criteria & RBSLs	Groundwater Contact Protection Criteria & RBSLs	Soil Volatilization to Indoor Air Inhalation Criteria & RBSLs	Infinite Source Volatile Soil Inhalation Criteria (VSIC) & RBSLs	Direct Contact Criteria & RBSLs	Particulate Soil Inhalation Criteria & RBSLs	Sample Identification	SB-1 (14-15')	SB-2 (9-10')	SB-3 (0-1')	SB-3 (19-20')	SB-4 (10-11')	SB-5 (1-2')	SB-5 (11-12')
										Collection Date	7/19/2013	7/19/2013	7/19/2013	7/19/2013	7/19/2013	7/19/2013	7/19/2013
										Depth	14'-15'	9'-10'	0-1'	19'-20'	10'-11'	1'-2'	11'-12'
Volatiles																	
1,2,4-Trichlorobenzene	120-82-1	NA	4,200	5,900 (X)	1.1E+6 (C)	1.1E+6 (C)	2.8E+7	9.9E+5 (DD)	1.1E+10		<330	<330	<330	<330	<330	<330	<330
1,1,1-Trichloroethane	71-55-6	NA	4,000	1,800	4.6E+5 (C)	2.5E+5	3.8E+6	4.6E+5 (C)	2.9E+10		<54	<56	<53	<52	<53	<54	<52
1,1,2-Trichloroethane	79-00-5	NA	100	6,600 (X)	4.2E+5	4,600	17,000	1.8E+5	2.5E+8		<54	<56	<53	<52	<53	<54	<52
Trichloroethylene	79-01-6	NA	100	4,000 (X)	4.4E+5	1,000	11,000	5.0E+5 (C,DD)	5.9E+7		<54	<56	<53	<52	<53	<54	<52
Trichlorofluoromethane	75-69-4	NA	52,000	NA	5.6E+5 (C)	5.6E+5 (C)	9.2E+7	5.6E+5 (C)	1.7E+12		<100	<100	<100	<100	<100	<100	<100
1,2,3-Trichloropropane	96-18-4	NA	840	NA	8.3E+5 (C)	4,000	9,200	8.3E+5 (C)	8.8E+6		<110	<110	<110	<100	<110	<110	<100
1,2,3-Trimethylbenzene	526-73-8	NA	NA	NA	NA	NA	NA	NA	NA		<100	<100	<100	<100	<100	<100	<100
1,2,4-Trimethylbenzene (I)	95-63-6	NA	2,100	570	1.1E+5 (C)	1.1E+5 (C)	2.1E+7	1.1E+5 (C)	3.6E+10		<100	<100	<100	<100	<100	<100	<100
1,3,5-Trimethylbenzene (I)	108-67-8	NA	1,800	1,100	94,000 (C)	94,000 (C)	1.6E+7	94,000 (C)	3.6E+10		<100	<100	<100	<100	<100	<100	<100
Vinyl chloride	75-01-4	NA	40	260 (X)	20,000	270	4,200	3,800	8.9E+8		<40	<40	<40	<40	<40	<40	<40
Xylenes (I)	1330-20-7	NA	5,600	820	1.5E+5 (C)	1.5E+5 (C)	4.6E+7	1.5E+5 (C)	1.3E+11		<150	<150	<150	<150	<150	<150	<150
Semivolatiles																	
Acenaphthene	83-32-9	NA	3.0E+5	8,700	9.7E+5	1.9E+8	8.1E+7	4.1E+7	6.2E+9		<330	<330	NS	NS	NS	NS	NS
Acenaphthylene	208-96-8	NA	5,900	ID	4.4E+5	1.6E+6	2.2E+6	1.6E+6	1.0E+9		<330	<330	NS	NS	NS	NS	NS
Anthracene	120-12-7	NA	41,000	ID	41,000	1.0E+9 (D)	1.4E+9	2.3E+8	2.9E+10		<330	<330	NS	NS	NS	NS	NS
Benzo(a)anthracene (Q)	56-55-3	NA	NLL	NLL	NLL	NLV	NLV	20,000	ID		<330	**480**	NS	NS	NS	NS	NS
Benzo(a)pyrene (Q)	50-32-8	NA	NLL	NLL	NLL	NLV	NLV	2,000	1.9E+6		<330	**580**	NS	NS	NS	NS	NS
Benzo(b)fluoranthene (Q)	205-99-2	NA	NLL	NLL	NLL	ID	ID	20,000	ID		<330	**850**	NS	NS	NS	NS	NS
Benzo(g,h,i)perylene	191-24-2	NA	NLL	NLL	NLL	NLV	NLV	2.5E+6	3.5E+8		<330	**420**	NS	NS	NS	NS	NS
Benzo(k)fluoranthene (Q)	207-08-9	NA	NLL	NLL	NLL	NLV	NLV	2.0E+5	ID		<330	<330	NS	NS	NS	NS	NS
Chrysene (Q)	218-01-9	NA	NLL	NLL	NLL	ID	ID	2.0E+6	ID		<330	**470**	NS	NS	NS	NS	NS
Dibenzo(a,h)anthracene (Q)	53-70-3	NA	NLL	NLL	NLL	NLV	NLV	2,000	ID		<330	<330	NS	NS	NS	NS	NS

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TABLE 1: SOIL
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Phase II ESA
Project Number: 1125.001
Baker Commons, 106 Packard St., Ann Arbor, Michigan
July 2013

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										Collection Date	7/19/2013	7/19/2013	7/19/2013	7/19/2013	7/19/2013	7/19/2013	7/19/2013
										Depth	14'-15'	9'-10'	0-1'	19'-20'	10'-11'	1'-2'	11'-12'
Semivolatiles																	
Fluoranthene	206-44-0	NA	7.3E+5	5,500	7.3E+5	1.0E+9 (D)	7.4E+8	4.6E+7	4.1E+9		<330	**1,100**	NS	NS	NS	NS	NS
Fluorene	86-73-7	NA	3.9E+5	5,300	8.9E+5	5.8E+8	1.3E+8	2.7E+7	4.1E+9		<330	<330	NS	NS	NS	NS	NS
Indeno(1,2,3-cd)pyrene (Q)	193-39-5	NA	NLL	NLL	NLL	NLV	NLV	20,000	ID		<330	**490**	NS	NS	NS	NS	NS
2-Methylnaphthalene	91-57-6	NA	57,000	4,200	5.5E+6	2.7E+6	1.5E+6	8.1E+6	2.9E+8		<330	<330	<330	<330	<330	<330	<330
Naphthalene	91-20-3	NA	35,000	730	2.1E+6	2.5E+5	3.0E+5	1.6E+7	8.8E+7		<330	<330	<330	<330	<330	<330	<330
Phenanthrene	85-01-8	NA	56,000	2,100	1.1E+6	2.8E+6	1.6E+5	1.6E+6	2.9E+6		<330	340	NS	NS	NS	NS	NS
Pyrene	129-00-0	NA	4.8E+5	ID	4.8E+5	1.0E+9 (D)	6.5E+8	2.9E+7	2.9E+9		<330	780	NS	NS	NS	NS	NS
PCBs																	
Polychlorinated biphenyls (PCBs) (J,T)	1336363	NA	NLL	NLL	NLL	3.00E+06	2.40E+05	(T)	5.20E+06		<330	<330	NS	NS	NS	NS	NS

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FOOTNOTES
for
Part 201 Criteria and Part 213 Risk-Based Screening Levels
Document Release Date: September 28, 2012

(A) Criterion is the state of Michigan drinking water standard established pursuant to Section 5 of 1976 PA 399, MCL 325.1005.

(B) Background, as defined in R 299.5701(b), may be substituted if higher than the calculated cleanup criterion. Background levels may be less than criteria for some inorganic compounds.

(C) Value presented is a screening level based on the chemical-specific generic soil saturation concentration (C_{sat}) since the calculated risk-based criterion is greater than C_{sat}. Concentrations greater than C_{sat} are acceptable cleanup criteria for this pathway where a site-specific demonstration indicates that free-phase material containing a hazardous substance is not present.

(D) Calculated criterion exceeds 100 percent, hence it is reduced to 100 percent or 1.0E+9 parts per billion (ppb).

(E) Criterion is the aesthetic drinking water value, as required by Section 20120a(5) of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (NREPA). A notice of aesthetic impact may be employed as an institutional control mechanism if groundwater concentrations exceed the aesthetic drinking water criterion, but do not exceed the applicable health-based drinking water value provided in the following table:

Hazardous Substance	Chemical Abstract Service Number	Residential Health-Based Drinking Water Value	Non-Residential Health-Based Drinking Water Value
Aluminum	7429905	300	4,100
tertiary Amyl methyl ether	994058	910	2,600
Copper	7440508	1,400	4,000
Diethyl ether	60297	3,700	10,000
Ethylbenzene	100414	700	700
Iron	7439896	2,000	5,600
Manganese	7439965	860	2,500
Methyl-tert-butyl ether (MTBE)	1634044	240	690
Toluene	108883	1,000	1,000
1,2,4-Trimethylbenzene	95636	1,000	2,900
1,3,5-Trimethylbenzene	108678	1,000	2,900
Xylenes	1330207	10,000	10,000

(F) Criterion is based on adverse impacts to plant life and phytotoxicity.

(G) Groundwater surface water interface (GSI) criterion depends on the pH or water hardness, or both, of the receiving surface water. The final chronic value (FCV) for the protection of aquatic life shall be calculated based on the pH or hardness of the receiving surface water. Where water hardness exceeds 400 mg $CaCO_3$/L, use 400 mg $CaCO_3$/L for the FCV calculation. The FCV formula provides values in units of ug/L or ppb. The generic GSI criterion is the lesser of

the calculated FCV, the wildlife value (WV), and the surface water human non-drinking water value (HNDV). The soil GSI protection criteria for these hazardous substances are the greater of the 20 times the GSI criterion or the GSI soil-water partition values using the GSI criteria developed with the procedure described in this footnote.

Hazardous Substance	FCV Formula ug/L	FCV Conversion Factor (CF)	WV ug/L	HNDV ug/L
Acetate	EXP(0.2732*(pH) + 7.0362)	NA	NA	1.3E+6
Acetic Acid	EXP(0.2732*(pH) + 7.0362)	NA	NA	1.3E+6
Barium	EXP(1.0629*(LnH)+1.1869)	NA	NA	1.6E+5
Beryllium	EXP(2.5279*(LnH)-10.7689)	NA	NA	1,200
Cadmium⊗	(EXP(0.7852*(LnH)-2.715))*CF	1.101672-((LnH)*(0.041838))	NA	130
Chromium (III) ⊗	(EXP(0.819*(LnH)+0.6848))*CF	0.86	NA	9,400
Copper	(EXP(0.8545*(LnH)-1.702)) *CF	0.96	NA	38,000
Lead⊗	(EXP(0.9859*(LnH)-1.270))*CF	1.46203-((LnH)*(0.14571))	NA	190
Manganese⊗	EXP(0.8784*(LnH)+3.5385)	NA	NA	59,000
Nickel	(EXP(0.846*(LnH)+0.0584))*CF	0.997	NA	2.1E+5
Pentachlorophenol⊗	EXP(1.005*(pH)-5.134)	NA	NA	2.8
Zinc	(EXP(0.8473*(LnH)+0.884))*CF	0.986	NA	16,000

where,

EXP(x) = The base of the natural logarithm raised to power x (e^x).
LnH = The natural logarithm of water hardness in mg $CaCO_3$/L.
* = The multiplication symbol.
⊗ = The GSI criterion developed here may not be protective for surface water that is used as a drinking water source. Refer to footnote (X) for further guidance.

A spreadsheet that may be used to calculate GSI and GSI protection criteria for (G)-footnoted hazardous substances is available on the Department of Environmental Quality (DEQ) internet web site.

(H) Valence-specific chromium data (Cr III and Cr VI) shall be compared to the corresponding valence-specific cleanup criteria. If both Cr III and Cr VI are present in groundwater, the total concentration of both cannot exceed the drinking water criterion of 100 ug/L. If analytical data are provided for total chromium only, they shall be compared to the cleanup criteria for Cr VI. Cr III soil cleanup criterion for protection of drinking water can only be used at sites where groundwater is prevented from being used as a public water supply, currently and in the future, through an approved land or resource use restriction.

(I) Hazardous substance may exhibit the characteristic of ignitability as defined in 40 C.F.R. §261.21 (revised as of July 1, 2001), which is adopted by reference in these rules and is available for inspection at the DEQ, 525 West Allegan Street, Lansing, Michigan. Copies of the regulation may be purchased, at a cost as of the time of adoption of these rules of $45, from the Superintendent of Documents, Government Printing Office, Washington, DC 20401 (stock number 869-044-00155-1), or from the DEQ, Remediation and Redevelopment Division (RRD), 525 West Allegan Street, Lansing, Michigan 48933, at cost.

(J) Hazardous substance may be present in several isomer forms. Isomer-specific concentrations shall be added together for comparison to criteria.

(K) Hazardous substance may be flammable or explosive, or both.

(L) Criteria for lead are derived using a biologically based model, as allowed for under Section 20120a(10) of the NREPA, and are not calculated using the algorithms and assumptions specified in pathway-specific rules. The generic residential drinking water criterion of 4 ug/L is linked to the generic residential soil direct contact criterion of 400 mg/kg. A higher concentration in the drinking water, up to the state action level of 15 ug/L, may be allowed as a site-specific remedy and still allow for drinking water use, under Section 20120a(2) of the NREPA if soil concentrations are appropriately lower than 400 mg/kg. If a site-specific criterion is approved based on this subdivision, a notice shall be filed on the deed for all property where the groundwater concentrations will exceed 4 ug/L to provide notice of the potential for unacceptable risk if soil or groundwater concentrations increase. Acceptable combinations of site-specific soil and drinking water concentrations are presented in the following table:

Acceptable Combinations of Lead in Drinking Water and Soil

Drinking Water Concentration (ug/L)	Soil Concentration (mg/kg)
5	386-395
6	376-385
7	376-385
8	366-375
9	356-365
10	346-355
11	336-345
12	336-345
13	326-335
14	316-325
15	306-315

(M) Calculated criterion is below the analytical target detection limit, therefore, the criterion defaults to the target detection limit.

(N) The concentrations of all potential sources of nitrate-nitrogen (e.g., ammonia-N, nitrite-N, nitrate-N) in groundwater that is used as a source of drinking water shall not, when added together, exceed the nitrate drinking water criterion of 10,000 ug/L. Where leaching to groundwater is a relevant pathway, soil concentrations of all potential sources of nitrate-nitrogen shall not, when added together, exceed the nitrate drinking water protection criterion of 2.0E+5 ug/kg.

(O) The concentration of all polychlorinated and polybrominated dibenzodioxin and dibenzofuran isomers present at a facility, expressed as an equivalent concentration of 2,3,7,8-tetrachlorodibenzo-p-dioxin based upon their relative potency, shall be added together and compared to the criteria for 2,3,7,8-tetrachlorodibenzo-p-dioxin. The generic cleanup criteria for 2,3,7,8-tetrachlorodibenzo-p-dioxin are not calculated according to the algorithms presented in R 299.5714 to R 299.5726. The generic cleanup criteria are being held at the values that the DEQ has used since August 1998, in recognition of

the fact that national efforts to reassess risks posed by dioxin are not yet complete. Until these studies are complete, it is premature to select a revised slope factor and/or reference dose for calculation of generic cleanup criteria.

(P) Amenable cyanide methods or method OIA-1677 shall be used to quantify cyanide concentrations for compliance with all groundwater criteria. Total cyanide methods or method OIA-1677 shall be used to quantify cyanide concentrations for compliance with soil criteria. Nonresidential direct contact criteria may not be protective of the potential for release of hydrogen cyanide gas. Additional land or resource use restrictions may be necessary to protect for the acute inhalation concerns associated with hydrogen cyanide gas.

(Q) Criteria for carcinogenic polycyclic aromatic hydrocarbons were developed using relative potential potencies to benzo(a)pyrene.

(R) Hazardous substance may exhibit the characteristic of reactivity as defined in 40 C.F.R. §261.23 (revised as of July 1, 2001), which is adopted by reference in these rules and is available for inspection at the DEQ, 525 West Allegan Street, Lansing, Michigan. Copies of the regulation may be purchased, at a cost as of the time of adoption of these rules of $45, from the Superintendent of Documents, Government Printing Office, Washington, DC 20401 (stock number 869-044-00155-1), or from the DEQ, RRD, 525 West Allegan Street, Lansing, Michigan 48933, at cost.

(S) Criterion defaults to the hazardous substance-specific water solubility limit.

(T) Refer to the federal Toxic Substances Control Act (TSCA), 40 C.F.R. §761, Subpart D and 40 C.F.R. §761, Subpart G, to determine the applicability of TSCA cleanup standards. Subpart D and Subpart G of 40 C.F.R. §761 (July 1, 2001) are adopted by reference in these rules and are available for inspection at the DEQ, 525 West Allegan Street, Lansing, Michigan. Copies of the regulations may be purchased, at a cost as of the time of adoption of these rules of $55, from the Superintendent of Documents, Government Printing Office, Washington, DC 20401, or from the DEQ, RRD, 525 West Allegan Street, Lansing, Michigan 48933, at cost. Alternatives to compliance with the TSCA standards listed below are possible under 40 C.F.R. §761 Subpart D. New releases may be subject to the standards identified in 40 C.F.R. §761, Subpart G. Use Part 201 soil direct contact cleanup criteria in the following table if TSCA standards are not applicable.

Land Use Category	TSCA, Subpart D Cleanup Standards	Part 201 Soil Direct Contact Cleanup Criteria
Residential	1,000 ppb, or 10,000 ppb if capped	4,000 ppb
Nonresidential	1,000 ppb, or 10,000 ppb if capped	16,000 ppb

(U) Hazardous substance may exhibit the characteristic of corrosivity as defined in 40 C.F.R. §261.22 (revised as of July 1, 2001), which is adopted by reference in

these rules and is available for inspection at the DEQ, 525 West Allegan Street, Lansing, Michigan. Copies of the regulation may be purchased, at a cost as of the time of adoption of these rules of $45, from the Superintendent of Documents, Government Printing Office, Washington, DC 20401 (stock number 869-044-00155-1), or from the DEQ, RRD, 525 West Allegan Street, Lansing, Michigan 48933, at cost.

(V) Criterion is the aesthetic drinking water value as required by Section 20120(a)(5) of the NREPA. Concentrations up to 200 ug/L may be acceptable, and still allow for drinking water use, as part of a site-specific cleanup under Section 20120a(2) of the NREPA.

(W) Concentrations of trihalomethanes in groundwater shall be added together to determine compliance with the Michigan drinking water standard of 80 ug/L. Concentrations of trihalomethanes in soil shall be added together to determine compliance with the drinking water protection criterion of 1,600 ug/kg.

(X) The GSI criterion shown in the generic cleanup criteria tables is not protective for surface water that is used as a drinking water source. For a groundwater discharge to the Great Lakes and their connecting waters or discharge in close proximity to a water supply intake in inland surface waters, the generic GSI criterion shall be the surface water human drinking water value (HDV) listed in the table in this footnote, except for those HDV indicated with an asterisk. For HDV with an asterisk, the generic GSI criterion shall be the lowest of the HDV, the WV, and the calculated FCV. See formulas in footnote (G). Soil protection criteria based on the HDV shall be as listed in the table in this footnote, except for those values with an asterisk. Soil GSI protection criteria based on the HDV shall be as listed in the table in this footnote, except for those values with an asterisk. Soil GSI protection criteria for compounds with an asterisk shall be the greater of 20 times the GSI criterion or the GSI soil-water partition values using the GSI criteria developed with the procedure described in this footnote.

Hazardous Substance	Chemical Abstract Service Number	Surface Water Human Drinking Water Values (HDV) (ug/L)	Soil GSI Protection Criteria for HDV (ug/kg)
Acrylamide	79061	0.5 (M); 0.12	10
Alachlor	15972608	3.5	88
Antimony	7440360	2.0 (M); 1.7	1,200
Benzene	71432	12	240
Boron	7440428	4,000	80,000
Bromate	15541454	10 (M); 0.5	200
n-Butanol	71363	3,500	70,000
Butyl benzyl phthalate	85687	6.9	13,000
Cadmium	7440439	2.5*	*
Carbon tetrachloride	56235	5.6	110
Chloride	16887006	50,000	1.0E+6
Chloroethane	75003	170	3,400
Chromium (III)	16065831	120*	*
Cyanazine	21725462	2.0 (M); 0.93	200 (M); 40
1,2-Dichloroethane	107062	6.0	120
trans-1,2-Dichloroethylene	156605	470	9,400
1,2-Dichloropropane	78875	9.1	180
1,3-Dichloropropene	542756	3.3	100 (M); 66
N,N-Dimethylacetamide	127195	700	14,000
1,4-Dioxane	123911	34	680
Ethylene dibromide	106934	0.17	20 (M); 3.4
Ethylene glycol	107211	56,000	1.1E+6
Hexachloroethane	67721	5.3	310
Isophorone	78591	310	6,200
Isopropyl alcohol	67630	28,000	5.6E+5
Lead	7439921	14*	*
Manganese	7439965	1,300*	*
Methanol	67561	14,000	2.8E+5
Methyl-tert-butyl ether (MTBE)	1634044	100	2,000
Methylene chloride	75092	47	940
Molybdenum	7439987	120	2,400
Nitrobenzene	98953	4.7	330 (M); 94
Pentachlorophenol	87865	1.8*	*
Styrene	100425	20	530
1,2,4,5-Tetrachlorobenzene	95943	2.8	3,300
1,1,2,2-Tetrachloroethane	79345	3.2	64
Tetrachloroethylene	127184	11	220
Tetrahydrofuran	109999	350	7,000
Thallium	7440280	2.0 (M); 1.2	1,400
1,2,4-Trichlorobenzene	120821	80	4,700
1,1,2-Trichloroethane	79005	12	240
Trichloroethylene	79016	29	580
Vinyl chloride	75014	1.0 (M); 0.25	40 (M); 20

(Y) Source size modifiers shown in the following table shall be used to determine soil inhalation criteria for ambient air when the source size is not one-half acre. The modifier shall be multiplied by the generic soil inhalation criteria shown in the

table of generic cleanup criteria to determine the applicable criterion.

