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20 August 2003

Mr. James Innes
Michigan Department of Environmental Quality – RRD
P.O. Box 30242
Lansing, MI 48909

WESTON Work Order No.: 01138.079.010.0010

Re: Focused Investigation to Evaluate Extent of Vinyl Chloride in Groundwater
Linden Road Landfill Site (Parcel #3)
Flint Township, Michigan

Dear Mr. Innes:

Weston Solutions, Inc. (WESTON®), on behalf of General Motors (GM) has completed a focused environmental investigation at the Linden Road Landfill site (Parcel #3) located in Flint Township, Michigan. The focused investigation was performed to evaluate the potential extent of vinyl chloride in groundwater in the area of Monitoring Well MW-3S. This investigation was performed in accordance with a Plan and Scope of Work (dated 29 January 2003) submitted by WESTON to the Michigan Department of Environmental Quality (MDEQ).

The following letter report presents the results of the focused environmental investigation.

BACKGROUND INFORMATION

Ongoing environmental activities at the site consist of routine groundwater and methane gas monitoring performed as required by the April 1999 Operation and Maintenance (O&M) Plan. Sampling is conducted annually and results forwarded to the MDEQ in an annual groundwater sampling and methane monitoring report.

Vinyl Chloride was found to exceed its reference drinking water criteria in well MW-3S during the October 2002 sampling event, as well as previous events. MW3-S is located in the southeastern corner of the property in the vicinity of a former remediated oil disposal area. While groundwater is not used for potable purposes in this area, the detected concentration is above the MDEQ drinking water criteria of 0.002 mg/L for this compound. Vinyl chloride levels since October 2001 appear relatively stable and range between 0.013 and 0.024 mg/L, with the latest result (October 2002) being in the approximate middle of the range (0.019 mg/L).

The source of vinyl chloride is unknown but may be due to anaerobic biodegradation of trichloroethene (TCE). Based on the site investigations, there are two potential sources for the TCE in groundwater. TCE contamination was documented during the interim action removal of the former oil disposal area and it is possible that some residual low level TCE and/or its breakdown products are present in the vicinity of MW-3S within the perched shallow water-bearing zone. Other common TCE breakdown products have also been detected in MW-3S,





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including 1,1-dichloroethane, and cis- and trans-1,2-dichloroethene at a steady or slightly increasing levels.

Previous investigations indicate that a shallow water-bearing zone (water table conditions) exists at a depth of approximately 5 to 10 feet below ground surface (bgs). This zone that ranges from 0 to 11 feet in thickness, consists of mixtures of silt, sand, and gravel in layers of varying thickness within an overall silty clay matrix. Existing well MW-3S is installed as a shallow groundwater monitoring well screened from 2.5 to 10.5 feet bgs. According to the geologic logs for this location, the primary water producing zone for this well appears to be alternating silt, silty clay, and clayey silt found between approximately 2 and 6 feet bgs. Groundwater flow within the shallow water-bearing zone has been previously determined to be east-northeast over the majority of the site. However, in the vicinity of MW-3S, groundwater flow direction has a more southeasterly trend.

An 8 to 13 foot thick clay layer is present beneath the shallow water-bearing zone throughout the site and acts as a lower confining layer. Below the clay confining layer lies laminated glacial deposits consisting of low-permeability silty clay, and thin (0.5 to 2.5 foot) isolated lenses of saturated silt and sand. This lower water-bearing zone has been investigated previously and is not impacted by site contaminants due to the effectiveness of the confining layer.

FIELD INVESTIGATION

The field activities related to this field investigation were conducted on June 24, 2003. The objective of this investigation was to evaluate the extent of vinyl chloride in the shallow water-bearing zone in the vicinity and down gradient of MW-3S. A total of 12 shallow soil borings (GP-1 through GP-12) were advanced using a Geoprobe[®] system for the purpose of logging soil stratigraphy and collecting groundwater samples at each boring location. The borings locations were initially established using a 75-foot grid. However, minor adjustments were made to the proposed locations due to offsite property access restrictions. The locations of the borings are shown in Figure 1.

The borings were advanced to a maximum depth of 12 feet bgs. A qualified geologist utilizing the Unified Soil Classification System (USCS) logged each boring. Based on the field boring logs a screen point sampling device was pushed to the interval where groundwater was encountered. This device was used to collect a discrete groundwater sample at boring locations where groundwater was encountered (GP-1, GP-3, and G-9 through GP-12). Groundwater in borings GP-1, GP-3, and GP-11 was sampled in the 2 to 6 feet interval. Groundwater in borings GP-9, GP-10, and GP-12 was sampled between 4 and 10 feet bgs. All other boring locations did not encounter groundwater. This may be due to the clayey soil conditions in the shallow water-bearing zone. The boring logs are presented as Attachment A to this letter report. Merit Laboratories of East Lansing, Michigan, analyzed the samples for volatile organic compounds (VOCs). A WESTON chemist validated the analytical data in accordance with the United States Environmental Protection Agency (U.S. EPA) data validation procedures.



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Table 1 presents a summary of detected constituents and their respective concentrations for each sample collected during the focused environmental investigation. Table 1 also compares the concentrations of detected constituents in the groundwater samples to the MDEQ Generic Drinking Water Criteria for residential and industrial/commercial categories. A copy of the complete laboratory report, including QA/QC data and chain-of-custody documentation, is presented in Attachment B.

As shown in table 1, three VOCs were detected during the focused environmental investigation at six boring locations (GP-1, GP-3, and GP-9 through GP-12). Cis-1,2-dichloroethene was detected in borings GP-9 through GP-12 at concentrations ranging from 0.001 to 0.035 mg/L. Trichlorethene was detected in borings GP-9, GP-11, and GP-12 at concentrations ranging from 0.001 to 0.003 mg/L. Vinyl chloride was detected in borings GP-9 and GP-12 at concentrations of 0.001 and 0.003 mg/L, respectively. Only Vinyl chloride was detected at slightly above the MDEQ Generic Drinking Water Criteria of 0.002 mg/L in the groundwater at boring location GP-12.

Two borings (GP-9 and GP-12) indicated the presence of vinyl chloride in ground water. Therefore additional sampling east and north of these borings will be necessary to determine the extent of any potential presence of vinyl chloride in groundwater. However, groundwater samples at borings locations GP-1 and GP-3 did not detect any constituents. Therefore, it appears that no offsite contaminant migration has occurred southwards.

As a result of the vinyl chloride concentration above MDEQ Generic Drinking Water Criteria in the groundwater at boring location GP-12, additional sampling east, north and southeast of MW-3S will be recommended to fully define the extent of the vinyl chloride concentration in groundwater.

The above-referenced additional sampling will be conducted in conjunction with the annual Operation and Maintenance ground water sampling event tentatively scheduled to be conducted during the third week of October 2003. Weston will submit a plan to MDEQ prior to conducting the said additional sampling.

If you have any questions or require additional information, please call me at (847) 918-4018.

Very truly yours,

WESTON SOLUTIONS, INC.

