

BIO-CHEM Laboratories, Inc.

Date: 02/04/2002

ANALYTICAL REPORT
CLIENT: Dixon Environmental

Project Number: 02-01-011

Lab Order: 0201378

Client Sample ID: SB-1 (0.5')

Project: 3890 Buchanan S.W.

Collection Date: 01/28/2002

Lab Sample ID: 0201378-01A

Matrix: SOIL

Analyses	Method Ref.	Result	Q	PQL	Units	DF	Analyst	Date
TOTAL METAL(s) by GFAA								
1. Cadmium	SW7131A	280		50	µg/Kg-dry	1	RHS	02/04/2002
TOTAL METAL(s) by ICP								
1. Aluminum	SW6010B	3,100,000		1,000	µg/Kg-dry	1	RHS	02/01/2002
2. Arsenic	SW6010B	1,700		1,000	µg/Kg-dry	1	RHS	02/01/2002
3. Chromium	SW6010B	49,000		500	µg/Kg-dry	1	RHS	02/01/2002
4. Iron	SW6010B	5,000,000		500	µg/Kg-dry	1	RHS	02/01/2002
5. Lead	SW6010B	21,000		1,000	µg/Kg-dry	1	RHS	02/01/2002
6. Molybdenum	SW6010B	43,000		250	µg/Kg-dry	1	RHS	02/01/2002
7. Nickel	SW6010B	8,700		500	µg/Kg-dry	1	RHS	02/01/2002
8. Silver	SW6010B	< 500		500	µg/Kg-dry	1	RHS	02/01/2002
9. Zinc	SW6010B	44,000		500	µg/Kg-dry	1	RHS	02/01/2002
PNAs by GC/MS								
1. Acenaphthene	SW8270C	< 500		500	µg/Kg-dry	1	NVS	02/02/2002
2. Acenaphthylene	SW8270C	< 500		500	µg/Kg-dry	1	NVS	02/02/2002
3. Anthracene	SW8270C	< 500		500	µg/Kg-dry	1	NVS	02/02/2002
4. Benzo[a]anthracene	SW8270C	< 500		500	µg/Kg-dry	1	NVS	02/02/2002
5. Benzo[a]pyrene	SW8270C	< 500		500	µg/Kg-dry	1	NVS	02/02/2002
6. Benzo[b]fluoranthene	SW8270C	< 500		500	µg/Kg-dry	1	NVS	02/02/2002
7. Benzo[g,h,i]perylene	SW8270C	< 500		500	µg/Kg-dry	1	NVS	02/02/2002
8. Benzo[k]fluoranthene	SW8270C	< 500		500	µg/Kg-dry	1	NVS	02/02/2002
9. Chrysene	SW8270C	< 500		500	µg/Kg-dry	1	NVS	02/02/2002
10. Dibenzo[a,h]anthracene	SW8270C	< 500		500	µg/Kg-dry	1	NVS	02/02/2002
11. Fluoranthene	SW8270C	9,700		500	µg/Kg-dry	1	NVS	02/02/2002
12. Fluorene	SW8270C	< 500		500	µg/Kg-dry	1	NVS	02/02/2002
13. Indeno[1,2,3-cd]pyrene	SW8270C	< 500		500	µg/Kg-dry	1	NVS	02/02/2002
14. Naphthalene	SW8270C	< 500		500	µg/Kg-dry	1	NVS	02/02/2002
15. Phenanthrene	SW8270C	890		500	µg/Kg-dry	1	NVS	02/02/2002
16. Pyrene	SW8270C	6,300		500	µg/Kg-dry	1	NVS	02/02/2002

Definitions: PQL - Practical Quantitation Limit
DF - Dilution Factor

Qualifiers (Q): J - Detected below PQL but above MDL: Estimated
S - Spike Recovery Outside Acceptance Limits
B - Analyte detected in associated Method Blank
N - See case narrative for explanation

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Note: The sample results reported are based on the sample aliquot(s) tested.

BIO-CHEM Laboratories, Inc.

Date: 02/04/2002

ANALYTICAL REPORT**CLIENT:** Dixon Environmental**Project Number:** 02-01-011**Lab Order:** 0201378**Client Sample ID:** SB-1 (0.5')**Project:** 3890 Buchanan S.W.**Collection Date:** 01/28/2002**Lab Sample ID:** 0201378-01A**Matrix:** SOIL

Analyses	Method Ref.	Result	Q	PQL	Units	DF	Analyst	Date
VOLATILES by GC/MS (5035)								
1. 1,1,1-Trichloroethane	SW8260B	< 50		50	µg/Kg-dry	1	DRF	01/29/2002
2. 1,1,2,2-Tetrachloroethane	SW8260B	< 50		50	µg/Kg-dry	1	DRF	01/29/2002
3. 1,1,2-Trichloroethane	SW8260B	< 50		50	µg/Kg-dry	1	DRF	01/29/2002
4. 1,1-Dichloroethane	SW8260B	< 50		50	µg/Kg-dry	1	DRF	01/29/2002
5. 1,1-Dichloroethene	SW8260B	< 50		50	µg/Kg-dry	1	DRF	01/29/2002
6. 1,2,4-Trimethylbenzene	SW8260B	2,000		50	µg/Kg-dry	1	DRF	01/29/2002
7. 1,2-Dibromoethane	SW8260B	< 50		50	µg/Kg-dry	1	DRF	01/29/2002
8. 1,2-Dichlorobenzene	SW8260B	< 50		50	µg/Kg-dry	1	DRF	01/29/2002
9. 1,2-Dichloroethane	SW8260B	< 50		50	µg/Kg-dry	1	DRF	01/29/2002
10. 1,2-Dichloropropane	SW8260B	< 50		50	µg/Kg-dry	1	DRF	01/29/2002
11. 1,3,5-Trimethylbenzene	SW8260B	2,400		50	µg/Kg-dry	1	DRF	01/29/2002
12. 1,3-Dichlorobenzene	SW8260B	< 50		50	µg/Kg-dry	1	DRF	01/29/2002
13. 1,4-Dichlorobenzene	SW8260B	< 50		50	µg/Kg-dry	1	DRF	01/29/2002
14. Benzene	SW8260B	< 50		50	µg/Kg-dry	1	DRF	01/29/2002
15. Bromodichloromethane	SW8260B	< 50		50	µg/Kg-dry	1	DRF	01/29/2002
16. Bromoform	SW8260B	< 50		50	µg/Kg-dry	1	DRF	01/29/2002
17. Bromomethane	SW8260B	< 50		50	µg/Kg-dry	1	DRF	01/29/2002
18. Carbon tetrachloride	SW8260B	< 50		50	µg/Kg-dry	1	DRF	01/29/2002
19. Chlorobenzene	SW8260B	< 50		50	µg/Kg-dry	1	DRF	01/29/2002
20. Chloroethane	SW8260B	< 50		50	µg/Kg-dry	1	DRF	01/29/2002
21. Chloroform	SW8260B	< 50		50	µg/Kg-dry	1	DRF	01/29/2002
22. Chloromethane	SW8260B	< 50		50	µg/Kg-dry	1	DRF	01/29/2002
23. cis-1,3-Dichloropropene	SW8260B	< 50		50	µg/Kg-dry	1	DRF	01/29/2002
24. Dibromochloromethane	SW8260B	< 50		50	µg/Kg-dry	1	DRF	01/29/2002
25. Ethylbenzene	SW8260B	< 50		50	µg/Kg-dry	1	DRF	01/29/2002
26. m,p-Xylene	SW8260B	< 100		100	µg/Kg-dry	1	DRF	01/29/2002
27. Methyl tert-butyl ether	SW8260B	< 250		250	µg/Kg-dry	1	DRF	01/29/2002
28. Methylene chloride	SW8260B	< 250		250	µg/Kg-dry	1	DRF	01/29/2002
29. o-Xylene	SW8260B	130		50	µg/Kg-dry	1	DRF	01/29/2002
30. Tetrachloroethene	SW8260B	< 50		50	µg/Kg-dry	1	DRF	01/29/2002
31. Toluene	SW8260B	< 50		50	µg/Kg-dry	1	DRF	01/29/2002
32. trans-1,2-Dichloroethene	SW8260B	< 50		50	µg/Kg-dry	1	DRF	01/29/2002
33. trans-1,3-Dichloropropene	SW8260B	< 50		50	µg/Kg-dry	1	DRF	01/29/2002
34. Trichloroethene	SW8260B	< 50		50	µg/Kg-dry	1	DRF	01/29/2002
35. Trichlorofluoromethane	SW8260B	< 50		50	µg/Kg-dry	1	DRF	01/29/2002
36. Vinyl chloride	SW8260B	< 50		50	µg/Kg-dry	1	DRF	01/29/2002

Definitions: PQL - Practical Quantitation Limit
DF - Dilution Factor

Qualifiers (Q): J - Detected below PQL but above MDL: Estimated
S - Spike Recovery Outside Acceptance Limits
B - Analyte detected in associated Method Blank
N - See case narrative for explanation

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Note: The sample results reported are based on the sample aliquot(s) tested.

BIO-CHEM Laboratories, Inc.

Date: 02/04/2002

ANALYTICAL REPORT

CLIENT: Dixon Environmental
Lab Order: 0201378
Project: 3890 Buchanan S.W.
Lab Sample ID: 0201378-02A

Project Number: 02-01-011
Client Sample ID: SB-1 (S')
Collection Date: 01/28/2002
Matrix: SOIL

Analyses	Method Ref.	Result	Q	PQL	Units	DF	Analyst	Date
TOTAL METAL(s) by GFAA								
1. Cadmium	SW7131A	< 50		50	µg/Kg-dry	1	RHS	02/04/2002
TOTAL METAL(s) by ICP								
1. Aluminum	SW6010B	3,200,000		1,000	µg/Kg-dry	1	RHS	02/01/2002
2. Arsenic	SW6010B	1,500		1,000	µg/Kg-dry	1	RHS	02/01/2002
3. Chromium	SW6010B	5,000		500	µg/Kg-dry	1	RHS	02/01/2002
4. Iron	SW6010B	4,700,000		500	µg/Kg-dry	1	RHS	02/01/2002
5. Lead	SW6010B	2,100		1,000	µg/Kg-dry	1	RHS	02/01/2002
6. Molybdenum	SW6010B	5,100		250	µg/Kg-dry	1	RHS	02/01/2002
7. Nickel	SW6010B	5,500		500	µg/Kg-dry	1	RHS	02/01/2002
8. Silver	SW6010B	550		500	µg/Kg-dry	1	RHS	02/01/2002
9. Zinc	SW6010B	9,300		500	µg/Kg-dry	1	RHS	02/01/2002
PNAs by GC/MS								
1. Acenaphthene	SW8270C	< 530		530	µg/Kg-dry	1	NVS	02/02/2002
2. Acenaphthylene	SW8270C	< 530		530	µg/Kg-dry	1	NVS	02/02/2002
3. Anthracene	SW8270C	< 530		530	µg/Kg-dry	1	NVS	02/02/2002
4. Benzo[a]anthracene	SW8270C	< 530		530	µg/Kg-dry	1	NVS	02/02/2002
5. Benzo[a]pyrene	SW8270C	< 530		530	µg/Kg-dry	1	NVS	02/02/2002
6. Benzo[b]fluoranthene	SW8270C	< 530		530	µg/Kg-dry	1	NVS	02/02/2002
7. Benzo[g,h,i]perylene	SW8270C	< 530		530	µg/Kg-dry	1	NVS	02/02/2002
8. Benzo[k]fluoranthene	SW8270C	< 530		530	µg/Kg-dry	1	NVS	02/02/2002
9. Chrysene	SW8270C	< 530		530	µg/Kg-dry	1	NVS	02/02/2002
10. Dibenzo[a,h]anthracene	SW8270C	< 530		530	µg/Kg-dry	1	NVS	02/02/2002
11. Fluoranthene	SW8270C	4,800		530	µg/Kg-dry	1	NVS	02/02/2002
12. Fluorene	SW8270C	< 530		530	µg/Kg-dry	1	NVS	02/02/2002
13. Indeno[1,2,3-cd]pyrene	SW8270C	< 530		530	µg/Kg-dry	1	NVS	02/02/2002
14. Naphthalene	SW8270C	< 530		530	µg/Kg-dry	1	NVS	02/02/2002
15. Phenanthrene	SW8270C	< 530		530	µg/Kg-dry	1	NVS	02/02/2002
16. Pyrene	SW8270C	3,400		530	µg/Kg-dry	1	NVS	02/02/2002

Definitions: PQL - Practical Quantitation Limit
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BIO-CHEM Laboratories, Inc.