Source Size sq. feet or acres	Modifier
400 sq feet	3.17
1000 sq feet	2.2
2000 sq feet	1.76
1/4 acre	1.15
1/2 acre	1
1 acre	0.87
2 acre	0.77
5 acre	0.66
10 acre	0.6
32 acre	0.5
100 acre	0.43

(Z) Mercury is typically measured as total mercury. The generic cleanup criteria, however, are based on data for different species of mercury. Specifically, data for elemental mercury, chemical abstract service (CAS) number 7439976, serve as the basis for the soil volatilization to indoor air criteria, groundwater volatilization to indoor air, and soil inhalation criteria. Data for methyl mercury, CAS number 22967926, serve as the basis for the GSI criterion; and data for mercuric chloride, CAS number 7487947, serve as the basis for the drinking water, groundwater contact, soil direct contact, and the groundwater protection criteria. Comparison to criteria shall be based on species-specific analytical data only if sufficient facility characterization has been conducted to rule out the presence of other species of mercury.

(AA) Comparison to these criteria may take into account an evaluation of whether the hazardous substances are adsorbed to particulates rather than dissolved in water and whether filtered groundwater samples were used to evaluate groundwater.

(BB) The state drinking water standard for asbestos is in units of fibers per milliliter of water (f/mL) longer than 10 millimicrons. Soil concentrations of asbestos are determined by polarized light microscopy.

(CC) Groundwater: The generic GSI criteria are based on the toxicity of unionized ammonia (NH_3); the criteria are 29 ug/L and 53 ug/L for cold water and warm water surface water, respectively. As a result, the GSI criterion shall be compared to the percent of the total ammonia concentration in the groundwater that will become NH_3 in the surface water. This percent NH_3 is a function of the pH and temperature of the receiving surface water and can be estimated using the following table, taken from Emerson, et al., (Journal of the Fisheries Research Board of Canada, Volume 32(12):2382, 1975).

Percent NH_3 in Aqueous Ammonia Solutions for 0-30 °C and pH 6-10

Temp (°F)	Temp (°C)	pH 6.0	6.5	7.0	7.5	8.0	8.5	9.0	9.5	10.0
32.0	0	0.00827	0.0261	0.0826	0.261	0.820	2.55	7.64	20.7	45.3
33.8	1	0.00899	0.0284	0.0898	0.284	0.891	2.77	8.25	22.1	47.3
35.6	2	0.00977	0.0309	0.0977	0.308	0.968	3.00	8.90	23.6	49.4
37.4	3	0.0106	0.0336	0.106	0.335	1.05	3.25	9.60	25.1	51.5
39.2	4	0.0115	0.0364	0.115	0.363	1.14	3.52	10.3	26.7	53.5
41.0	5	0.0125	0.0395	0.125	0.394	1.23	3.80	11.1	28.3	55.6
42.8	6	0.0136	0.0429	0.135	0.427	1.34	4.11	11.9	30.0	57.6
44.6	7	0.0147	0.0464	0.147	0.462	1.45	4.44	12.8	31.7	59.5
46.4	8	0.0159	0.0503	0.159	0.501	1.57	4.79	13.7	33.5	61.4
48.2	9	0.0172	0.0544	0.172	0.542	1.69	5.16	14.7	35.3	63.3
50.0	10	0.0186	0.0589	0.186	0.586	1.83	5.56	15.7	37.1	65.1
51.8	11	0.0201	0.0637	0.201	0.633	1.97	5.99	16.8	38.9	66.8
53.6	12	0.0218	0.0688	0.217	0.684	2.13	6.44	17.9	40.8	68.5
55.4	13	0.0235	0.0743	0.235	0.738	2.30	6.92	19.0	42.6	70.2
57.2	14	0.0254	0.0802	0.253	0.796	2.48	7.43	20.2	44.5	71.7
59.0	15	0.0274	0.0865	0.273	0.859	2.67	7.97	21.5	46.4	73.3
60.8	16	0.0295	0.0933	0.294	0.925	2.87	8.54	22.8	48.3	74.7
62.6	17	0.0318	0.101	0.317	0.996	3.08	9.14	24.1	50.2	76.1
64.4	18	0.0343	0.108	0.342	1.07	3.31	9.78	25.5	52.0	77.4
66.2	19	0.0369	0.117	0.368	1.15	3.56	10.5	27.0	53.9	78.7
68.0	20	0.0397	0.125	0.396	1.24	3.82	11.2	28.4	55.7	79.9
69.8	21	0.0427	0.135	0.425	1.33	4.10	11.9	29.9	57.5	81.0
71.6	22	0.0459	0.145	0.457	1.43	4.39	12.7	31.5	59.2	82.1
73.4	23	0.0493	0.156	0.491	1.54	4.70	13.5	33.0	60.9	83.2
75.2	24	0.0530	0.167	0.527	1.65	5.03	14.4	34.6	62.6	84.1
77.0	25	0.0569	0.180	0.566	1.77	5.38	15.3	36.3	64.3	85.1
78.8	26	0.0610	0.193	0.607	1.89	5.75	16.2	37.9	65.9	85.9
80.6	27	0.0654	0.207	0.651	2.03	6.15	17.2	39.6	67.4	86.8
82.4	28	0.0701	0.221	0.697	2.17	6.56	18.2	41.2	68.9	87.3
84.2	29	0.0752	0.237	0.747	2.32	7.00	19.2	42.9	70.4	88.3
86.0	30	0.0805	0.254	0.799	2.48	7.46	20.3	44.6	71.8	89.0

The generic approach for estimating NH_3 assumes a default pH of 8 and default temperatures of 68°F and 85°F for cold water and warm water surface water, respectively. The resulting percent NH_3 is 3.8 percent and 7.2 percent for cold water and warm water, respectively. This default percentage shall be multiplied by the total ammonia-nitrogen (NH_3-N) concentration in the groundwater and the resulting NH_3 concentration compared to the applicable GSI criterion. As an

alternative, the maximum pH and temperature data from the specific receiving surface water can be used to estimate, from the table in this footnote, a lower percent unionized ammonia concentration for comparison to the generic GSI.

Soil: The generic soil GSI protection criteria for unionized ammonia are 580 ug/kg and 1,100 ug/kg for cold water and warm water surface water, respectively.

(DD) Hazardous substance causes developmental effects. Residential direct contact criteria are protective of both prenatal and postnatal exposure. Nonresidential direct contact criteria are protective for a pregnant adult receptor.

(EE) The following are applicable generic GSI criteria as required by Section 20120a(15) of the NREPA.

Hazardous Substance	GSI (ug/L)	Notes
Phosphorus	1,000	Criteria applicable unless receiving water is a surface water that has a phosphorus waste load allocation or is an inland lake. In those cases, contact the department for applicable values.
Total dissolved solids (TDS)	5.0E+5	If TDS data are not available, the TDS criterion may be used a screening level for the sum of the concentrations of the following substances: Calcium, Chlorides, Iron, Magnesium, Potassium, Sodium, Sulfate.
Dissolved Oxygen (DO): Cold receiving waters Warm receiving waters	 ≥ 7,000 ≥ 5,000	Since a low level of DO can be harmful to aquatic life, the criterion represents a minimum level that on-site samples must exceed. This is in contrast to other criteria which represent "not to exceed" concentrations. DO criteria are not applicable if groundwater Carbonaceous Biochemical Oxygen Demand (CBOD) is less than 10,000 ug/L and groundwater ammonia concentration is less than 2,000 ug/L.

(FF) The chloride GSI criterion shall be 125 mg/l when the discharge is to surface waters of the state designated as public water supply sources or 50 mg/l when the discharge is to the Great Lakes or connecting waters. Chloride GSI criteria shall not apply for surface waters of the state that are not designated as a public water supply source, however, the total dissolved solids criterion is applicable.

(GG) Risk-based criteria are not available for methane due to insufficient toxicity data. An acceptable soil gas concentration (presented for both residential and nonresidential land uses) was derived utilizing 25 percent of the lower explosive level for methane. This equates to 1.25 percent or 8.4E+6 ug/m^3.

"ID" means insufficient data to develop criterion.
"NA" means a criterion or value is not available or, in the case of background and CAS numbers, not applicable.
"NLL" means hazardous substance is not likely to leach under most soil conditions.
"NLV" means hazardous substance is not likely to volatilize under most conditions.

ERG Environmental Resources Group
28003 Center Oaks Court • Suite 106 • Wixom, MI • 48393
Phone: 248-773-7986 • Fax: 248-924-3108

TABLE 2: SOIL GAS
Norstar Development
Phase II ESA
Project Number: 1125.001
Baker Commons, 106 Packard St., Ann Arbor, Michigan
July 2013

Parameters	Chemical Abstract Service Number	Vapor Intrusion Deep Soil Gas Screening Levels	Sample Location	SB-2	SB-3	SB-5
			Depth	10'	10'	10'
			Collection Date	7/19/2013	7/19/2013	7/19/2013
		(ppbv)				
Volatile Organic Compounds (VOCs)						
Acetone	67-64-1	8.20E+05		**39**	**23**	**58**
Benzene	71-43-2	3.20E+02		**47**	**17**	**32**
Benzyl Chloride	100-44-7	3.40E+01		<0.38	<0.38	<0.38
Bromodichloromethane	75-27-4	7.10E+01		<0.37	<0.37	<0.37
Bromoform	75-25-2	7.60E+02		<0.38	<0.38	<0.38
Bromomethane	74-83-9	4.30E+02		<1.1	<1.1	<1.1
1,3-Butadiene	106-99-0	NA		<1.3	<1.3	<1.3
2-Butanone	78-93-3	5.60E+05		**4.2**	**2.4**	**6.4**
Carbon Disulfide	75-15-0	7.40E+04		<1.3	<1.3	<1.3
Carbon Tetrachloride	56-23-5	2.30E+02		<0.38	<0.38	<0.38
Chlorobenzene	108-90-7	5.00E+03		**0.93**	<0.38	<0.38
Chloroethane	75-00-3	1.30E+06		<0.50	<0.50	**0.57**
Chloroform	67-66-3	7.30E+02		<0.33	<0.33	<0.33
Chloromethane	74-87-3	6.50E+03		<2.7	<2.7	<2.7
Cyclohexane	110-82-7	5.80E+05		<2.8	**5.5**	**5.6**
Dibromochloromethane	124-48-1	4.10E+01		<0.37	<0.37	<0.37
1,2-Dichlorobenzene	95-50-1	1.60E+04		<0.38	<0.38	<0.38
1,3-Dichlorobenzene	541-73-1	1.60E+02		<0.38	<0.38	<0.38
1,4-Dichlorobenzene	106-46-7	2.10E+02		<0.38	<0.38	<0.38
Dichlorodifluoromethane	75-71-8	3.30E+06		**3.6**	**7.2**	**1.7**
1,1-Dichloroethane	75-34-3	4.10E+04		<0.37	<0.37	<0.37
1,2-Dichloroethane	107-06-2	8.20E+01		<0.37	<0.37	<0.37
1,1-Dichloroethene	75-35-4	1.70E+04		<0.36	<0.36	<0.36
cis-1,2-Dichloroethene	156-59-2	5.80E+02		<0.38	<0.38	<0.38

Units = ppbv = parts per billion by volume
< = Analyte not detected at or above the reporting limit
Bolded values = analyte concentrations above reporting limit
Shaded boxes = analyte exceeds applicable screening criteria
See Attached MDEQ Vapor Intrusion Screening Criteria footnotes
NS = Not Sampled
NA = Criteria Not Available

ERG Environmental Resources Group
28003 Center Oaks Court • Suite 106 • Wixom, MI • 48393
Phone: 248-773-7986 • Fax: 248-924-3108

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July 2013

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			Depth	10'	10'	10'
			Collection Date	7/19/2013	7/19/2013	7/19/2013
		(ppbv)				
Volatile Organic Compounds (VOCs)						
trans-1,2-Dichloroethene	156-60-5	5.80E+03		<0.33	<0.33	<0.33
1,2-Dichloropropane	78-87-5	2.90E+02		<1.1	<1.1	<1.1
cis-1,3-Dichloropropene	10061-01-5	NA		<0.36	<0.36	<0.36
trans-1,3-Dichloropropene	10061-02-6	NA		<0.40	<0.40	<0.40
1,4-Dioxane	123-91-1	NA		<0.51	<0.51	<0.51
Ethyl Acetate	141-78-6	2.90E+05		<2.7	<2.7	<2.7
Ethylbenzene	100-41-4	6.40E+03		**0.57**	**2.3**	**8.6**
Ethylene Dibromide	106-93-4	1.90E+00		<0.36	<0.36	<0.36
4-Ethyltoluene	622-96-8	NA		<0.38	**0.97**	**5.3**
n-Heptane	142-82-5	2.80E+05		<0.35	**12**	**15**
Hexachlorobutadiene	87-68-3	3.70E+01		<0.38	<0.38	<0.38
n-Hexane	110-54-3	6.60E+04		**0.68**	**14**	**17**
2-Hexanone	591-78-6	2.50E+03		<1.1	<1.1	<1.1
Isopropanol	67-63-0	NA		<5.6	<5.6	<5.6
Methylene Chloride	75-09-2	8.80E+03		<2.6	<2.6	<5.1
2-Methylnaphthalene	91-57-6	5.70E+02		<1.2	<1.2	<1.2
4-Methyl-2-pentanone	108-10-1	2.40E+05		<0.38	**2.7**	**5.4**
MTBE	1634-04-4	2.70E+05		<0.35	<0.35	<0.35
Naphthalene	91-20-3	1.40E+02		<1.4	<1.4	<1.4
Propylene	115-07-1	NA		<2.6	**11**	**18**
Styrene	100-42-5	3.50E+03		<0.38	<0.38	<0.38
1,1,2,2-Tetrachloroethane	79-34-5	2.20E+01		<0.38	<0.38	<0.38
Tetrachloroethene	127-18-4	1.70E+03		**0.66**	**1.7**	**3.9**

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See Attached MDEQ Vapor Intrusion Screening Criteria footnotes
NS = Not Sampled
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Phone: 248-773-7986 • Fax: 248-924-3108

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Project Number: 1125.001
Baker Commons, 106 Packard St., Ann Arbor, Michigan
July 2013

Parameters	Chemical Abstract Service Number	Vapor Intrusion Deep Soil Gas Screening Levels	Sample Location	SB-2	SB-3	SB-5
			Depth	10'	10'	10'
			Collection Date	7/19/2013	7/19/2013	7/19/2013
		(ppbv)				
Volatile Organic Compounds (VOCs)						
Tetrahydrofuran	109-99-9	2.00E+03		**5.0**	**1.7**	**3.0**
Toluene	108-88-3	4.40E+05		**1.6**	**10**	**34**
1,2,4-Trichlorobenzene	120-82-1	1.80E+02		<0.38	<0.38	<0.38
1,1,1-Trichloroethane	71-55-6	3.60E+05		**1.4**	<0.37	<0.37
1,1,2-Trichloroethane	79-00-5	9.80E+01		<0.38	<0.38	<0.38
Trichloroethene	79-01-6	1.20E+02		<0.37	<0.37	<0.37
Trichlorofluoromethane	75-69-4	3.30E+06		**0.36**	**0.39**	**0.40**
1,1,2-Trichlorotrifluoroethane	76-13-1	8.40E+05		<0.36	<0.36	<0.36
1,2,4-Trimethylbenzene	95-63-6	1.50E+04		<0.38	**2.3**	**9.3**
1,3,5-Trimethylbenzene	108-67-8	1.50E+04		<0.38	**0.68**	**3.1**
Vinyl Acetate	108-05-4	1.90E+04		<1.1	<1.1	<1.1
Vinyl Chloride	75-01-4	2.10E+02		<0.35	<0.35	<0.35
Xylenes	1330-20-7	7.60E+03		**2.2**	**9.7**	**41**

Units = ppbv = parts per billion by volume
< = Analyte not detected at or above the reporting limit
Bolded values = analyte concentrations above reporting limit
Shaded boxes = analyte exceeds applicable screening criteria
See Attached MDEQ Vapor Intrusion Screening Criteria footnotes
NS = Not Sampled
NA = Criteria Not Available

APPENDIX A

Soil Boring Logs

SOIL BORING LOG Page 1 of 2

Environmental Resources Group
28003 Center Oaks Court • Suite 106 • Wixom, MI • 48393
Phone: 248-773-7985 • Fax: 248-924-3208

Project: Baker Commons	**Project Number:** 1125.001	**Client:** Norstar Development	**Boring No.:** SB-1
Address, City, State: 106 Packard Street, Ann Arbor, Michigan		**Drilling Contractor:** Fibertec	**Drill Rig Type:** 6620 DT geoprobe
Logged By: L. Lambert	**Date** **Started:** 7/19/2013	**Bit Type: N/A**	**Hole Diameter: N/A**
Drill Crew: Ryan	**Completed:** 7/19/2013	**Hammer Type: N/A**	**Well Diameter: N/A**
Comments: sampled soil @ 10:00	**Backfilled:** natural cuttings & bentonite granules	**Hammer Weight: N/A**	**Hammer Drop: N/A**
	Groundwater Depth: N/A	**Elevation: N/A**	**Total Depth of Boring:** 30 feet

Depth (feet)	Sample Type	Recovery (feet)	Graphic Log	Lithology Soil Group Name: modifier, color, moisture, density/consistency, grain size, other descriptors Rock Description: modifier, color, hardness/degree of concentration, bedding and joint characteristics, solutions, void conditions.	PID	Well Construction	Soil Gas Sample Screen Interval
				4" Asphalt	0.0		
				FILL: including Sand, Silt, Clay and Gravel, moist.	0.0		
2		HA			0.0		
					0.0		
					0.0		
4					0.0		
					0.0		
					0.0		
6		2.75'			0.0		
					0.0		
					0.0		
8					0.0		
					0.0		
					0.0		
10				S. A. A., brick fragments.	0.0		
				FILL: Brown, fine Sand, few large Gravel, trace Organics, trace brick fragments, moist.	0.0		
					0.0		
12		2'			0.0		
					0.0		
					0.0		
14					0.0		
					0.0		
				Brown, coarse Sand, some Silt, some Gravel, moist to very moist.	0.0		
16					0.0		
					0.0		
		1.5'			0.0		
18					0.0		
					0.0		
					0.0		
20					0.0		

Standard Penetration Split Spoon Sampler (SPT)
Direct Push Sampler
Water Sample
HA Hand Auger
Soil Gas Sample Screen Interval
Stabllized Ground water
Groundwater At time of Drilling

SOIL BORING LOG Page 2 of 2

Environmental Resources Group
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Project: Baker Commons	**Project Number:** 1125.001	**Client:** Norstar Development	**Boring No.:** SB-1
Address, City, State: 106 Packard Street, Ann Arbor, Michigan		**Drilling Contractor:** Fibertec	**Drill Rig Type:** 6620 DT geoprobe
Logged By: L. Lambert	**Date** **Started:** 7/19/2013	**Bit Type: N/A**	**Hole Diameter: N/A**
Drill Crew: Ryan	**Completed:** 7/19/2013	**Hammer Type: N/A**	**Well Diameter: N/A**
Comments:	**Backfilled:** natural cuttings & bentonite granules	**Hammer Weight: N/A**	**Hammer Drop: N/A**
	Groundwater Depth: N/A	**Elevation: N/A**	**Total Depth of Boring:** 30 feet

Depth (feet)	Sample Type	Recovery (feet)	Graphic Log	Lithology **Soil Group Name:** modifier, color, moisture, density/consistency, grain size, other descriptors **Rock Description:** modifier, color, hardness/degree of concentration, bedding and joint characteristics, solutions, void conditions.	PID	Well Construction	Soil Gas Sample Screen Interval
22		2'		Brown, coarse Sand, some Gravel, moist.	0.0		
					0.0		
					0.0		
					0.0		
					0.0		
24					0.0		
					0.0		
					0.0		
					0.0		
				S. A. A., moist.	0.0		
26					0.0		
					0.0		
		2.5'		White to light brown, fine to coarse Sand, some Gravel, moist.	0.0		
					0.0		
					0.0		
28					0.0		
					0.0		
					0.0		
					0.0		
30				**EOB**			

- Standard Penetration Split Spoon Sampler (SPT)
- Direct Push Sampler
- Water Sample
- HA Hand Auger
- Soil Gas Sample Screen Interval
- Stabllized Ground water
- Groundwater At time of Drilling

SOIL BORING LOG

ERG Environmental Resources Group
28009 Center Oaks Court • Suite 106 • Wixom, MI • 48393
Phone: 248-773-0588 • Fax: 248-924-3108

Project: Baker Commons	**Project Number:** 1125.001	**Client:** Norstar Development	**Boring No.:** SB-2
Address, City, State: 106 Packard Street, Ann Arbor, Michigan		**Drilling Contractor:** Fibertec	**Drill Rig Type:** 6620 DT geoprobe
Logged By: L. Lambert	**Date** **Started:** 7/19/2013	**Bit Type: N/A**	**Hole Diameter: N/A**
Drill Crew: Ryan	**Completed:** 7/19/2013	**Hammer Type: N/A**	**Well Diameter: N/A**
Comments: sampled soil @ 10:55	**Backfilled:** natural cuttings & bentonite granules	**Hammer Weight: N/A**	**Hammer Drop: N/A**
	Groundwater Depth: N/A	**Elevation: N/A**	**Total Depth of Boring:** 30 feet

Depth (feet)	Sample Type	Recovery (feet)	Graphic Log	Lithology	PID	Well Construction	Soil Gas Sample Screen Interval
0		HA		FILL: Brown, fine Sand, few coarse Sand, moist.	0.0		
2					0.0		
4				S. A. A., trace Gravel.	0.0		
6		2.5'		FILL: Brown, fine Sand, trace concrete pieces, moist.	0.0		
8					0.0		
10				Fill: including Sand, Silt, Concrete pieces, Glass pieces, very moist.	0.0		
12		1'		Brown, coarse Sand, some fine to medium Sand, some Silt, few Gravel, moist.	0.0		
14					0.0		
16		3'		S. A. A., trace Silt, moist.	0.0		
18					0.0		
20					0.0		

Lithology

Soil Group Name: modifier, color, moisture, density/consistency, grain size, other descriptors

Rock Description: modifier, color, hardness/degree of concentration, bedding and joint characteristics, solutions, void conditions.