S. Babusukumar, P.G.
Project Manager

Cc: R. Metcalf, GM

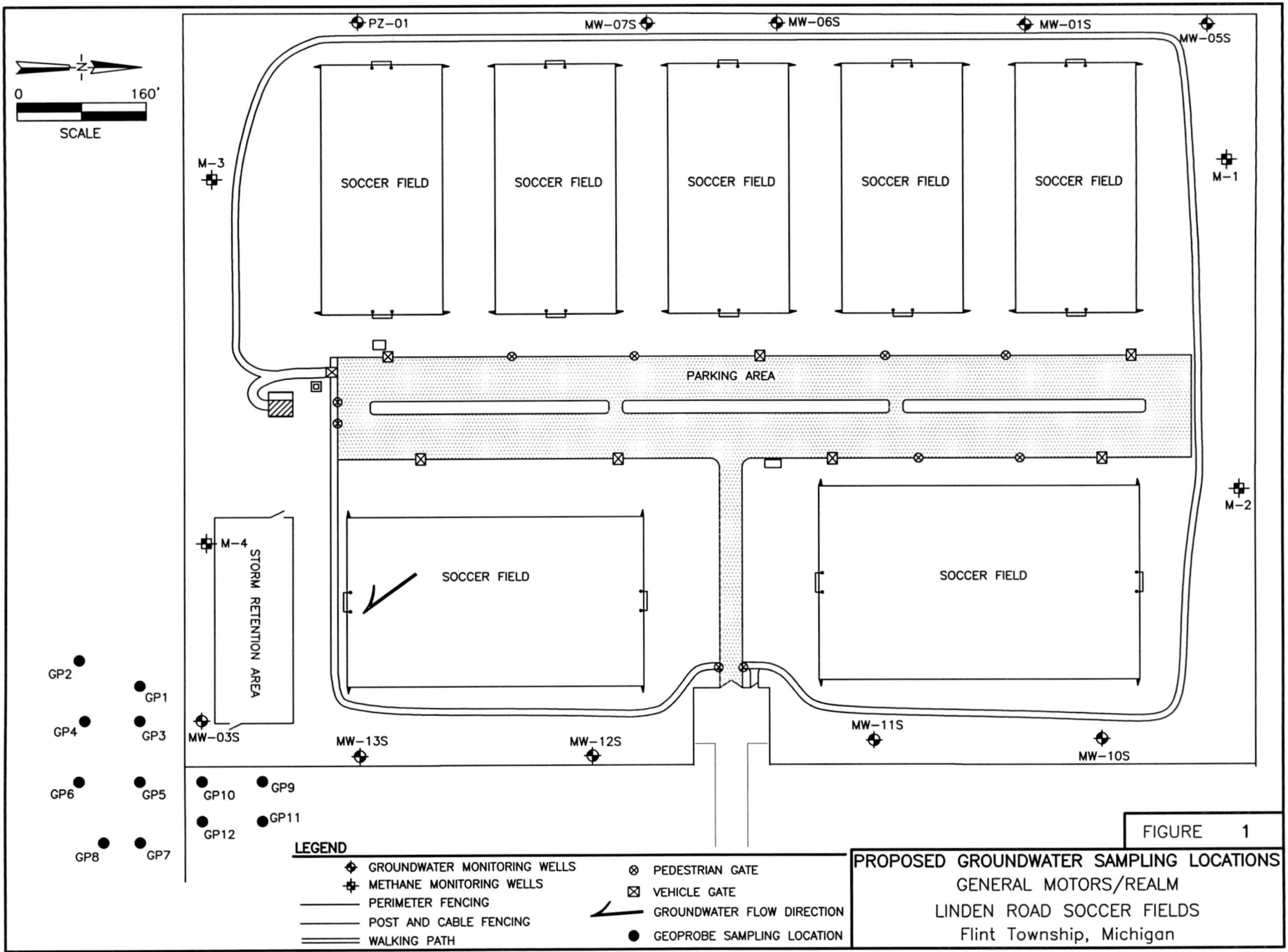


FIGURE 1

PROPOSED GROUNDWATER SAMPLING LOCATIONS
 GENERAL MOTORS/REALM
 LINDEN ROAD SOCCER FIELDS
 Flint Township, Michigan

- LEGEND**
- ◆ GROUNDWATER MONITORING WELLS
 - ⊕ METHANE MONITORING WELLS
 - PERIMETER FENCING
 - POST AND CABLE FENCING
 - WALKING PATH
 - ⊗ PEDESTRIAN GATE
 - ⊠ VEHICLE GATE
 - ↙ GROUNDWATER FLOW DIRECTION
 - GEOPROBE SAMPLING LOCATION

Table 1
Comparison of Detected Compounds to MDEQ Generic Drinking Water Criteria
Groundwater Sample Analytical Results
Focused Environmental Investigation (Well MW-3S)
Linden Road Site

Sample Location	GP-1	GP-1 DP	GP-3	GP-9	GP-10	GP-11	GP-12	MDEQ Generic Drinking Water Criteria	
								Residential	Industrial / Commercial
Sample Date									
VOCs (mg/L)									
Trichloroethene	--	--	--	0.001	--	0.002	0.001	0.005	0.005
cis-1,2-Dichloroethene	--	--	--	0.002	0.001	0.001	0.035	0.07	0.07
Vinyl chloride	--	--	--	0.001	--	--	0.003	0.002	0.002

Notes:

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Compound not detected above laboratory detection limits.



Shaded areas indicate concentrations exceeding MDEQ Genric Drinking Water Criteria.

APPENDIX A
BORING LOGS



LOG OF BORING GP 1

(Page 1 of 1)

General Motors
 GM-Linden Road Site
 Flint, Michigan
 W.O. # 01138.079.010.0010

Location: : Flint, MI
 Start Date: : 6/24/03
 End Date: : 6/24/03
 Drilling Method: : Geoprobe
 Subcontractor: : GeoServ

Driller: : D. Govan
 Geologist: : K. Lapham
 Checked by: :

Depth in Feet	Surf. Elev.	USCS	GRAPHIC	DESCRIPTION	Recovery (inches)	PID(ppm)	REMARKS
0							
1		TS				0.0	
2							
3		SP			48/60	0.0	Water sample GP1 0-6 collected @ 15:30
4						0.0	
5						0.0	
6							
7							
8		ML			57/60	0.0	
9							
10							
11					24/24	0.0	
12							
13							



LOG OF BORING GP 2

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General Motors
GM-Linden Road Site
Flint, Michigan
W.O. # 01138.079.010.0010

Location: : Flint, MI
Start Date: : 6/24/03
End Date: : 6/24/03
Drilling Method: : Geoprobe
Subcontractor: : GeoServ

Driller: : D. Govan
Geologist: : K. Lapham
Checked by: :

Depth in Feet	Surf. Elev.	USCS	GRAPHIC	DESCRIPTION	Recovery (inches)	PID(ppm)	REMARKS
0		TS					
1		SP			55/60	0.0	
2						0.0	
3						0.0	
4						0.0	
5						0.0	
6						0.0	
7						0.0	
8		ML			60/60	0.0	
9						0.0	
10						0.0	
11					24/24	0.0	No water sample collected. No water in hole to 12' bgs. Soils are dry, fine grained, and tight formations.
12							
13							



LOG OF BORING GP 4

(Page 1 of 1)

General Motors
GM-Linden Road Site
Flint, Michigan
W.O. # 01138.079.010.0010

Location: : Flint, MI
Start Date: : 6/24/03
End Date: : 6/24/03
Drilling Method: : Geoprobe
Subcontractor: : GeoServ

Driller: : D. Govan
Geologist: : K. Lapham
Checked by: :

Depth in Feet	Surf. Elev.	USCS	GRAPHIC	DESCRIPTION	Recovery (inches)	PID(ppm)	REMARKS
0							
1		TS				0.0	
2					48/60	0.0	Refusal at first attempt, move 2 feet north.
3						0.0	
4		SP				0.0	
5						0.0	
6						0.0	
7					24/60	0.0	Poor recovery due to cobble.
8						0.0	
9						0.0	
10		ML				0.0	
11					24/24	0.0	No water sample collected. No water in hole to 12' bgs. Borehole left open for 2 hours to allow recharge. Soils are dry, fine grained, and tight formations.
12							
13							



LOG OF BORING GP 5

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General Motors
GM-Linden Road Site
Flint, Michigan
W.O. # 01138.079.010.0010

Location: : Flint, MI
Start Date: : 6/24/03
End Date: : 6/24/03
Drilling Method: : Geoprobe
Subcontractor: : GeoServ

Driller: : D. Govan
Geologist: : K. Lapham
Checked by: :

Depth in Feet	Surf. Elev.	USCS	GRAPHIC	DESCRIPTION	Recovery (inches)	PID(ppm)	REMARKS
0							
1		TS				0.0	
2							
3		SP			54/60	0.0	
4							
5		CL				0.0	
6							
7							
8		ML			60/60	0.0	
9							
10							
11							
12		SP					
12		ML					
13							Less than 0.1 gallons produced during first sampling attempt. Borehole left open for 3 hours to allow recharge, no water in hole. No water sample collected.



LOG OF BORING GP 6

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General Motors
GM-Linden Road Site
Flint, Michigan
W.O. # 01138.079.010.0010

Location: : Flint, MI
Start Date: : 6/24/03
End Date: : 6/24/03
Drilling Method: : Geoprobe
Subcontractor: : GeoServ

Driller: : D. Govan
Geologist: : K. Lapham
Checked by: :

Depth in Feet	Surf. Elev.	USCS	GRAPHIC	DESCRIPTION	Recovery (inches)	PID(ppm)	REMARKS
0							
1		TS				0.0	
2							
3		SP			53/60	0.0	
4						0.0	
5						0.0	
6							
7							
8					60/60	0.0	
9		ML				0.0	
10						0.0	
11					24/24	0.0	No water sample collected. No water in hole to 12' bgs. Borehole left open for 4 hours to allow recharge. Soils are dry, fine grained, and tight formations.
12							
13							



LOG OF BORING GP 7

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General Motors
 GM-Linden Road Site
 Flint, Michigan
 W.O. # 01138.079.010.0010

Location: : Flint, MI
 Start Date: : 6/24/03
 End Date: : 6/24/03
 Drilling Method: : Geoprobe
 Subcontractor: : GeoServ

Driller: : D. Govan
 Geologist: : K. Lapham
 Checked by: :