Date: 02/04/2002

ANALYTICAL REPORT

CLIENT: Dixon Environmental
Lab Order: 0201378
Project: 3890 Buchanan S.W.
Lab Sample ID: 0201378-02A

Project Number: 02-01-011
Client Sample ID: SB-1 (5')
Collection Date: 01/28/2002
Matrix: SOIL

Analyses	Method Ref.	Result	Q	PQL	Units	DF	Analyst	Date
VOLATILES by GC/MS (5035)								
1. 1,1,1-Trichloroethane	SW8260B	< 50		50	µg/Kg-dry	1	DRF	01/29/2002
2. 1,1,2,2-Tetrachloroethane	SW8260B	< 50		50	µg/Kg-dry	1	DRF	01/29/2002
3. 1,1,2-Trichloroethane	SW8260B	< 50		50	µg/Kg-dry	1	DRF	01/29/2002
4. 1,1-Dichloroethane	SW8260B	< 50		50	µg/Kg-dry	1	DRF	01/29/2002
5. 1,1-Dichloroethene	SW8260B	< 50		50	µg/Kg-dry	1	DRF	01/29/2002
6. 1,2,4-Trimethylbenzene	SW8260B	< 50		50	µg/Kg-dry	1	DRF	01/29/2002
7. 1,2-Dibromoethane	SW8260B	< 50		50	µg/Kg-dry	1	DRF	01/29/2002
8. 1,2-Dichlorobenzene	SW8260B	< 50		50	µg/Kg-dry	1	DRF	01/29/2002
9. 1,2-Dichloroethane	SW8260B	< 50		50	µg/Kg-dry	1	DRF	01/29/2002
10. 1,2-Dichloropropane	SW8260B	< 50		50	µg/Kg-dry	1	DRF	01/29/2002
11. 1,3,5-Trimethylbenzene	SW8260B	< 50		50	µg/Kg-dry	1	DRF	01/29/2002
12. 1,3-Dichlorobenzene	SW8260B	< 50		50	µg/Kg-dry	1	DRF	01/29/2002
13. 1,4-Dichlorobenzene	SW8260B	< 50		50	µg/Kg-dry	1	DRF	01/29/2002
14. Benzene	SW8260B	< 50		50	µg/Kg-dry	1	DRF	01/29/2002
15. Bromodichloromethane	SW8260B	< 50		50	µg/Kg-dry	1	DRF	01/29/2002
16. Bromoform	SW8260B	< 50		50	µg/Kg-dry	1	DRF	01/29/2002
17. Bromomethane	SW8260B	< 50		50	µg/Kg-dry	1	DRF	01/29/2002
18. Carbon tetrachloride	SW8260B	< 50		50	µg/Kg-dry	1	DRF	01/29/2002
19. Chlorobenzene	SW8260B	< 50		50	µg/Kg-dry	1	DRF	01/29/2002
20. Chloroethane	SW8260B	< 50		50	µg/Kg-dry	1	DRF	01/29/2002
21. Chloroform	SW8260B	< 50		50	µg/Kg-dry	1	DRF	01/29/2002
22. Chloromethane	SW8260B	< 50		50	µg/Kg-dry	1	DRF	01/29/2002
23. cis-1,3-Dichloropropene	SW8260B	< 50		50	µg/Kg-dry	1	DRF	01/29/2002
24. Dibromochloromethane	SW8260B	< 50		50	µg/Kg-dry	1	DRF	01/29/2002
25. Ethylbenzene	SW8260B	< 50		50	µg/Kg-dry	1	DRF	01/29/2002
26. m,p-Xylene	SW8260B	< 100		100	µg/Kg-dry	1	DRF	01/29/2002
27. Methyl tert-butyl ether	SW8260B	< 250		250	µg/Kg-dry	1	DRF	01/29/2002
28. Methylene chloride	SW8260B	< 250		250	µg/Kg-dry	1	DRF	01/29/2002
29. o-Xylene	SW8260B	< 50		50	µg/Kg-dry	1	DRF	01/29/2002
30. Tetrachloroethene	SW8260B	< 50		50	µg/Kg-dry	1	DRF	01/29/2002
31. Toluene	SW8260B	< 50		50	µg/Kg-dry	1	DRF	01/29/2002
32. trans-1,2-Dichloroethene	SW8260B	< 50		50	µg/Kg-dry	1	DRF	01/29/2002
33. trans-1,3-Dichloropropene	SW8260B	< 50		50	µg/Kg-dry	1	DRF	01/29/2002
34. Trichloroethene	SW8260B	< 50		50	µg/Kg-dry	1	DRF	01/29/2002
35. Trichlorofluoromethane	SW8260B	< 50		50	µg/Kg-dry	1	DRF	01/29/2002
36. Vinyl chloride	SW8260B	< 50		50	µg/Kg-dry	1	DRF	01/29/2002

Definitions: PQL - Practical Quantitation Limit
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Qualifiers (Q): J - Detected below PQL but above MDL: Estimated
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 B - Analyte detected in associated Method Blank
 N - See case narrative for explanation

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02/04/2002

ANALYTICAL DETAIL REPORT

Lab Order: 0201378

Client: Dixon Environmental

Project: 3890 Buchanan S.W.

Sample ID	Client Sample ID	Matrix	Test Name	Date Sampled	TCLP/SPLP Date	Prep Date	QC Batch	Analysis Date	Analytical Batch
0201378-01A	SB-1 (0.5')	Soil	PNAs by GC/MS	01/28/2002		01/29/2002	9083	02/02/2002	GCMS_E_020201A
	SB-1 (0.5')	Soil	TOTAL METAL(s) by GFAA	01/28/2002		01/29/2002	9092	02/04/2002	MTL_F_GF_020204B
	SB-1 (0.5')	Soil	TOTAL METAL(s) by ICP	01/28/2002		01/31/2002	9124	02/01/2002	MTL_G_ICP_020201G
	SB-1 (0.5')	Soil	VOLATILES by GC/MS (5035)	01/28/2002		01/29/2002	9115	01/29/2002	GCMS_Z_020129A
0201378-02A	SB-1 (5')	Soil	PNAs by GC/MS	01/28/2002		01/29/2002	9083	02/02/2002	GCMS_E_020201A
	SB-1 (5')	Soil	TOTAL METAL(s) by GFAA	01/28/2002		01/29/2002	9092	02/04/2002	MTL_F_GF_020204B
	SB-1 (5')	Soil	TOTAL METAL(s) by ICP	01/28/2002		01/31/2002	9124	02/01/2002	MTL_G_ICP_020201G
	SB-1 (5')	Soil	VOLATILES by GC/MS (5035)	01/28/2002		01/29/2002	9115	01/29/2002	GCMS_Z_020129A



1049 - 28th Street SE
Grand Rapids, MI 49508
Ph: 616/248-4900
Toll Free: 800/362-LABS
Fax: 616/248-4904

February 13, 2002

Mike Marshall
Dixon Environmental
750 Ottawa Ave. NW
Grand Rapids, MI 49503
TEL: (616) 742-5511
FAX: (616) 742-5522

RE: 3890 Buchanan S.W.

Order No.: 0202072

Dear Mike Marshall,

BIO-CHEM Laboratories, Inc. completely received 2 samples on 02/06/2002 for the analyses presented in the following report.

There were no problems with the analyses and all data for associated QC met EPA or laboratory specifications except where noted in the Case Narrative.

If you have any questions regarding these tests results, please feel free to call.

Please note that unless otherwise instructed, residual samples will be held for sixty (60) days from the original report date. At that time, all non-hazardous samples will be disposed of in accordance with federal, state and local regulations and ordinances, and hazardous samples shall be returned to you. Please contact the laboratory within thirty (30) days if other arrangements for sample retention need to be made.

Sincerely,

A handwritten signature in cursive script, reading "Julie Stallard", is positioned below the word "Sincerely,".

Julie Stallard
Administrative Assistant

1049 28th Street SE
Grand Rapids, MI 49508
PH: (616) 248-4900
Toll Free: 800-362-LABS
FAX: (616) 248-4904



Chain of Custody

0202072

Firm Name <i>Dixie Environmental</i>				Turn around time <i>3 business days</i>		Project Number <i>0202072</i>		Date Due	
Firm Address <i>1470 Jackson Ave SE</i>				Project Name <i>State Samples Taken From</i>		Date			
City, State, Zip <i>Ann Arbor MI 48106</i>				State Samples Taken From <i>Ann Arbor MI</i>		Date			
Phone <i>616-248-5334</i>		Fax <i>616-248-5334</i>		Contact Person <i>Michael J. Marshall</i>		Date			
Lab I.D.	Client Sample Number	Date Taken	Time Taken	Sample Description (sample type: water, soil, other)	Number of Containers	Analysis Desired (One per line)	Remarks		
1	SB-2 (1-2-1)	2/6/02	2:35	soil	2	X	✓	✓	
2	SB-2 (1-2-5)	2/6/02	3:25	soil	2	X	✓	✓	
3									
4									
5									
6									
7									
8									
9									
10									
Released by <i>Michael J. Marshall</i>		Received by <i>Michael J. Marshall</i>		Date <i>2-6-02</i>		Time <i>4:20 pm</i>		Laboratory use only ☐ Blue Ice ☒ Regular Ice ☐ No Coolant	
								encures -CA. 2-6-02	

BIO-CHEM Laboratories, Inc.

Date: 02/13/2002

CLIENT: Dixon Environmental

Project: 3890 Buchanan S.W.

Lab Order: 0202072

Completely Received: 02/06/2002

Work Order Sample Summary

Date Reported: 02/13/2002

Lab Sample ID	Client Sample ID	Matrix	Date Collected	Date Received
0202072-01A	SB-2 (0.5-1')	Soil	02/06/2002	02/06/2002
0202072-02A	SB-2 (3-3.5')	Soil	02/06/2002	02/06/2002

BIO-CHEM Laboratories, Inc.

Date: 02/13/2002

CLIENT: Dixon Environmental
Project: 3890 Buchanan S.W.
Lab Order: 0202072

CASE NARRATIVE

Samples are routinely analyzed using methods outlined in the following references:

- (SW) Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW846, 3rd Ed.
- (E) Methods for Chemical Analysis of Water and Wastes, EPA-600/4-79-020.
- (A) Standard Methods for the Examination of Water and Wastewater, APHA, 18th Ed.
- (D) Annual Book of ASTM Standards.

Specific methods utilized for this project are provided in the analytical report and are identified by the reference document abbreviation () followed by the method number.

All QA/QC and sample analyses met method, laboratory and/or regulatory data quality objectives unless otherwise specified below.

No data qualifications required.

BIO-CHEM Laboratories, Inc.

Date: 02/13/2002

ANALYTICAL REPORT

CLIENT: Dixon Environmental
Lab Order: 0202072
Project: 3890 Buchanan S.W.
Lab Sample ID: 0202072-01A

Project Number: N/A
Client Sample ID: SB-2 (0.5-1')
Collection Date: 02/06/2002
Matrix: SOIL

Analyses	Method Ref.	Result	Q	PQL	Units	DF	Analyst	Date
TOTAL METAL(s) by GFAA								
1. Cadmium	SW7131A	2,700		50	µg/Kg-dry	1	RHS	02/11/2002
TOTAL METAL(s) by ICP								
1. Aluminum	SW6010B	2,000,000		1,000	µg/Kg-dry	1	RHS	02/13/2002
2. Arsenic	SW6010B	6,200		1,000	µg/Kg-dry	1	RHS	02/13/2002
3. Chromium	SW6010B	1,500,000		500	µg/Kg-dry	1	RHS	02/13/2002
4. Iron	SW6010B	46,000,000		500	µg/Kg-dry	1	RHS	02/13/2002
5. Lead	SW6010B	160,000		1,000	µg/Kg-dry	1	RHS	02/13/2002
6. Molybdenum	SW6010B	1,500,000		250	µg/Kg-dry	1	RHS	02/13/2002
7. Nickel	SW6010B	120,000		500	µg/Kg-dry	1	RHS	02/13/2002
8. Silver	SW6010B	< 500		500	µg/Kg-dry	1	RHS	02/13/2002
9. Zinc	SW6010B	150,000		500	µg/Kg-dry	1	RHS	02/13/2002
PNAs by GC/MS								
1. Acenaphthene	SW8270C	400		330	µg/Kg-dry	1	NVS	02/10/2002
2. Acenaphthylene	SW8270C	< 330		330	µg/Kg-dry	1	NVS	02/10/2002
3. Anthracene	SW8270C	980		330	µg/Kg-dry	1	NVS	02/10/2002
4. Benzo[a]anthracene	SW8270C	920		330	µg/Kg-dry	1	NVS	02/10/2002
5. Benzo[a]pyrene	SW8270C	730		330	µg/Kg-dry	1	NVS	02/10/2002
6. Benzo[b]fluoranthene	SW8270C	< 330		330	µg/Kg-dry	1	NVS	02/10/2002
7. Benzo[g,h,i]perylene	SW8270C	2,900		330	µg/Kg-dry	1	NVS	02/10/2002
8. Benzo[k]fluoranthene	SW8270C	460		330	µg/Kg-dry	1	NVS	02/10/2002
9. Chrysene	SW8270C	1,000		330	µg/Kg-dry	1	NVS	02/10/2002
10. Dibenzo[a,h]anthracene	SW8270C	520		330	µg/Kg-dry	1	NVS	02/10/2002
11. Fluoranthene	SW8270C	31,000		330	µg/Kg-dry	1	NVS	02/10/2002
12. Fluorene	SW8270C	440		330	µg/Kg-dry	1	NVS	02/10/2002
13. Indeno[1,2,3-cd]pyrene	SW8270C	1,600		330	µg/Kg-dry	1	NVS	02/10/2002
14. Naphthalene	SW8270C	360		330	µg/Kg-dry	1	NVS	02/10/2002
15. Phenanthrene	SW8270C	3,800		330	µg/Kg-dry	1	NVS	02/10/2002
16. Pyrene	SW8270C	19,000		330	µg/Kg-dry	1	NVS	02/10/2002

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N - See case narrative for explanation

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Note: The sample results reported are based on the sample aliquot(s) tested.