Standard Penetration Split Spoon Sampler (SPT)
Direct Push Sampler
Water Sample
HA Hand Auger
Soil Gas Sample Screen Interval
Stabllized Ground water
Groundwater At time of Drilling

SOIL BORING LOG Page 2 of 2

Environmental Resources Group
28003 Center Oaks Court • Suite 106 • Wixom, MI • 48393
Phone 248-773-7986 • Fax 248-924-3108

Project: Baker Commons	**Project Number:** 1125.001	**Client:** Norstar Development	**Boring No.:** SB-2
Address, City, State: 106 Packard Street, Ann Arbor, Michigan		**Drilling Contractor:** Fibertec	**Drill Rig Type:** 6620 DT geoprobe
Logged By: L. Lambert	**Date** **Started:** 7/19/2013	**Bit Type: N/A**	**Hole Diameter: N/A**
Drill Crew: Ryan	**Completed:** 7/19/2013	**Hammer Type: N/A**	**Well Diameter: N/A**
Comments:	**Backfilled:** natural cuttings & bentonite granules	**Hammer Weight: N/A**	**Hammer Drop: N/A**
	Groundwater Depth: N/A	**Elevation: N/A**	**Total Depth of Boring:** 30 feet

Depth (feet)	Sample Type	Recovery (feet)	Graphic Log	Lithology Soil Group Name: modifier, color, moisture, density/consistency, grain size, other descriptors Rock Description: modifier, color, hardness/degree of concentration, bedding and joint characteristics, solutions, void conditions.	PID	Well Construction	Soil Gas Sample Screen Interval
22		4'		Brown, coarse Sand, some Gravel, some fine to medium Sand, moist.	0.0		
24					0.0		
26		4'		S. A. A., moist.	0.0		
28					0.0		
				White to light brown, fine to coarse Sand, some Gravel, moist.	0.0		
30				EOB			

Standard Penetration Split Spoon Sampler (SPT)
Direct Push Sampler
Water Sample
HA Hand Auger
Soil Gas Sample Screen Interval
Stabllized Ground water
Groundwater At time of Drilling

SOIL BORING LOG Page 1 of 1

Environmental Resources Group
28003 Center Oaks Court • Suite 105 • Wixom, MI • 48393
Phone: 248-773-7986 • Fax: 248-924-3108

Project: Baker Commons	**Project Number:** 1125.001	**Client:** Norstar Development	**Boring No.:** SB-3
Address, City, State: 106 Packard Street, Ann Arbor, Michigan		**Drilling Contractor:** Fibertec	**Drill Rig Type:** 6620 DT geoprobe
Logged By: L. Lambert	**Date** **Started:** 7/19/2013	**Bit Type: N/A**	**Hole Diameter: N/A**
Drill Crew: Ryan	**Completed:** 7/19/2013	**Hammer Type: N/A**	**Well Diameter: N/A**
Comments: sampled soil @ 12:35 & 12	**Backfilled:** natural cuttings & bentonite granules	**Hammer Weight: N/A**	**Hammer Drop: N/A**
	Groundwater Depth: N/A	**Elevation: N/A**	**Total Depth of Boring:** 20 feet

Depth (feet)	Sample Type	Recovery (feet)	Graphic Log	Lithology	PID	Well Construction	Soil Gas Sample Screen Interval
				Soil Group Name: modifier, color, moisture, density/consistency, grain size, other descriptors **Rock Description:** modifier, color, hardness/degree of concentration, bedding and joint characteristics, solutions, void conditions.			
				FILL: including Sand, Organics, Gravel, pine odor, moist.	57.2		
				S. A. A., asphalt pieces.	3.3		
2		HA		S. A. A., including Silt.	0.0		
					0.0		
					0.0		
					0.0		
4				Brown, fine to coarse Sand and Gravel, moist.	0.3		
					0.0		
6					0.0		
					0.0		
		5'			0.0		
8					0.0		
					0.0		
					0.0		
					0.0		▨
10				S. A. A., moist.	0.0		
					0.0		
					0.0		
		5'			0.0		
12					0.0		
					0.0		
					0.0		
					0.0		
14					0.0		
					0.0		
					0.0		
				S. A. A., moist.	0.0		
16					0.0		
					0.0		
					0.0		
		3.5'			0.0		
18					0.0		
					0.0		
					0.0		
					0.0		
20				EOB	0.0		

▨ Standard Penetration Split Spoon Sampler (SPT)
▨ Direct Push Sampler
▨ Water Sample
HA Hand Auger
▨ Soil Gas Sample Screen Interval
▼ Stabllized Ground water
▽ Groundwater At time of Drilling

SOIL BORING LOG Page 1 of 1

ERG Environmental Resources Group
28005 Center Oaks Court • Suite 206 • Wixom, MI • 48393
Phone: 248-773-7986 • Fax: 248-924-3208

Project: Baker Commons	**Project Number:** 1125.001	**Client:** Norstar Development	**Boring No.:** SB-4
Address, City, State: 106 Packard Street, Ann Arbor, Michigan		**Drilling Contractor:** Fibertec	**Drill Rig Type:** 6620 DT geoprobe
Logged By: L. Lambert	**Started:** 7/19/2013	**Bit Type: N/A**	**Hole Diameter: N/A**
Drill Crew: Ryan	**Completed:** 7/19/2013	**Hammer Type: N/A**	**Well Diameter: N/A**
Comments: sampled soil @ 13:35	**Backfilled:** natural cuttings & bentonite granules	**Hammer Weight: N/A**	**Hammer Drop: N/A**
	Groundwater Depth: N/A	**Elevation: N/A**	**Total Depth of Boring:** 20 feet

Depth (feet)	Sample Type	Recovery (feet)	Graphic Log	Lithology	PID	Well Construction	Soil Gas Sample Screen Interval
0		HA		FILL: including Sand, Silt, Gravel, Organics, moist.	0.0		
2		2'		S. A. A., moist.	0.0		
4		4.5'		FILL: including Sand, Gravel, Silt, damp.	0.3		
6					0.0		
8					0.0		
10		3.5'		Brown, fine Sand, some coarse Sand, few large rocks, damp.	0.0		
12				Brown, fine to coarse Sand and Gravel, moist.	0.0		
14					0.0		
16		4'		S. A. A., some large broken rocks, moist.	0.0		
18					0.0		
20				EOB	0.0		

Soil Group Name: modifier, color, moisture, density/consistency, grain size, other descriptors

Rock Description: modifier, color, hardness/degree of concentration, bedding and joint characteristics, solutions, void conditions.

- Standard Penetration Split Spoon Sampler (SPT)
- Direct Push Sampler
- Water Sample
- HA Hand Auger
- Soil Gas Sample Screen Interval
- Stabllized Ground water
- Groundwater At time of Drilling

Environmental Resources Group
28003 Center Oaks Court • Suite 106 • Wixom, MI • 48393
Phone 248-773-7886 • Fax 248-924-3508

Project: Baker Commons	**Project Number:** 1125.001	**Client:** Norstar Development	**Boring No.:** SB-5
Address, City, State: 106 Packard Street, Ann Arbor, Michigan		**Drilling Contractor:** Fibertec	**Drill Rig Type:** 6620 DT geoprobe
Logged By: L. Lambert	**Date** **Started:** 7/19/2013	**Bit Type: N/A**	**Hole Diameter: N/A**
Drill Crew: Ryan	**Completed:** 7/19/2013	**Hammer Type: N/A**	**Well Diameter: N/A**
Comments: sampled soil @ 15:15 & 15:20	**Backfilled:** natural cuttings & bentonite granules	**Hammer Weight: N/A**	**Hammer Drop: N/A**
	Groundwater Depth: N/A	**Elevation: N/A**	**Total Depth of Boring:** 20 feet

Depth (feet)	Sample Type	Recovery (feet)	Graphic Log	Lithology	PID	Well Construction	Soil Gas Sample Screen Interval
2	HA			FILL: including Sand, Gravel, Organics, pine odor, moist.	3.4 67.4 6.2		
4					16.2 6.4		
6		2.5'		Brown, fine to coarse Sand and Gravel, few large rocks, trace Silt, moist.	0.0 0.0 0.0 0.0 0.0		
8					0.0 0.0 0.0 0.0 0.0		
10				S. A. A., moist.	0.0 0.0		
12		4'		Brown, fine to coarse Sand and Gravel, few large rocks, moist.	17.2 0.0 0.0 0.0 0.0 0.0		
14					0.0 0.0		
16		4.5'		Brown, fine to coarse Sand, some Gravel, moist.	0.0 0.0 0.0 0.0 0.0		
18					0.0 0.0 0.0 0.0		
20				EOB	0.0		

Lithology

Soil Group Name: modifier, color, moisture, density/consistency, grain size, other descriptors

Rock Description: modifier, color, hardness/degree of concentration, bedding and joint characteristics, solutions, void conditions.

Standard Penetration Split Spoon Sampler (SPT)
Direct Push Sampler
Water Sample
HA Hand Auger
Soil Gas Sample Screen Interval
Stabllized Ground water
Groundwater At time of Drilling

APPENDIX B

Analytical Data Reports

Fibertec
environmental
services

Friday, July 26, 2013

Fibertec Project Number:	57045
Project Identification:	Baker Commons /1125.001
Submittal Date:	07/19/2013

Ms. Laura Lambert
Environmental Resources Group
28003 Center Oaks Court Suite 106
Wixon, MI 48393

Dear Ms. Lambert,

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.

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,

Daryl P. Strandbergh
Laboratory Director

DPS/kc

Enclosures

Client Identification:	**Environmental Resources Group**	Sample Description:	**SB-1 14-15'**	Chain of Custody:	**124242**
Client Project Name:	**Baker Commons**	Sample No:	**1**	Collect Date:	**07/19/13**
Client Project No:	**1125.001**	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 NN: Parameter not included in NELAC Scope of Analysis.

Dry Weight Determination (ASTM D 2974-87) — **Aliquot ID: 57045-001A** — **Matrix: Soil/Solid** — **Analyst: BMG**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Percent Moisture (Water Content) (NN)	7.8		%	0.1	1.0	07/23/13	MC130723	07/24/13	MC130723

Polychlorinated Biphenyls (PCBs) (EPA 3546/EPA 8082A) — **Aliquot ID: 57045-001A** — **Matrix: Soil/Solid** — **Analyst: TMC**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Aroclor-1016	U		µg/kg	330	5.0	07/23/13	PS13G23D	07/23/13	SB13G23A
2. Aroclor-1221	U		µg/kg	330	5.0	07/23/13	PS13G23D	07/23/13	SB13G23A
3. Aroclor-1232	U		µg/kg	330	5.0	07/23/13	PS13G23D	07/23/13	SB13G23A
4. Aroclor-1242	U		µg/kg	330	5.0	07/23/13	PS13G23D	07/23/13	SB13G23A
5. Aroclor-1248	U		µg/kg	330	5.0	07/23/13	PS13G23D	07/23/13	SB13G23A
6. Aroclor-1254	U		µg/kg	330	5.0	07/23/13	PS13G23D	07/23/13	SB13G23A
7. Aroclor-1260	U		µg/kg	330	5.0	07/23/13	PS13G23D	07/23/13	SB13G23A
8. Aroclor-1262 (NN)	U		µg/kg	330	5.0	07/23/13	PS13G23D	07/23/13	SB13G23A
9. Aroclor-1268 (NN)	U		µg/kg	330	5.0	07/23/13	PS13G23D	07/23/13	SB13G23A

Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035/EPA 8260B) — **Aliquot ID: 57045-001** — **Matrix: Soil/Solid** — **Analyst: CCD**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Acetone	U		µg/kg	1000	1.0	07/23/13	V913G23A	07/23/13	V913G23A
2. Acrylonitrile	U		µg/kg	100	1.0	07/23/13	V913G23A	07/23/13	V913G23A
3. Benzene	U		µg/kg	50	1.0	07/23/13	V913G23A	07/23/13	V913G23A
4. Bromobenzene	U		µg/kg	100	1.0	07/23/13	V913G23A	07/23/13	V913G23A
5. Bromochloromethane	U		µg/kg	110	1.0	07/23/13	V913G23A	07/23/13	V913G23A
6. Bromodichloromethane	U		µg/kg	100	1.0	07/23/13	V913G23A	07/23/13	V913G23A
7. Bromoform	U		µg/kg	110	1.0	07/23/13	V913G23A	07/23/13	V913G23A
8. Bromomethane	U		µg/kg	200	1.0	07/23/13	V913G23A	07/23/13	V913G23A
9. 2-Butanone	U		µg/kg	750	1.0	07/23/13	V913G23A	07/23/13	V913G23A
10. n-Butylbenzene	U		µg/kg	50	1.0	07/23/13	V913G23A	07/23/13	V913G23A
11. sec-Butylbenzene	U		µg/kg	50	1.0	07/23/13	V913G23A	07/23/13	V913G23A
12. tert-Butylbenzene	U		µg/kg	50	1.0	07/23/13	V913G23A	07/23/13	V913G23A
13. Carbon Disulfide	U		µg/kg	250	1.0	07/23/13	V913G23A	07/23/13	V913G23A
14. Carbon Tetrachloride	U		µg/kg	54	1.0	07/23/13	V913G23A	07/23/13	V913G23A
15. Chlorobenzene	U		µg/kg	54	1.0	07/23/13	V913G23A	07/23/13	V913G23A
16. Chloroethane	U		µg/kg	270	1.0	07/23/13	V913G23A	07/23/13	V913G23A
17. Chloroform	U		µg/kg	54	1.0	07/23/13	V913G23A	07/23/13	V913G23A
18. Chloromethane	U		µg/kg	250	1.0	07/23/13	V913G23A	07/23/13	V913G23A
19. 2-Chlorotoluene	U		µg/kg	50	1.0	07/23/13	V913G23A	07/23/13	V913G23A
20. Dibromochloromethane	U		µg/kg	100	1.0	07/23/13	V913G23A	07/23/13	V913G23A
21. 1,2-Dibromo-3-chloropropane (SIM) (N	U		µg/kg	27	1.0	07/23/13	V913G23A	07/23/13	V913G23A

Client Identification:	**Environmental Resources Group**	Sample Description:	**SB-1 14-15'**	Chain of Custody:	**124242**
Client Project Name:	**Baker Commons**	Sample No:	**1**	Collect Date:	**07/19/13**
Client Project No:	**1125.001**	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 NN: Parameter not included in NELAC Scope of Analysis.

Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035/EPA 8260B) **Aliquot ID: 57045-001** **Matrix: Soil/Solid** **Analyst: CCD**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
22. Dibromomethane	U		µg/kg	250	1.0	07/23/13	V913G23A	07/23/13	V913G23A
23. 1,2-Dichlorobenzene	U		µg/kg	100	1.0	07/23/13	V913G23A	07/23/13	V913G23A
24. 1,3-Dichlorobenzene	U		µg/kg	100	1.0	07/23/13	V913G23A	07/23/13	V913G23A
25. 1,4-Dichlorobenzene	U		µg/kg	100	1.0	07/23/13	V913G23A	07/23/13	V913G23A
26. Dichlorodifluoromethane	U		µg/kg	250	1.0	07/23/13	V913G23A	07/23/13	V913G23A
27. 1,1-Dichloroethane	U		µg/kg	54	1.0	07/23/13	V913G23A	07/23/13	V913G23A
28. 1,2-Dichloroethane	U		µg/kg	54	1.0	07/23/13	V913G23A	07/23/13	V913G23A
29. 1,1-Dichloroethene	U		µg/kg	50	1.0	07/23/13	V913G23A	07/23/13	V913G23A
30. cis-1,2-Dichloroethene	U		µg/kg	50	1.0	07/23/13	V913G23A	07/23/13	V913G23A
31. trans-1,2-Dichloroethene	U		µg/kg	50	1.0	07/23/13	V913G23A	07/23/13	V913G23A
32. 1,2-Dichloropropane	U		µg/kg	54	1.0	07/23/13	V913G23A	07/23/13	V913G23A
33. cis-1,3-Dichloropropene	U		µg/kg	54	1.0	07/23/13	V913G23A	07/23/13	V913G23A
34. trans-1,3-Dichloropropene	U		µg/kg	54	1.0	07/23/13	V913G23A	07/23/13	V913G23A
35. Ethylbenzene	U		µg/kg	50	1.0	07/23/13	V913G23A	07/23/13	V913G23A
36. Ethylene Dibromide	U		µg/kg	54	1.0	07/23/13	V913G23A	07/23/13	V913G23A
37. 2-Hexanone	U		µg/kg	2500	1.0	07/23/13	V913G23A	07/23/13	V913G23A
38. Isopropylbenzene	U		µg/kg	250	1.0	07/23/13	V913G23A	07/23/13	V913G23A
39. Methyl Iodide	U		µg/kg	110	1.0	07/23/13	V913G23A	07/23/13	V913G23A
40. Methylene Chloride	U		µg/kg	100	1.0	07/23/13	V913G23A	07/23/13	V913G23A
41. 4-Methyl-2-pentanone	U		µg/kg	2500	1.0	07/23/13	V913G23A	07/23/13	V913G23A
42. MTBE	U		µg/kg	250	1.0	07/23/13	V913G23A	07/23/13	V913G23A
43. Naphthalene	U		µg/kg	330	1.0	07/23/13	V913G23A	07/23/13	V913G23A
44. n-Propylbenzene	U		µg/kg	100	1.0	07/23/13	V913G23A	07/23/13	V913G23A
45. Styrene	U		µg/kg	50	1.0	07/23/13	V913G23A	07/23/13	V913G23A
46. 1,1,1,2-Tetrachloroethane	U		µg/kg	100	1.0	07/23/13	V913G23A	07/23/13	V913G23A
47. 1,1,2,2-Tetrachloroethane	U		µg/kg	54	1.0	07/23/13	V913G23A	07/23/13	V913G23A
48. Tetrachloroethene	U		µg/kg	50	1.0	07/23/13	V913G23A	07/23/13	V913G23A
49. Toluene	U		µg/kg	50	1.0	07/23/13	V913G23A	07/23/13	V913G23A
50. 1,2,4-Trichlorobenzene	U		µg/kg	330	1.0	07/23/13	V913G23A	07/23/13	V913G23A
51. 1,1,1-Trichloroethane	U		µg/kg	54	1.0	07/23/13	V913G23A	07/23/13	V913G23A
52. 1,1,2-Trichloroethane	U		µg/kg	54	1.0	07/23/13	V913G23A	07/23/13	V913G23A
53. Trichloroethene	U		µg/kg	54	1.0	07/23/13	V913G23A	07/23/13	V913G23A
54. Trichlorofluoromethane	U		µg/kg	100	1.0	07/23/13	V913G23A	07/23/13	V913G23A
55. 1,2,3-Trichloropropane	U		µg/kg	110	1.0	07/23/13	V913G23A	07/23/13	V913G23A
56. 1,2,3-Trimethylbenzene (NN)	U		µg/kg	100	1.0	07/23/13	V913G23A	07/23/13	V913G23A
57. 1,2,4-Trimethylbenzene	U		µg/kg	100	1.0	07/23/13	V913G23A	07/23/13	V913G23A
58. 1,3,5-Trimethylbenzene	U		µg/kg	100	1.0	07/23/13	V913G23A	07/23/13	V913G23A
59. Vinyl Chloride	U		µg/kg	40	1.0	07/23/13	V913G23A	07/23/13	V913G23A
60. Xylenes	U		µg/kg	150	1.0	07/23/13	V913G23A	07/23/13	V913G23A

Client Identification:	**Environmental Resources Group**	Sample Description:	**SB-1 14-15'**	Chain of Custody:	**124242**
Client Project Name:	**Baker Commons**	Sample No:	**1**	Collect Date:	**07/19/13**
Client Project No:	**1125.001**	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 NN: Parameter not included in NELAC Scope of Analysis.