Depth in Feet	Surf. Elev.	USCS	GRAPHIC	DESCRIPTION	Recovery (inches)	PID(ppm)	REMARKS
0							
1		TS				0.0	
2					55/60	0.0	
3						0.0	
4						0.0	
5						0.0	
6						0.0	
7		ML			60/60	0.0	
8						0.0	
9						0.0	
10						0.0	
11					24/24	0.0	No water sample collected. No water in hole to 12' bgs. Soils are dry, fine grained, and tight formations.
12		SP					
13							



LOG OF BORING GP 8

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General Motors
GM-Linden Road Site
Flint, Michigan
W.O. # 01138.079.010.0010

Location: : Flint, MI
Start Date: : 6/24/03
End Date: : 6/24/03
Drilling Method: : Geoprobe
Subcontractor: : GeoServ

Driller: : D. Govan
Geologist: : K. Lapham
Checked by: :

Depth in Feet	Surf. Elev.	USCS	GRAPHIC	DESCRIPTION	Recovery (inches)	PID(ppm)	REMARKS
0							
1		TS				0.0	
2					50/60	0.0	
3						0.0	
4						0.0	
5						0.0	
6		ML				0.0	
7						0.0	
8					25/60	0.0	Poor recovery due to cobble.
9						0.0	
10						0.0	No water sample collected. No water in hole to 10' bgs. Soils are dry, fine grained, and tight formations.
11							



LOG OF BORING GP 9

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General Motors
GM-Linden Road Site
Flint, Michigan
W.O. # 01138.079.010.0010

Location: : Flint, MI
Start Date: : 6/24/03
End Date: : 6/24/03
Drilling Method: : Geoprobe
Subcontractor: : GeoServ

Driller: : D. Govan
Geologist: : K. Lapham
Checked by: :

Depth in Feet	Surf. Elev.	USCS	GRAPHIC	DESCRIPTION	Recovery (inches)	PID(ppm)	REMARKS	
0		TS						
1		SP			47/60	0.0		
2							0.0	
3							0.0	
4							0.0	
5							0.0	
6							0.0	
7							0.0	
8							0.0	
9							0.0	
10							0.0	
11							24/24	0.0
12								
13								



LOG OF BORING GP 10

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General Motors
GM-Linden Road Site
Flint, Michigan
W.O. # 01138.079.010.0010

Location: : Flint, MI
Start Date: : 6/24/03
End Date: : 6/24/03
Drilling Method: : Geoprobe
Subcontractor: : GeoServ

Driller: : D. Govan
Geologist: : K. Lapham
Checked by: :

Depth in Feet	Surf. Elev.	USCS	GRAPHIC	DESCRIPTION	Recovery (inches)	PID(ppm)	REMARKS
0		TS					
1					40/60	0.0	
2						0.0	
3						0.0	
4						0.0	
5						0.0	
6		SP				0.0	
7					42/60	0.0	
8						0.0	
9						0.0	
10						0.0	
11					24/24	0.0	
12		ML					
13							

Water sample GP10 6-10 collected @ 13:30



LOG OF BORING GP 11

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General Motors
GM-Linden Road Site
Flint, Michigan
W.O. # 01138.079.010.0010

Location: : Flint, MI
Start Date: : 6/24/03
End Date: : 6/24/03
Drilling Method: : Geoprobe
Subcontractor: : GeoServ

Driller: : D. Govan
Geologist: : K. Lapham
Checked by: :

Depth in Feet	Surf. Elev.	USCS	GRAPHIC	DESCRIPTION	Recovery (inches)	PID(ppm)	REMARKS
0							
1		PT				0.0	
2					46/60	0.0	
3						0.0	Water sample GP11 0-6 collected @ 14:15
4						0.0	
5		SP				0.0	
6						0.0	
7						0.0	
8					43/60	0.0	
9						0.0	
10						0.0	
11		ML			24/24	0.0	
12							
13							



LOG OF BORING GP 12

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General Motors
GM-Linden Road Site
Flint, Michigan
W.O. # 01138.079.010.0010

Location: : Flint, MI
Start Date: : 6/24/03
End Date: : 6/24/03
Drilling Method: : Geoprobe
Subcontractor: : GeoServ

Driller: : D. Govan
Geologist: : K. Lapham
Checked by: :

Depth in Feet	Surf. Elev.	USCS	GRAPHIC	DESCRIPTION	Recovery (inches)	PID(ppm)	REMARKS
0							
1		SP				0.0	
2		TS			55/60	0.0	
3						0.0	
4		CL				0.0	
5		SP				0.0	
6						0.0	
7					60/60	0.0	Water sample GP10 4-9 collected @ 14:55
8						0.0	
9		ML				0.0	
10						0.0	
11					24/24	0.0	
12							
13							

APPENDIX B
ANALYTICAL RESULTS



Analytical Laboratory Report

Report ID: S13432.01(01)
Generated on 07/02/2003

Report to

Attention: Mr. Kurt Fischer
Weston Solutions, Inc.
750 East Bunker Court Ste 500
Vernon Hills, IL 60061

Phone: 847-918-4000 FAX: 847-918-4055

Report produced by

Merit Laboratories
2680 East Lansing Drive
East Lansing, MI 48823

Phone: (517) 332-0167 FAX: (517) 332-6333

Report Summary

Lab Sample ID(s): S13432.01-S13432.08
Project: Linden Rd. Flint, MI
Submitted Date/Time: 06/25/2003 08:00
Sampled by: KL
P.O. #:

Report Notes

Methods may be modified for improved performance.
Results reported on a dry weight basis where applicable.
Results relate only to items tested.
Report shall not be reproduced except in full, without the written approval of Merit Laboratories.

Violetta F. Murshak
Laboratory Director



Analytical Laboratory Report

Lab Sample ID: S13432.01
 Sample Tag: GP1 0-6
 Collected Date/Time: 06/24/2003 15:30
 Matrix: Groundwater
 COC Reference: 016195

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
2	40 ml Glass	HCL	Yes	4	2953

Analysis	Results	Units	RDL	Method	Date Run	Analyst	CAS #	Flags
Organics								
Volatile Organics								
Benzene	Not detected	ug/L	1	8260B	07/01/03	JGH	71-43-2	
Bromodichloromethane	Not detected	ug/L	1	8260B	07/01/03	JGH	75-27-4	
Bromoform	Not detected	ug/L	1	8260B	07/01/03	JGH	75-25-2	
Bromomethane	Not detected	ug/L	5	8260B	07/01/03	JGH	74-83-9	
n-Butylbenzene	Not detected	ug/L	1	8260B	07/01/03	JGH	104-51-8	
sec-Butylbenzene	Not detected	ug/L	1	8260B	07/01/03	JGH	135-98-8	
tert-Butylbenzene	Not detected	ug/L	1	8260B	07/01/03	JGH	98-06-6	
Carbon tetrachloride	Not detected	ug/L	1	8260B	07/01/03	JGH	56-23-5	
Chlorobenzene	Not detected	ug/L	1	8260B	07/01/03	JGH	108-90-7	
Chloroethane	Not detected	ug/L	1	8260B	07/01/03	JGH	75-00-3	
Chloroform	Not detected	ug/L	1	8260B	07/01/03	JGH	67-66-3	
Chloromethane	Not detected	ug/L	1	8260B	07/01/03	JGH	74-87-3	
Dibromochloromethane	Not detected	ug/L	1	8260B	07/01/03	JGH	124-48-1	
1,2-Dichlorobenzene	Not detected	ug/L	1	8260B	07/01/03	JGH	95-50-1	
1,3-Dichlorobenzene	Not detected	ug/L	1	8260B	07/01/03	JGH	541-73-1	
1,4-Dichlorobenzene	Not detected	ug/L	1	8260B	07/01/03	JGH	106-46-7	
1,1-Dichloroethane	Not detected	ug/L	1	8260B	07/01/03	JGH	75-34-3	
1,2-Dichloroethane	Not detected	ug/L	1	8260B	07/01/03	JGH	107-06-2	
1,1-Dichloroethene	Not detected	ug/L	1	8260B	07/01/03	JGH	75-35-4	
cis-1,2-Dichloroethene	Not detected	ug/L	1	8260B	07/01/03	JGH	156-59-2	
trans-1,2-Dichloroethene	Not detected	ug/L	1	8260B	07/01/03	JGH	156-60-5	
1,2-Dichloropropane	Not detected	ug/L	1	8260B	07/01/03	JGH	78-87-5	
cis-1,3-Dichloropropene	Not detected	ug/L	1	8260B	07/01/03	JGH	10061-01-5	
trans-1,3-Dichloropropene	Not detected	ug/L	1	8260B	07/01/03	JGH	10061-02-6	
Ethylbenzene	Not detected	ug/L	1	8260B	07/01/03	JGH	100-41-4	
Isopropylbenzene	Not detected	ug/L	1	8260B	07/01/03	JGH	98-82-8	
p-Isopropyltoluene	Not detected	ug/L	1	8260B	07/01/03	JGH	99-87-6	
Methylene chloride	Not detected	ug/L	5	8260B	07/01/03	JGH	75-09-2	
Naphthalene	Not detected	ug/L	1	8260B	07/01/03	JGH	91-20-3	
n-Propylbenzene	Not detected	ug/L	1	8260B	07/01/03	JGH	103-65-1	
Styrene	Not detected	ug/L	1	8260B	07/01/03	JGH	100-42-5	
1,1,1,2,2-Tetrachloroethane	Not detected	ug/L	1	8260B	07/01/03	JGH	79-34-5	
Tetrachloroethene	Not detected	ug/L	1	8260B	07/01/03	JGH	127-18-4	
Toluene	Not detected	ug/L	1	8260B	07/01/03	JGH	108-88-3	
1,1,1-Trichloroethane	Not detected	ug/L	1	8260B	07/01/03	JGH	71-55-6	
1,1,2-Trichloroethane	Not detected	ug/L	1	8260B	07/01/03	JGH	79-00-5	
Trichloroethene	Not detected	ug/L	1	8260B	07/01/03	JGH	79-01-6	
1,2,4-Trimethylbenzene	Not detected	ug/L	1	8260B	07/01/03	JGH	95-63-6	
1,3,5-Trimethylbenzene	Not detected	ug/L	1	8260B	07/01/03	JGH	108-67-8	
Vinyl chloride	Not detected	ug/L	1	8260B	07/01/03	JGH	75-01-4	
o-Xylene	Not detected	ug/L	1	8260B	07/01/03	JGH	95-47-6	
p,m-Xylene	Not detected	ug/L	1	8260B	07/01/03	JGH	106-42-3	