BIO-CHEM Laboratories, Inc.

Date: 02/13/2002

ANALYTICAL REPORT

Client: Dixon Environmental
Lab Order: 0202072
Project: 3890 Buchanan S.W.
Lab Sample ID: 0202072-01A

Project Number: N/A
Client Sample ID: SB-2 (0.5-1')
Collection Date: 02/06/2002
Matrix: SOIL

Analyses	Method Ref.	Result	Q	PQL	Units	DF	Analyst	Date
VOLATILES by GC/MS (5035)								
1. 1,1,1-Trichloroethane	SW8260B	< 50		50	µg/Kg-dry	1	DRF	02/07/2002
2. 1,1,2,2-Tetrachloroethane	SW8260B	< 50		50	µg/Kg-dry	1	DRF	02/07/2002
3. 1,1,2-Trichloroethane	SW8260B	< 50		50	µg/Kg-dry	1	DRF	02/07/2002
4. 1,1-Dichloroethane	SW8260B	< 50		50	µg/Kg-dry	1	DRF	02/07/2002
5. 1,1-Dichloroethene	SW8260B	< 50		50	µg/Kg-dry	1	DRF	02/07/2002
6. 1,2,4-Trimethylbenzene	SW8260B	< 50		50	µg/Kg-dry	1	DRF	02/07/2002
7. 1,2-Dibromoethane	SW8260B	< 50		50	µg/Kg-dry	1	DRF	02/07/2002
8. 1,2-Dichlorobenzene	SW8260B	< 50		50	µg/Kg-dry	1	DRF	02/07/2002
9. 1,2-Dichloroethane	SW8260B	< 50		50	µg/Kg-dry	1	DRF	02/07/2002
10. 1,2-Dichloropropane	SW8260B	< 50		50	µg/Kg-dry	1	DRF	02/07/2002
11. 1,3,5-Trimethylbenzene	SW8260B	< 50		50	µg/Kg-dry	1	DRF	02/07/2002
12. 1,3-Dichlorobenzene	SW8260B	< 50		50	µg/Kg-dry	1	DRF	02/07/2002
13. 1,4-Dichlorobenzene	SW8260B	< 50		50	µg/Kg-dry	1	DRF	02/07/2002
14. Benzene	SW8260B	< 50		50	µg/Kg-dry	1	DRF	02/07/2002
15. Bromodichloromethane	SW8260B	< 50		50	µg/Kg-dry	1	DRF	02/07/2002
16. Bromoform	SW8260B	< 50		50	µg/Kg-dry	1	DRF	02/07/2002
17. Bromomethane	SW8260B	< 50		50	µg/Kg-dry	1	DRF	02/07/2002
18. Carbon tetrachloride	SW8260B	< 50		50	µg/Kg-dry	1	DRF	02/07/2002
19. Chlorobenzene	SW8260B	< 50		50	µg/Kg-dry	1	DRF	02/07/2002
20. Chloroethane	SW8260B	< 50		50	µg/Kg-dry	1	DRF	02/07/2002
21. Chloroform	SW8260B	< 50		50	µg/Kg-dry	1	DRF	02/07/2002
22. Chloromethane	SW8260B	< 50		50	µg/Kg-dry	1	DRF	02/07/2002
23. cis-1,3-Dichloropropene	SW8260B	< 50		50	µg/Kg-dry	1	DRF	02/07/2002
24. Dibromochloromethane	SW8260B	< 50		50	µg/Kg-dry	1	DRF	02/07/2002
25. Ethylbenzene	SW8260B	< 50		50	µg/Kg-dry	1	DRF	02/07/2002
26. m,p-Xylene	SW8260B	< 100		100	µg/Kg-dry	1	DRF	02/07/2002
27. Methyl tert-butyl ether	SW8260B	< 250		250	µg/Kg-dry	1	DRF	02/07/2002
28. Methylene chloride	SW8260B	< 250		250	µg/Kg-dry	1	DRF	02/07/2002
29. o-Xylene	SW8260B	< 50		50	µg/Kg-dry	1	DRF	02/07/2002
30. Tetrachloroethene	SW8260B	< 50		50	µg/Kg-dry	1	DRF	02/07/2002
31. Toluene	SW8260B	< 50		50	µg/Kg-dry	1	DRF	02/07/2002
32. trans-1,2-Dichloroethene	SW8260B	< 50		50	µg/Kg-dry	1	DRF	02/07/2002
33. trans-1,3-Dichloropropene	SW8260B	< 50		50	µg/Kg-dry	1	DRF	02/07/2002
34. Trichloroethene	SW8260B	790		50	µg/Kg-dry	1	DRF	02/07/2002
35. Trichlorofluoromethane	SW8260B	< 50		50	µg/Kg-dry	1	DRF	02/07/2002
36. Vinyl chloride	SW8260B	< 50		50	µg/Kg-dry	1	DRF	02/07/2002

Definitions: PQL - Practical Quantitation Limit
 DF - Dilution Factor

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Note: The sample results reported are based on the sample aliquot(s) tested.

BIO-CHEM Laboratories, Inc.

Date: 02/13/2002

ANALYTICAL REPORT

CLIENT: Dixon Environmental
Lab Order: 0202072
Project: 3890 Buchanan S.W.
Lab Sample ID: 0202072-02A

Project Number: N/A
Client Sample ID: SB-2 (3-3.5')
Collection Date: 02/06/2002
Matrix: SOIL

Analyses	Method Ref.	Result	Q	PQL	Units	DF	Analyst	Date
TOTAL METAL(s) by GFAA								
1. Cadmium	SW7131A	130		50	µg/Kg-dry	1	RHS	02/11/2002
TOTAL METAL(s) by ICP								
1. Aluminum	SW6010B	4,300,000		1,000	µg/Kg-dry	1	RHS	02/13/2002
2. Arsenic	SW6010B	5,000		1,000	µg/Kg-dry	1	RHS	02/13/2002
3. Chromium	SW6010B	48,000		500	µg/Kg-dry	1	RHS	02/13/2002
4. Iron	SW6010B	17,000,000		500	µg/Kg-dry	1	RHS	02/13/2002
5. Lead	SW6010B	13,000		1,000	µg/Kg-dry	1	RHS	02/13/2002
6. Molybdenum	SW6010B	33,000		250	µg/Kg-dry	1	RHS	02/13/2002
7. Nickel	SW6010B	28,000		500	µg/Kg-dry	1	RHS	02/13/2002
8. Silver	SW6010B	690		500	µg/Kg-dry	1	RHS	02/13/2002
9. Zinc	SW6010B	39,000		500	µg/Kg-dry	1	RHS	02/13/2002
PNAs by GC/MS								
1. Acenaphthene	SW8270C	< 330		330	µg/Kg-dry	1	NVS	02/10/2002
2. Acenaphthylene	SW8270C	< 330		330	µg/Kg-dry	1	NVS	02/10/2002
3. Anthracene	SW8270C	< 330		330	µg/Kg-dry	1	NVS	02/10/2002
4. Benzo[a]anthracene	SW8270C	< 330		330	µg/Kg-dry	1	NVS	02/10/2002
5. Benzo[a]pyrene	SW8270C	< 330		330	µg/Kg-dry	1	NVS	02/10/2002
6. Benzo[b]fluoranthene	SW8270C	< 330		330	µg/Kg-dry	1	NVS	02/10/2002
7. Benzo[g,h,i]perylene	SW8270C	< 330		330	µg/Kg-dry	1	NVS	02/10/2002
8. Benzo[k]fluoranthene	SW8270C	< 330		330	µg/Kg-dry	1	NVS	02/10/2002
9. Chrysene	SW8270C	< 330		330	µg/Kg-dry	1	NVS	02/10/2002
10. Dibenzo[a,h]anthracene	SW8270C	< 330		330	µg/Kg-dry	1	NVS	02/10/2002
11. Fluoranthene	SW8270C	< 330		330	µg/Kg-dry	1	NVS	02/10/2002
12. Fluorene	SW8270C	< 330		330	µg/Kg-dry	1	NVS	02/10/2002
13. Indeno[1,2,3-cd]pyrene	SW8270C	< 330		330	µg/Kg-dry	1	NVS	02/10/2002
14. Naphthalene	SW8270C	< 330		330	µg/Kg-dry	1	NVS	02/10/2002
15. Phenanthrene	SW8270C	< 330		330	µg/Kg-dry	1	NVS	02/10/2002
16. Pyrene	SW8270C	< 330		330	µg/Kg-dry	1	NVS	02/10/2002

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BIO-CHEM Laboratories, Inc.

Date: 02/13/2002

ANALYTICAL REPORT

CLIENT: Dixon Environmental
Lab Order: 0202072
Project: 3890 Buchanan S.W.
Lab Sample ID: 0202072-02A

Project Number: N/A
Client Sample ID: SB-2 (3-3.5')
Collection Date: 02/06/2002
Matrix: SOIL

Analyses	Method Ref.	Result	Q	PQL	Units	DF	Analyst	Date
VOLATILES by GC/MS (5035)								
1. 1,1,1-Trichloroethane	SW8260B	< 50		50	µg/Kg-dry	1	DRF	02/07/2002
2. 1,1,2,2-Tetrachloroethane	SW8260B	< 50		50	µg/Kg-dry	1	DRF	02/07/2002
3. 1,1,2-Trichloroethane	SW8260B	< 50		50	µg/Kg-dry	1	DRF	02/07/2002
4. 1,1-Dichloroethane	SW8260B	< 50		50	µg/Kg-dry	1	DRF	02/07/2002
5. 1,1-Dichloroethene	SW8260B	< 50		50	µg/Kg-dry	1	DRF	02/07/2002
6. 1,2,4-Trimethylbenzene	SW8260B	< 50		50	µg/Kg-dry	1	DRF	02/07/2002
7. 1,2-Dibromoethane	SW8260B	< 50		50	µg/Kg-dry	1	DRF	02/07/2002
8. 1,2-Dichlorobenzene	SW8260B	< 50		50	µg/Kg-dry	1	DRF	02/07/2002
9. 1,2-Dichloroethane	SW8260B	< 50		50	µg/Kg-dry	1	DRF	02/07/2002
10. 1,2-Dichloropropane	SW8260B	< 50		50	µg/Kg-dry	1	DRF	02/07/2002
11. 1,3,5-Trimethylbenzene	SW8260B	< 50		50	µg/Kg-dry	1	DRF	02/07/2002
12. 1,3-Dichlorobenzene	SW8260B	< 50		50	µg/Kg-dry	1	DRF	02/07/2002
13. 1,4-Dichlorobenzene	SW8260B	< 50		50	µg/Kg-dry	1	DRF	02/07/2002
14. Benzene	SW8260B	< 50		50	µg/Kg-dry	1	DRF	02/07/2002
15. Bromodichloromethane	SW8260B	< 50		50	µg/Kg-dry	1	DRF	02/07/2002
16. Bromoform	SW8260B	< 50		50	µg/Kg-dry	1	DRF	02/07/2002
17. Bromomethane	SW8260B	< 50		50	µg/Kg-dry	1	DRF	02/07/2002
18. Carbon tetrachloride	SW8260B	< 50		50	µg/Kg-dry	1	DRF	02/07/2002
19. Chlorobenzene	SW8260B	< 50		50	µg/Kg-dry	1	DRF	02/07/2002
20. Chloroethane	SW8260B	< 50		50	µg/Kg-dry	1	DRF	02/07/2002
21. Chloroform	SW8260B	< 50		50	µg/Kg-dry	1	DRF	02/07/2002
22. Chloromethane	SW8260B	< 50		50	µg/Kg-dry	1	DRF	02/07/2002
23. cis-1,3-Dichloropropene	SW8260B	< 50		50	µg/Kg-dry	1	DRF	02/07/2002
24. Dibromochloromethane	SW8260B	< 50		50	µg/Kg-dry	1	DRF	02/07/2002
25. Ethylbenzene	SW8260B	< 50		50	µg/Kg-dry	1	DRF	02/07/2002
26. m,p-Xylene	SW8260B	< 100		100	µg/Kg-dry	1	DRF	02/07/2002
27. Methyl tert-butyl ether	SW8260B	< 250		250	µg/Kg-dry	1	DRF	02/07/2002
28. Methylene chloride	SW8260B	< 250		250	µg/Kg-dry	1	DRF	02/07/2002
29. o-Xylene	SW8260B	< 50		50	µg/Kg-dry	1	DRF	02/07/2002
30. Tetrachloroethene	SW8260B	< 50		50	µg/Kg-dry	1	DRF	02/07/2002
31. Toluene	SW8260B	< 50		50	µg/Kg-dry	1	DRF	02/07/2002
32. trans-1,2-Dichloroethene	SW8260B	< 50		50	µg/Kg-dry	1	DRF	02/07/2002
33. trans-1,3-Dichloropropene	SW8260B	< 50		50	µg/Kg-dry	1	DRF	02/07/2002
34. Trichloroethene	SW8260B	< 50		50	µg/Kg-dry	1	DRF	02/07/2002
35. Trichlorofluoromethane	SW8260B	< 50		50	µg/Kg-dry	1	DRF	02/07/2002
36. Vinyl chloride	SW8260B	< 50		50	µg/Kg-dry	1	DRF	02/07/2002

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Note: The sample results reported are based on the sample aliquot(s) tested.