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3546/EPA 8270C) **Aliquot ID: 57045-001A** **Matrix: Soil/Solid** **Analyst: TMC**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Acenaphthene (SIM)	U		µg/kg	330	1.0	07/23/13	PS13G23D	07/24/13	S513G23B
2. Acenaphthylene (SIM)	U		µg/kg	330	1.0	07/23/13	PS13G23D	07/24/13	S513G23B
3. Anthracene (SIM)	U		µg/kg	330	1.0	07/23/13	PS13G23D	07/24/13	S513G23B
4. Benzo(a)anthracene (SIM)	U		µg/kg	330	1.0	07/23/13	PS13G23D	07/24/13	S513G23B
5. Benzo(a)pyrene (SIM)	U		µg/kg	330	1.0	07/23/13	PS13G23D	07/24/13	S513G23B
6. Benzo(b)fluoranthene (SIM)	U		µg/kg	330	1.0	07/23/13	PS13G23D	07/24/13	S513G23B
7. Benzo(ghi)perylene (SIM)	U		µg/kg	330	1.0	07/23/13	PS13G23D	07/24/13	S513G23B
8. Benzo(k)fluoranthene (SIM)	U		µg/kg	330	1.0	07/23/13	PS13G23D	07/24/13	S513G23B
9. Chrysene (SIM)	U		µg/kg	330	1.0	07/23/13	PS13G23D	07/24/13	S513G23B
10. Dibenzo(a,h)anthracene (SIM)	U		µg/kg	330	1.0	07/23/13	PS13G23D	07/24/13	S513G23B
11. Fluoranthene (SIM)	U		µg/kg	330	1.0	07/23/13	PS13G23D	07/24/13	S513G23B
12. Fluorene (SIM)	U		µg/kg	330	1.0	07/23/13	PS13G23D	07/24/13	S513G23B
13. Indeno(1,2,3-cd)pyrene (SIM)	U		µg/kg	330	1.0	07/23/13	PS13G23D	07/24/13	S513G23B
14. 2-Methylnaphthalene (SIM)	U		µg/kg	330	1.0	07/23/13	PS13G23D	07/24/13	S513G23B
15. Phenanthrene (SIM)	U		µg/kg	330	1.0	07/23/13	PS13G23D	07/24/13	S513G23B
16. Pyrene (SIM)	U		µg/kg	330	1.0	07/23/13	PS13G23D	07/24/13	S513G23B

Client Identification:	**Environmental Resources Group**	Sample Description:	**SB-2 9-10'**	Chain of Custody:	**124242**
Client Project Name:	**Baker Commons**	Sample No:	**2**	Collect Date:	**07/19/13**
Client Project No:	**1125.001**	Sample Matrix:	**Soil/Solid**	Collect Time:	**10:55**

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 NN: Parameter not included in NELAC Scope of Analysis.

Dry Weight Determination (ASTM D 2974-87) — **Aliquot ID: 57045-002A** — **Matrix: Soil/Solid** — **Analyst: BMG**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Percent Moisture (Water Content) (NN)	11		%	0.1	1.0	07/23/13	MC130723	07/24/13	MC130723

Polychlorinated Biphenyls (PCBs) (EPA 3546/EPA 8082A) — **Aliquot ID: 57045-002A** — **Matrix: Soil/Solid** — **Analyst: TMC**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Aroclor-1016	U		µg/kg	330	5.0	07/23/13	PS13G23D	07/23/13	SB13G23A
2. Aroclor-1221	U		µg/kg	330	5.0	07/23/13	PS13G23D	07/23/13	SB13G23A
3. Aroclor-1232	U		µg/kg	330	5.0	07/23/13	PS13G23D	07/23/13	SB13G23A
4. Aroclor-1242	U		µg/kg	330	5.0	07/23/13	PS13G23D	07/23/13	SB13G23A
5. Aroclor-1248	U		µg/kg	330	5.0	07/23/13	PS13G23D	07/23/13	SB13G23A
6. Aroclor-1254	U		µg/kg	330	5.0	07/23/13	PS13G23D	07/23/13	SB13G23A
7. Aroclor-1260	U		µg/kg	330	5.0	07/23/13	PS13G23D	07/23/13	SB13G23A
8. Aroclor-1262 (NN)	U		µg/kg	330	5.0	07/23/13	PS13G23D	07/23/13	SB13G23A
9. Aroclor-1268 (NN)	U		µg/kg	330	5.0	07/23/13	PS13G23D	07/23/13	SB13G23A

Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035/EPA 8260B) — **Aliquot ID: 57045-002** — **Matrix: Soil/Solid** — **Analyst: CCD**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Acetone	U		µg/kg	1000	1.0	07/23/13	V913G23A	07/23/13	V913G23A
2. Acrylonitrile	U		µg/kg	100	1.0	07/23/13	V913G23A	07/23/13	V913G23A
3. Benzene	U		µg/kg	50	1.0	07/23/13	V913G23A	07/23/13	V913G23A
4. Bromobenzene	U		µg/kg	100	1.0	07/23/13	V913G23A	07/23/13	V913G23A
5. Bromochloromethane	U		µg/kg	110	1.0	07/23/13	V913G23A	07/23/13	V913G23A
6. Bromodichloromethane	U		µg/kg	100	1.0	07/23/13	V913G23A	07/23/13	V913G23A
7. Bromoform	U		µg/kg	110	1.0	07/23/13	V913G23A	07/23/13	V913G23A
8. Bromomethane	U		µg/kg	200	1.0	07/23/13	V913G23A	07/23/13	V913G23A
9. 2-Butanone	U		µg/kg	750	1.0	07/23/13	V913G23A	07/23/13	V913G23A
10. n-Butylbenzene	U		µg/kg	50	1.0	07/23/13	V913G23A	07/23/13	V913G23A
11. sec-Butylbenzene	U		µg/kg	50	1.0	07/23/13	V913G23A	07/23/13	V913G23A
12. tert-Butylbenzene	U		µg/kg	50	1.0	07/23/13	V913G23A	07/23/13	V913G23A
13. Carbon Disulfide	U		µg/kg	250	1.0	07/23/13	V913G23A	07/23/13	V913G23A
14. Carbon Tetrachloride	U		µg/kg	56	1.0	07/23/13	V913G23A	07/23/13	V913G23A
15. Chlorobenzene	U		µg/kg	56	1.0	07/23/13	V913G23A	07/23/13	V913G23A
16. Chloroethane	U		µg/kg	280	1.0	07/23/13	V913G23A	07/23/13	V913G23A
17. Chloroform	U		µg/kg	56	1.0	07/23/13	V913G23A	07/23/13	V913G23A
18. Chloromethane	U		µg/kg	250	1.0	07/23/13	V913G23A	07/23/13	V913G23A
19. 2-Chlorotoluene	U		µg/kg	50	1.0	07/23/13	V913G23A	07/23/13	V913G23A
20. Dibromochloromethane	U		µg/kg	100	1.0	07/23/13	V913G23A	07/23/13	V913G23A
21. 1,2-Dibromo-3-chloropropane (SIM) (N	U		µg/kg	28	1.0	07/23/13	V913G23A	07/23/13	V913G23A

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Analytical Laboratory Report
Laboratory Project Number: 57045
Laboratory Sample Number: 57045-002

Client Identification:	**Environmental Resources Group**	Sample Description:	**SB-2 9-10'**	Chain of Custody:	**124242**
Client Project Name:	**Baker Commons**	Sample No:	**2**	Collect Date:	**07/19/13**
Client Project No:	**1125.001**	Sample Matrix:	**Soil/Solid**	Collect Time:	**10:55**

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 NN: Parameter not included in NELAC Scope of Analysis.

Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035/EPA 8260B) **Aliquot ID: 57045-002** **Matrix: Soil/Solid** **Analyst: CCD**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
22. Dibromomethane	U		µg/kg	250	1.0	07/23/13	V913G23A	07/23/13	V913G23A
23. 1,2-Dichlorobenzene	U		µg/kg	100	1.0	07/23/13	V913G23A	07/23/13	V913G23A
24. 1,3-Dichlorobenzene	U		µg/kg	100	1.0	07/23/13	V913G23A	07/23/13	V913G23A
25. 1,4-Dichlorobenzene	U		µg/kg	100	1.0	07/23/13	V913G23A	07/23/13	V913G23A
26. Dichlorodifluoromethane	U		µg/kg	250	1.0	07/23/13	V913G23A	07/23/13	V913G23A
27. 1,1-Dichloroethane	U		µg/kg	56	1.0	07/23/13	V913G23A	07/23/13	V913G23A
28. 1,2-Dichloroethane	U		µg/kg	56	1.0	07/23/13	V913G23A	07/23/13	V913G23A
29. 1,1-Dichloroethene	U		µg/kg	50	1.0	07/23/13	V913G23A	07/23/13	V913G23A
30. cis-1,2-Dichloroethene	U		µg/kg	50	1.0	07/23/13	V913G23A	07/23/13	V913G23A
31. trans-1,2-Dichloroethene	U		µg/kg	50	1.0	07/23/13	V913G23A	07/23/13	V913G23A
32. 1,2-Dichloropropane	U		µg/kg	56	1.0	07/23/13	V913G23A	07/23/13	V913G23A
33. cis-1,3-Dichloropropene	U		µg/kg	56	1.0	07/23/13	V913G23A	07/23/13	V913G23A
34. trans-1,3-Dichloropropene	U		µg/kg	56	1.0	07/23/13	V913G23A	07/23/13	V913G23A
35. Ethylbenzene	U		µg/kg	50	1.0	07/23/13	V913G23A	07/23/13	V913G23A
36. Ethylene Dibromide	U		µg/kg	56	1.0	07/23/13	V913G23A	07/23/13	V913G23A
37. 2-Hexanone	U		µg/kg	2500	1.0	07/23/13	V913G23A	07/23/13	V913G23A
38. Isopropylbenzene	U		µg/kg	250	1.0	07/23/13	V913G23A	07/23/13	V913G23A
39. Methyl Iodide	U		µg/kg	110	1.0	07/23/13	V913G23A	07/23/13	V913G23A
40. Methylene Chloride	U		µg/kg	100	1.0	07/23/13	V913G23A	07/23/13	V913G23A
41. 4-Methyl-2-pentanone	U		µg/kg	2500	1.0	07/23/13	V913G23A	07/23/13	V913G23A
42. MTBE	U		µg/kg	250	1.0	07/23/13	V913G23A	07/23/13	V913G23A
43. Naphthalene	U		µg/kg	330	1.0	07/23/13	V913G23A	07/23/13	V913G23A
44. n-Propylbenzene	U		µg/kg	100	1.0	07/23/13	V913G23A	07/23/13	V913G23A
45. Styrene	U		µg/kg	50	1.0	07/23/13	V913G23A	07/23/13	V913G23A
46. 1,1,1,2-Tetrachloroethane	U		µg/kg	100	1.0	07/23/13	V913G23A	07/23/13	V913G23A
47. 1,1,2,2-Tetrachloroethane	U		µg/kg	56	1.0	07/23/13	V913G23A	07/23/13	V913G23A
48. Tetrachloroethene	U		µg/kg	50	1.0	07/23/13	V913G23A	07/23/13	V913G23A
49. Toluene	U		µg/kg	50	1.0	07/23/13	V913G23A	07/23/13	V913G23A
50. 1,2,4-Trichlorobenzene	U		µg/kg	330	1.0	07/23/13	V913G23A	07/23/13	V913G23A
51. 1,1,1-Trichloroethane	U		µg/kg	56	1.0	07/23/13	V913G23A	07/23/13	V913G23A
52. 1,1,2-Trichloroethane	U		µg/kg	56	1.0	07/23/13	V913G23A	07/23/13	V913G23A
53. Trichloroethene	U		µg/kg	56	1.0	07/23/13	V913G23A	07/23/13	V913G23A
54. Trichlorofluoromethane	U		µg/kg	100	1.0	07/23/13	V913G23A	07/23/13	V913G23A
55. 1,2,3-Trichloropropane	U		µg/kg	110	1.0	07/23/13	V913G23A	07/23/13	V913G23A
56. 1,2,3-Trimethylbenzene (NN)	U		µg/kg	100	1.0	07/23/13	V913G23A	07/23/13	V913G23A
57. 1,2,4-Trimethylbenzene	U		µg/kg	100	1.0	07/23/13	V913G23A	07/23/13	V913G23A
58. 1,3,5-Trimethylbenzene	U		µg/kg	100	1.0	07/23/13	V913G23A	07/23/13	V913G23A
59. Vinyl Chloride	U		µg/kg	40	1.0	07/23/13	V913G23A	07/23/13	V913G23A
60. Xylenes	U		µg/kg	150	1.0	07/23/13	V913G23A	07/23/13	V913G23A

Client Identification:	**Environmental Resources Group**	Sample Description:	**SB-2 9-10'**	Chain of Custody:	**124242**
Client Project Name:	**Baker Commons**	Sample No:	**2**	Collect Date:	**07/19/13**
Client Project No:	**1125.001**	Sample Matrix:	**Soil/Solid**	Collect Time:	**10:55**

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 NN: Parameter not included in NELAC Scope of Analysis.

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3546/EPA 8270C) **Aliquot ID: 57045-002A** **Matrix: Soil/Solid** **Analyst: TMC**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Acenaphthene (SIM)	U		µg/kg	330	1.0	07/23/13	PS13G23D	07/24/13	S513G23B
2. Acenaphthylene (SIM)	U		µg/kg	330	1.0	07/23/13	PS13G23D	07/24/13	S513G23B
3. Anthracene (SIM)	U		µg/kg	330	1.0	07/23/13	PS13G23D	07/24/13	S513G23B
4. Benzo(a)anthracene (SIM)	480		µg/kg	330	1.0	07/23/13	PS13G23D	07/24/13	S513G23B
5. Benzo(a)pyrene (SIM)	580		µg/kg	330	1.0	07/23/13	PS13G23D	07/24/13	S513G23B
6. Benzo(b)fluoranthene (SIM)	850		µg/kg	330	1.0	07/23/13	PS13G23D	07/24/13	S513G23B
7. Benzo(ghi)perylene (SIM)	420		µg/kg	330	1.0	07/23/13	PS13G23D	07/24/13	S513G23B
8. Benzo(k)fluoranthene (SIM)	U		µg/kg	330	1.0	07/23/13	PS13G23D	07/24/13	S513G23B
9. Chrysene (SIM)	470		µg/kg	330	1.0	07/23/13	PS13G23D	07/24/13	S513G23B
10. Dibenzo(a,h)anthracene (SIM)	U		µg/kg	330	1.0	07/23/13	PS13G23D	07/24/13	S513G23B
11. Fluoranthene (SIM)	1100		µg/kg	330	1.0	07/23/13	PS13G23D	07/24/13	S513G23B
12. Fluorene (SIM)	U		µg/kg	330	1.0	07/23/13	PS13G23D	07/24/13	S513G23B
13. Indeno(1,2,3-cd)pyrene (SIM)	490		µg/kg	330	1.0	07/23/13	PS13G23D	07/24/13	S513G23B
14. 2-Methylnaphthalene (SIM)	U		µg/kg	330	1.0	07/23/13	PS13G23D	07/24/13	S513G23B
15. Phenanthrene (SIM)	340		µg/kg	330	1.0	07/23/13	PS13G23D	07/24/13	S513G23B
16. Pyrene (SIM)	780		µg/kg	330	1.0	07/23/13	PS13G23D	07/24/13	S513G23B

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Analytical Laboratory Report
Laboratory Project Number: 57045
Laboratory Sample Number: 57045-003

Client Identification:	**Environmental Resources Group**	Sample Description:	**SB-3 0-1'**	Chain of Custody:	**124242**
Client Project Name:	**Baker Commons**	Sample No:	**3**	Collect Date:	**07/19/13**
Client Project No:	**1125.001**	Sample Matrix:	**Soil/Solid**	Collect Time:	**12:35**

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 NN: Parameter not included in NELAC Scope of Analysis.

Dry Weight Determination (ASTM D 2974-87) **Aliquot ID: 57045-003A** **Matrix: Soil/Solid** **Analyst: BMG**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Percent Moisture (Water Content) (NN)	**6.0**		%	0.1	1.0	07/23/13	MC130723	07/24/13	MC130723

Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035/EPA 8260B) **Aliquot ID: 57045-003** **Matrix: Soil/Solid** **Analyst: CCD**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Acetone	U		µg/kg	1000	1.0	07/23/13	V913G23A	07/23/13	V913G23A
2. Acrylonitrile	U		µg/kg	100	1.0	07/23/13	V913G23A	07/23/13	V913G23A
3. Benzene	U		µg/kg	50	1.0	07/23/13	V913G23A	07/23/13	V913G23A
4. Bromobenzene	U		µg/kg	100	1.0	07/23/13	V913G23A	07/23/13	V913G23A
5. Bromochloromethane	U		µg/kg	110	1.0	07/23/13	V913G23A	07/23/13	V913G23A
6. Bromodichloromethane	U		µg/kg	100	1.0	07/23/13	V913G23A	07/23/13	V913G23A
7. Bromoform	U		µg/kg	110	1.0	07/23/13	V913G23A	07/23/13	V913G23A
8. Bromomethane	U		µg/kg	200	1.0	07/23/13	V913G23A	07/23/13	V913G23A
9. 2-Butanone	U		µg/kg	750	1.0	07/23/13	V913G23A	07/23/13	V913G23A
10. n-Butylbenzene	U		µg/kg	50	1.0	07/23/13	V913G23A	07/23/13	V913G23A
11. sec-Butylbenzene	U		µg/kg	50	1.0	07/23/13	V913G23A	07/23/13	V913G23A
12. tert-Butylbenzene	U		µg/kg	50	1.0	07/23/13	V913G23A	07/23/13	V913G23A
13. Carbon Disulfide	U		µg/kg	250	1.0	07/23/13	V913G23A	07/23/13	V913G23A
14. Carbon Tetrachloride	U		µg/kg	53	1.0	07/23/13	V913G23A	07/23/13	V913G23A
15. Chlorobenzene	U		µg/kg	53	1.0	07/23/13	V913G23A	07/23/13	V913G23A
16. Chloroethane	U		µg/kg	270	1.0	07/23/13	V913G23A	07/23/13	V913G23A
17. Chloroform	U		µg/kg	53	1.0	07/23/13	V913G23A	07/23/13	V913G23A
18. Chloromethane	U		µg/kg	250	1.0	07/23/13	V913G23A	07/23/13	V913G23A
19. 2-Chlorotoluene	U		µg/kg	50	1.0	07/23/13	V913G23A	07/23/13	V913G23A
20. Dibromochloromethane	U		µg/kg	100	1.0	07/23/13	V913G23A	07/23/13	V913G23A
21. 1,2-Dibromo-3-chloropropane (SIM) (N	U		µg/kg	27	1.0	07/23/13	V913G23A	07/23/13	V913G23A
22. Dibromomethane	U		µg/kg	250	1.0	07/23/13	V913G23A	07/23/13	V913G23A
23. 1,2-Dichlorobenzene	U		µg/kg	100	1.0	07/23/13	V913G23A	07/23/13	V913G23A
24. 1,3-Dichlorobenzene	U		µg/kg	100	1.0	07/23/13	V913G23A	07/23/13	V913G23A
25. 1,4-Dichlorobenzene	U		µg/kg	100	1.0	07/23/13	V913G23A	07/23/13	V913G23A
26. Dichlorodifluoromethane	U		µg/kg	250	1.0	07/23/13	V913G23A	07/23/13	V913G23A
27. 1,1-Dichloroethane	U		µg/kg	53	1.0	07/23/13	V913G23A	07/23/13	V913G23A
28. 1,2-Dichloroethane	U		µg/kg	53	1.0	07/23/13	V913G23A	07/23/13	V913G23A
29. 1,1-Dichloroethene	U		µg/kg	50	1.0	07/23/13	V913G23A	07/23/13	V913G23A
30. cis-1,2-Dichloroethene	U		µg/kg	50	1.0	07/23/13	V913G23A	07/23/13	V913G23A
31. trans-1,2-Dichloroethene	U		µg/kg	50	1.0	07/23/13	V913G23A	07/23/13	V913G23A
32. 1,2-Dichloropropane	U		µg/kg	53	1.0	07/23/13	V913G23A	07/23/13	V913G23A
33. cis-1,3-Dichloropropene	U		µg/kg	53	1.0	07/23/13	V913G23A	07/23/13	V913G23A
34. trans-1,3-Dichloropropene	U		µg/kg	53	1.0	07/23/13	V913G23A	07/23/13	V913G23A

Client Identification:	**Environmental Resources Group**	Sample Description:	**SB-3 0-1'**	Chain of Custody:	**124242**
Client Project Name:	**Baker Commons**	Sample No:	**3**	Collect Date:	**07/19/13**
Client Project No:	**1125.001**	Sample Matrix:	**Soil/Solid**	Collect Time:	**12:35**

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 NN: Parameter not included in NELAC Scope of Analysis.

Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035/EPA 8260B) **Aliquot ID: 57045-003** **Matrix: Soil/Solid** **Analyst: CCD**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
35. Ethylbenzene	U		µg/kg	50	1.0	07/23/13	V913G23A	07/23/13	V913G23A
36. Ethylene Dibromide	U		µg/kg	53	1.0	07/23/13	V913G23A	07/23/13	V913G23A
37. 2-Hexanone	U		µg/kg	2500	1.0	07/23/13	V913G23A	07/23/13	V913G23A
38. Isopropylbenzene	U		µg/kg	250	1.0	07/23/13	V913G23A	07/23/13	V913G23A
39. Methyl Iodide	U		µg/kg	110	1.0	07/23/13	V913G23A	07/23/13	V913G23A
40. Methylene Chloride	U		µg/kg	100	1.0	07/23/13	V913G23A	07/23/13	V913G23A
41. 2-Methylnaphthalene (NN)	U		µg/kg	330	1.0	07/23/13	V913G23A	07/23/13	V913G23A
42. 4-Methyl-2-pentanone	U		µg/kg	2500	1.0	07/23/13	V913G23A	07/23/13	V913G23A
43. MTBE	U		µg/kg	250	1.0	07/23/13	V913G23A	07/23/13	V913G23A
44. Naphthalene	U		µg/kg	330	1.0	07/23/13	V913G23A	07/23/13	V913G23A
45. n-Propylbenzene	U		µg/kg	100	1.0	07/23/13	V913G23A	07/23/13	V913G23A
46. Styrene	U		µg/kg	50	1.0	07/23/13	V913G23A	07/23/13	V913G23A
47. 1,1,1,2-Tetrachloroethane	U		µg/kg	100	1.0	07/23/13	V913G23A	07/23/13	V913G23A
48. 1,1,2,2-Tetrachloroethane	U		µg/kg	53	1.0	07/23/13	V913G23A	07/23/13	V913G23A
49. Tetrachloroethene	U		µg/kg	50	1.0	07/23/13	V913G23A	07/23/13	V913G23A
50. Toluene	U		µg/kg	50	1.0	07/23/13	V913G23A	07/23/13	V913G23A
51. 1,2,4-Trichlorobenzene	U		µg/kg	330	1.0	07/23/13	V913G23A	07/23/13	V913G23A
52. 1,1,1-Trichloroethane	U		µg/kg	53	1.0	07/23/13	V913G23A	07/23/13	V913G23A
53. 1,1,2-Trichloroethane	U		µg/kg	53	1.0	07/23/13	V913G23A	07/23/13	V913G23A
54. Trichloroethene	U		µg/kg	53	1.0	07/23/13	V913G23A	07/23/13	V913G23A
55. Trichlorofluoromethane	U		µg/kg	100	1.0	07/23/13	V913G23A	07/23/13	V913G23A
56. 1,2,3-Trichloropropane	U		µg/kg	110	1.0	07/23/13	V913G23A	07/23/13	V913G23A
57. 1,2,3-Trimethylbenzene (NN)	U		µg/kg	100	1.0	07/23/13	V913G23A	07/23/13	V913G23A
58. 1,2,4-Trimethylbenzene	U		µg/kg	100	1.0	07/23/13	V913G23A	07/23/13	V913G23A
59. 1,3,5-Trimethylbenzene	U		µg/kg	100	1.0	07/23/13	V913G23A	07/23/13	V913G23A
60. Vinyl Chloride	U		µg/kg	40	1.0	07/23/13	V913G23A	07/23/13	V913G23A
61. Xylenes	U		µg/kg	150	1.0	07/23/13	V913G23A	07/23/13	V913G23A

Client Identification:	**Environmental Resources Group**	Sample Description:	**SB-3 19-20'**	Chain of Custody:	**124242**
Client Project Name:	**Baker Commons**	Sample No:	**4**	Collect Date:	**07/19/13**
Client Project No:	**1125.001**	Sample Matrix:	**Soil/Solid**	Collect Time:	**12:40**

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 NN: Parameter not included in NELAC Scope of Analysis.

Dry Weight Determination (ASTM D 2974-87) — **Aliquot ID: 57045-004A** — **Matrix: Soil/Solid** — **Analyst: BMG**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Percent Moisture (Water Content) (NN)	**3.0**		%	0.1	1.0	07/23/13	MC130723	07/24/13	MC130723

Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035/EPA 8260B) — **Aliquot ID: 57045-004** — **Matrix: Soil/Solid** — **Analyst: CCD**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Acetone	U		µg/kg	1000	1.0	07/23/13	V913G23A	07/23/13	V913G23A
2. Acrylonitrile	U		µg/kg	100	1.0	07/23/13	V913G23A	07/23/13	V913G23A
3. Benzene	U		µg/kg	50	1.0	07/23/13	V913G23A	07/23/13	V913G23A
4. Bromobenzene	U		µg/kg	100	1.0	07/23/13	V913G23A	07/23/13	V913G23A
5. Bromochloromethane	U		µg/kg	100	1.0	07/23/13	V913G23A	07/23/13	V913G23A
6. Bromodichloromethane	U		µg/kg	100	1.0	07/23/13	V913G23A	07/23/13	V913G23A
7. Bromoform	U		µg/kg	100	1.0	07/23/13	V913G23A	07/23/13	V913G23A
8. Bromomethane	U		µg/kg	200	1.0	07/23/13	V913G23A	07/23/13	V913G23A
9. 2-Butanone	U		µg/kg	750	1.0	07/23/13	V913G23A	07/23/13	V913G23A
10. n-Butylbenzene	U		µg/kg	50	1.0	07/23/13	V913G23A	07/23/13	V913G23A
11. sec-Butylbenzene	U		µg/kg	50	1.0	07/23/13	V913G23A	07/23/13	V913G23A
12. tert-Butylbenzene	U		µg/kg	50	1.0	07/23/13	V913G23A	07/23/13	V913G23A
13. Carbon Disulfide	U		µg/kg	250	1.0	07/23/13	V913G23A	07/23/13	V913G23A
14. Carbon Tetrachloride	U		µg/kg	52	1.0	07/23/13	V913G23A	07/23/13	V913G23A
15. Chlorobenzene	U		µg/kg	52	1.0	07/23/13	V913G23A	07/23/13	V913G23A
16. Chloroethane	U		µg/kg	260	1.0	07/23/13	V913G23A	07/23/13	V913G23A
17. Chloroform	U		µg/kg	52	1.0	07/23/13	V913G23A	07/23/13	V913G23A
18. Chloromethane	U		µg/kg	250	1.0	07/23/13	V913G23A	07/23/13	V913G23A
19. 2-Chlorotoluene	U		µg/kg	50	1.0	07/23/13	V913G23A	07/23/13	V913G23A
20. Dibromochloromethane	U		µg/kg	100	1.0	07/23/13	V913G23A	07/23/13	V913G23A
21. 1,2-Dibromo-3-chloropropane (SIM) (N	U		µg/kg	26	1.0	07/23/13	V913G23A	07/23/13	V913G23A
22. Dibromomethane	U		µg/kg	250	1.0	07/23/13	V913G23A	07/23/13	V913G23A
23. 1,2-Dichlorobenzene	U		µg/kg	100	1.0	07/23/13	V913G23A	07/23/13	V913G23A
24. 1,3-Dichlorobenzene	U		µg/kg	100	1.0	07/23/13	V913G23A	07/23/13	V913G23A
25. 1,4-Dichlorobenzene	U		µg/kg	100	1.0	07/23/13	V913G23A	07/23/13	V913G23A
26. Dichlorodifluoromethane	U		µg/kg	250	1.0	07/23/13	V913G23A	07/23/13	V913G23A
27. 1,1-Dichloroethane	U		µg/kg	52	1.0	07/23/13	V913G23A	07/23/13	V913G23A
28. 1,2-Dichloroethane	U		µg/kg	52	1.0	07/23/13	V913G23A	07/23/13	V913G23A
29. 1,1-Dichloroethene	U		µg/kg	50	1.0	07/23/13	V913G23A	07/23/13	V913G23A
30. cis-1,2-Dichloroethene	U		µg/kg	50	1.0	07/23/13	V913G23A	07/23/13	V913G23A
31. trans-1,2-Dichloroethene	U		µg/kg	50	1.0	07/23/13	V913G23A	07/23/13	V913G23A
32. 1,2-Dichloropropane	U		µg/kg	52	1.0	07/23/13	V913G23A	07/23/13	V913G23A
33. cis-1,3-Dichloropropene	U		µg/kg	52	1.0	07/23/13	V913G23A	07/23/13	V913G23A
34. trans-1,3-Dichloropropene	U		µg/kg	52	1.0	07/23/13	V913G23A	07/23/13	V913G23A

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Analytical Laboratory Report
Laboratory Project Number: 57045
Laboratory Sample Number: 57045-004

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Client Identification:	**Environmental Resources Group**	Sample Description:	**SB-3 19-20'**	Chain of Custody:	**124242**
Client Project Name:	**Baker Commons**	Sample No:	**4**	Collect Date:	**07/19/13**
Client Project No:	**1125.001**	Sample Matrix:	**Soil/Solid**	Collect Time:	**12:40**

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 NN: Parameter not included in NELAC Scope of Analysis.

Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035/EPA 8260B) **Aliquot ID: 57045-004** **Matrix: Soil/Solid** **Analyst: CCD**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
35. Ethylbenzene	U		µg/kg	50	1.0	07/23/13	V913G23A	07/23/13	V913G23A
36. Ethylene Dibromide	U		µg/kg	52	1.0	07/23/13	V913G23A	07/23/13	V913G23A
37. 2-Hexanone	U		µg/kg	2500	1.0	07/23/13	V913G23A	07/23/13	V913G23A
38. Isopropylbenzene	U		µg/kg	250	1.0	07/23/13	V913G23A	07/23/13	V913G23A
39. Methyl Iodide	U		µg/kg	100	1.0	07/23/13	V913G23A	07/23/13	V913G23A
40. Methylene Chloride	U		µg/kg	100	1.0	07/23/13	V913G23A	07/23/13	V913G23A
41. 2-Methylnaphthalene (NN)	U		µg/kg	330	1.0	07/23/13	V913G23A	07/23/13	V913G23A
42. 4-Methyl-2-pentanone	U		µg/kg	2500	1.0	07/23/13	V913G23A	07/23/13	V913G23A
43. MTBE	U		µg/kg	250	1.0	07/23/13	V913G23A	07/23/13	V913G23A
44. Naphthalene	U		µg/kg	330	1.0	07/23/13	V913G23A	07/23/13	V913G23A
45. n-Propylbenzene	U		µg/kg	100	1.0	07/23/13	V913G23A	07/23/13	V913G23A
46. Styrene	U		µg/kg	50	1.0	07/23/13	V913G23A	07/23/13	V913G23A
47. 1,1,1,2-Tetrachloroethane	U		µg/kg	100	1.0	07/23/13	V913G23A	07/23/13	V913G23A
48. 1,1,2,2-Tetrachloroethane	U		µg/kg	52	1.0	07/23/13	V913G23A	07/23/13	V913G23A
49. Tetrachloroethene	U		µg/kg	50	1.0	07/23/13	V913G23A	07/23/13	V913G23A
50. Toluene	U		µg/kg	50	1.0	07/23/13	V913G23A	07/23/13	V913G23A
51. 1,2,4-Trichlorobenzene	U		µg/kg	330	1.0	07/23/13	V913G23A	07/23/13	V913G23A
52. 1,1,1-Trichloroethane	U		µg/kg	52	1.0	07/23/13	V913G23A	07/23/13	V913G23A
53. 1,1,2-Trichloroethane	U		µg/kg	52	1.0	07/23/13	V913G23A	07/23/13	V913G23A
54. Trichloroethene	U		µg/kg	52	1.0	07/23/13	V913G23A	07/23/13	V913G23A
55. Trichlorofluoromethane	U		µg/kg	100	1.0	07/23/13	V913G23A	07/23/13	V913G23A
56. 1,2,3-Trichloropropane	U		µg/kg	100	1.0	07/23/13	V913G23A	07/23/13	V913G23A
57. 1,2,3-Trimethylbenzene (NN)	U		µg/kg	100	1.0	07/23/13	V913G23A	07/23/13	V913G23A
58. 1,2,4-Trimethylbenzene	U		µg/kg	100	1.0	07/23/13	V913G23A	07/23/13	V913G23A
59. 1,3,5-Trimethylbenzene	U		µg/kg	100	1.0	07/23/13	V913G23A	07/23/13	V913G23A
60. Vinyl Chloride	U		µg/kg	40	1.0	07/23/13	V913G23A	07/23/13	V913G23A
61. Xylenes	U		µg/kg	150	1.0	07/23/13	V913G23A	07/23/13	V913G23A

Client Identification:	**Environmental Resources Group**	Sample Description:	**SB-4 10-11'**	Chain of Custody:	**124242**
Client Project Name:	**Baker Commons**	Sample No:	**5**	Collect Date:	**07/19/13**
Client Project No:	**1125.001**	Sample Matrix:	**Soil/Solid**	Collect Time:	**13:55**

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 NN: Parameter not included in NELAC Scope of Analysis.

Dry Weight Determination (ASTM D 2974-87) **Aliquot ID: 57045-005A** **Matrix: Soil/Solid** **Analyst: BMG**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Percent Moisture (Water Content) (NN)	**6.2**		%	0.1	1.0	07/23/13	MC130723	07/24/13	MC130723

Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035/EPA 8260B) **Aliquot ID: 57045-005** **Matrix: Soil/Solid** **Analyst: CCD**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Acetone	U		µg/kg	1000	1.0	07/23/13	V913G23A	07/23/13	V913G23A
2. Acrylonitrile	U		µg/kg	100	1.0	07/23/13	V913G23A	07/23/13	V913G23A
3. Benzene	U		µg/kg	50	1.0	07/23/13	V913G23A	07/23/13	V913G23A
4. Bromobenzene	U		µg/kg	100	1.0	07/23/13	V913G23A	07/23/13	V913G23A
5. Bromochloromethane	U		µg/kg	110	1.0	07/23/13	V913G23A	07/23/13	V913G23A
6. Bromodichloromethane	U		µg/kg	100	1.0	07/23/13	V913G23A	07/23/13	V913G23A
7. Bromoform	U		µg/kg	110	1.0	07/23/13	V913G23A	07/23/13	V913G23A
8. Bromomethane	U		µg/kg	200	1.0	07/23/13	V913G23A	07/23/13	V913G23A
9. 2-Butanone	U		µg/kg	750	1.0	07/23/13	V913G23A	07/23/13	V913G23A
10. n-Butylbenzene	U		µg/kg	50	1.0	07/23/13	V913G23A	07/23/13	V913G23A
11. sec-Butylbenzene	U		µg/kg	50	1.0	07/23/13	V913G23A	07/23/13	V913G23A
12. tert-Butylbenzene	U		µg/kg	50	1.0	07/23/13	V913G23A	07/23/13	V913G23A
13. Carbon Disulfide	U		µg/kg	250	1.0	07/23/13	V913G23A	07/23/13	V913G23A
14. Carbon Tetrachloride	U		µg/kg	53	1.0	07/23/13	V913G23A	07/23/13	V913G23A
15. Chlorobenzene	U		µg/kg	53	1.0	07/23/13	V913G23A	07/23/13	V913G23A
16. Chloroethane	U		µg/kg	270	1.0	07/23/13	V913G23A	07/23/13	V913G23A
17. Chloroform	U		µg/kg	53	1.0	07/23/13	V913G23A	07/23/13	V913G23A
18. Chloromethane	U		µg/kg	250	1.0	07/23/13	V913G23A	07/23/13	V913G23A
19. 2-Chlorotoluene	U		µg/kg	50	1.0	07/23/13	V913G23A	07/23/13	V913G23A
20. Dibromochloromethane	U		µg/kg	100	1.0	07/23/13	V913G23A	07/23/13	V913G23A
21. 1,2-Dibromo-3-chloropropane (SIM) (N	U		µg/kg	27	1.0	07/23/13	V913G23A	07/23/13	V913G23A
22. Dibromomethane	U		µg/kg	250	1.0	07/23/13	V913G23A	07/23/13	V913G23A
23. 1,2-Dichlorobenzene	U		µg/kg	100	1.0	07/23/13	V913G23A	07/23/13	V913G23A
24. 1,3-Dichlorobenzene	U		µg/kg	100	1.0	07/23/13	V913G23A	07/23/13	V913G23A
25. 1,4-Dichlorobenzene	U		µg/kg	100	1.0	07/23/13	V913G23A	07/23/13	V913G23A
26. Dichlorodifluoromethane	U		µg/kg	250	1.0	07/23/13	V913G23A	07/23/13	V913G23A
27. 1,1-Dichloroethane	U		µg/kg	53	1.0	07/23/13	V913G23A	07/23/13	V913G23A
28. 1,2-Dichloroethane	U		µg/kg	53	1.0	07/23/13	V913G23A	07/23/13	V913G23A
29. 1,1-Dichloroethene	U		µg/kg	50	1.0	07/23/13	V913G23A	07/23/13	V913G23A
30. cis-1,2-Dichloroethene	U		µg/kg	50	1.0	07/23/13	V913G23A	07/23/13	V913G23A
31. trans-1,2-Dichloroethene	U		µg/kg	50	1.0	07/23/13	V913G23A	07/23/13	V913G23A
32. 1,2-Dichloropropane	U		µg/kg	53	1.0	07/23/13	V913G23A	07/23/13	V913G23A
33. cis-1,3-Dichloropropene	U		µg/kg	53	1.0	07/23/13	V913G23A	07/23/13	V913G23A
34. trans-1,3-Dichloropropene	U		µg/kg	53	1.0	07/23/13	V913G23A	07/23/13	V913G23A

Client Identification:	**Environmental Resources Group**	Sample Description:	**SB-4 10-11'**	Chain of Custody:	**124242**
Client Project Name:	**Baker Commons**	Sample No:	**5**	Collect Date:	**07/19/13**
Client Project No:	**1125.001**	Sample Matrix:	**Soil/Solid**	Collect Time:	**13:55**

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 NN: Parameter not included in NELAC Scope of Analysis.

Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035/EPA 8260B) **Aliquot ID: 57045-005** **Matrix: Soil/Solid** **Analyst: CCD**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
35. Ethylbenzene	U		µg/kg	50	1.0	07/23/13	V913G23A	07/23/13	V913G23A
36. Ethylene Dibromide	U		µg/kg	53	1.0	07/23/13	V913G23A	07/23/13	V913G23A
37. 2-Hexanone	U		µg/kg	2500	1.0	07/23/13	V913G23A	07/23/13	V913G23A
38. Isopropylbenzene	U		µg/kg	250	1.0	07/23/13	V913G23A	07/23/13	V913G23A
39. Methyl Iodide	U		µg/kg	110	1.0	07/23/13	V913G23A	07/23/13	V913G23A
40. Methylene Chloride	U		µg/kg	100	1.0	07/23/13	V913G23A	07/23/13	V913G23A
41. 2-Methylnaphthalene (NN)	U		µg/kg	330	1.0	07/23/13	V913G23A	07/23/13	V913G23A
42. 4-Methyl-2-pentanone	U		µg/kg	2500	1.0	07/23/13	V913G23A	07/23/13	V913G23A
43. MTBE	U		µg/kg	250	1.0	07/23/13	V913G23A	07/23/13	V913G23A
44. Naphthalene	U		µg/kg	330	1.0	07/23/13	V913G23A	07/23/13	V913G23A
45. n-Propylbenzene	U		µg/kg	100	1.0	07/23/13	V913G23A	07/23/13	V913G23A
46. Styrene	U		µg/kg	50	1.0	07/23/13	V913G23A	07/23/13	V913G23A
47. 1,1,1,2-Tetrachloroethane	U		µg/kg	100	1.0	07/23/13	V913G23A	07/23/13	V913G23A
48. 1,1,2,2-Tetrachloroethane	U		µg/kg	53	1.0	07/23/13	V913G23A	07/23/13	V913G23A
49. Tetrachloroethene	U		µg/kg	50	1.0	07/23/13	V913G23A	07/23/13	V913G23A
50. Toluene	U		µg/kg	50	1.0	07/23/13	V913G23A	07/23/13	V913G23A
51. 1,2,4-Trichlorobenzene	U		µg/kg	330	1.0	07/23/13	V913G23A	07/23/13	V913G23A
52. 1,1,1-Trichloroethane	U		µg/kg	53	1.0	07/23/13	V913G23A	07/23/13	V913G23A
53. 1,1,2-Trichloroethane	U		µg/kg	53	1.0	07/23/13	V913G23A	07/23/13	V913G23A
54. Trichloroethene	U		µg/kg	53	1.0	07/23/13	V913G23A	07/23/13	V913G23A
55. Trichlorofluoromethane	U		µg/kg	100	1.0	07/23/13	V913G23A	07/23/13	V913G23A
56. 1,2,3-Trichloropropane	U		µg/kg	110	1.0	07/23/13	V913G23A	07/23/13	V913G23A
57. 1,2,3-Trimethylbenzene (NN)	U		µg/kg	100	1.0	07/23/13	V913G23A	07/23/13	V913G23A
58. 1,2,4-Trimethylbenzene	U		µg/kg	100	1.0	07/23/13	V913G23A	07/23/13	V913G23A
59. 1,3,5-Trimethylbenzene	U		µg/kg	100	1.0	07/23/13	V913G23A	07/23/13	V913G23A
60. Vinyl Chloride	U		µg/kg	40	1.0	07/23/13	V913G23A	07/23/13	V913G23A
61. Xylenes	U		µg/kg	150	1.0	07/23/13	V913G23A	07/23/13	V913G23A

Fibertec environmental services

Analytical Laboratory Report
Laboratory Project Number: 57045
Laboratory Sample Number: 57045-006

Order: 57045
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Date: 07/26/13

Client Identification:	**Environmental Resources Group**	Sample Description:	**SB-5 1-2'**	Chain of Custody:	**124242**
Client Project Name:	**Baker Commons**	Sample No:	**6**	Collect Date:	**07/19/13**
Client Project No:	**1125.001**	Sample Matrix:	**Soil/Solid**	Collect Time:	**15:15**

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 NN: Parameter not included in NELAC Scope of Analysis.