Analytical Laboratory Report

Lab Sample ID: S13432.01 (continued)

Sample Tag: GP1 0-6

Analysis	Results	Units	RDL	Method	Date Run	Analyst	CAS #	Flags
Organics (continued)								
Volatile Organics (continued)								
Acetone	Not detected	ug/L	50	8260B	07/01/03	JGH	67-64-1	
2-Butanone (MEK)	Not detected	ug/L	50	8260B	07/01/03	JGH	78-93-3	
Carbon disulfide	Not detected	ug/L	50	8260B	07/01/03	JGH	75-15-0	
2-Hexanone	Not detected	ug/L	50	8260B	07/01/03	JGH	591-78-6	
4-Methyl-2-pentanone (MIBK)	Not detected	ug/L	50	8260B	07/01/03	JGH	108-10-1	
Methyl tert-butyl ether (MTBE)	Not detected	ug/L	10	8260B	07/01/03	JGH	1634-04-4	



Analytical Laboratory Report

Lab Sample ID: S13432.02
 Sample Tag: GP1 0-6 Dup
 Collected Date/Time: 06/24/2003 15:30
 Matrix: Groundwater
 COC Reference: 016195

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
2	40 ml Glass	HCL	Yes	4	2953

Analysis	Results	Units	RDL	Method	Date Run	Analyst	CAS #	Flags
Organics								
Volatile Organics								
Benzene	Not detected	ug/L	1	8260B	07/01/03	JGH	71-43-2	
Bromodichloromethane	Not detected	ug/L	1	8260B	07/01/03	JGH	75-27-4	
Bromoform	Not detected	ug/L	1	8260B	07/01/03	JGH	75-25-2	
Bromomethane	Not detected	ug/L	5	8260B	07/01/03	JGH	74-83-9	
n-Butylbenzene	Not detected	ug/L	1	8260B	07/01/03	JGH	104-51-8	
sec-Butylbenzene	Not detected	ug/L	1	8260B	07/01/03	JGH	135-98-8	
tert-Butylbenzene	Not detected	ug/L	1	8260B	07/01/03	JGH	98-06-6	
Carbon tetrachloride	Not detected	ug/L	1	8260B	07/01/03	JGH	56-23-5	
Chlorobenzene	Not detected	ug/L	1	8260B	07/01/03	JGH	108-90-7	
Chloroethane	Not detected	ug/L	1	8260B	07/01/03	JGH	75-00-3	
Chloroform	Not detected	ug/L	1	8260B	07/01/03	JGH	67-66-3	
Chloromethane	Not detected	ug/L	1	8260B	07/01/03	JGH	74-87-3	
Dibromochloromethane	Not detected	ug/L	1	8260B	07/01/03	JGH	124-48-1	
1,2-Dichlorobenzene	Not detected	ug/L	1	8260B	07/01/03	JGH	95-50-1	
1,3-Dichlorobenzene	Not detected	ug/L	1	8260B	07/01/03	JGH	541-73-1	
1,4-Dichlorobenzene	Not detected	ug/L	1	8260B	07/01/03	JGH	106-46-7	
1,1-Dichloroethane	Not detected	ug/L	1	8260B	07/01/03	JGH	75-34-3	
1,2-Dichloroethane	Not detected	ug/L	1	8260B	07/01/03	JGH	107-06-2	
1,1-Dichloroethene	Not detected	ug/L	1	8260B	07/01/03	JGH	75-35-4	
cis-1,2-Dichloroethene	Not detected	ug/L	1	8260B	07/01/03	JGH	156-59-2	
trans-1,2-Dichloroethene	Not detected	ug/L	1	8260B	07/01/03	JGH	156-60-5	
1,2-Dichloropropane	Not detected	ug/L	1	8260B	07/01/03	JGH	78-87-5	
cis-1,3-Dichloropropene	Not detected	ug/L	1	8260B	07/01/03	JGH	10061-01-5	
trans-1,3-Dichloropropene	Not detected	ug/L	1	8260B	07/01/03	JGH	10061-02-6	
Ethylbenzene	Not detected	ug/L	1	8260B	07/01/03	JGH	100-41-4	
Isopropylbenzene	Not detected	ug/L	1	8260B	07/01/03	JGH	98-82-8	
p-Isopropyltoluene	Not detected	ug/L	1	8260B	07/01/03	JGH	99-87-6	
Methylene chloride	Not detected	ug/L	5	8260B	07/01/03	JGH	75-09-2	
Naphthalene	Not detected	ug/L	1	8260B	07/01/03	JGH	91-20-3	
n-Propylbenzene	Not detected	ug/L	1	8260B	07/01/03	JGH	103-65-1	
Styrene	Not detected	ug/L	1	8260B	07/01/03	JGH	100-42-5	
1,1,2,2-Tetrachloroethane	Not detected	ug/L	1	8260B	07/01/03	JGH	79-34-5	
Tetrachloroethene	Not detected	ug/L	1	8260B	07/01/03	JGH	127-18-4	
Toluene	Not detected	ug/L	1	8260B	07/01/03	JGH	108-88-3	
1,1,1-Trichloroethane	Not detected	ug/L	1	8260B	07/01/03	JGH	71-55-6	
1,1,2-Trichloroethane	Not detected	ug/L	1	8260B	07/01/03	JGH	79-00-5	
Trichloroethene	Not detected	ug/L	1	8260B	07/01/03	JGH	79-01-6	
1,2,4-Trimethylbenzene	Not detected	ug/L	1	8260B	07/01/03	JGH	95-63-6	
1,3,5-Trimethylbenzene	Not detected	ug/L	1	8260B	07/01/03	JGH	108-67-8	
Vinyl chloride	Not detected	ug/L	1	8260B	07/01/03	JGH	75-01-4	
o-Xylene	Not detected	ug/L	1	8260B	07/01/03	JGH	95-47-6	
p,m-Xylene	Not detected	ug/L	1	8260B	07/01/03	JGH	106-42-3	



Analytical Laboratory Report

Lab Sample ID: S13432.02 (continued)

Sample Tag: GP1 0-6 Dup

Analysis	Results	Units	RDL	Method	Date Run	Analyst	CAS #	Flags
Organics (continued)								
Volatile Organics (continued)								
Acetone	Not detected	ug/L	50	8260B	07/01/03	JGH	67-64-1	
2-Butanone (MEK)	Not detected	ug/L	50	8260B	07/01/03	JGH	78-93-3	
Carbon disulfide	Not detected	ug/L	50	8260B	07/01/03	JGH	75-15-0	
2-Hexanone	Not detected	ug/L	50	8260B	07/01/03	JGH	591-78-6	
4-Methyl-2-pentanone (MIBK)	Not detected	ug/L	50	8260B	07/01/03	JGH	108-10-1	
Methyl tert-butyl ether (MTBE)	Not detected	ug/L	10	8260B	07/01/03	JGH	1634-04-4	



Analytical Laboratory Report

Lab Sample ID: S13432.03
 Sample Tag: GP11 0-6
 Collected Date/Time: 06/24/2003 14:15
 Matrix: Groundwater
 COC Reference: 016195