BIO-CHEM Laboratories, Inc.

02/13/2002

Lab Order: 0202072
Client: Dixon Environmental
Project: 3890 Buchanan S.W.

ANALYTICAL DETAIL REPORT

Sample ID	Client Sample ID	Matrix	Test Name	Date Sampled	TC1P/SPLP Date	Prep Date	QC Batch	Analysis Date	Analytical Batch
0202072-01A	SB-2 (0.5-1')	Soil	PNAs by GC/MS	02/06/2002		02/06/2002	9177	02/10/2002	GCMS_E_020208B
	SB-2 (0.5-1')	Soil	TOTAL METAL(s) by GFAA	02/06/2002		02/08/2002	9209	02/11/2002	MTL_F_GF_020211B
	SB-2 (0.5-1')	Soil	TOTAL METAL(s) by ICP	02/06/2002		02/12/2002	9229	02/13/2002	MTL_G_ICP_020213A
	SB-2 (0.5-1')	Soil	VOLATILES by GC/MS (5035)	02/06/2002		02/07/2002	9206	02/07/2002	GCMS_Z_020207B
0202072-02A	SB-2 (3-3.5')	Soil	PNAs by GC/MS	02/06/2002		02/06/2002	9177	02/10/2002	GCMS_E_020208B
	SB-2 (3-3.5')	Soil	TOTAL METAL(s) by GFAA	02/06/2002		02/08/2002	9209	02/11/2002	MTL_F_GF_020211B
	SB-2 (3-3.5')	Soil	TOTAL METAL(s) by ICP	02/06/2002		02/12/2002	9229	02/13/2002	MTL_G_ICP_020213A
	SB-2 (3-3.5')	Soil	VOLATILES by GC/MS (5035)	02/06/2002		02/07/2002	9206	02/07/2002	GCMS_Z_020207B



D

DIXON
ENVIRONMENTAL CONSULTING, INC.

APPENDIX D

**CONTAMINATION DELINEATION SAMPLING AND
CHEMICAL ANALYSIS REPORT
COMPLETED BY DIXON ENVIRONMENTAL CONSULTING, INC.
ON APRIL 10, 2002**

***CONTAMINANT DELINEATION REPORT
CONICAL TOOL COMPANY
3890 BUCHANAN AVENUE, SW
WYOMING, MICHIGAN***

Prepared for:

*Ms. Harriet Stanaback
Conical Tool Company
3890 Buchanan Avenue, SW
Wyoming, Michigan 49548*

Prepared by:

*Dixon Environmental Consulting, Inc.
750 Ottawa Avenue, NW
Grand Rapids, Michigan 49503*

April 10, 2002

April 10, 2002

Ms. Harriet Stanaback
Conical Tool Company
3890 Buchanan Avenue, SW
Wyoming, Michigan 49548

**RE: Contaminant Delineation Sampling and Chemical Analysis at:
Approximate 1.5 Acres (Industrial) Conical Tool Company Property
3890 Buchanan Avenue, SW
Wyoming, Kent County, Michigan
Tax Parcel Identification Number: 41-17-24-276-014
DEC Project No: 02-01-011**

Dear Ms. Stanaback:

Dixon Environmental Consulting, Inc. (DEC) has completed the Contaminant Delineation Sampling and Chemical Analysis (Contaminant Delineation) at the above referenced property. A Project Location Map is attached as Figure 1. The scope of work for the Contaminant Delineation was derived from the results of the Phase II ESA completed by DEC on February 14, 2002. The Phase II ESA determined that the subject site was a "facility" as defined under the Natural Resources and Environmental Protection Act, P.A. 451, Part 201 of 1994, as amended (Part 201). Based on the chemical analysis results from the Phase II ESA, several hazardous substances were identified at concentrations which exceeded the Part 201 Residential and Commercial I Drinking Water Protection Criteria or the Residential and Commercial I Direct Contact Criteria. Specifically, the hazardous substances were identified as: chromium, iron, molybdenum, nickel, 1,3,5 trimethylbenzene and trichloroethene. The purpose of this investigation was to conduct vertical and horizontal delineation of the two impacted areas and assess the feasibility to excavate/dispose of the impacted soil media or other alternative measures.

In addition, DEC identified another area on the subject site with surficial soil staining similar to the area east of the subject building. The stained soil area was adjacent to the solid waste dumpster located north of the subject building. DEC was also retained to characterize and partially delineate the impacted media at this location. Previously, the dumpster area was partially covered with snow which prevented DEC from visually assessing the conditions of the soil. The results of the investigation are included within this report.

Contaminant Delineation Investigation

On March 26 and 27, 2002, DEC mobilized to the subject site to conduct a total of ten soil borings. The borings were conducted to estimate the extent of contamination in the soil and groundwater at the subject site. During the Phase II ESA, DEC identified two "source" areas of contamination. One area was located east of the subject building. The other area was located centrally within the subject building. A third stained soil area was identified near the northern property boundary adjacent to the on-site solid waste dumpster. DEC conducted one of the borings at the oil stained area near the dumpster.

To assess the vertical limits of the impacted media, DEC conducted an earthprobe boring near each of the previous shallow soil borings, which were conducted during the Phase II ESA (**SB-1** and **SB-2**). The borings were advanced to the groundwater, which was encountered at approximately 17 feet below grade limit (bgl). Several soil samples were collected from approximately 10 feet bgl. A groundwater sample was collected at the groundwater interface. A portion of each groundwater sample was filtered for dissolved metals analysis. DEC screened other select soil samples for the presence of volatile organic compounds (VOCs) using a photoionization device. The results of the field screening are depicted in the soil boring logs.

To assess the horizontal limits of the impacted media, DEC conducted seven additional borings in various directions approximately 15-20 feet horizontally away from the vertical delineation borings. One of the borings was conducted near the midpoint distance between **SB-1** and **SB-2**. From the

horizontal delineation borings, soil samples were collected from a shallow interval at one to three feet bgl.

One additional soil boring, GP-9, was conducted near the solid waste dumpster. Soil samples were collected from the intervals of 0.5 to one foot and 9 to 11 feet bgl. A groundwater sample was also collected from 15-17 feet bgl. The soil and groundwater samples from this location were analyzed for VOCs, polynuclear aromatic hydrocarbons (PNAs), and metals.

The soil and groundwater samples were submitted to Bio-Chem Laboratories, Inc. (Bio-Chem) under standard chain-of-custody procedures. The delineation samples were analyzed for the presence of 1,3,5-trimethylbenzene and trichloroethene via EPA Method 8260 (EPA 5035 Encore collection method for soil) and total and dissolved chromium, total and dissolved nickel, total and dissolved iron and total and dissolved molybdenum.

An earthprobe sampling device or a stainless steel hand auger was utilized to conduct all soil borings at the subject site. A hammer drill with a concrete coring bit was utilized to penetrate the concrete floor prior to conducting the soil borings within the building. The specific locations of the soil borings and soil boring logs are included as Figure 2 and Attachment A, respectively. A cross section profile of the lithology is depicted as Figure 3. The soil borings conducted at the site were backfilled utilizing the soil boring cuttings and/or bentonite chips. The concrete surface was also restored at each boring location within the building structure.

A vertical profile soil boring, **GP-1**, was conducted immediately adjacent to boring, **SB-2**, within the area of historically discolored soil within the subject building. Beneath the concrete surface, a dark brown, fine to medium sand with some coarse gravel and cobbles was encountered from 4 inches below grade limit (bgl) to a depth of approximately 8 feet bgl. From 8 to 20 feet bgl, a brown medium to coarse sand with some fine to coarse gravel and cobbles was encountered. A soil sample, **GP-1 (9-10')**, was collected from 9 to 10 feet bgl. The groundwater was encountered at approximately 17.5 feet bgl. A groundwater sample, **GP-1 (17.5-19)**, was collected for chemical analysis. The soil boring was terminated at 20 feet bgl.

A horizontal delineation soil boring, **GP-2**, was conducted 15 feet north of **SB-2**. Beneath the concrete surface, DEC encountered a dark brown, dry, fine to medium sand with little fine to coarse gravel from 4 inches to 3 feet bgl. A soil sample, **GP-2 (1-3')**, was collected from 1 to 3 feet bgl for chemical analysis. The soil boring was terminated at 3 feet bgl.

A horizontal delineation soil boring, **GP-3**, was conducted 18 feet west of **SB-2**. Beneath the concrete surface, DEC encountered a dark brown, dry, fine to medium sand with little fine to coarse gravel from 4 inches to 3 feet bgl. A soil sample, **GP-3 (1-3')**, was collected from 1 to 3 feet bgl for chemical analysis. The soil boring was terminated at 3 feet bgl.

A horizontal delineation soil boring, **GP-4**, was conducted 30 feet east of **SB-2**. Beneath the concrete surface, DEC encountered a dark brown, fine to medium sand with some fine to coarse gravel from 4 inches to 3 feet bgl. A soil sample, **GP-2 (1-3')**, was collected from 1 to 3 feet bgl for chemical analysis. The soil boring was terminated at 3 feet bgl.

A vertical profile soil boring, **GP-5**, was conducted immediately adjacent to boring **SB-1** within the exterior area of discolored soil east of the subject building. A black, fine to medium sand with little fine to coarse gravel was encountered from the ground surface to a depth of approximately 3 feet bgl. From 3 to 7 feet bgl, a dark brown, medium to coarse sand with trace fine gravel was encountered. From 7 to 17 feet bgl, a brown, medium to coarse sand with some fine to coarse gravel and cobbles was encountered. A soil sample, **GP-1 (13-15')**, was collected from 13 to 15 feet bgl. The groundwater was encountered at approximately 16.5 feet bgl. A groundwater sample, **GP-5 (17-19')**, was collected for chemical analysis. The soil boring was terminated at 19 feet bgl.

A horizontal delineation soil boring, **GP-6**, was conducted 20 feet south of **SB-1**. Approximately 6 inches of topsoil exists at the surface. Beneath the topsoil, DEC encountered a brown, medium sand from 6 inches to 2 feet bgl. A soil sample, **GP-6 (1-1.5')**, was collected from 1 to 1.5 feet bgl for chemical analysis. The soil boring was terminated at 2 feet bgl.

A horizontal delineation soil boring, **GP-7**, was conducted 20 feet east of **SB-1**. Approximately one foot of road stabilizing gravel exists at the surface. Beneath the gravel, DEC encountered a dark brown, medium sand with little fine to coarse gravel from one foot to 1.5 feet bgl. A soil sample, **GP-7 (1-1.5')**, was collected from one to 1.5 feet bgl for chemical analysis. The soil boring was terminated at 1.5 feet bgl.

A horizontal delineation soil boring, **GP-8**, was conducted 20 feet north of **SB-1**. Approximately six inches of road stabilizing gravel exists at the surface. From 6 inches to one foot bgl, DEC encountered a brown, medium sand with little fine to coarse gravel. From one foot to 1.5 feet bgl, DEC encountered a dark brown, medium sand with some fine to coarse gravel. A soil sample, **GP-8 (1-1.5')**, was collected from 1 to 1.5 feet bgl for chemical analysis. The soil boring was terminated at 1.5 feet bgl.

A horizontal delineation soil boring, **GP-10**, was conducted 18 feet south of **SB-2**. Beneath the concrete surface, DEC encountered a brown, dry, medium sand with little fine to coarse gravel from 4 inches to one foot bgl. A soil sample, **GP-10 (1')**, was collected from 1 foot bgl for chemical analysis. The soil boring was terminated at one foot bgl.

Soil boring, **GP-9**, was conducted near the stained soil at the solid waste dumpster near the northern property boundary. A dark brown to black, fine to coarse gravel with some medium sand was encountered from the ground surface to a depth of approximately 2.5 feet bgl. A soil sample, **GP-9 (0.5-1')**, was collected from 0.5 to one foot bgl. From 2.5 to 7 feet bgl, an orangish brown, medium sand was encountered. From 7 to 9 feet bgl, a brown, medium to coarse sand with little fine to coarse gravel was encountered. From 9 to 11 feet bgl, a brown, medium sand was encountered. A soil sample, **GP-9 (9-11')**, was collected from 9 to 11 feet bgl. From 11 to 14.5 feet bgl a brown, medium to coarse sand with little fine to coarse gravel was encountered. A brown, very fine sand with trace clay was encountered from 14.5 to 17 feet bgl. The groundwater was encountered at approximately 14.5 feet bgl. A groundwater sample, **GP-9 (15-17')**, was collected for chemical analysis. The soil boring was terminated at 17 feet bgl.