Dry Weight Determination (ASTM D 2974-87) **Aliquot ID: 57045-006A** **Matrix: Soil/Solid** **Analyst: BMG**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Percent Moisture (Water Content) (NN)	**7.6**		%	0.1	1.0	07/23/13	MC130723	07/24/13	MC130723

Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035/EPA 8260B) **Aliquot ID: 57045-006** **Matrix: Soil/Solid** **Analyst: CCD**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Acetone	U		µg/kg	1000	1.0	07/23/13	V913G23A	07/23/13	V913G23A
2. Acrylonitrile	U		µg/kg	100	1.0	07/23/13	V913G23A	07/23/13	V913G23A
3. Benzene	U		µg/kg	50	1.0	07/23/13	V913G23A	07/23/13	V913G23A
4. Bromobenzene	U		µg/kg	100	1.0	07/23/13	V913G23A	07/23/13	V913G23A
5. Bromochloromethane	U		µg/kg	110	1.0	07/23/13	V913G23A	07/23/13	V913G23A
6. Bromodichloromethane	U		µg/kg	100	1.0	07/23/13	V913G23A	07/23/13	V913G23A
7. Bromoform	U		µg/kg	110	1.0	07/23/13	V913G23A	07/23/13	V913G23A
8. Bromomethane	U		µg/kg	200	1.0	07/23/13	V913G23A	07/23/13	V913G23A
9. 2-Butanone	U		µg/kg	750	1.0	07/23/13	V913G23A	07/23/13	V913G23A
10. n-Butylbenzene	U		µg/kg	50	1.0	07/23/13	V913G23A	07/23/13	V913G23A
11. sec-Butylbenzene	U		µg/kg	50	1.0	07/23/13	V913G23A	07/23/13	V913G23A
12. tert-Butylbenzene	U		µg/kg	50	1.0	07/23/13	V913G23A	07/23/13	V913G23A
13. Carbon Disulfide	U		µg/kg	250	1.0	07/23/13	V913G23A	07/23/13	V913G23A
14. Carbon Tetrachloride	U		µg/kg	54	1.0	07/23/13	V913G23A	07/23/13	V913G23A
15. Chlorobenzene	U		µg/kg	54	1.0	07/23/13	V913G23A	07/23/13	V913G23A
16. Chloroethane	U		µg/kg	270	1.0	07/23/13	V913G23A	07/23/13	V913G23A
17. Chloroform	U		µg/kg	54	1.0	07/23/13	V913G23A	07/23/13	V913G23A
18. Chloromethane	U		µg/kg	250	1.0	07/23/13	V913G23A	07/23/13	V913G23A
19. 2-Chlorotoluene	U		µg/kg	50	1.0	07/23/13	V913G23A	07/23/13	V913G23A
20. Dibromochloromethane	U		µg/kg	100	1.0	07/23/13	V913G23A	07/23/13	V913G23A
21. 1,2-Dibromo-3-chloropropane (SIM) (N	U		µg/kg	27	1.0	07/23/13	V913G23A	07/23/13	V913G23A
22. Dibromomethane	U		µg/kg	250	1.0	07/23/13	V913G23A	07/23/13	V913G23A
23. 1,2-Dichlorobenzene	U		µg/kg	100	1.0	07/23/13	V913G23A	07/23/13	V913G23A
24. 1,3-Dichlorobenzene	U		µg/kg	100	1.0	07/23/13	V913G23A	07/23/13	V913G23A
25. 1,4-Dichlorobenzene	U		µg/kg	100	1.0	07/23/13	V913G23A	07/23/13	V913G23A
26. Dichlorodifluoromethane	U		µg/kg	250	1.0	07/23/13	V913G23A	07/23/13	V913G23A
27. 1,1-Dichloroethane	U		µg/kg	54	1.0	07/23/13	V913G23A	07/23/13	V913G23A
28. 1,2-Dichloroethane	U		µg/kg	54	1.0	07/23/13	V913G23A	07/23/13	V913G23A
29. 1,1-Dichloroethene	U		µg/kg	50	1.0	07/23/13	V913G23A	07/23/13	V913G23A
30. cis-1,2-Dichloroethene	U		µg/kg	50	1.0	07/23/13	V913G23A	07/23/13	V913G23A
31. trans-1,2-Dichloroethene	U		µg/kg	50	1.0	07/23/13	V913G23A	07/23/13	V913G23A
32. 1,2-Dichloropropane	U		µg/kg	54	1.0	07/23/13	V913G23A	07/23/13	V913G23A
33. cis-1,3-Dichloropropene	U		µg/kg	54	1.0	07/23/13	V913G23A	07/23/13	V913G23A
34. trans-1,3-Dichloropropene	U		µg/kg	54	1.0	07/23/13	V913G23A	07/23/13	V913G23A

Client Identification:	**Environmental Resources Group**	Sample Description:	**SB-5 1-2'**	Chain of Custody:	**124242**
Client Project Name:	**Baker Commons**	Sample No:	**6**	Collect Date:	**07/19/13**
Client Project No:	**1125.001**	Sample Matrix:	**Soil/Solid**	Collect Time:	**15:15**

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 NN: Parameter not included in NELAC Scope of Analysis.

Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035/EPA 8260B) **Aliquot ID: 57045-006** **Matrix: Soil/Solid** **Analyst: CCD**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
35. Ethylbenzene	U		µg/kg	50	1.0	07/23/13	V913G23A	07/23/13	V913G23A
36. Ethylene Dibromide	U		µg/kg	54	1.0	07/23/13	V913G23A	07/23/13	V913G23A
37. 2-Hexanone	U		µg/kg	2500	1.0	07/23/13	V913G23A	07/23/13	V913G23A
38. Isopropylbenzene	U		µg/kg	250	1.0	07/23/13	V913G23A	07/23/13	V913G23A
39. Methyl Iodide	U		µg/kg	110	1.0	07/23/13	V913G23A	07/23/13	V913G23A
40. Methylene Chloride	U		µg/kg	100	1.0	07/23/13	V913G23A	07/23/13	V913G23A
41. 2-Methylnaphthalene (NN)	U		µg/kg	330	1.0	07/23/13	V913G23A	07/23/13	V913G23A
42. 4-Methyl-2-pentanone	U		µg/kg	2500	1.0	07/23/13	V913G23A	07/23/13	V913G23A
43. MTBE	U		µg/kg	250	1.0	07/23/13	V913G23A	07/23/13	V913G23A
44. Naphthalene	U		µg/kg	330	1.0	07/23/13	V913G23A	07/23/13	V913G23A
45. n-Propylbenzene	U		µg/kg	100	1.0	07/23/13	V913G23A	07/23/13	V913G23A
46. Styrene	U		µg/kg	50	1.0	07/23/13	V913G23A	07/23/13	V913G23A
47. 1,1,1,2-Tetrachloroethane	U		µg/kg	100	1.0	07/23/13	V913G23A	07/23/13	V913G23A
48. 1,1,2,2-Tetrachloroethane	U		µg/kg	54	1.0	07/23/13	V913G23A	07/23/13	V913G23A
49. Tetrachloroethene	U		µg/kg	50	1.0	07/23/13	V913G23A	07/23/13	V913G23A
50. Toluene	U		µg/kg	50	1.0	07/23/13	V913G23A	07/23/13	V913G23A
51. 1,2,4-Trichlorobenzene	U		µg/kg	330	1.0	07/23/13	V913G23A	07/23/13	V913G23A
52. 1,1,1-Trichloroethane	U		µg/kg	54	1.0	07/23/13	V913G23A	07/23/13	V913G23A
53. 1,1,2-Trichloroethane	U		µg/kg	54	1.0	07/23/13	V913G23A	07/23/13	V913G23A
54. Trichloroethene	U		µg/kg	54	1.0	07/23/13	V913G23A	07/23/13	V913G23A
55. Trichlorofluoromethane	U		µg/kg	100	1.0	07/23/13	V913G23A	07/23/13	V913G23A
56. 1,2,3-Trichloropropane	U		µg/kg	110	1.0	07/23/13	V913G23A	07/23/13	V913G23A
57. 1,2,3-Trimethylbenzene (NN)	U		µg/kg	100	1.0	07/23/13	V913G23A	07/23/13	V913G23A
58. 1,2,4-Trimethylbenzene	U		µg/kg	100	1.0	07/23/13	V913G23A	07/23/13	V913G23A
59. 1,3,5-Trimethylbenzene	U		µg/kg	100	1.0	07/23/13	V913G23A	07/23/13	V913G23A
60. Vinyl Chloride	U		µg/kg	40	1.0	07/23/13	V913G23A	07/23/13	V913G23A
61. Xylenes	U		µg/kg	150	1.0	07/23/13	V913G23A	07/23/13	V913G23A

Client Identification:	**Environmental Resources Group**	Sample Description:	**SB-5 11-12'**	Chain of Custody:	**124242**
Client Project Name:	**Baker Commons**	Sample No:	**7**	Collect Date:	**07/19/13**
Client Project No:	**1125.001**	Sample Matrix:	**Soil/Solid**	Collect Time:	**15:20**

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 NN: Parameter not included in NELAC Scope of Analysis.

Dry Weight Determination (ASTM D 2974-87) — **Aliquot ID: 57045-007A** — **Matrix: Soil/Solid** — **Analyst: BMG**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Percent Moisture (Water Content) (NN)	**4.6**		%	0.1	1.0	07/23/13	MC130723	07/24/13	MC130723

Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035/EPA 8260B) — **Aliquot ID: 57045-007** — **Matrix: Soil/Solid** — **Analyst: CCD**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Acetone	U		µg/kg	1000	1.0	07/23/13	V913G23A	07/23/13	V913G23A
2. Acrylonitrile	U		µg/kg	100	1.0	07/23/13	V913G23A	07/23/13	V913G23A
3. Benzene	U		µg/kg	50	1.0	07/23/13	V913G23A	07/23/13	V913G23A
4. Bromobenzene	U		µg/kg	100	1.0	07/23/13	V913G23A	07/23/13	V913G23A
5. Bromochloromethane	U		µg/kg	100	1.0	07/23/13	V913G23A	07/23/13	V913G23A
6. Bromodichloromethane	U		µg/kg	100	1.0	07/23/13	V913G23A	07/23/13	V913G23A
7. Bromoform	U		µg/kg	100	1.0	07/23/13	V913G23A	07/23/13	V913G23A
8. Bromomethane	U		µg/kg	200	1.0	07/23/13	V913G23A	07/23/13	V913G23A
9. 2-Butanone	U		µg/kg	750	1.0	07/23/13	V913G23A	07/23/13	V913G23A
10. n-Butylbenzene	U		µg/kg	50	1.0	07/23/13	V913G23A	07/23/13	V913G23A
11. sec-Butylbenzene	U		µg/kg	50	1.0	07/23/13	V913G23A	07/23/13	V913G23A
12. tert-Butylbenzene	U		µg/kg	50	1.0	07/23/13	V913G23A	07/23/13	V913G23A
13. Carbon Disulfide	U		µg/kg	250	1.0	07/23/13	V913G23A	07/23/13	V913G23A
14. Carbon Tetrachloride	U		µg/kg	52	1.0	07/23/13	V913G23A	07/23/13	V913G23A
15. Chlorobenzene	U		µg/kg	52	1.0	07/23/13	V913G23A	07/23/13	V913G23A
16. Chloroethane	U		µg/kg	260	1.0	07/23/13	V913G23A	07/23/13	V913G23A
17. Chloroform	U		µg/kg	52	1.0	07/23/13	V913G23A	07/23/13	V913G23A
18. Chloromethane	U		µg/kg	250	1.0	07/23/13	V913G23A	07/23/13	V913G23A
19. 2-Chlorotoluene	U		µg/kg	50	1.0	07/23/13	V913G23A	07/23/13	V913G23A
20. Dibromochloromethane	U		µg/kg	100	1.0	07/23/13	V913G23A	07/23/13	V913G23A
21. 1,2-Dibromo-3-chloropropane (SIM) (N	U		µg/kg	26	1.0	07/23/13	V913G23A	07/23/13	V913G23A
22. Dibromomethane	U		µg/kg	250	1.0	07/23/13	V913G23A	07/23/13	V913G23A
23. 1,2-Dichlorobenzene	U		µg/kg	100	1.0	07/23/13	V913G23A	07/23/13	V913G23A
24. 1,3-Dichlorobenzene	U		µg/kg	100	1.0	07/23/13	V913G23A	07/23/13	V913G23A
25. 1,4-Dichlorobenzene	U		µg/kg	100	1.0	07/23/13	V913G23A	07/23/13	V913G23A
26. Dichlorodifluoromethane	U		µg/kg	250	1.0	07/23/13	V913G23A	07/23/13	V913G23A
27. 1,1-Dichloroethane	U		µg/kg	52	1.0	07/23/13	V913G23A	07/23/13	V913G23A
28. 1,2-Dichloroethane	U		µg/kg	52	1.0	07/23/13	V913G23A	07/23/13	V913G23A
29. 1,1-Dichloroethene	U		µg/kg	50	1.0	07/23/13	V913G23A	07/23/13	V913G23A
30. cis-1,2-Dichloroethene	U		µg/kg	50	1.0	07/23/13	V913G23A	07/23/13	V913G23A
31. trans-1,2-Dichloroethene	U		µg/kg	50	1.0	07/23/13	V913G23A	07/23/13	V913G23A
32. 1,2-Dichloropropane	U		µg/kg	52	1.0	07/23/13	V913G23A	07/23/13	V913G23A
33. cis-1,3-Dichloropropene	U		µg/kg	52	1.0	07/23/13	V913G23A	07/23/13	V913G23A
34. trans-1,3-Dichloropropene	U		µg/kg	52	1.0	07/23/13	V913G23A	07/23/13	V913G23A

Client Identification:	**Environmental Resources Group**	Sample Description:	**SB-5 11-12'**	Chain of Custody:	**124242**
Client Project Name:	**Baker Commons**	Sample No:	**7**	Collect Date:	**07/19/13**
Client Project No:	**1125.001**	Sample Matrix:	**Soil/Solid**	Collect Time:	**15:20**

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 NN: Parameter not included in NELAC Scope of Analysis.

Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035/EPA 8260B) **Aliquot ID: 57045-007** **Matrix: Soil/Solid** **Analyst: CCD**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
35. Ethylbenzene	U		µg/kg	50	1.0	07/23/13	V913G23A	07/23/13	V913G23A
36. Ethylene Dibromide	U		µg/kg	52	1.0	07/23/13	V913G23A	07/23/13	V913G23A
37. 2-Hexanone	U		µg/kg	2500	1.0	07/23/13	V913G23A	07/23/13	V913G23A
38. Isopropylbenzene	U		µg/kg	250	1.0	07/23/13	V913G23A	07/23/13	V913G23A
39. Methyl Iodide	U		µg/kg	100	1.0	07/23/13	V913G23A	07/23/13	V913G23A
40. Methylene Chloride	U		µg/kg	100	1.0	07/23/13	V913G23A	07/23/13	V913G23A
41. 2-Methylnaphthalene (NN)	U		µg/kg	330	1.0	07/23/13	V913G23A	07/23/13	V913G23A
42. 4-Methyl-2-pentanone	U		µg/kg	2500	1.0	07/23/13	V913G23A	07/23/13	V913G23A
43. MTBE	U		µg/kg	250	1.0	07/23/13	V913G23A	07/23/13	V913G23A
44. Naphthalene	U		µg/kg	330	1.0	07/23/13	V913G23A	07/23/13	V913G23A
45. n-Propylbenzene	U		µg/kg	100	1.0	07/23/13	V913G23A	07/23/13	V913G23A
46. Styrene	U		µg/kg	50	1.0	07/23/13	V913G23A	07/23/13	V913G23A
47. 1,1,1,2-Tetrachloroethane	U		µg/kg	100	1.0	07/23/13	V913G23A	07/23/13	V913G23A
48. 1,1,2,2-Tetrachloroethane	U		µg/kg	52	1.0	07/23/13	V913G23A	07/23/13	V913G23A
49. Tetrachloroethene	U		µg/kg	50	1.0	07/23/13	V913G23A	07/23/13	V913G23A
50. Toluene	U		µg/kg	50	1.0	07/23/13	V913G23A	07/23/13	V913G23A
51. 1,2,4-Trichlorobenzene	U		µg/kg	330	1.0	07/23/13	V913G23A	07/23/13	V913G23A
52. 1,1,1-Trichloroethane	U		µg/kg	52	1.0	07/23/13	V913G23A	07/23/13	V913G23A
53. 1,1,2-Trichloroethane	U		µg/kg	52	1.0	07/23/13	V913G23A	07/23/13	V913G23A
54. Trichloroethene	U		µg/kg	52	1.0	07/23/13	V913G23A	07/23/13	V913G23A
55. Trichlorofluoromethane	U		µg/kg	100	1.0	07/23/13	V913G23A	07/23/13	V913G23A
56. 1,2,3-Trichloropropane	U		µg/kg	100	1.0	07/23/13	V913G23A	07/23/13	V913G23A
57. 1,2,3-Trimethylbenzene (NN)	U		µg/kg	100	1.0	07/23/13	V913G23A	07/23/13	V913G23A
58. 1,2,4-Trimethylbenzene	U		µg/kg	100	1.0	07/23/13	V913G23A	07/23/13	V913G23A
59. 1,3,5-Trimethylbenzene	U		µg/kg	100	1.0	07/23/13	V913G23A	07/23/13	V913G23A
60. Vinyl Chloride	U		µg/kg	40	1.0	07/23/13	V913G23A	07/23/13	V913G23A
61. Xylenes	U		µg/kg	150	1.0	07/23/13	V913G23A	07/23/13	V913G23A

Fibertec environmental services

Analytical Laboratory Report
Laboratory Project Number: 57045
Laboratory Sample Number: 57045-008

Client Identification:	**Environmental Resources Group**	Sample Description:	**Trip Blank**	Chain of Custody:	**124242**
Client Project Name:	**Baker Commons**	Sample No:	**8**	Collect Date:	**07/19/13**
Client Project No:	**1125.001**	Sample Matrix:	**Ground Water**	Collect Time:	**NA**