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
2	40 ml Glass	HCL	Yes	4	2953

Analysis	Results	Units	RDL	Method	Date Run	Analyst	CAS #	Flags
Organics								
Volatile Organics								
Benzene	Not detected	ug/L	1	8260B	07/01/03	JGH	71-43-2	
Bromodichloromethane	Not detected	ug/L	1	8260B	07/01/03	JGH	75-27-4	
Bromoform	Not detected	ug/L	1	8260B	07/01/03	JGH	75-25-2	
Bromomethane	Not detected	ug/L	5	8260B	07/01/03	JGH	74-83-9	
n-Butylbenzene	Not detected	ug/L	1	8260B	07/01/03	JGH	104-51-8	
sec-Butylbenzene	Not detected	ug/L	1	8260B	07/01/03	JGH	135-98-8	
tert-Butylbenzene	Not detected	ug/L	1	8260B	07/01/03	JGH	98-06-6	
Carbon tetrachloride	Not detected	ug/L	1	8260B	07/01/03	JGH	56-23-5	
Chlorobenzene	Not detected	ug/L	1	8260B	07/01/03	JGH	108-90-7	
Chloroethane	Not detected	ug/L	1	8260B	07/01/03	JGH	75-00-3	
Chloroform	Not detected	ug/L	1	8260B	07/01/03	JGH	67-66-3	
Chloromethane	Not detected	ug/L	1	8260B	07/01/03	JGH	74-87-3	
Dibromochloromethane	Not detected	ug/L	1	8260B	07/01/03	JGH	124-48-1	
1,2-Dichlorobenzene	Not detected	ug/L	1	8260B	07/01/03	JGH	95-50-1	
1,3-Dichlorobenzene	Not detected	ug/L	1	8260B	07/01/03	JGH	541-73-1	
1,4-Dichlorobenzene	Not detected	ug/L	1	8260B	07/01/03	JGH	106-46-7	
1,1-Dichloroethane	Not detected	ug/L	1	8260B	07/01/03	JGH	75-34-3	
1,2-Dichloroethane	Not detected	ug/L	1	8260B	07/01/03	JGH	107-06-2	
1,1-Dichloroethene	Not detected	ug/L	1	8260B	07/01/03	JGH	75-35-4	
cis-1,2-Dichloroethene	1	ug/L	1	8260B	07/01/03	JGH	156-59-2	
trans-1,2-Dichloroethene	Not detected	ug/L	1	8260B	07/01/03	JGH	156-60-5	
1,2-Dichloropropane	Not detected	ug/L	1	8260B	07/01/03	JGH	78-87-5	
cis-1,3-Dichloropropene	Not detected	ug/L	1	8260B	07/01/03	JGH	10061-01-5	
trans-1,3-Dichloropropene	Not detected	ug/L	1	8260B	07/01/03	JGH	10061-02-6	
Ethylbenzene	Not detected	ug/L	1	8260B	07/01/03	JGH	100-41-4	
Isopropylbenzene	Not detected	ug/L	1	8260B	07/01/03	JGH	98-82-8	
p-Isopropyltoluene	Not detected	ug/L	1	8260B	07/01/03	JGH	99-87-6	
Methylene chloride	Not detected	ug/L	5	8260B	07/01/03	JGH	75-09-2	
Naphthalene	Not detected	ug/L	1	8260B	07/01/03	JGH	91-20-3	
n-Propylbenzene	Not detected	ug/L	1	8260B	07/01/03	JGH	103-65-1	
Styrene	Not detected	ug/L	1	8260B	07/01/03	JGH	100-42-5	
1,1,2,2-Tetrachloroethane	Not detected	ug/L	1	8260B	07/01/03	JGH	79-34-5	
Tetrachloroethene	Not detected	ug/L	1	8260B	07/01/03	JGH	127-18-4	
Toluene	Not detected	ug/L	1	8260B	07/01/03	JGH	108-88-3	
1,1,1-Trichloroethane	Not detected	ug/L	1	8260B	07/01/03	JGH	71-55-6	
1,1,2-Trichloroethane	Not detected	ug/L	1	8260B	07/01/03	JGH	79-00-5	
Trichloroethene	2	ug/L	1	8260B	07/01/03	JGH	79-01-6	
1,2,4-Trimethylbenzene	Not detected	ug/L	1	8260B	07/01/03	JGH	95-63-6	
1,3,5-Trimethylbenzene	Not detected	ug/L	1	8260B	07/01/03	JGH	108-67-8	
Vinyl chloride	Not detected	ug/L	1	8260B	07/01/03	JGH	75-01-4	
o-Xylene	Not detected	ug/L	1	8260B	07/01/03	JGH	95-47-6	
p,m-Xylene	Not detected	ug/L	1	8260B	07/01/03	JGH	106-42-3	



Analytical Laboratory Report

Lab Sample ID: S13432.03 (continued)

Sample Tag: GP11 0-6

Analysis	Results	Units	RDL	Method	Date Run	Analyst	CAS #	Flags
Organics (continued)								
Volatile Organics (continued)								
Acetone	Not detected	ug/L	50	8260B	07/01/03	JGH	67-64-1	
2-Butanone (MEK)	Not detected	ug/L	50	8260B	07/01/03	JGH	78-93-3	
Carbon disulfide	Not detected	ug/L	50	8260B	07/01/03	JGH	75-15-0	
2-Hexanone	Not detected	ug/L	50	8260B	07/01/03	JGH	591-78-6	
4-Methyl-2-pentanone (MIBK)	Not detected	ug/L	50	8260B	07/01/03	JGH	108-10-1	
Methyl tert-butyl ether (MTBE)	Not detected	ug/L	10	8260B	07/01/03	JGH	1634-04-4	



Analytical Laboratory Report

Lab Sample ID: S13432.04
 Sample Tag: GP3 0-6
 Collected Date/Time: 06/24/2003 15:15
 Matrix: Groundwater
 COC Reference: 016195

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
2	40 ml Glass	HCL	Yes	4	2953

Analysis	Results	Units	RDL	Method	Date Run	Analyst	CAS #	Flags
Organics								
Volatile Organics								
Benzene	Not detected	ug/L	1	8260B	07/01/03	JGH	71-43-2	
Bromodichloromethane	Not detected	ug/L	1	8260B	07/01/03	JGH	75-27-4	
Bromoform	Not detected	ug/L	1	8260B	07/01/03	JGH	75-25-2	
Bromomethane	Not detected	ug/L	5	8260B	07/01/03	JGH	74-83-9	
n-Butylbenzene	Not detected	ug/L	1	8260B	07/01/03	JGH	104-51-8	
sec-Butylbenzene	Not detected	ug/L	1	8260B	07/01/03	JGH	135-98-8	
tert-Butylbenzene	Not detected	ug/L	1	8260B	07/01/03	JGH	98-06-6	
Carbon tetrachloride	Not detected	ug/L	1	8260B	07/01/03	JGH	56-23-5	
Chlorobenzene	Not detected	ug/L	1	8260B	07/01/03	JGH	108-90-7	
Chloroethane	Not detected	ug/L	1	8260B	07/01/03	JGH	75-00-3	
Chloroform	Not detected	ug/L	1	8260B	07/01/03	JGH	67-66-3	
Chloromethane	Not detected	ug/L	1	8260B	07/01/03	JGH	74-87-3	
Dibromochloromethane	Not detected	ug/L	1	8260B	07/01/03	JGH	124-48-1	
1,2-Dichlorobenzene	Not detected	ug/L	1	8260B	07/01/03	JGH	95-50-1	
1,3-Dichlorobenzene	Not detected	ug/L	1	8260B	07/01/03	JGH	541-73-1	
1,4-Dichlorobenzene	Not detected	ug/L	1	8260B	07/01/03	JGH	106-46-7	
1,1-Dichloroethane	Not detected	ug/L	1	8260B	07/01/03	JGH	75-34-3	
1,2-Dichloroethane	Not detected	ug/L	1	8260B	07/01/03	JGH	107-06-2	
1,1-Dichloroethene	Not detected	ug/L	1	8260B	07/01/03	JGH	75-35-4	
cis-1,2-Dichloroethene	Not detected	ug/L	1	8260B	07/01/03	JGH	156-59-2	
trans-1,2-Dichloroethene	Not detected	ug/L	1	8260B	07/01/03	JGH	156-60-5	
1,2-Dichloropropane	Not detected	ug/L	1	8260B	07/01/03	JGH	78-87-5	
cis-1,3-Dichloropropene	Not detected	ug/L	1	8260B	07/01/03	JGH	10061-01-5	
trans-1,3-Dichloropropene	Not detected	ug/L	1	8260B	07/01/03	JGH	10061-02-6	
Ethylbenzene	Not detected	ug/L	1	8260B	07/01/03	JGH	100-41-4	
Isopropylbenzene	Not detected	ug/L	1	8260B	07/01/03	JGH	98-82-8	
p-Isopropyltoluene	Not detected	ug/L	1	8260B	07/01/03	JGH	99-87-6	
Methylene chloride	Not detected	ug/L	5	8260B	07/01/03	JGH	75-09-2	
Naphthalene	Not detected	ug/L	1	8260B	07/01/03	JGH	91-20-3	
n-Propylbenzene	Not detected	ug/L	1	8260B	07/01/03	JGH	103-65-1	
Styrene	Not detected	ug/L	1	8260B	07/01/03	JGH	100-42-5	
1,1,2,2-Tetrachloroethane	Not detected	ug/L	1	8260B	07/01/03	JGH	79-34-5	
Tetrachloroethene	Not detected	ug/L	1	8260B	07/01/03	JGH	127-18-4	
Toluene	Not detected	ug/L	1	8260B	07/01/03	JGH	108-88-3	
1,1,1-Trichloroethane	Not detected	ug/L	1	8260B	07/01/03	JGH	71-55-6	
1,1,2-Trichloroethane	Not detected	ug/L	1	8260B	07/01/03	JGH	79-00-5	
Trichloroethene	Not detected	ug/L	1	8260B	07/01/03	JGH	79-01-6	
1,2,4-Trimethylbenzene	Not detected	ug/L	1	8260B	07/01/03	JGH	95-63-6	
1,3,5-Trimethylbenzene	Not detected	ug/L	1	8260B	07/01/03	JGH	108-67-8	
Vinyl chloride	Not detected	ug/L	1	8260B	07/01/03	JGH	75-01-4	
o-Xylene	Not detected	ug/L	1	8260B	07/01/03	JGH	95-47-6	
p,m-Xylene	Not detected	ug/L	1	8260B	07/01/03	JGH	106-42-3	