New, powderless latex or nitrile gloves were utilized when each individual sample was collected. The soil samples were collected using Encore® sampling containers and four ounce glass jars with Teflon™ septa seals. The soil samples for VOC analysis were collected via U.S. EPA Method 5035 using the Encore® samplers. The “contact” areas of the sampling equipment were decontaminated using a soapy rinse and a distilled water rinse between borings.

The samples were placed in a chilled cooler and transported to Bio-Chem Laboratories, Inc. (Bio-Chem) of Grand Rapids, Michigan for chemical analysis under standard chain-of-custody procedures. The soil and groundwater samples were analyzed for the presence of chromium, iron, molybdenum, nickel, 1,3,5 trimethylbenzene and trichloroethene. The soil and groundwater samples collected from **GP-9** were analyzed for the presence of volatile organic compounds (VOCs) via U.S. EPA 8260, polynuclear aromatic hydrocarbons (PNAs) via U.S. EPA 8270 and aluminum, arsenic, cadmium, chromium, iron, lead, nickel, molybdenum, silver and zinc via EPA approved “total and/or dissolved analysis” methods.

Analytical Results Summary

DEC received the copies of the analytical results on April 5, 2002. Detectable concentrations of chromium, iron, molybdenum, nickel, 1,3,5-trimethylbenzene and trichloroethene were identified in the horizontal and vertical delineation samples. Ten of the eleven soil and groundwater analytical results, identified one or more hazardous substances in exceedance of the State of Michigan Generic Residential Cleanup Criteria (GRCC).

One boring, **GP-9**, was conducted to characterize the stained soil identified at the northern limits of the subject property near the solid waste dumpster. The results for the soil samples identified 1,3,5-trimethylbenzene, 1,2,4-trimethylbenzene, dibenzo(a,h)anthracene, chromium, iron, molybdenum, nickel and silver in exceedance of the GRCC in the soil.

The data is summarized in the following tables. The laboratory data sheets are included as Attachment B.

Table 1 - Contaminant Delineation Soil Sample Analytical Results Summary
3890 Buchanan Avenue, SW, Wyoming, Michigan

Constituent	CAS Number	GP-1 (9-10') (µg/Kg)	GP-2 (1-3') (µg/Kg)	GP-3 (1-3') (µg/Kg)	GP-4 (1-3') (µg/Kg)	GP-5 (13-15') (µg/Kg)	GP-6 (1-1.5') (µg/Kg)	GP-7 (1-1.5') (µg/Kg)	GP-8 (1-1.5') (µg/Kg)	GP-10 (1') (µg/Kg)	GRCC for Soil (µg/Kg)
1,3,5-trimethylbenzene	108678	< 50	< 50	< 50	< 50	1,300	< 50	< 50	< 50	< 50	1,800 ^a
trichloroethene	79016	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	100 ^a
chromium	18540299	3,700	51,000	540,000	82,000	110,000	7,200	8,800	62,000	6,300	30,000 ^a
iron	7439896	9,200,000	26,000,000	21,000,000	11,000,000	7,900,000	3,400,000	5,200,000	6,900,000	5,100,000	12,000,000 ^b
molybdenum	7439987	< 500	38,000	580,000	83,000	230,000	5,400	4,500	53,000	950	740 ^a
nickel	7440020	9,400	37,000	59,000	17,000	15,000	4,200	8,100	14,000	6,300	100,000 ^a

Notes:

- ^a Residential & Commercial I Drinking Water Protection Criteria.
- ^b Statewide Default Background Level.
- BDL - Below the respective method detection limits.
- Results in bold exceed the GRCC as outlined in the Environmental Response Division Operational Memorandum #18: Part 201 Generic Cleanup Criteria Tables, Revision 1, June 7, 2000.
- Samples collected on March 26 and 27, 2002

Table 2 - Soil Sample Analytical Results Summary
 3890 Buchanan Avenue, SW, Wyoming, Michigan

Constituent	CAS Number	GP-9 (0.5-1') (µg/Kg)	GP-9 (9-11') (µg/Kg)	GRCC for Soil (µg/Kg)
1,2,4-trimethylbenzene	95636	24,000	500	2,100 *
1,3,5-trimethylbenzene	108678	7,900	130	1,800 *
ethylbenzene	100414	560	< 50	1,500 *
total xylenes	1330207	4,800	< 150	5,600 *
toluene	108883	110	< 50	16,000 *
Remaining VOCs	-	BDL	BDL	-
acenaphthene	83329	< 330	< 330	300,000 *
acenaphthylene	208968	< 330	< 330	5,900 *
anthracene	120127	< 330	< 330	41,000 *
benzo(a)anthracene	56553	1,700	< 330	20,000 ^b
benzo(a)pyrene	50328	1,800	< 330	2,000 ^b
benzo(h)fluoranthene	205992	880	< 330	20,000 ^b
benzo(g,h,i)perylene	191242	8,200	< 330	2,500,000 ^b
benzo(k)fluoranthene	207089	750	< 330	200,000 ^b
chrysene	218019	2,100	< 330	2,000,000 ^b
dibenzo(a,h)anthracene	53703	4,400	< 330	2,000 ^b
fluoranthene	206440	19,000	< 330	730,000 *
fluorene	86737	< 330	< 330	390,000 *
indeno(1,2,3-cd)pyrene	193395	6,500	< 330	20,000 ^b
naphthalene	91203	1,200	< 330	35,000 *
phenanthrene	85018	1,100	< 330	56,000 *
pyrene	129000	13,000	< 330	480,000 *

Notes:

- * Residential & Commercial I Drinking Water Protection Criteria.
- ^b Direct Contact Criteria.
- ^c Statewide Default Background Level.
- BDL - Below the respective method detection limits.
- Results in bold exceed the GRCC as outlined in the Environmental Response Division Operational Memorandum #18: Part 201 Generic Cleanup Criteria Tables, Revision 1, June 7, 2000.
- Samples collected on March 26 and 27, 2002

Table 2 - Soil Sample Analytical Results Summary, cont.
 3890 Buchanan Avenue, SW, Wyoming, Michigan

Constituent	CAS Number	GP-9 (0.5-1') (µg/Kg)	GP-9 (9-11') (µg/Kg)	GRCC for Soil (µg/Kg)
aluminum	7429905	4,400,000	2,400,000	6,900,000 ^c
arsenic	7440382	4,100	1,400	7,600 ^b
cadmium	7440439	330	< 50	6,000 ^a
chromium	18540299	38,000	9,100	30,000 ^a
iron	7439896	13,000,000	3,600,000	12,000,000 ^c
lead	7439921	50,000	2,000	400,000 ^b
molybdenum	7439987	25,000	8,700	740 ^a
nickel	7440020	140,000	6,000	100,000 ^a
silver	7440224	15,000	< 500	4,500 ^a
zinc	7440666	210,000	11,000	2,400,000 ^a

Notes:

- ^a Residential & Commercial I Drinking Water Protection Criteria.
- ^b Direct Contact Criteria.
- ^c Statewide Default Background Level.
- Results in bold exceed the GRCC as outlined in the Environmental Response Division Operational Memorandum #18: Part 201 Generic Cleanup Criteria Tables, Revision 1, June 7, 2000.
- Samples collected on March 26 and 27, 2002

Table 3 - Groundwater Sample Analytical Results Summary
 3890 Buchanan Avenue, SW, Wyoming, Michigan

Constituent	CAS Number	GP-1 (17.5-19') (µg/L)	GP-5 (17-19') (µg/L)	GP-9 (15-17') (µg/L)	GRCC for Groundwater (µg/L)*
1,3,5-trimethylbenzene	108678	< 1	< 1	< 1	72
trichloroethene	79016	14	100	< 1	5.0
Remaining VOCs	-	NS	NS	BDL	-
molybdenum	7439987	< 10	< 10	22	37
zinc	7440666	NS	NS	29	2,400
Remaining Metals	-	BDL	BDL	BDL	-

Notes:

- ^a Residential and Commercial I Drinking Water Criteria.
- BDL - Below the respective method detection limits.
- NS - Not analyzed for respective parameter(s).
- Samples were collected on March 26, 2002.

Conclusions

DEC was retained to provide the environmental services relating to Contaminant Delineation Sampling and Reporting (Contaminant Delineation) for the Conical Tool Company property located at 3890 Buchanan Avenue, SW, Wyoming, Kent County, Michigan. The purpose of the Contaminant Delineation was to investigate the limits of contamination that was identified during the previous Phase II ESA. The Contaminant Delineation was also intended to assist in approximating a cost to respond to the contamination under Part 201.

Based on the results of this Contaminant Delineation, the contamination across the subject property is pervasive. DEC has encountered hazardous substances in ten of eleven delineation samples collected from the site. In addition to trichloroethene, 1,3,5-trimethylbenzene, molybdenum, chromium, iron and nickel, DEC also encountered 1,2,4-trimethylbenzene, dibenzo(a,h)anthracene and silver in the soil that exceeded of the GRCC near the solid waste dumpster. Based on the analytical results, no estimate can be drawn regarding the limits of contamination. One can conclude, however, that the limits of the impacted soil and groundwater are more extensive than the two isolated areas identified in the Phase I ESA and Phase II ESA. In addition, the feasibility to "excavate and dispose" of impacted soil without significant disruption to the building and operations at the subject site is improbable.

If you have any questions or comments, please contact us at 742-5511.

Sincerely,

DIXON ENVIRONMENTAL CONSULTING, INC.

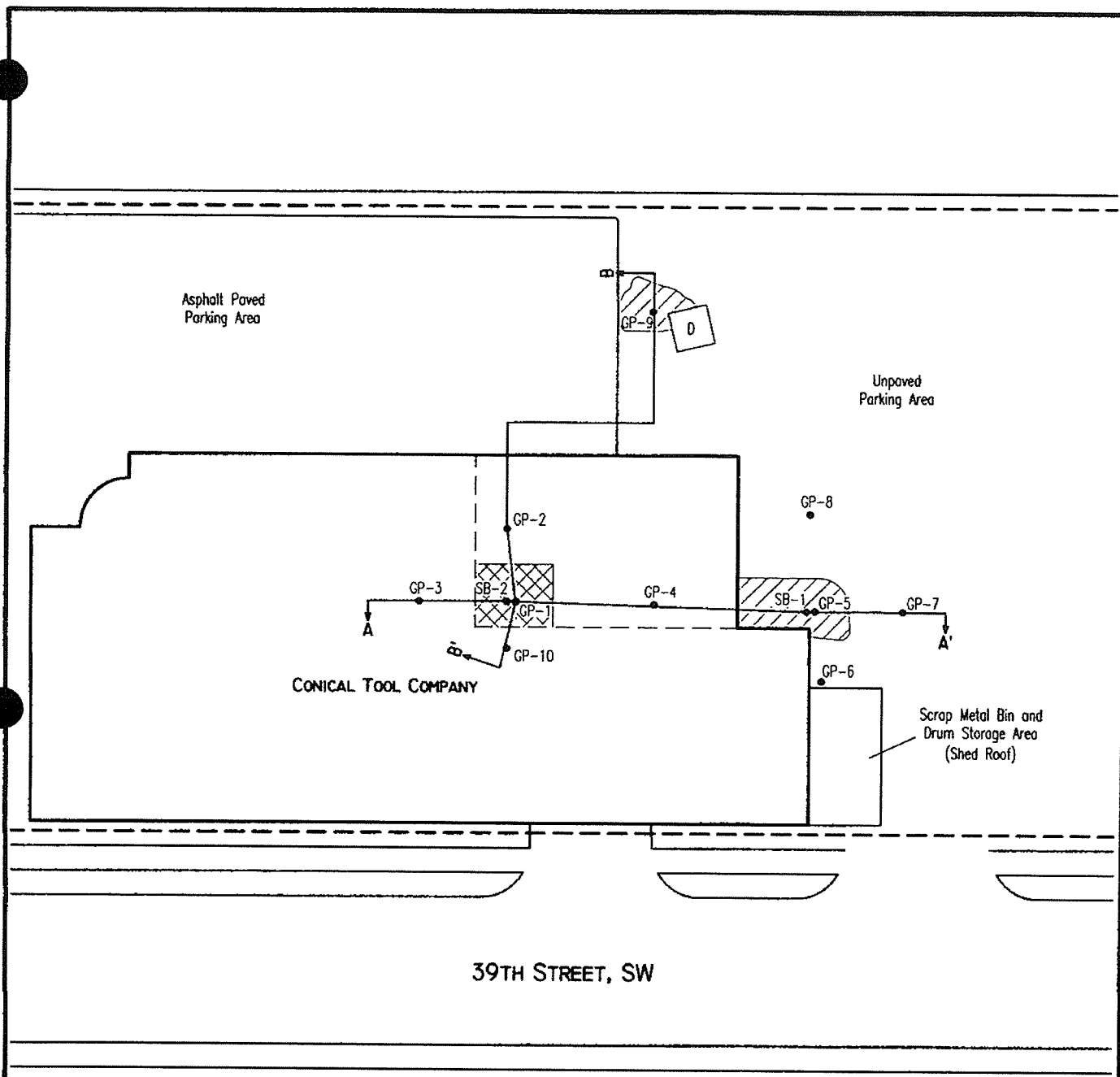
Stephen M. Heintz
Project Scientist

James E. Dixon, P.E.
Principal Engineer

Attachments (figures, boring logs and analytical results)

FIGURES

**PROJECT LOCATION MAP
BORING LOCATION DIAGRAM
CROSS-SECTIONAL DIAGRAM**



39TH STREET, SW

LEGEND

- PROPERTY BOUNDARY
- FORMER LIMITS OF BUILDING
- SOLID WASTE DUMPSTER
- AREA OF DISCOLORED SOIL
- HISTORICAL AREA OF DISCOLORED SOIL
- SB-1 PHASE II ENVIRONMENTAL SITE ASSESSMENT BORING LOCATION
- GP-1 EARTH PROBE BORING LOCATION
- A-A' CROSS-SECTION LINE (SEE FIGURE 3)

NOTE: THIS DIAGRAM IS NOT A LEGAL SURVEY. APPROXIMATE SCALE: 1" = 30'

D I X O N
ENVIRONMENTAL CONSULTING, INC.