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: 57045-008** **Matrix: Ground Water** **Analyst: JPL**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Acetone	U		µg/L	50	1.0	07/24/13	VB13G24A	07/24/13	VB13G24A
2. Acrylonitrile	U		µg/L	2.0	1.0	07/24/13	VB13G24A	07/24/13	VB13G24A
3. Benzene	U		µg/L	1.0	1.0	07/24/13	VB13G24A	07/24/13	VB13G24A
4. Bromobenzene	U		µg/L	1.0	1.0	07/24/13	VB13G24A	07/24/13	VB13G24A
5. Bromochloromethane	U		µg/L	1.0	1.0	07/24/13	VB13G24A	07/24/13	VB13G24A
6. Bromodichloromethane	U		µg/L	1.0	1.0	07/24/13	VB13G24A	07/24/13	VB13G24A
7. Bromoform	U		µg/L	1.0	1.0	07/24/13	VB13G24A	07/24/13	VB13G24A
8. Bromomethane	U		µg/L	5.0	1.0	07/24/13	VB13G24A	07/24/13	VB13G24A
9. 2-Butanone	U		µg/L	25	1.0	07/24/13	VB13G24A	07/24/13	VB13G24A
10. n-Butylbenzene	U		µg/L	1.0	1.0	07/24/13	VB13G24A	07/24/13	VB13G24A
11. sec-Butylbenzene	U		µg/L	1.0	1.0	07/24/13	VB13G24A	07/24/13	VB13G24A
12. tert-Butylbenzene	U		µg/L	1.0	1.0	07/24/13	VB13G24A	07/24/13	VB13G24A
13. Carbon Disulfide	U		µg/L	5.0	1.0	07/24/13	VB13G24A	07/24/13	VB13G24A
14. Carbon Tetrachloride	U		µg/L	1.0	1.0	07/24/13	VB13G24A	07/24/13	VB13G24A
15. Chlorobenzene	U		µg/L	1.0	1.0	07/24/13	VB13G24A	07/24/13	VB13G24A
16. Chloroethane	U		µg/L	5.0	1.0	07/24/13	VB13G24A	07/24/13	VB13G24A
17. Chloroform	U		µg/L	1.0	1.0	07/24/13	VB13G24A	07/24/13	VB13G24A
18. Chloromethane	U		µg/L	5.0	1.0	07/24/13	VB13G24A	07/24/13	VB13G24A
19. 2-Chlorotoluene	U		µg/L	5.0	1.0	07/24/13	VB13G24A	07/24/13	VB13G24A
20. Dibromochloromethane	U		µg/L	5.0	1.0	07/24/13	VB13G24A	07/24/13	VB13G24A
21. 1,2-Dibromo-3-chloropropane (SIM) (N	U		µg/L	1.0	1.0	07/24/13	VB13G24A	07/24/13	VB13G24A
22. Dibromomethane	U		µg/L	5.0	1.0	07/24/13	VB13G24A	07/24/13	VB13G24A
23. 1,2-Dichlorobenzene	U		µg/L	1.0	1.0	07/24/13	VB13G24A	07/24/13	VB13G24A
24. 1,3-Dichlorobenzene	U		µg/L	1.0	1.0	07/24/13	VB13G24A	07/24/13	VB13G24A
25. 1,4-Dichlorobenzene	U		µg/L	1.0	1.0	07/24/13	VB13G24A	07/24/13	VB13G24A
26. Dichlorodifluoromethane	U		µg/L	5.0	1.0	07/24/13	VB13G24A	07/24/13	VB13G24A
27. 1,1-Dichloroethane	U		µg/L	1.0	1.0	07/24/13	VB13G24A	07/24/13	VB13G24A
28. 1,2-Dichloroethane	U		µg/L	1.0	1.0	07/24/13	VB13G24A	07/24/13	VB13G24A
29. 1,1-Dichloroethene	U		µg/L	1.0	1.0	07/24/13	VB13G24A	07/24/13	VB13G24A
30. cis-1,2-Dichloroethene	U		µg/L	1.0	1.0	07/24/13	VB13G24A	07/24/13	VB13G24A
31. trans-1,2-Dichloroethene	U		µg/L	1.0	1.0	07/24/13	VB13G24A	07/24/13	VB13G24A
32. 1,2-Dichloropropane	U		µg/L	1.0	1.0	07/24/13	VB13G24A	07/24/13	VB13G24A
33. cis-1,3-Dichloropropene	U		µg/L	1.0	1.0	07/24/13	VB13G24A	07/24/13	VB13G24A
34. trans-1,3-Dichloropropene	U		µg/L	1.0	1.0	07/24/13	VB13G24A	07/24/13	VB13G24A
35. Ethylbenzene	U		µg/L	1.0	1.0	07/24/13	VB13G24A	07/24/13	VB13G24A
36. Ethylene Dibromide	U		µg/L	1.0	1.0	07/24/13	VB13G24A	07/24/13	VB13G24A
37. 2-Hexanone	U		µg/L	50	1.0	07/24/13	VB13G24A	07/24/13	VB13G24A
38. Isopropylbenzene	U		µg/L	5.0	1.0	07/24/13	VB13G24A	07/24/13	VB13G24A
39. Methyl Iodide	U		µg/L	5.0	1.0	07/24/13	VB13G24A	07/24/13	VB13G24A

Fibertec environmental services

Analytical Laboratory Report
Laboratory Project Number: 57045
Laboratory Sample Number: 57045-008

Client Identification:	**Environmental Resources Group**	Sample Description:	**Trip Blank**	Chain of Custody:	**124242**
Client Project Name:	**Baker Commons**	Sample No:	**8**	Collect Date:	**07/19/13**
Client Project No:	**1125.001**	Sample Matrix:	**Ground Water**	Collect Time:	**NA**

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: 57045-008** **Matrix: Ground Water** **Analyst: JPL**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
40. Methylene Chloride	U		µg/L	5.0	1.0	07/24/13	VB13G24A	07/24/13	VB13G24A
41. 2-Methylnaphthalene (NN)	**U**		**µg/L**	**5.0**	**1.0**	**07/24/13**	**VB13G24A**	**07/24/13**	**VB13G24A**
42. 4-Methyl-2-pentanone	U		µg/L	50	1.0	07/24/13	VB13G24A	07/24/13	VB13G24A
43. MTBE	**U**		**µg/L**	**5.0**	**1.0**	**07/24/13**	**VB13G24A**	**07/24/13**	**VB13G24A**
44. Naphthalene	U		µg/L	5.0	1.0	07/24/13	VB13G24A	07/24/13	VB13G24A
45. n-Propylbenzene	**U**		**µg/L**	**1.0**	**1.0**	**07/24/13**	**VB13G24A**	**07/24/13**	**VB13G24A**
46. Styrene	U		µg/L	1.0	1.0	07/24/13	VB13G24A	07/24/13	VB13G24A
47. 1,1,1,2-Tetrachloroethane	**U**		**µg/L**	**1.0**	**1.0**	**07/24/13**	**VB13G24A**	**07/24/13**	**VB13G24A**
48. 1,1,2,2-Tetrachloroethane	U		µg/L	1.0	1.0	07/24/13	VB13G24A	07/24/13	VB13G24A
49. Tetrachloroethene	**U**		**µg/L**	**1.0**	**1.0**	**07/24/13**	**VB13G24A**	**07/24/13**	**VB13G24A**
50. Toluene	U		µg/L	1.0	1.0	07/24/13	VB13G24A	07/24/13	VB13G24A
51. 1,2,4-Trichlorobenzene	**U**		**µg/L**	**5.0**	**1.0**	**07/24/13**	**VB13G24A**	**07/24/13**	**VB13G24A**
52. 1,1,1-Trichloroethane	U		µg/L	1.0	1.0	07/24/13	VB13G24A	07/24/13	VB13G24A
53. 1,1,2-Trichloroethane	**U**		**µg/L**	**1.0**	**1.0**	**07/24/13**	**VB13G24A**	**07/24/13**	**VB13G24A**
54. Trichloroethene	U		µg/L	1.0	1.0	07/24/13	VB13G24A	07/24/13	VB13G24A
55. Trichlorofluoromethane	**U**		**µg/L**	**1.0**	**1.0**	**07/24/13**	**VB13G24A**	**07/24/13**	**VB13G24A**
56. 1,2,3-Trichloropropane	U		µg/L	1.0	1.0	07/24/13	VB13G24A	07/24/13	VB13G24A
57. 1,2,3-Trimethylbenzene (NN)	**U**		**µg/L**	**1.0**	**1.0**	**07/24/13**	**VB13G24A**	**07/24/13**	**VB13G24A**
58. 1,2,4-Trimethylbenzene	U		µg/L	1.0	1.0	07/24/13	VB13G24A	07/24/13	VB13G24A
59. 1,3,5-Trimethylbenzene	**U**		**µg/L**	**1.0**	**1.0**	**07/24/13**	**VB13G24A**	**07/24/13**	**VB13G24A**
60. Vinyl Chloride	U		µg/L	1.0	1.0	07/24/13	VB13G24A	07/24/13	VB13G24A
61. Xylenes	**U**		**µg/L**	**3.0**	**1.0**	**07/24/13**	**VB13G24A**	**07/24/13**	**VB13G24A**

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:

ACCREDITED IN ACCORDANCE WITH nelac
Accreditation Number:
E-10395

Fibertec environmental services

Analytical Laboratory
1914 Holloway Drive
Holt, MI 48842
Phone: 517 699 0345
Fax: 517 699 0388
email: lab@fibertec.us

8660 S. Mackinaw Trail
Cadillac, MI 49601
Phone: 231 775 8368
Fax: 231 775 8584

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 # **124242**
PAGE 1 of 1

Client Name: ~~ANDY~~ NORSTAR
Contact Person: ANDY FOERG
Project Name/ Number: BAKER COMMONS / 1125.001
QUOTE#
Purchase Order#

Lab Sample #	Date	Time	Client Sample #	Client Sample Descriptor	MATRIX (SEE RIGHT CORNER FOR CODE)	# OF CONTAINERS	PRESERVED (Y/N)	VOCs	PNA, PCB
	7/19/13	10:00		SB-1 14-15'	S	2	Y	✓	✓
		10:55		SB-2 9-10'	S	2	Y	✓	✓
		12:35		SB-3 0-1'	S	2	Y	✓	
		12:40		SB-3 19-20'	S	2	Y	✓	
		13:55		SB-4 10-11'	S	2	Y	✓	
		15:15		SB-5 1-2'	S	2	Y	✓	
	↓	15:20		SB-5 11-12'	S	2	Y	✓	

Turnaround:
- 24 hour RUSH (surcharge applies)
- 48 hour RUSH (surcharge applies)
- 72 hour RUSH (surcharge applies)
- ✓ Standard (5-7 bus. days)
- Other: Specify

Matrix Code: S Soil, A Air, O Oil, P Wipe, GW Ground Water, SW Surface Water, WW Waste Water, X Other: Specify

☐ FES Drilling Services

Deliverables: ☐ Level 2 ☐ Level 3 ☐ Level 4 ☐ EDD

Remarks: All samples kept on ice.

Comments:

Relinquished By:	Date/ Time	Received By:
LAURA LAMBERT	7/19/13 16:07	Fibertec cooler
Fibertec cooler	7/22/13 0815	
	7/22/13 0935	Received By Laboratory:

LAB USE ONLY:
Fibertec project number: 57045
Laboratory Tracking:
Temperature at Receipt: 4.3°C

COC Revision: February, 2013

TERMS & CONDITIONS ON BACK

RCV'D ON ICE

Fibertec
environmental
services

Tuesday, July 30, 2013

Fibertec Project Number:	57051
Project Identification:	Baker Commons /1125.001
Submittal Date:	07/19/2013

Ms. Laura Lambert
Environmental Resources Group
28003 Center Oaks Court Suite 106
Wixon, MI 48393

Dear Ms. Lambert,

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.

The result for 1,2,4-trimethylbenzene for samples 57051-001 (SB-5) and 57051-002 (SB-3) is estimated. The initial calibration verification on the istrument was high. Results may be biased high.

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,

Daryl P. Strandbergh
Laboratory Director

DPS/kc

Enclosures

Fibertec environmental services

Analytical Laboratory Report
Laboratory Project Number: 57051
Laboratory Sample Number: 57051-001

Client Identification:	**Environmental Resources Group**	Sample Description:	**SB-5**	Chain of Custody:	**124241**
Client Project Name:	**Baker Commons**	Sample No:	**1**	Collect Date:	**07/19/13**
Client Project No:	**1125.001**	Sample Matrix:	**Air**	Collect Time:	**15:48**

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

TO-15 (Bottle-Vac) (TO-15) **Aliquot ID: 57051-001** **Matrix: Air** **Analyst: RDK**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Acetone (NN)	**58**		ppbv	5.6	1.0	07/29/13	VA13G29A	07/30/13	VA13G29A
2. Benzene (NN)	**32**		ppbv	0.38	1.0	07/29/13	VA13G29A	07/30/13	VA13G29A
3. Benzyl Chloride (NN)	U		ppbv	0.38	1.0	07/29/13	VA13G29A	07/30/13	VA13G29A
4. Bromodichloromethane (NN)	U		ppbv	0.37	1.0	07/29/13	VA13G29A	07/30/13	VA13G29A
5. Bromoform (NN)	U		ppbv	0.38	1.0	07/29/13	VA13G29A	07/30/13	VA13G29A
6. Bromomethane (NN)	U		ppbv	1.1	1.0	07/29/13	VA13G29A	07/30/13	VA13G29A
7. 1,3-Butadiene (NN)	U		ppbv	1.3	1.0	07/29/13	VA13G29A	07/30/13	VA13G29A
8. 2-Butanone (NN)	**6.4**		ppbv	1.1	1.0	07/29/13	VA13G29A	07/30/13	VA13G29A
9. Carbon Disulfide (NN)	U		ppbv	1.3	1.0	07/29/13	VA13G29A	07/30/13	VA13G29A
10. Carbon Tetrachloride (NN)	U		ppbv	0.38	1.0	07/29/13	VA13G29A	07/30/13	VA13G29A
11. Chlorobenzene (NN)	U		ppbv	0.38	1.0	07/29/13	VA13G29A	07/30/13	VA13G29A
12. Chloroethane (NN)	**0.57**		ppbv	0.50	1.0	07/29/13	VA13G29A	07/30/13	VA13G29A
13. Chloroform (NN)	U		ppbv	0.33	1.0	07/29/13	VA13G29A	07/30/13	VA13G29A
14. Chloromethane (NN)	U		ppbv	2.7	1.0	07/29/13	VA13G29A	07/30/13	VA13G29A
15. Cyclohexane (NN)	**5.6**		ppbv	2.8	1.0	07/29/13	VA13G29A	07/30/13	VA13G29A
16. Dibromochloromethane (NN)	U		ppbv	0.37	1.0	07/29/13	VA13G29A	07/30/13	VA13G29A
17. 1,2-Dichlorobenzene (NN)	U		ppbv	0.38	1.0	07/29/13	VA13G29A	07/30/13	VA13G29A
18. 1,3-Dichlorobenzene (NN)	U		ppbv	0.38	1.0	07/29/13	VA13G29A	07/30/13	VA13G29A
19. 1,4-Dichlorobenzene (NN)	U		ppbv	0.38	1.0	07/29/13	VA13G29A	07/30/13	VA13G29A
20. Dichlorodifluoromethane (NN)	**1.7**	J,L+	ppbv	0.51	1.0	07/29/13	VA13G29A	07/30/13	VA13G29A
21. 1,1-Dichloroethane (NN)	U		ppbv	0.37	1.0	07/29/13	VA13G29A	07/30/13	VA13G29A
22. 1,2-Dichloroethane (NN)	U		ppbv	0.37	1.0	07/29/13	VA13G29A	07/30/13	VA13G29A
23. 1,1-Dichloroethene (NN)	U		ppbv	0.36	1.0	07/29/13	VA13G29A	07/30/13	VA13G29A
24. cis-1,2-Dichloroethene (NN)	U		ppbv	0.38	1.0	07/29/13	VA13G29A	07/30/13	VA13G29A
25. trans-1,2-Dichloroethene (NN)	U		ppbv	0.33	1.0	07/29/13	VA13G29A	07/30/13	VA13G29A
26. 1,2-Dichloropropane (NN)	U		ppbv	1.1	1.0	07/29/13	VA13G29A	07/30/13	VA13G29A
27. cis-1,3-Dichloropropene (NN)	U		ppbv	0.36	1.0	07/29/13	VA13G29A	07/30/13	VA13G29A
28. trans-1,3-Dichloropropene (NN)	U		ppbv	0.40	1.0	07/29/13	VA13G29A	07/30/13	VA13G29A
29. 1,4-Dioxane (NN)	U		ppbv	0.51	1.0	07/29/13	VA13G29A	07/30/13	VA13G29A
30. Ethyl Acetate (NN)	U		ppbv	2.7	1.0	07/29/13	VA13G29A	07/30/13	VA13G29A
31. Ethylbenzene (NN)	**8.6**		ppbv	0.38	1.0	07/29/13	VA13G29A	07/30/13	VA13G29A
32. Ethylene Dibromide (NN)	U		ppbv	0.36	1.0	07/29/13	VA13G29A	07/30/13	VA13G29A
33. 4-Ethyltoluene (NN)	**5.3**	J,L+	ppbv	0.38	1.0	07/29/13	VA13G29A	07/30/13	VA13G29A
34. n-Heptane (NN)	**15**		ppbv	0.35	1.0	07/29/13	VA13G29A	07/30/13	VA13G29A
35. Hexachlorobutadiene (NN)	U		ppbv	0.38	1.0	07/29/13	VA13G29A	07/30/13	VA13G29A
36. n-Hexane (NN)	**17**		ppbv	0.33	1.0	07/29/13	VA13G29A	07/30/13	VA13G29A
37. 2-Hexanone (NN)	U		ppbv	1.1	1.0	07/29/13	VA13G29A	07/30/13	VA13G29A
38. Isopropanol (NN)	U		ppbv	5.6	1.0	07/29/13	VA13G29A	07/30/13	VA13G29A
39. Methylene Chloride (NN)	U		ppbv	5.1	1.0	07/29/13	VA13G29A	07/30/13	VA13G29A

1914 Holloway Drive *Holt, MI 48842* *T: (517) 699-0345* *F: (517) 699-0388*
11766 E. Grand River *Brighton, MI 48116* *T: (810) 220-3300* *F: (810) 220-3311*
8660 S. Mackinaw Trail *Cadillac, MI 49601* *T: (231) 775-8368* *F: (231) 775-8584*

lab@fibertec.us

Fibertec environmental services

Analytical Laboratory Report
Laboratory Project Number: 57051
Laboratory Sample Number: 57051-001

Client Identification:	**Environmental Resources Group**	Sample Description:	**SB-5**	Chain of Custody:	**124241**
Client Project Name:	**Baker Commons**	Sample No:	**1**	Collect Date:	**07/19/13**
Client Project No:	**1125.001**	Sample Matrix:	**Air**	Collect Time:	**15:48**

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

TO-15 (Bottle-Vac) (TO-15) **Aliquot ID: 57051-001** **Matrix: Air** **Analyst: RDK**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
40. 2-Methylnaphthalene (NN)	U		ppbv	1.2	1.0	07/29/13	VA13G29A	07/30/13	VA13G29A
41. 4-Methyl-2-pentanone (NN)	**5.4**		ppbv	0.38	1.0	07/29/13	VA13G29A	07/30/13	VA13G29A
42. MTBE (NN)	U		ppbv	0.35	1.0	07/29/13	VA13G29A	07/30/13	VA13G29A
43. Naphthalene (NN)	U		ppbv	1.4	1.0	07/29/13	VA13G29A	07/30/13	VA13G29A
44. Propylene (NN)	**18**		ppbv	2.6	1.0	07/29/13	VA13G29A	07/30/13	VA13G29A
45. Styrene (NN)	U		ppbv	0.38	1.0	07/29/13	VA13G29A	07/30/13	VA13G29A
46. 1,1,2,2-Tetrachloroethane (NN)	U		ppbv	0.38	1.0	07/29/13	VA13G29A	07/30/13	VA13G29A
47. Tetrachloroethene (NN)	**3.9**		ppbv	0.37	1.0	07/29/13	VA13G29A	07/30/13	VA13G29A
48. Tetrahydrofuran (NN)	**3.0**		ppbv	1.1	1.0	07/29/13	VA13G29A	07/30/13	VA13G29A
49. Toluene (NN)	**34**		ppbv	0.38	1.0	07/29/13	VA13G29A	07/30/13	VA13G29A
50. 1,2,4-Trichlorobenzene (NN)	U		ppbv	0.38	1.0	07/29/13	VA13G29A	07/30/13	VA13G29A
51. 1,1,1-Trichloroethane (NN)	U		ppbv	0.37	1.0	07/29/13	VA13G29A	07/30/13	VA13G29A
52. 1,1,2-Trichloroethane (NN)	U		ppbv	0.38	1.0	07/29/13	VA13G29A	07/30/13	VA13G29A
53. Trichloroethene (NN)	U		ppbv	0.37	1.0	07/29/13	VA13G29A	07/30/13	VA13G29A
54. Trichlorofluoromethane (NN)	**0.40**	J,L+	ppbv	0.34	1.0	07/29/13	VA13G29A	07/30/13	VA13G29A
55. 1,1,2-Trichlorotrifluoroethane (NN)	U		ppbv	0.36	1.0	07/29/13	VA13G29A	07/30/13	VA13G29A
56. 1,2,4-Trimethylbenzene (NN)	**9.3**	J,J+	ppbv	0.38	1.0	07/29/13	VA13G29A	07/30/13	VA13G29A
57. 1,3,5-Trimethylbenzene (NN)	**3.1**	J,L+	ppbv	0.38	1.0	07/29/13	VA13G29A	07/30/13	VA13G29A
58. Vinyl Acetate (NN)	U		ppbv	1.1	1.0	07/29/13	VA13G29A	07/30/13	VA13G29A
59. Vinyl Chloride (NN)	U		ppbv	0.35	1.0	07/29/13	VA13G29A	07/30/13	VA13G29A
60. m&p-Xylene (NN)	**28**		ppbv	0.76	1.0	07/29/13	VA13G29A	07/30/13	VA13G29A
61. o-Xylene (NN)	**13**		ppbv	0.38	1.0	07/29/13	VA13G29A	07/30/13	VA13G29A
62. Xylenes (NN)	**41**		ppbv	1.1	1.0	07/29/13	VA13G29A	07/30/13	VA13G29A

Client Identification:	**Environmental Resources Group**	Sample Description:	**SB-3**	Chain of Custody:	**124241**
Client Project Name:	**Baker Commons**	Sample No:	**2**	Collect Date:	**07/19/13**
Client Project No:	**1125.001**	Sample Matrix:	**Air**	Collect Time:	**15:57**