Analytical Laboratory Report

Lab Sample ID: S13432.04 (continued)

Sample Tag: GP3 0-6

Analysis	Results	Units	RDL	Method	Date Run	Analyst	CAS #	Flags
Organics (continued)								
Volatile Organics (continued)								
Acetone	Not detected	ug/L	50	8260B	07/01/03	JGH	67-64-1	
2-Butanone (MEK)	Not detected	ug/L	50	8260B	07/01/03	JGH	78-93-3	
Carbon disulfide	Not detected	ug/L	50	8260B	07/01/03	JGH	75-15-0	
2-Hexanone	Not detected	ug/L	50	8260B	07/01/03	JGH	591-78-6	
4-Methyl-2-pentanone (MIBK)	Not detected	ug/L	50	8260B	07/01/03	JGH	108-10-1	
Methyl tert-butyl ether (MTBE)	Not detected	ug/L	10	8260B	07/01/03	JGH	1634-04-4	



Analytical Laboratory Report

Lab Sample ID: S13432.05
 Sample Tag: GP12 5-9
 Collected Date/Time: 06/24/2003 14:55
 Matrix: Groundwater
 COC Reference: 016195

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
2	40 ml Glass	HCL	Yes	4	2953

Analysis	Results	Units	RDL	Method	Date Run	Analyst	CAS #	Flags
Organics								
Volatile Organics								
Benzene	Not detected	ug/L	1	8260B	07/02/03	JGH	71-43-2	
Bromodichloromethane	Not detected	ug/L	1	8260B	07/02/03	JGH	75-27-4	
Bromoform	Not detected	ug/L	1	8260B	07/02/03	JGH	75-25-2	
Bromomethane	Not detected	ug/L	5	8260B	07/02/03	JGH	74-83-9	
n-Butylbenzene	Not detected	ug/L	1	8260B	07/02/03	JGH	104-51-8	
sec-Butylbenzene	Not detected	ug/L	1	8260B	07/02/03	JGH	135-98-8	
tert-Butylbenzene	Not detected	ug/L	1	8260B	07/02/03	JGH	98-06-6	
Carbon tetrachloride	Not detected	ug/L	1	8260B	07/02/03	JGH	56-23-5	
Chlorobenzene	Not detected	ug/L	1	8260B	07/02/03	JGH	108-90-7	
Chloroethane	Not detected	ug/L	1	8260B	07/02/03	JGH	75-00-3	
Chloroform	Not detected	ug/L	1	8260B	07/02/03	JGH	67-66-3	
Chloromethane	Not detected	ug/L	1	8260B	07/02/03	JGH	74-87-3	
Dibromochloromethane	Not detected	ug/L	1	8260B	07/02/03	JGH	124-48-1	
1,2-Dichlorobenzene	Not detected	ug/L	1	8260B	07/02/03	JGH	95-50-1	
1,3-Dichlorobenzene	Not detected	ug/L	1	8260B	07/02/03	JGH	541-73-1	
1,4-Dichlorobenzene	Not detected	ug/L	1	8260B	07/02/03	JGH	106-46-7	
1,1-Dichloroethane	Not detected	ug/L	1	8260B	07/02/03	JGH	75-34-3	
1,2-Dichloroethane	Not detected	ug/L	1	8260B	07/02/03	JGH	107-06-2	
1,1-Dichloroethene	Not detected	ug/L	1	8260B	07/02/03	JGH	75-35-4	
cis-1,2-Dichloroethene	35	ug/L	1	8260B	07/02/03	JGH	156-59-2	
trans-1,2-Dichloroethene	Not detected	ug/L	1	8260B	07/02/03	JGH	156-60-5	
1,2-Dichloropropane	Not detected	ug/L	1	8260B	07/02/03	JGH	78-87-5	
cis-1,3-Dichloropropene	Not detected	ug/L	1	8260B	07/02/03	JGH	10061-01-5	
trans-1,3-Dichloropropene	Not detected	ug/L	1	8260B	07/02/03	JGH	10061-02-6	
Ethylbenzene	Not detected	ug/L	1	8260B	07/02/03	JGH	100-41-4	
Isopropylbenzene	Not detected	ug/L	1	8260B	07/02/03	JGH	98-82-8	
p-Isopropyltoluene	Not detected	ug/L	1	8260B	07/02/03	JGH	99-87-6	
Methylene chloride	Not detected	ug/L	5	8260B	07/02/03	JGH	75-09-2	
Naphthalene	Not detected	ug/L	1	8260B	07/02/03	JGH	91-20-3	
n-Propylbenzene	Not detected	ug/L	1	8260B	07/02/03	JGH	103-65-1	
Styrene	Not detected	ug/L	1	8260B	07/02/03	JGH	100-42-5	
1,1,2,2-Tetrachloroethane	Not detected	ug/L	1	8260B	07/02/03	JGH	79-34-5	
Tetrachloroethene	Not detected	ug/L	1	8260B	07/02/03	JGH	127-18-4	
Toluene	Not detected	ug/L	1	8260B	07/02/03	JGH	108-88-3	
1,1,1-Trichloroethane	Not detected	ug/L	1	8260B	07/02/03	JGH	71-55-6	
1,1,2-Trichloroethane	Not detected	ug/L	1	8260B	07/02/03	JGH	79-00-5	
Trichloroethene	1	ug/L	1	8260B	07/02/03	JGH	79-01-6	
1,2,4-Trimethylbenzene	Not detected	ug/L	1	8260B	07/02/03	JGH	95-63-6	
1,3,5-Trimethylbenzene	Not detected	ug/L	1	8260B	07/02/03	JGH	108-67-8	
Vinyl chloride	3	ug/L	1	8260B	07/02/03	JGH	75-01-4	
o-Xylene	Not detected	ug/L	1	8260B	07/02/03	JGH	95-47-6	
p,m-Xylene	Not detected	ug/L	1	8260B	07/02/03	JGH	106-42-3	



Analytical Laboratory Report

Lab Sample ID: S13432.05 (continued)

Sample Tag: GP12 5-9

Analysis	Results	Units	RDL	Method	Date Run	Analyst	CAS #	Flags
Organics (continued)								
Volatile Organics (continued)								
Acetone	Not detected	ug/L	50	8260B	07/02/03	JGH	67-64-1	
2-Butanone (MEK)	Not detected	ug/L	50	8260B	07/02/03	JGH	78-93-3	
Carbon disulfide	Not detected	ug/L	50	8260B	07/02/03	JGH	75-15-0	
2-Hexanone	Not detected	ug/L	50	8260B	07/02/03	JGH	591-78-6	
4-Methyl-2-pentanone (MIBK)	Not detected	ug/L	50	8260B	07/02/03	JGH	108-10-1	
Methyl tert-butyl ether (MTBE)	Not detected	ug/L	10	8260B	07/02/03	JGH	1634-04-4	