CONTAMINANT DELINEATION

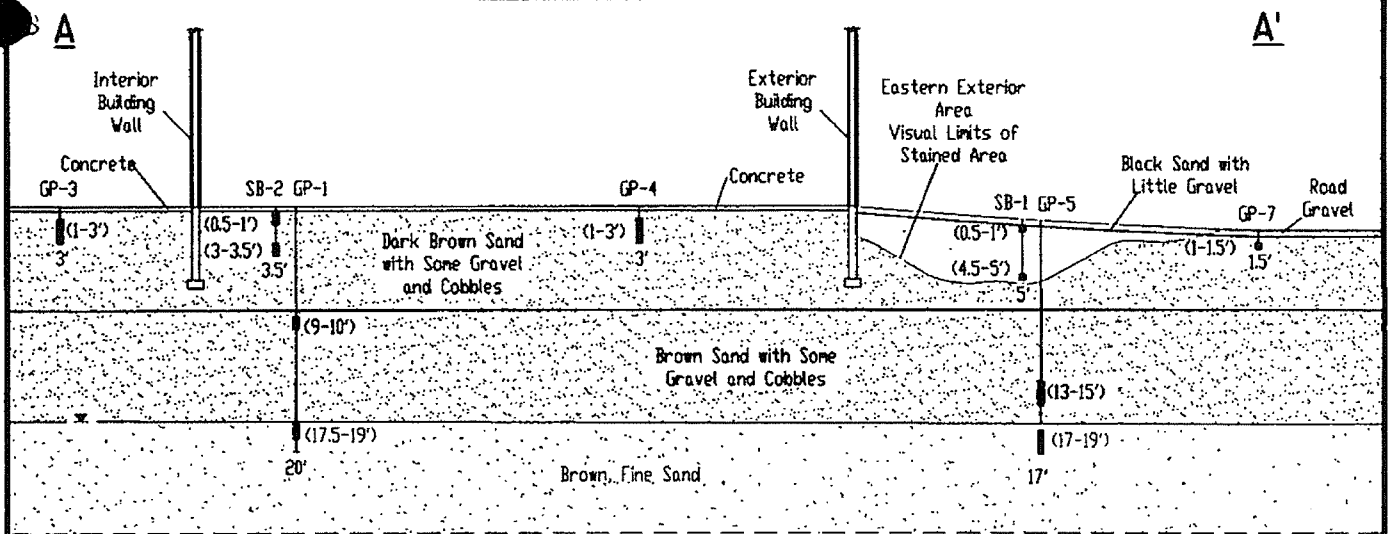
FIGURE 2 - BORING LOCATION DIAGRAM

CONICAL TOOL COMPANY
3890 BUCHANAN AVENUE, SW
WYOMING, KENT COUNTY, MICHIGAN

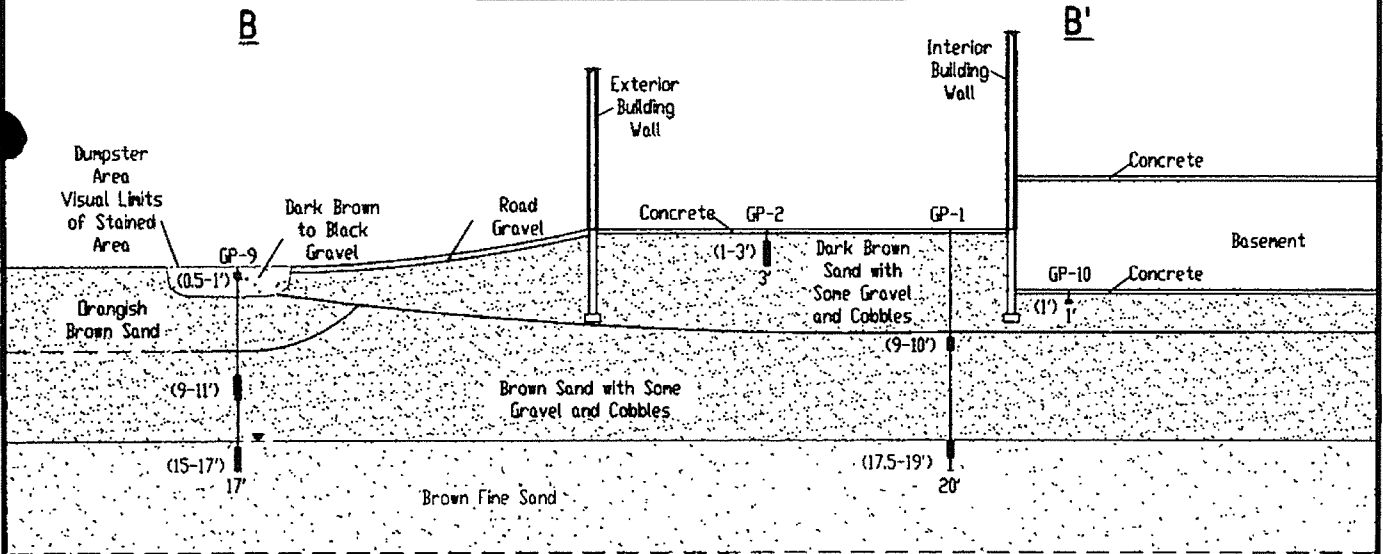
PROJECT NO: 02-02-007 APRIL 10, 2002

750 OTTAWA AVENUE, NW TELEPHONE: (616) 742-5511
GRAND RAPIDS, MI 49503 FACSIMILE: (616) 742-5522

WEST TO EAST CROSS SECTION



NORTH TO SOUTH CROSS SECTION



LEGEND

- (9-10') ■ SOIL SAMPLE
- (17.5-19') ■ GROUNDWATER SAMPLE

NOTES: DRAWING DEPICTS GENERALIZED SOIL CROSS-SECTIONS. FOR DETAILED SOIL DESCRIPTIONS, SEE BORING LOGS.
FEATURES IN RED DENOTE (RECOGNIZED ENVIRONMENTAL CONDITIONS.)

APPROXIMATE SCALE: 1" = 15'

D I X O N

ENVIRONMENTAL CONSULTING, INC.

CONTAMINANT DELINEATION

FIGURE 3 - CROSS-SECTIONAL DIAGRAM

CONICAL TOOL COMPANY
3890 BUCHANAN AVENUE, SW
WYOMING, KENT COUNTY, MICHIGAN

PROJECT NO: 02-02-007

APRIL 10, 2002

750 OTTAWA AVENUE, NW
GRAND RAPIDS, MI 49503

TELEPHONE: (616) 742-5511
FACSIMILE: (616) 742-5522

ATTACHMENT A
BORING LOGS

Project No. 02-02-007
Boring No. GP-1
Sheet 1 of 1

BORING LOG

DIXON

ENVIRONMENTAL CONSULTING, INC.

750 OTTAWA AVENUE, NW
GRAND RAPIDS, MI 49503

FACSIMILE: (616) 742-5522
TELEPHONE: (616) 742-5511

Project Contaminant Delineation Sampling
Client Conical Tool Company
Location 3890 Buchanan Avenue, SW, Wyoming, MI
Driller Scott Dembowski Drill Type Earth Probe
Driller Asst. Plugging Record: Abandoned
Field Eng. M. Marshall with soil cuttings and bentonite
Reviewed By J. Dixon pellets.
Elevation Depth Drilled 20 FT
Notes Within Southwestern Corner of
Northeast Building Addition - Adjacent to SB-2

Contractor The PROBE - Geosampling, LLC.
Date Begin 3/26/02 Date End 3/26/02

	TYPE	DIA.	NO.	GROUNDWATER
Casing				Encounter 17.5 FT
Sampler				End
Core				Seepage
Tube				Date Depth

SOIL TYPE: Coarse Grained (Cohesionless)

Boulder (> 12") Gravel - Coarse (3" to 3/4")
Cobbles (12" to 3") - Fine (3/4" to No. 4)

Sand - Coarse (No. 4 to No. 10)
- Medium (No. 10 to No. 40)
- Fine (No. 40 to No. 200)

Silt
Clayey Silt
Silt and Clay

Fine-Grained (Cohesive)

PI < 1 Clay and Silt
1 < PI < .5 Silty Clay
5 < PI < 10 Clay
10 < PI < 20
20 < PI < 40
PI > 40

Minor Component: Trace 1-10%. Little 10-20%. Some 20-35%. And 35-50%

PID = Photoionization Device (PPM)

☒ = Water Table

Depth FEET	Sample (INT.)	REC FEET	PENETRATION Blows Per 6" ASTM D 1586	UNIF SOIL CLASS.	DESCRIPTION	REMARKS	PID
					Concrete		
2-4'				SW	Dark Brown, Fine to Medium SAND with Some Coarse Gravel and Cobbles	* Soil sample collected from 2 to 4 FT bgl and analyzed with a PID.	0.2
5-7'						* Soil sample collected from 5 to 7 FT bgl and analyzed with a PID.	2.4
9-10' 10-11'				SW	Brown, Medium to Coarse SAND with Some Fine to Coarse Gravel and Cobbles	* Soil sample collected from 9 to 10 FT bgl and submitted to a laboratory for chemical analysis. * Soil sample collected from 10 to 11 FT bgl and analyzed with a PID.	2.4 2.6
14-16'						* Soil sample collected from 14 to 16 FT bgl and analyzed with a PID.	0.3
17.5- 19'					☒	* Groundwater sample collected from 17.5 to 19 FT bgl and submitted to a laboratory for chemical analysis.	
20					End Of Boring @ 20 FT	* Boring backfilled with soil cuttings and bentonite pellets. Concrete surface restored	
25							
30							
35							

Depth FEET	Sample (INT.)	REC FEET	PENETRATION Blows Per 6" ASTM D 1586	UNIF SOIL CLASS.	DESCRIPTION	REMARKS	PID
					Concrete		
2	1-3'			SW	Dark Brown, Fine to Medium SAND with Little Fine to Coarse Gravel, Dry	* Soil sample collected from 1 to 3 FT bgl and submitted to a laboratory for chemical analysis.	0.3
3					End Of Boring @ 3 FT	* Boring backfilled with soil cuttings and bentonite pellets. Concrete surface restored.	
4							
5							
6							