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

TO-15 (Bottle-Vac) (TO-15) **Aliquot ID: 57051-002** **Matrix: Air** **Analyst: RDK**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Acetone (NN)	**23**		ppbv	5.6	1.0	07/29/13	VA13G29A	07/30/13	VA13G29A
2. Benzene (NN)	**17**		ppbv	0.38	1.0	07/29/13	VA13G29A	07/30/13	VA13G29A
3. Benzyl Chloride (NN)	U		ppbv	0.38	1.0	07/29/13	VA13G29A	07/30/13	VA13G29A
4. Bromodichloromethane (NN)	U		ppbv	0.37	1.0	07/29/13	VA13G29A	07/30/13	VA13G29A
5. Bromoform (NN)	U		ppbv	0.38	1.0	07/29/13	VA13G29A	07/30/13	VA13G29A
6. Bromomethane (NN)	U		ppbv	1.1	1.0	07/29/13	VA13G29A	07/30/13	VA13G29A
7. 1,3-Butadiene (NN)	U		ppbv	1.3	1.0	07/29/13	VA13G29A	07/30/13	VA13G29A
8. 2-Butanone (NN)	**2.4**		ppbv	1.1	1.0	07/29/13	VA13G29A	07/30/13	VA13G29A
9. Carbon Disulfide (NN)	U		ppbv	1.3	1.0	07/29/13	VA13G29A	07/30/13	VA13G29A
10. Carbon Tetrachloride (NN)	U		ppbv	0.38	1.0	07/29/13	VA13G29A	07/30/13	VA13G29A
11. Chlorobenzene (NN)	U		ppbv	0.38	1.0	07/29/13	VA13G29A	07/30/13	VA13G29A
12. Chloroethane (NN)	U		ppbv	0.50	1.0	07/29/13	VA13G29A	07/30/13	VA13G29A
13. Chloroform (NN)	U		ppbv	0.33	1.0	07/29/13	VA13G29A	07/30/13	VA13G29A
14. Chloromethane (NN)	U		ppbv	2.7	1.0	07/29/13	VA13G29A	07/30/13	VA13G29A
15. Cyclohexane (NN)	**5.5**		ppbv	2.8	1.0	07/29/13	VA13G29A	07/30/13	VA13G29A
16. Dibromochloromethane (NN)	U		ppbv	0.37	1.0	07/29/13	VA13G29A	07/30/13	VA13G29A
17. 1,2-Dichlorobenzene (NN)	U		ppbv	0.38	1.0	07/29/13	VA13G29A	07/30/13	VA13G29A
18. 1,3-Dichlorobenzene (NN)	U		ppbv	0.38	1.0	07/29/13	VA13G29A	07/30/13	VA13G29A
19. 1,4-Dichlorobenzene (NN)	U		ppbv	0.38	1.0	07/29/13	VA13G29A	07/30/13	VA13G29A
20. Dichlorodifluoromethane (NN)	**7.2**	J,L+	ppbv	0.51	1.0	07/29/13	VA13G29A	07/30/13	VA13G29A
21. 1,1-Dichloroethane (NN)	U		ppbv	0.37	1.0	07/29/13	VA13G29A	07/30/13	VA13G29A
22. 1,2-Dichloroethane (NN)	U		ppbv	0.37	1.0	07/29/13	VA13G29A	07/30/13	VA13G29A
23. 1,1-Dichloroethene (NN)	U		ppbv	0.36	1.0	07/29/13	VA13G29A	07/30/13	VA13G29A
24. cis-1,2-Dichloroethene (NN)	U		ppbv	0.38	1.0	07/29/13	VA13G29A	07/30/13	VA13G29A
25. trans-1,2-Dichloroethene (NN)	U		ppbv	0.33	1.0	07/29/13	VA13G29A	07/30/13	VA13G29A
26. 1,2-Dichloropropane (NN)	U		ppbv	1.1	1.0	07/29/13	VA13G29A	07/30/13	VA13G29A
27. cis-1,3-Dichloropropene (NN)	U		ppbv	0.36	1.0	07/29/13	VA13G29A	07/30/13	VA13G29A
28. trans-1,3-Dichloropropene (NN)	U		ppbv	0.40	1.0	07/29/13	VA13G29A	07/30/13	VA13G29A
29. 1,4-Dioxane (NN)	U		ppbv	0.51	1.0	07/29/13	VA13G29A	07/30/13	VA13G29A
30. Ethyl Acetate (NN)	U		ppbv	2.7	1.0	07/29/13	VA13G29A	07/30/13	VA13G29A
31. Ethylbenzene (NN)	**2.3**		ppbv	0.38	1.0	07/29/13	VA13G29A	07/30/13	VA13G29A
32. Ethylene Dibromide (NN)	U		ppbv	0.36	1.0	07/29/13	VA13G29A	07/30/13	VA13G29A
33. 4-Ethyltoluene (NN)	**0.97**	J,L+	ppbv	0.38	1.0	07/29/13	VA13G29A	07/30/13	VA13G29A
34. n-Heptane (NN)	**12**		ppbv	0.35	1.0	07/29/13	VA13G29A	07/30/13	VA13G29A
35. Hexachlorobutadiene (NN)	U		ppbv	0.38	1.0	07/29/13	VA13G29A	07/30/13	VA13G29A
36. n-Hexane (NN)	**14**		ppbv	0.33	1.0	07/29/13	VA13G29A	07/30/13	VA13G29A
37. 2-Hexanone (NN)	U		ppbv	1.1	1.0	07/29/13	VA13G29A	07/30/13	VA13G29A
38. Isopropanol (NN)	U		ppbv	5.6	1.0	07/29/13	VA13G29A	07/30/13	VA13G29A
39. Methylene Chloride (NN)	U		ppbv	2.6	1.0	07/29/13	VA13G29A	07/30/13	VA13G29A

Fibertec environmental services

Analytical Laboratory Report
Laboratory Project Number: 57051
Laboratory Sample Number: 57051-002

Client Identification:	**Environmental Resources Group**	Sample Description:	**SB-3**	Chain of Custody:	**124241**
Client Project Name:	**Baker Commons**	Sample No:	**2**	Collect Date:	**07/19/13**
Client Project No:	**1125.001**	Sample Matrix:	**Air**	Collect Time:	**15:57**

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

TO-15 (Bottle-Vac) (TO-15) **Aliquot ID: 57051-002** **Matrix: Air** **Analyst: RDK**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
40. 2-Methylnaphthalene (NN)	U		ppbv	1.2	1.0	07/29/13	VA13G29A	07/30/13	VA13G29A
41. 4-Methyl-2-pentanone (NN)	**2.7**		ppbv	0.38	1.0	07/29/13	VA13G29A	07/30/13	VA13G29A
42. MTBE (NN)	U		ppbv	0.35	1.0	07/29/13	VA13G29A	07/30/13	VA13G29A
43. Naphthalene (NN)	U		ppbv	1.4	1.0	07/29/13	VA13G29A	07/30/13	VA13G29A
44. Propylene (NN)	**11**		ppbv	2.6	1.0	07/29/13	VA13G29A	07/30/13	VA13G29A
45. Styrene (NN)	U		ppbv	0.38	1.0	07/29/13	VA13G29A	07/30/13	VA13G29A
46. 1,1,2,2-Tetrachloroethane (NN)	U		ppbv	0.38	1.0	07/29/13	VA13G29A	07/30/13	VA13G29A
47. Tetrachloroethene (NN)	**1.7**		ppbv	0.37	1.0	07/29/13	VA13G29A	07/30/13	VA13G29A
48. Tetrahydrofuran (NN)	**1.7**		ppbv	1.1	1.0	07/29/13	VA13G29A	07/30/13	VA13G29A
49. Toluene (NN)	**10**		ppbv	0.38	1.0	07/29/13	VA13G29A	07/30/13	VA13G29A
50. 1,2,4-Trichlorobenzene (NN)	U		ppbv	0.38	1.0	07/29/13	VA13G29A	07/30/13	VA13G29A
51. 1,1,1-Trichloroethane (NN)	U		ppbv	0.37	1.0	07/29/13	VA13G29A	07/30/13	VA13G29A
52. 1,1,2-Trichloroethane (NN)	U		ppbv	0.38	1.0	07/29/13	VA13G29A	07/30/13	VA13G29A
53. Trichloroethene (NN)	U		ppbv	0.37	1.0	07/29/13	VA13G29A	07/30/13	VA13G29A
54. Trichlorofluoromethane (NN)	**0.39**	J,L+	ppbv	0.34	1.0	07/29/13	VA13G29A	07/30/13	VA13G29A
55. 1,1,2-Trichlorotrifluoroethane (NN)	U		ppbv	0.36	1.0	07/29/13	VA13G29A	07/30/13	VA13G29A
56. 1,2,4-Trimethylbenzene (NN)	**2.3**	J,J+	ppbv	0.38	1.0	07/29/13	VA13G29A	07/30/13	VA13G29A
57. 1,3,5-Trimethylbenzene (NN)	**0.68**	J,L+	ppbv	0.38	1.0	07/29/13	VA13G29A	07/30/13	VA13G29A
58. Vinyl Acetate (NN)	U		ppbv	1.1	1.0	07/29/13	VA13G29A	07/30/13	VA13G29A
59. Vinyl Chloride (NN)	U		ppbv	0.35	1.0	07/29/13	VA13G29A	07/30/13	VA13G29A
60. m&p-Xylene (NN)	**6.7**		ppbv	0.76	1.0	07/29/13	VA13G29A	07/30/13	VA13G29A
61. o-Xylene (NN)	**3.0**		ppbv	0.38	1.0	07/29/13	VA13G29A	07/30/13	VA13G29A
62. Xylenes (NN)	**9.7**		ppbv	1.1	1.0	07/29/13	VA13G29A	07/30/13	VA13G29A

Client Identification:	**Environmental Resources Group**	Sample Description:	**SB-2**	Chain of Custody:	**124241**
Client Project Name:	**Baker Commons**	Sample No:	**3**	Collect Date:	**07/19/13**
Client Project No:	**1125.001**	Sample Matrix:	**Air**	Collect Time:	**16:02**

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

TO-15 (Bottle-Vac) (TO-15) **Aliquot ID: 57051-003** **Matrix: Air** **Analyst: RDK**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
1. Acetone (NN)	**39**		ppbv	5.6	1.0	07/29/13	VA13G29A	07/30/13	VA13G29A
2. Benzene (NN)	**47**		ppbv	0.38	1.0	07/29/13	VA13G29A	07/30/13	VA13G29A
3. Benzyl Chloride (NN)	U		ppbv	0.38	1.0	07/29/13	VA13G29A	07/30/13	VA13G29A
4. Bromodichloromethane (NN)	U		ppbv	0.37	1.0	07/29/13	VA13G29A	07/30/13	VA13G29A
5. Bromoform (NN)	U		ppbv	0.38	1.0	07/29/13	VA13G29A	07/30/13	VA13G29A
6. Bromomethane (NN)	U		ppbv	1.1	1.0	07/29/13	VA13G29A	07/30/13	VA13G29A
7. 1,3-Butadiene (NN)	U		ppbv	1.3	1.0	07/29/13	VA13G29A	07/30/13	VA13G29A
8. 2-Butanone (NN)	**4.2**		ppbv	1.1	1.0	07/29/13	VA13G29A	07/30/13	VA13G29A
9. Carbon Disulfide (NN)	U		ppbv	1.3	1.0	07/29/13	VA13G29A	07/30/13	VA13G29A
10. Carbon Tetrachloride (NN)	U		ppbv	0.38	1.0	07/29/13	VA13G29A	07/30/13	VA13G29A
11. Chlorobenzene (NN)	**0.93**		ppbv	0.38	1.0	07/29/13	VA13G29A	07/30/13	VA13G29A
12. Chloroethane (NN)	U		ppbv	0.50	1.0	07/29/13	VA13G29A	07/30/13	VA13G29A
13. Chloroform (NN)	U		ppbv	0.33	1.0	07/29/13	VA13G29A	07/30/13	VA13G29A
14. Chloromethane (NN)	U		ppbv	2.7	1.0	07/29/13	VA13G29A	07/30/13	VA13G29A
15. Cyclohexane (NN)	U		ppbv	2.8	1.0	07/29/13	VA13G29A	07/30/13	VA13G29A
16. Dibromochloromethane (NN)	U		ppbv	0.37	1.0	07/29/13	VA13G29A	07/30/13	VA13G29A
17. 1,2-Dichlorobenzene (NN)	U		ppbv	0.38	1.0	07/29/13	VA13G29A	07/30/13	VA13G29A
18. 1,3-Dichlorobenzene (NN)	U		ppbv	0.38	1.0	07/29/13	VA13G29A	07/30/13	VA13G29A
19. 1,4-Dichlorobenzene (NN)	U		ppbv	0.38	1.0	07/29/13	VA13G29A	07/30/13	VA13G29A
20. Dichlorodifluoromethane (NN)	**3.6**	J,L+	ppbv	0.51	1.0	07/29/13	VA13G29A	07/30/13	VA13G29A
21. 1,1-Dichloroethane (NN)	U		ppbv	0.37	1.0	07/29/13	VA13G29A	07/30/13	VA13G29A
22. 1,2-Dichloroethane (NN)	U		ppbv	0.37	1.0	07/29/13	VA13G29A	07/30/13	VA13G29A
23. 1,1-Dichloroethene (NN)	U		ppbv	0.36	1.0	07/29/13	VA13G29A	07/30/13	VA13G29A
24. cis-1,2-Dichloroethene (NN)	U		ppbv	0.38	1.0	07/29/13	VA13G29A	07/30/13	VA13G29A
25. trans-1,2-Dichloroethene (NN)	U		ppbv	0.33	1.0	07/29/13	VA13G29A	07/30/13	VA13G29A
26. 1,2-Dichloropropane (NN)	U		ppbv	1.1	1.0	07/29/13	VA13G29A	07/30/13	VA13G29A
27. cis-1,3-Dichloropropene (NN)	U		ppbv	0.36	1.0	07/29/13	VA13G29A	07/30/13	VA13G29A
28. trans-1,3-Dichloropropene (NN)	U		ppbv	0.40	1.0	07/29/13	VA13G29A	07/30/13	VA13G29A
29. 1,4-Dioxane (NN)	U		ppbv	0.51	1.0	07/29/13	VA13G29A	07/30/13	VA13G29A
30. Ethyl Acetate (NN)	U		ppbv	2.7	1.0	07/29/13	VA13G29A	07/30/13	VA13G29A
31. Ethylbenzene (NN)	**0.57**		ppbv	0.38	1.0	07/29/13	VA13G29A	07/30/13	VA13G29A
32. Ethylene Dibromide (NN)	U		ppbv	0.36	1.0	07/29/13	VA13G29A	07/30/13	VA13G29A
33. 4-Ethyltoluene (NN)	U		ppbv	0.38	1.0	07/29/13	VA13G29A	07/30/13	VA13G29A
34. n-Heptane (NN)	U		ppbv	0.35	1.0	07/29/13	VA13G29A	07/30/13	VA13G29A
35. Hexachlorobutadiene (NN)	U		ppbv	0.38	1.0	07/29/13	VA13G29A	07/30/13	VA13G29A
36. n-Hexane (NN)	**0.68**		ppbv	0.33	1.0	07/29/13	VA13G29A	07/30/13	VA13G29A
37. 2-Hexanone (NN)	U		ppbv	1.1	1.0	07/29/13	VA13G29A	07/30/13	VA13G29A
38. Isopropanol (NN)	U		ppbv	5.6	1.0	07/29/13	VA13G29A	07/30/13	VA13G29A
39. Methylene Chloride (NN)	U		ppbv	2.6	1.0	07/29/13	VA13G29A	07/30/13	VA13G29A

Fibertec environmental services

Analytical Laboratory Report
Laboratory Project Number: 57051
Laboratory Sample Number: 57051-003

Client Identification:	**Environmental Resources Group**	Sample Description:	**SB-2**	Chain of Custody:	**124241**
Client Project Name:	**Baker Commons**	Sample No:	**3**	Collect Date:	**07/19/13**
Client Project No:	**1125.001**	Sample Matrix:	**Air**	Collect Time:	**16:02**

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable NN: Parameter not included in NELAC Scope of Analysis.

TO-15 (Bottle-Vac) (TO-15) **Aliquot ID: 57051-003** **Matrix: Air** **Analyst: RDK**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Prep Date	Prep Batch	Analysis Date	Analysis Batch
40. 2-Methylnaphthalene (NN)	U		ppbv	1.2	1.0	07/29/13	VA13G29A	07/30/13	VA13G29A
41. 4-Methyl-2-pentanone (NN)	U		ppbv	0.38	1.0	07/29/13	VA13G29A	07/30/13	VA13G29A
42. MTBE (NN)	U		ppbv	0.35	1.0	07/29/13	VA13G29A	07/30/13	VA13G29A
43. Naphthalene (NN)	U		ppbv	1.4	1.0	07/29/13	VA13G29A	07/30/13	VA13G29A
44. Propylene (NN)	U		ppbv	2.6	1.0	07/29/13	VA13G29A	07/30/13	VA13G29A
45. Styrene (NN)	U		ppbv	0.38	1.0	07/29/13	VA13G29A	07/30/13	VA13G29A
46. 1,1,2,2-Tetrachloroethane (NN)	U		ppbv	0.38	1.0	07/29/13	VA13G29A	07/30/13	VA13G29A
47. Tetrachloroethene (NN)	**0.66**		ppbv	0.37	1.0	07/29/13	VA13G29A	07/30/13	VA13G29A
48. Tetrahydrofuran (NN)	**5.0**		ppbv	1.1	1.0	07/29/13	VA13G29A	07/30/13	VA13G29A
49. Toluene (NN)	**1.6**		ppbv	0.38	1.0	07/29/13	VA13G29A	07/30/13	VA13G29A
50. 1,2,4-Trichlorobenzene (NN)	U		ppbv	0.38	1.0	07/29/13	VA13G29A	07/30/13	VA13G29A
51. 1,1,1-Trichloroethane (NN)	**1.4**	J,L+	ppbv	0.37	1.0	07/29/13	VA13G29A	07/30/13	VA13G29A
52. 1,1,2-Trichloroethane (NN)	U		ppbv	0.38	1.0	07/29/13	VA13G29A	07/30/13	VA13G29A
53. Trichloroethene (NN)	U		ppbv	0.37	1.0	07/29/13	VA13G29A	07/30/13	VA13G29A
54. Trichlorofluoromethane (NN)	**0.36**	J,L+	ppbv	0.34	1.0	07/29/13	VA13G29A	07/30/13	VA13G29A
55. 1,1,2-Trichlorotrifluoroethane (NN)	U		ppbv	0.36	1.0	07/29/13	VA13G29A	07/30/13	VA13G29A
56. 1,2,4-Trimethylbenzene (NN)	U		ppbv	0.38	1.0	07/29/13	VA13G29A	07/30/13	VA13G29A
57. 1,3,5-Trimethylbenzene (NN)	U		ppbv	0.38	1.0	07/29/13	VA13G29A	07/30/13	VA13G29A
58. Vinyl Acetate (NN)	U		ppbv	1.1	1.0	07/29/13	VA13G29A	07/30/13	VA13G29A
59. Vinyl Chloride (NN)	U		ppbv	0.35	1.0	07/29/13	VA13G29A	07/30/13	VA13G29A
60. m&p-Xylene (NN)	**1.5**		ppbv	0.76	1.0	07/29/13	VA13G29A	07/30/13	VA13G29A
61. o-Xylene (NN)	**0.71**		ppbv	0.38	1.0	07/29/13	VA13G29A	07/30/13	VA13G29A
62. Xylenes (NN)	**2.2**		ppbv	1.1	1.0	07/29/13	VA13G29A	07/30/13	VA13G29A

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:

J+ : The result is an estimated quantity, but the result may be biased high.
L+ : Recovery in the associated laboratory sample (LCS) exceeds the upper control limit. Results may be biased high.

ACCREDITED IN ACCORDANCE WITH nelac

Accreditation Number:

E-10395

GES

Fibertec environmental services

Analytical Laboratory
1914 Holloway Drive
Holt, MI 48842
Phone: 517 699 0345
Fax: 517 699 0388
email: lab@fibertec.us

8660 S. Mackinaw Trail
Cadillac, MI 49601
Phone: 231 775 8368
Fax: 231 775 8584

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 # 124241
PAGE ___ of ___

Client Name: NORSTAR
Contact Person: ANDY FOERG andy.foerg@ergrp.net
Project Name/ Number: BAKER COMMONS / 1125.001
QUOTE#
Purchase Order#

Lab Sample #	Date	Time	Client Sample #	Client Sample Descriptor	MATRIX (SEE RIGHT CORNER FOR CODE)	# OF CONTAINERS	PRESERVED (Y/N)	PARAMETERS: VOCs
	7/19/13	15:48		SB-5	X	1	N	✓
	7/19/13	15:57		SB-3	X	1	N	✓
	7/19/13	16:02		SB-2	X	1	N	✓

Turnaround:
- 24 hour RUSH (surcharge applies)
- 48 hour RUSH (surcharge applies)
- 72 hour RUSH (surcharge applies)
- Standard (5-7 bus. days)
- Other: Specify

Remarks: All times are end times

Matrix Code:
- S Soil
- A Air
- O Oil
- P Wipe
- GW Ground Water
- SW Surface Water
- WW Waste Water
- X Other: Specify soil gas

☐ FES Drilling Services

Deliverables:
- ☐ Level 2
- ☐ Level 3
- ☐ Level 4
- ☐ EDD

Comments:

Relinquished By: Laura Lambert LAURA LAMBERT	Date/ Time 7/19/13 16:07	Received By:
Relinquished By: Nate A. Shade	Date/ Time 7/22/13 2:20	Received By:
Relinquished By:	Date/ Time	Received By Laboratory:

LAB USE ONLY:
Fibertec project number:
Laboratory Tracking:
Temperature at Receipt: Room Temp.
Bottle Vacs

5705

COC Revision: February, 2013

TERMS & CONDITIONS ON BACK