Analytical Laboratory Report

Lab Sample ID: S13432.06
 Sample Tag: GP9 8-10
 Collected Date/Time: 06/24/2003 13:00
 Matrix: Groundwater
 COC Reference: 016195

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
2	40 ml Glass	HCL	Yes	4	2953

Analysis	Results	Units	RDL	Method	Date Run	Analyst	CAS #	Flags
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Organics

Volatile Organics

Benzene	Not detected	ug/L	1	8260B	07/02/03	JGH	71-43-2	
Bromodichloromethane	Not detected	ug/L	1	8260B	07/02/03	JGH	75-27-4	
Bromoform	Not detected	ug/L	1	8260B	07/02/03	JGH	75-25-2	
Bromomethane	Not detected	ug/L	5	8260B	07/02/03	JGH	74-83-9	
n-Butylbenzene	Not detected	ug/L	1	8260B	07/02/03	JGH	104-51-8	
sec-Butylbenzene	Not detected	ug/L	1	8260B	07/02/03	JGH	135-98-8	
tert-Butylbenzene	Not detected	ug/L	1	8260B	07/02/03	JGH	98-06-6	
Carbon tetrachloride	Not detected	ug/L	1	8260B	07/02/03	JGH	56-23-5	
Chlorobenzene	Not detected	ug/L	1	8260B	07/02/03	JGH	108-90-7	
Chloroethane	Not detected	ug/L	1	8260B	07/02/03	JGH	75-00-3	
Chloroform	Not detected	ug/L	1	8260B	07/02/03	JGH	67-66-3	
Chloromethane	Not detected	ug/L	1	8260B	07/02/03	JGH	74-87-3	
Dibromochloromethane	Not detected	ug/L	1	8260B	07/02/03	JGH	124-48-1	
1,2-Dichlorobenzene	Not detected	ug/L	1	8260B	07/02/03	JGH	95-50-1	
1,3-Dichlorobenzene	Not detected	ug/L	1	8260B	07/02/03	JGH	541-73-1	
1,4-Dichlorobenzene	Not detected	ug/L	1	8260B	07/02/03	JGH	106-46-7	
1,1-Dichloroethane	Not detected	ug/L	1	8260B	07/02/03	JGH	75-34-3	
1,2-Dichloroethane	Not detected	ug/L	1	8260B	07/02/03	JGH	107-06-2	
1,1-Dichloroethene	Not detected	ug/L	1	8260B	07/02/03	JGH	75-35-4	
cis-1,2-Dichloroethene	2	ug/L	1	8260B	07/02/03	JGH	156-59-2	
trans-1,2-Dichloroethene	Not detected	ug/L	1	8260B	07/02/03	JGH	156-60-5	
1,2-Dichloropropane	Not detected	ug/L	1	8260B	07/02/03	JGH	78-87-5	
cis-1,3-Dichloropropene	Not detected	ug/L	1	8260B	07/02/03	JGH	10061-01-5	
trans-1,3-Dichloropropene	Not detected	ug/L	1	8260B	07/02/03	JGH	10061-02-6	
Ethylbenzene	Not detected	ug/L	1	8260B	07/02/03	JGH	100-41-4	
Isopropylbenzene	Not detected	ug/L	1	8260B	07/02/03	JGH	98-82-8	
p-Isopropyltoluene	Not detected	ug/L	1	8260B	07/02/03	JGH	99-87-6	
Methylene chloride	Not detected	ug/L	5	8260B	07/02/03	JGH	75-09-2	
Naphthalene	Not detected	ug/L	1	8260B	07/02/03	JGH	91-20-3	
n-Propylbenzene	Not detected	ug/L	1	8260B	07/02/03	JGH	103-65-1	
Styrene	Not detected	ug/L	1	8260B	07/02/03	JGH	100-42-5	
1,1,2,2-Tetrachloroethane	Not detected	ug/L	1	8260B	07/02/03	JGH	79-34-5	
Tetrachloroethene	Not detected	ug/L	1	8260B	07/02/03	JGH	127-18-4	
Toluene	Not detected	ug/L	1	8260B	07/02/03	JGH	108-88-3	
1,1,1-Trichloroethane	Not detected	ug/L	1	8260B	07/02/03	JGH	71-55-6	
1,1,2-Trichloroethane	Not detected	ug/L	1	8260B	07/02/03	JGH	79-00-5	
Trichloroethene	1	ug/L	1	8260B	07/02/03	JGH	79-01-6	
1,2,4-Trimethylbenzene	Not detected	ug/L	1	8260B	07/02/03	JGH	95-63-6	
1,3,5-Trimethylbenzene	Not detected	ug/L	1	8260B	07/02/03	JGH	108-67-8	
Vinyl chloride	1	ug/L	1	8260B	07/02/03	JGH	75-01-4	
o-Xylene	Not detected	ug/L	1	8260B	07/02/03	JGH	95-47-6	
p,m-Xylene	Not detected	ug/L	1	8260B	07/02/03	JGH	106-42-3	



Analytical Laboratory Report

Lab Sample ID: S13432.06 (continued)

Sample Tag: GP9 8-10

Analysis	Results	Units	RDL	Method	Date Run	Analyst	CAS#	Flags
Organics (continued)								
Volatile Organics (continued)								
Acetone	Not detected	ug/L	50	8260B	07/02/03	JGH	67-64-1	
2-Butanone (MEK)	Not detected	ug/L	50	8260B	07/02/03	JGH	78-93-3	
Carbon disulfide	Not detected	ug/L	50	8260B	07/02/03	JGH	75-15-0	
2-Hexanone	Not detected	ug/L	50	8260B	07/02/03	JGH	591-78-6	
4-Methyl-2-pentanone (MIBK)	Not detected	ug/L	50	8260B	07/02/03	JGH	108-10-1	
Methyl tert-butyl ether (MTBE)	Not detected	ug/L	10	8260B	07/02/03	JGH	1634-04-4	



Analytical Laboratory Report

Lab Sample ID: S13432.07
 Sample Tag: GP10 6-10
 Collected Date/Time: 06/24/2003 13:30
 Matrix: Groundwater
 COC Reference: 016195

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
2	40 ml Glass	HCL	Yes	4	2953

Analysis	Results	Units	RDL	Method	Date Run	Analyst	CAS #	Flags
Organics								
Volatile Organics								
Benzene	Not detected	ug/L	1	8260B	07/02/03	JGH	71-43-2	
Bromodichloromethane	Not detected	ug/L	1	8260B	07/02/03	JGH	75-27-4	
Bromoform	Not detected	ug/L	1	8260B	07/02/03	JGH	75-25-2	
Bromomethane	Not detected	ug/L	5	8260B	07/02/03	JGH	74-83-9	
n-Butylbenzene	Not detected	ug/L	1	8260B	07/02/03	JGH	104-51-8	
sec-Butylbenzene	Not detected	ug/L	1	8260B	07/02/03	JGH	135-98-8	
tert-Butylbenzene	Not detected	ug/L	1	8260B	07/02/03	JGH	98-06-6	
Carbon tetrachloride	Not detected	ug/L	1	8260B	07/02/03	JGH	56-23-5	
Chlorobenzene	Not detected	ug/L	1	8260B	07/02/03	JGH	108-90-7	
Chloroethane	Not detected	ug/L	1	8260B	07/02/03	JGH	75-00-3	
Chloroform	Not detected	ug/L	1	8260B	07/02/03	JGH	67-66-3	
Chloromethane	Not detected	ug/L	1	8260B	07/02/03	JGH	74-87-3	
Dibromochloromethane	Not detected	ug/L	1	8260B	07/02/03	JGH	124-48-1	
1,2-Dichlorobenzene	Not detected	ug/L	1	8260B	07/02/03	JGH	95-50-1	
1,3-Dichlorobenzene	Not detected	ug/L	1	8260B	07/02/03	JGH	541-73-1	
1,4-Dichlorobenzene	Not detected	ug/L	1	8260B	07/02/03	JGH	106-46-7	
1,1-Dichloroethane	Not detected	ug/L	1	8260B	07/02/03	JGH	75-34-3	
1,2-Dichloroethane	Not detected	ug/L	1	8260B	07/02/03	JGH	107-06-2	
1,1-Dichloroethene	Not detected	ug/L	1	8260B	07/02/03	JGH	75-35-4	
cis-1,2-Dichloroethene	1	ug/L	1	8260B	07/02/03	JGH	156-59-2	
trans-1,2-Dichloroethene	Not detected	ug/L	1	8260B	07/02/03	JGH	156-60-5	
1,2-Dichloropropane	Not detected	ug/L	1	8260B	07/02/03	JGH	78-87-5	
cis-1,3-Dichloropropene	Not detected	ug/L	1	8260B	07/02/03	JGH	10061-01-5	
trans-1,3-Dichloropropene	Not detected	ug/L	1	8260B	07/02/03	JGH	10061-02-6	
Ethylbenzene	Not detected	ug/L	1	8260B	07/02/03	JGH	100-41-4	
Isopropylbenzene	Not detected	ug/L	1	8260B	07/02/03	JGH	98-82-8	
p-Isopropyltoluene	Not detected	ug/L	1	8260B	07/02/03	JGH	99-87-6	
Methylene chloride	Not detected	ug/L	5	8260B	07/02/03	JGH	75-09-2	
Naphthalene	Not detected	ug/L	1	8260B	07/02/03	JGH	91-20-3	
n-Propylbenzene	Not detected	ug/L	1	8260B	07/02/03	JGH	103-65-1	
Styrene	Not detected	ug/L	1	8260B	07/02/03	JGH	100-42-5	
1,1,2,2-Tetrachloroethane	Not detected	ug/L	1	8260B	07/02/03	JGH	79-34-5	
Tetrachloroethene	Not detected	ug/L	1	8260B	07/02/03	JGH	127-18-4	
Toluene	Not detected	ug/L	1	8260B	07/02/03	JGH	108-88-3	
1,1,1-Trichloroethane	Not detected	ug/L	1	8260B	07/02/03	JGH	71-55-6	
1,1,2-Trichloroethane	Not detected	ug/L	1	8260B	07/02/03	JGH	79-00-5	
Trichloroethene	Not detected	ug/L	1	8260B	07/02/03	JGH	79-01-6	
1,2,4-Trimethylbenzene	Not detected	ug/L	1	8260B	07/02/03	JGH	95-63-6	
1,3,5-Trimethylbenzene	Not detected	ug/L	1	8260B	07/02/03	JGH	108-67-8	
Vinyl chloride	Not detected	ug/L	1	8260B	07/02/03	JGH	75-01-4	
o-Xylene	Not detected	ug/L	1	8260B	07/02/03	JGH	95-47-6	
p,m-Xylene	Not detected	ug/L	1	8260B	07/02/03	JGH	106-42-3	