Project No. <u>02-02-007</u> Boring No. <u>GP-3</u> Sheet <u>1</u> of <u>1</u>	BORING LOG	DIXON ENVIRONMENTAL CONSULTING, INC. 750 OTTAWA AVENUE, NW GRAND RAPIDS, MI 49503 FACSIMILE: (616) 742-5522 TELEPHONE: (616) 742-5511																																								
Project <u>Phase II Environmental Site Assessment</u> Client <u>Conical Tool Company</u> Location <u>3890 Buchanan Avenue, SW, Wyoming, MI</u> Driller <u>Scott Dembowske</u> Driller Asst. _____ Field Eng. <u>M. Marshall</u> Reviewed By <u>J. Dixon</u> Elevation _____ Notes <u>18 Feet West of SB-2,</u> <u>Within Original Building Structure</u>		Contractor <u>The PROBE - Goesampling, LLC.</u> Date Begin <u>3/26/02</u> Date End <u>3/26/02</u>																																								
Drill Type <u>Earth Probe</u> Plugging Record: <u>Abandoned</u> <u>with soil cuttings and bentonite</u> <u>pellets.</u> Depth Drilled <u>3 FT</u>		<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th></th> <th>TYPE</th> <th>DIA.</th> <th>NO.</th> <th>GROUNDWATER</th> </tr> <tr> <td>Casing</td> <td></td> <td></td> <td></td> <td>Encounter NA</td> </tr> <tr> <td>Sampler</td> <td></td> <td></td> <td></td> <td>End</td> </tr> <tr> <td>Core</td> <td></td> <td></td> <td></td> <td>Seepage</td> </tr> <tr> <td>Tube</td> <td></td> <td></td> <td></td> <td>Date _____ Depth _____</td> </tr> <tr><td> </td><td></td><td></td><td></td><td></td></tr> <tr><td> </td><td></td><td></td><td></td><td></td></tr> <tr><td> </td><td></td><td></td><td></td><td></td></tr> </table>		TYPE	DIA.	NO.	GROUNDWATER	Casing				Encounter NA	Sampler				End	Core				Seepage	Tube				Date _____ Depth _____															
	TYPE	DIA.	NO.	GROUNDWATER																																						
Casing				Encounter NA																																						
Sampler				End																																						
Core				Seepage																																						
Tube				Date _____ Depth _____																																						
SOIL TYPE: Coarse Grained (Cohesionless) Boulder (> 12") Gravel - Coarse (3" to 3/4") Sand - Coarse (No. 4 to No. 10) Silt PI < 1 Clay and Silt 10 < PI < 20 Cobbles (12" to 3") - Fine (3/4" to No. 4) - Medium (No. 10 to No. 40) Clayey Silt 1 < PI < .5 Silty Clay 20 < PI < 40 - Fine (No. 40 to No. 200) Silt and Clay 5 < PI < 10 Clay PI > 40																																										
Minor Component: Trace 1-10%. Little 10-20%. Some 20-35%. And 35-50% PID = Photoionization Device (PPM) ☒ = Water Table																																										
Depth FEET	Sample (INT.)	REC FEET	PENETRATION Blows Per 6" ASTM D 1586	UNIF SOIL CLASS.	DESCRIPTION	REMARKS	PID																																			
					Concrete																																					
2	1-3'			SW	Dark Brown, Fine to Medium SAND with Little Fine to Coarse Gravel, Dry	* Soil sample collected from i to 3 FT bgl and submitted to a laboratory for chemical analysis.	2.3																																			
3					End Of Boring @ 3 FT	* Boring backfilled with soil cuttings and bentonite pellets. Concrete surface restored.																																				
4																																										
5																																										
6																																										
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Project No. 02-02-007

Boring No. GP-5

Sheet 1 of 1

BORING LOG

DIXON

ENVIRONMENTAL CONSULTING, INC.

750 OTTAWA AVENUE, NW
GRAND RAPIDS, MI 49503FACSIMILE: (616) 742-5522
TELEPHONE: (616) 742-5511

Project Contaminant Delineation Sampling

Client Conical Tool Company

Location 3890 Buchanan Avenue, SW, Wyoming, MI

Driller Scott Dembowske

Drill Type Earth Probe

Driller Asst.

Plugging Record: Abandoned
with soil cuttings and bentonite
pellets.

Field Eng. M. Marshall

Reviewed By J. Dixon

Elevation

Depth Drilled 19 FT

Notes Northeastern Exterior Corner of Building -

Adjacent to SB-1

Contractor

The PROBE - Geosampling, LLC.

Date Begin

3/26/02

Date End

3/26/02

	TYPE	DIA.	NO.	GROUNDWATER
Casing				Encounter 16.5 FT
Sampler				End
Core				Seepage
Tube				Date Depth

SOIL TYPE: Coarse Grained (Cohesionless)

Boulder (> 12")

Gravel - Coarse (3" to 3/4")

Sand - Coarse (No. 4 to No. 10)

Silt

Fine-Grained (Cohesive)

PI < 1

Clay and Silt

10 < PI < 20

Cobbles (12" to 3")

- Fine (3/4" to No. 4)

- Medium (No. 10 to No. 40)

Clayey Silt

1 < PI < .5

Silty Clay

20 < PI < 40

- Fine (No. 40 to No. 200)

Silt and Clay

5 < PI < 10

Clay

PI > 40

Minor Component: Trace 1-10%. Little 10-20%. Some 20-35%. And 35-50%

PID = Photoionization Device (PPM)

☒ = Water Table

Depth FEET	Sample (INT.)	REC FEET	PENETRATION Blows Per 6" ASTM D 1586	UNIF SOIL CLASS	DESCRIPTION	REMARKS	PID
1-3'				SW	Black, Fine to Medium SAND with Little Fine to Coarse Gravel	* Soil sample collected from 1 to 3 FT bgl and analyzed with a PID.	33.5
5-7'				SW	Dark Brown, Medium to Coarse SAND with Trace Fine Gravel	* Soil sample collected from 5 to 7 FT bgl and analyzed with a PID.	70.6
9-11'				SW	Brown, Medium to Coarse SAND with Some Fine to Coarse Gravel and Cobbles	* Soil sample collected from 9 to 11 FT bgl and analyzed with a PID.	4.6
13-15'						* Soil sample collected from 13 to 15 FT bgl and submitted to a laboratory for chemical analysis.	70.6
17-19'				SP	Brown, Very Fine SAND, Saturated	* Groundwater sample collected from 17 to 19 FT bgl and submitted to a laboratory for chemical analysis.	
20					End Of Boring @ 19 FT	* Boring backfilled with soil cuttings and bentonite pellets.	
25							
30							
35							

Project No. <u>02-02-007</u> Boring No. <u>GP-6</u> Sheet <u>1</u> of <u>1</u>	BORING LOG	DIXON ENVIRONMENTAL CONSULTING, INC. 750 OTTAWA AVENUE, NW GRAND RAPIDS, MI 49503 FACSIMILE: (616) 742-5522 TELEPHONE: (616) 742-5511

Project <u>Contaminant Delineation Sampling</u>		Contractor <u>Dixon Environmental Consulting, Inc.</u>	
Client <u>Conical Tool Company</u>		Date Begin <u>3/27/02</u> Date End <u>3/27/02</u>	
Location <u>3890 Buchanan Avenue, SW, Wyoming, MI</u>			
Driller <u>Mike Marshall</u>	Drill Type <u>Hand Tools</u>		
Driller Asst. _____	Plugging Record: <u>Abandoned</u> with soil cuttings.		
Field Eng. <u>M. Marshall</u>			
Reviewed By <u>J. Dixon</u>			
Elevation _____	Depth Drilled <u>2 FT</u>		
Notes <u>20 Feet South of SB-1,</u> <u>North of Scrap Bin Storage Area</u>			

	TYPE	DIA.	NO.	GROUNDWATER
Casing				Encounter NA
Sampler				End
Core				Seepage
Tube				Date _____ Depth _____

SOIL TYPE: Coarse Grained (Cohesionless)

Boulder (> 12")	Gravel - Coarse (3" to 3/4")	Sand - Coarse (No. 4 to No. 10)	Silt	PI < 1	Clay and Silt	10 < PI < 20
Cobbles (12" to 3")	- Fine (3/4" to No. 4)	- Medium (No. 10 to No. 40)	Clayey Silt	1 < PI < .5	Silty Clay	20 < PI < 40
		- Fine (No. 40 to No. 200)	Silt and Clay	5 < PI < 10	Clay	PI > 40

Minor Component: Trace 1-10% Little 10-20% Some 20-35% And 35-50% PID = Photoionization Device (PPM) ▽ = Water Table

Depth FEET	Sample (INT.)	REC FEET	PENETRATION Blows Per 6" ASTM D 1586	UNIF SOIL CLASS.	DESCRIPTION	REMARKS	PID
					Topsoil		
1-1.5'				SP	Brown, Medium SAND	* Soil sample collected from 1 to 1.5 FT bgl and submitted to a laboratory for chemical analysis.	
2					End Of Boring @ 2 FT	* Boring backfilled with soil cuttings.	
3							
4							
5							
6							
7							

DIXON

ENVIRONMENTAL CONSULTING, INC.

750 OTTAWA AVENUE, NW

GRAND RAPIDS, MI 49503

FACSIMILE: (616) 742-5522

TELEPHONE: (616) 742-5511

BORING
LOG

Project No. 02-02-007

Boring No. GP-7

Sheet 1 of 1

Project Contaminant Delineation Sampling

Client Conical Tool Company

Location 3890 Buchanan Avenue, SW, Wyoming, MI

Driller Mike Marshall

Drill Type Hand Tools

Driller Asst.

Plugging Record: Abandoned
with soil cuttings.

Field Eng. M. Marshall

Reviewed By J. Dixon

Elevation

Depth Drilled 1.5 FT

Notes Northeastern Exterior Corner of Building -

20 FT East of SB-1

Contractor Dixon Environmental Consulting, Inc.

Date Begin 3/27/02 Date End 3/27/02

	TYPE	DIA.	NO.	GROUNDWATER
Casing				Encounter NA
Sampler				End
Core				Seepage
Tube				Date Depth

SOIL TYPE: Coarse Grained (Cohesionless)

Boulder (> 12")

Gravel - Coarse (3" to 3/4")

Sand - Coarse (No. 4 to No. 10)

Silt

Fine-Grained (Cohesive)

Cobbles (12" to 3")

- Fine (3/4" to No. 4)

- Medium (No. 10 to No. 40)

Clayey Silt

PI < 1

Clay and Silt

10 < PI < 20

1 < PI < .5

Silty Clay

20 < PI < 40

5 < PI < 10

Clay

PI > 40

Minor Component: Trace 1-10%. Little 10-20%. Some 20-35%. And 35-50%

PID = Photoionization Device (PPM)

☒ = Water Table

Depth FEET	Sample (INT.)	REC FEET	PENETRATION Blows Per 6" ASTM D 1586	UNIF SOIL CLASS.	DESCRIPTION	REMARKS	PID
					Road Gravel		
1-1.5'				SP	Dark Brown, Medium SAND with Little Fine to Coarse Gravel	* Soil sample collected from 1 to 1.5 FT bgi and submitted to a laboratory for chemical analysis.	4.2
					End Of Boring @ 1.5 FT	* Boring backfilled with soil cuttings.	
2							
3							
4							
5							
6							
7							

Project No. <u>02-02-007</u> Boring No. <u>GP-8</u> Sheet <u>1</u> of <u>1</u>	BORING LOG	DIXON ENVIRONMENTAL CONSULTING, INC. 750 OTTAWA AVENUE, NW GRAND RAPIDS, MI 49503 FACSIMILE: (616) 742-5522 TELEPHONE: (616) 742-5511																																													
Project <u>Contaminant Delineation Sampling</u> Client <u>Conical Tool Company</u> Location <u>3890 Buchanan Avenue, SW, Wyoming, MI</u> Driller <u>Mike Marshall</u> Driller Asst. _____ Field Eng. <u>M. Marshall</u> Reviewed By <u>J. Dixon</u> Elevation _____ Notes <u>Northeastern Exterior Corner of Building -</u> <u>20 FT North of SB-1</u>		Contractor <u>Dixon Environmental Consulting, Inc.</u> Date Begin <u>3/27/02</u> Date End <u>3/27/02</u>																																													
Drill Type <u>Hand Tools</u> Plugging Record: <u>Abandoned</u> <u>with soil cuttings.</u> Depth Drilled <u>1.5 FT</u>		<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th></th> <th>TYPE</th> <th>DIA.</th> <th>NO.</th> <th>GROUNDWATER</th> </tr> <tr> <td>Casing</td> <td></td> <td></td> <td></td> <td>Encounter NA</td> </tr> <tr> <td>Sampler</td> <td></td> <td></td> <td></td> <td>End</td> </tr> <tr> <td>Core</td> <td></td> <td></td> <td></td> <td>Seepage</td> </tr> <tr> <td>Tube</td> <td></td> <td></td> <td></td> <td>Date _____ Depth _____</td> </tr> <tr><td> </td><td></td><td></td><td></td><td></td></tr> <tr><td> </td><td></td><td></td><td></td><td></td></tr> <tr><td> </td><td></td><td></td><td></td><td></td></tr> <tr><td> </td><td></td><td></td><td></td><td></td></tr> </table>		TYPE	DIA.	NO.	GROUNDWATER	Casing				Encounter NA	Sampler				End	Core				Seepage	Tube				Date _____ Depth _____																				
	TYPE	DIA.	NO.	GROUNDWATER																																											
Casing				Encounter NA																																											
Sampler				End																																											
Core				Seepage																																											
Tube				Date _____ Depth _____																																											
SOIL TYPE: Coarse Grained (Cohesionless) Boulder (> 12") Gravel - Coarse (3" to 3/4") Sand - Coarse (No. 4 to No. 10) Silt PI < 1 Clay and Silt 10 < PI < 20 Cobbles (12" to 3") - Fine (3/4" to No. 4) - Medium (No. 10 to No. 40) Clayey Silt 1 < PI < .5 Silty Clay 20 < PI < 40 - Fine (No. 40 to No. 200) Silt and Clay 5 < PI < 10 Clay PI > 40																																															
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Depth FEET	Sample (INT.)	REC FEET	PENETRATION Blows Per 6" ASTM D 1586	UNIF SOIL CLASS.	DESCRIPTION	REMARKS	PID																																								
					Road Gravel																																										
				SP	Brown, Medium SAND with Little Fine Gravel																																										
				SP	Dark Brown, Medium SAND with Some Fine to Coarse Gravel	* Soil sample collected from 1 to 1.5 FT bgl and submitted to a laboratory for chemical analysis.	5.0																																								
					End Of Boring @ 1.5 FT	* Boring backfilled with soil cuttings.																																									
1-1.5'																																															
2																																															
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5																																															
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7																																															

Project No. 02-02-007
Boring No. GP-10
Sheet 1 of 1

BORING LOG

DIXON

ENVIRONMENTAL CONSULTING, INC.