Analytical Laboratory Report

Lab Sample ID: S13432.07 (continued)

Sample Tag: GP10 6-10

Analysis	Results	Units	RDL	Method	Date Run	Analyst	CAS #	Flags
Organics (continued)								
Volatile Organics (continued)								
Acetone	Not detected	ug/L	50	8260B	07/02/03	JGH	67-64-1	
2-Butanone (MEK)	Not detected	ug/L	50	8260B	07/02/03	JGH	78-93-3	
Carbon disulfide	Not detected	ug/L	50	8260B	07/02/03	JGH	75-15-0	
2-Hexanone	Not detected	ug/L	50	8260B	07/02/03	JGH	591-78-6	
4-Methyl-2-pentanone (MIBK)	Not detected	ug/L	50	8260B	07/02/03	JGH	108-10-1	
Methyl tert-butyl ether (MTBE)	Not detected	ug/L	10	8260B	07/02/03	JGH	1634-04-4	



Analytical Laboratory Report

Lab Sample ID: S13432.08
 Sample Tag: Trip Blank
 Collected Date/Time: 06/24/2003 :
 Matrix: Groundwater
 COC Reference: 016195

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
2	40 ml Glass	HCL	Yes	4	2953

Analysis	Results	Units	RDL	Method	Date Run	Analyst	CAS #	Flags
Organics								
Volatile Organics								
Benzene	Not detected	ug/L	1	8260B	07/02/03	JGH	71-43-2	
Bromodichloromethane	Not detected	ug/L	1	8260B	07/02/03	JGH	75-27-4	
Bromoform	Not detected	ug/L	1	8260B	07/02/03	JGH	75-25-2	
Bromomethane	Not detected	ug/L	5	8260B	07/02/03	JGH	74-83-9	
n-Butylbenzene	Not detected	ug/L	1	8260B	07/02/03	JGH	104-51-8	
sec-Butylbenzene	Not detected	ug/L	1	8260B	07/02/03	JGH	135-98-8	
tert-Butylbenzene	Not detected	ug/L	1	8260B	07/02/03	JGH	98-06-6	
Carbon tetrachloride	Not detected	ug/L	1	8260B	07/02/03	JGH	56-23-5	
Chlorobenzene	Not detected	ug/L	1	8260B	07/02/03	JGH	108-90-7	
Chloroethane	Not detected	ug/L	1	8260B	07/02/03	JGH	75-00-3	
Chloroform	Not detected	ug/L	1	8260B	07/02/03	JGH	67-66-3	
Chloromethane	Not detected	ug/L	1	8260B	07/02/03	JGH	74-87-3	
Dibromochloromethane	Not detected	ug/L	1	8260B	07/02/03	JGH	124-48-1	
1,2-Dichlorobenzene	Not detected	ug/L	1	8260B	07/02/03	JGH	95-50-1	
1,3-Dichlorobenzene	Not detected	ug/L	1	8260B	07/02/03	JGH	541-73-1	
1,4-Dichlorobenzene	Not detected	ug/L	1	8260B	07/02/03	JGH	106-46-7	
1,1-Dichloroethane	Not detected	ug/L	1	8260B	07/02/03	JGH	75-34-3	
1,2-Dichloroethane	Not detected	ug/L	1	8260B	07/02/03	JGH	107-06-2	
1,1-Dichloroethene	Not detected	ug/L	1	8260B	07/02/03	JGH	75-35-4	
cis-1,2-Dichloroethene	Not detected	ug/L	1	8260B	07/02/03	JGH	156-59-2	
trans-1,2-Dichloroethene	Not detected	ug/L	1	8260B	07/02/03	JGH	156-60-5	
1,2-Dichloropropane	Not detected	ug/L	1	8260B	07/02/03	JGH	78-87-5	
cis-1,3-Dichloropropene	Not detected	ug/L	1	8260B	07/02/03	JGH	10061-01-5	
trans-1,3-Dichloropropene	Not detected	ug/L	1	8260B	07/02/03	JGH	10061-02-6	
Ethylbenzene	Not detected	ug/L	1	8260B	07/02/03	JGH	100-41-4	
Isopropylbenzene	Not detected	ug/L	1	8260B	07/02/03	JGH	98-82-8	
p-Isopropyltoluene	Not detected	ug/L	1	8260B	07/02/03	JGH	99-87-6	
Methylene chloride	Not detected	ug/L	5	8260B	07/02/03	JGH	75-09-2	
Naphthalene	Not detected	ug/L	1	8260B	07/02/03	JGH	91-20-3	
n-Propylbenzene	Not detected	ug/L	1	8260B	07/02/03	JGH	103-65-1	
Styrene	Not detected	ug/L	1	8260B	07/02/03	JGH	100-42-5	
1,1,2,2-Tetrachloroethane	Not detected	ug/L	1	8260B	07/02/03	JGH	79-34-5	
Tetrachloroethene	Not detected	ug/L	1	8260B	07/02/03	JGH	127-18-4	
Toluene	Not detected	ug/L	1	8260B	07/02/03	JGH	108-88-3	
1,1,1-Trichloroethane	Not detected	ug/L	1	8260B	07/02/03	JGH	71-55-6	
1,1,2-Trichloroethane	Not detected	ug/L	1	8260B	07/02/03	JGH	79-00-5	
Trichloroethene	Not detected	ug/L	1	8260B	07/02/03	JGH	79-01-6	
1,2,4-Trimethylbenzene	Not detected	ug/L	1	8260B	07/02/03	JGH	95-63-6	
1,3,5-Trimethylbenzene	Not detected	ug/L	1	8260B	07/02/03	JGH	108-67-8	
Vinyl chloride	Not detected	ug/L	1	8260B	07/02/03	JGH	75-01-4	
o-Xylene	Not detected	ug/L	1	8260B	07/02/03	JGH	95-47-6	
p,m-Xylene	Not detected	ug/L	1	8260B	07/02/03	JGH	106-42-3	



Analytical Laboratory Report

Lab Sample ID: S13432.08 (continued)

Sample Tag: Trip Blank

Analysis	Results	Units	RDL	Method	Date Run	Analyst	CAS #	Flags
Organics (continued)								
Volatile Organics (continued)								
Acetone	Not detected	ug/L	50	8260B	07/02/03	JGH	67-64-1	
2-Butanone (MEK)	Not detected	ug/L	50	8260B	07/02/03	JGH	78-93-3	
Carbon disulfide	Not detected	ug/L	50	8260B	07/02/03	JGH	75-15-0	
2-Hexanone	Not detected	ug/L	50	8260B	07/02/03	JGH	591-78-6	
4-Methyl-2-pentanone (MIBK)	Not detected	ug/L	50	8260B	07/02/03	JGH	108-10-1	
Methyl tert-butyl ether (MTBE)	Not detected	ug/L	10	8260B	07/02/03	JGH	1634-04-4	