750 OTTAWA AVENUE, NW
GRAND RAPIDS, MI 49503

FACSIMILE: (616) 742-5522
TELEPHONE: (616) 742-5511

Project Contaminant Delineation Sampling
Client Conical Tool Company
Location 3890 Buchanan Avenue, SW, Wyoming, MI
Driller Mike Marshall Drill Type Hand Tools
Driller Asst. Plugging Record: Abandoned
Field Eng. M. Marshall with soil cuttings.
Reviewed By J. Dixon
Elevation Depth Drilled 1 FT
Notes In Basement - South of SB-2

Contractor Dixon Environmental Consulting, Inc.
Date Begin 3/27/02 Date End 3/27/02

	TYPE	DIA.	NO.	GROUNDWATER
Casing				Encounter NA
Sampler				End
Core				Seepage
Tube				Date Depth

SOIL TYPE: Coarse Grained (Cohesionless)

Boulder (> 12") Gravel - Coarse (3" to 3/4")
Cobbles (12" to 3") - Fine (3/4" to No. 4)

Sand - Coarse (No. 4 to No. 10)
- Medium (No. 10 to No. 40)
- Fine (No. 40 to No. 200)

Silt
Clayey Silt
Silt and Clay

Fine-Grained (Cohesive)

PI < 1 Clay and Silt
1 < PI < .5 Silty Clay
5 < PI < 10 Clay
PI > 40

10 < PI < 20
20 < PI < 40
PI > 40

Minor Component: Trace 1-10% Little 10-20% Some 20-35% And 35-50% PID = Photoionization Device (PPM) Σ = Water Table

Depth FEET	Sample (INT.)	REC FEET	PENETRATION Blows Per 6" ASTM D 1586	UNIF SOIL CLASS.	DESCRIPTION	REMARKS	PID
					Concrete		
1	1'			SP	Brown, Medium SAND with Little Fine to Coarse Gravel, Dry	* Basement floor is approximately 5 FT bgl.	
					End Of Boring @ 1 FT	* Soil sample collected at 1 FT bgl and submitted to a laboratory for chemical analysis.	4.0
2						* Boring backfilled with soil cuttings. Concrete surface restored.	
3							
4							
5							
6							
7							

ATTACHMENT B
ANALYTICAL RESULTS



1049 - 28th Street SE
Grand Rapids, MI 49508
Ph: 616/248-4900
Toll Free: 800/362-LABS
Fax: 616/248-4904

April 05, 2002

Mike Marshall
Dixon Environmental
750 Ottawa Ave. NW
Grand Rapids, MI 49503
TEL: (616) 742-5511
FAX: (616) 742-5522

RE: 3890 Buchanan S.W.

Order No.: 0203471

Dear Mike Marshall,

BIO-CHEM Laboratories, Inc. completely received 14 samples on 3/27/2002 for the analyses presented in the following report.

There were no problems with the analyses and all data for associated QC met EPA or laboratory specifications except where noted in the Case Narrative.

If you have any questions regarding these tests results, please feel free to call.

Please note that unless otherwise instructed, residual samples will be held for sixty (60) days from the original report date. At that time, all non-hazardous samples will be disposed of in accordance with federal, state and local regulations and ordinances, and hazardous samples shall be returned to you. Please contact the laboratory within thirty (30) days if other arrangements for sample retention need to be made.

Sincerely,


Sherry Chappell
Administrative Assistant

1049 28th Street SE
Grand Rapids, MI 49508
PH: (616) 248-4900
Toll Free: 800-362-LABS
FAX: (616) 248-4904



Chain of Custody

Project Number
02-01-011

Sheet 1/2

Firm Name BIO- IEM ENVIRONMENTAL ANALYTICAL LABORATORIES				Turn around time Standard		Date Due		
Firm Address 1049 28th Street SE Grand Rapids, MI 49508				Project Name 3890 300th Street SW		Date 3/27/02		
City, State, Zip				State Samples Taken From		Date		
Phone (616) 248-4900		Fax (616) 248-4904		Contact Person Michael McConnell		Date		
Lab I.D.	Client Sample Number	Date Taken	Time Taken	Sample Description (sample type: water, soil, other)	Number of Containers	Analysis Desired (One per line)	Remarks	
1	GP-1 (1-15)	3/26/02	1:55	soil	2	✓		
2	GP-2 (1-15)	}	1:30	}	2	✓		
3	GP-3 (1-15)		2:00		2	✓		
4	GP-4 (1-15)		5:00		2	✓		
5	GP-5 (1-15)	}	2:15	}	2	✓		
6	GP-6 (1-15)		3/27/02		4:45	2	✓	
7	GP-7 (1-15)		}		1:05	2	✓	
8	GP-8 (1-15)	1:30		2	✓			
9	GP-9 (05-1)	3/26/02		2:35	2	✓		
10	GP-10 (1-15)	3/26/02	3:35		2	✓		

Released by	Received by	Date	Time	Laboratory use only
Michael McConnell	Andy Couvema	3-27-02	12:45pm	☐ Blue Ice ☒ Regular Ice ☐ No Coolant

1049 28th Street SE
Grand Rapids, MI 49508
PH: (616) 248-4900
Toll Free: 800-362-LABS
FAX: (616) 248-4904



Chain of Custody

0203471

Project Number
02-01-011

Sheet 2/2

Firm Name ENVIRONMENTAL ANALYTICAL LABORATORIES				Turn around time		Date Due	
Firm Address 1570 B... .. SW				Project Name State Samples Taken From		Date 3/27/02	
City, State, Zip				Contact Person		Date	
Phone				Fax		Date	
Lab I.D.	Client Sample Number	Date Taken	Time Taken	Sample Description (sample type: water, soil, other)	Number of Containers	Analysis Desired (one per line)	Remarks
1	GP-10 (11)	3/27/02	1:15	soil	2	X X	Disturbed Material Samples Are NOT Preserved or Filtered.
2							
3	GP-1 (12-14)	3/16/02		water	3	X X	
4	GP-5 (12-14)				3	X X	
5	GP-9 (15-17)				3	X X	
6							
7							
8							
9							
10							
Released by Michael Byrnes				Received by Anthony E. ...		Laboratory use only ☐ Blue Ice ☒ Regular Ice ☐ No Coolant	
				Date 3-27-02		Time 1:14 PM	

BIO-CHEM Laboratories, Inc.

Date: 04/04/2002

CLIENT: Dixon Environmental

Project: 3890 Buchanan S.W.

Lab Order: 0203471

Completely Received: 03/27/2002

Work Order Sample Summary

Date Reported: 04/04/2002

Lab Sample ID	Client Sample ID	Matrix	Date Collected	Date Received
0203471-01A	GP-1 (9-10')	Soil	03/26/2002	03/27/2002
0203471-02A	GP-2 (1-3')	Soil	03/26/2002	03/27/2002
0203471-03A	GP-3 (1-3')	Soil	03/26/2002	03/27/2002
0203471-04A	GP-4 (1-3')	Soil	03/26/2002	03/27/2002
0203471-05A	GP-5 (13-15')	Soil	03/26/2002	03/27/2002
0203471-06A	GP-6 (1-1.5')	Soil	03/27/2002	03/27/2002
0203471-07A	GP-7 (1-1.5')	Soil	03/27/2002	03/27/2002
0203471-08A	GP-8 (1-1.5')	Soil	03/27/2002	03/27/2002
0203471-09A	GP-9 (0.5-1')	Soil	03/26/2002	03/27/2002
0203471-10A	GP-9 (9-11')	Soil	03/26/2002	03/27/2002
0203471-11A	GP-10 (1')	Soil	03/27/2002	03/27/2002
0203471-12A	GP-1 (17.5-19')	Aqueous	03/26/2002	03/27/2002
0203471-13A	GP-5 (17-19')	Aqueous	03/26/2002	03/27/2002
0203471-14A	GP-9 (15-17')	Aqueous	03/26/2002	03/27/2002

BIO-CHEM Laboratories, Inc.

Date: 04/04/2002

CLIENT: Dixon Environmental
Project: 3890 Buchanan S.W.
Lab Order: 0203471

CASE NARRATIVE

Samples are routinely analyzed using methods outlined in the following references:

- (SW) Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW846, 3rd Ed.
- (E) Methods for Chemical Analysis of Water and Wastes, EPA-600/4-79-020.
- (A) Standard Methods for the Examination of Water and Wastewater, APHA, 18th Ed.
- (D) Annual Book of ASTM Standards.

Specific methods utilized for this project are provided in the analytical report and are identified by the reference document abbreviation () followed by the method number.

All QA/QC and sample analyses met method, laboratory and/or regulatory data quality objectives unless otherwise specified below.

No data qualifications required.

BIO-CHEM Laboratories, Inc.

Date: 4/5/2002

ANALYTICAL REPORT

CLIENT: Dixon Environmental
Lab Order: 0203471
Project: 3890 Buchanan S.W.
Lab Sample ID: 0203471-01A

Project Number: 02-01-011
Client Sample ID: GP-1 (9-10")
Collection Date: 3/26/2002
Matrix: SOIL

Analyses	Method Ref.	Result	Q	PQL	Units	DF	Analyst	Date
TOTAL METAL(s) by ICP								
1. Chromium	SW6010B	3,700		1,000	µg/Kg-dry	1	RHS	4/2/2002
2. Iron	SW6010B	9,200,000		1,000	µg/Kg-dry	1	RHS	4/2/2002
3. Molybdenum	SW6010B	< 500		500	µg/Kg-dry	1	RHS	4/2/2002
4. Nickel	SW6010B	9,400		1,000	µg/Kg-dry	1	RHS	4/2/2002
VOLATILES by GC/MS (5035)								
1. 1,3,5-Trimethylbenzene	SW8260B	< 50		50	µg/Kg-dry	1	DRF	4/3/2002
2. Trichloroethene	SW8260B	< 50		50	µg/Kg-dry	1	DRF	4/3/2002

Definitions: PQL - Practical Quantitation Limit
DF - Dilution Factor

Qualifiers (Q): J - Detected below PQL but above MDL: Estimated
S - Spike Recovery Outside Acceptance Limits
B - Analyte detected in associated Method Blank
N - See case narrative for explanation

This report shall not be reproduced except in full, without the written approval of BIO-CHEM Laboratories, Inc.

1 of 17

Note: The sample results reported are based on the sample aliquot(s) tested.

BIO-CHEM Laboratories, Inc.

Date: 4/5/2002

ANALYTICAL REPORT

CLIENT: Dixon Environmental
Lab Order: 0203471
Project: 3890 Buchanan S.W.
Lab Sample ID: 0203471-02A

Project Number: 02-01-011
Client Sample ID: GP-2 (1-3')
Collection Date: 3/26/2002
Matrix: SOIL

Analyses	Method Ref.	Result	Q	PQL	Units	DF	Analyst	Date
TOTAL METAL(s) by ICP								
1. Chromium	SW6010B	51,000		1,000	µg/Kg-dry	1	RHS	4/2/2002
2. Iron	SW6010B	26,000,000		1,000	µg/Kg-dry	1	RHS	4/2/2002
3. Molybdenum	SW6010B	38,000		500	µg/Kg-dry	1	RHS	4/2/2002
4. Nickel	SW6010B	37,000		1,000	µg/Kg-dry	1	RHS	4/2/2002
VOLATILES by GC/MS (5035)								
1. 1,3,5-Trimethylbenzene	SW8260B	< 50		50	µg/Kg-dry	1	DRF	4/3/2002
2. Trichloroethene	SW8260B	< 50		50	µg/Kg-dry	1	DRF	4/3/2002

Definitions: PQL - Practical Quantitation Limit
DF - Dilution Factor

Qualifiers (Q): J - Detected below PQL but above MDL: Estimated
S - Spike Recovery Outside Acceptance Limits
B - Analyte detected in associated Method Blank
N - See case narrative for explanation

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2 of 17

Note: The sample results reported are based on the sample aliquot(s) tested.

BIO-CHEM Laboratories, Inc.

Date: 4/5/2002

ANALYTICAL REPORT

CLIENT: Dixon Environmental
Lab Order: 0203471
Project: 3890 Buchanan S.W.
Lab Sample ID: 0203471-03A

Project Number: 02-01-011
Client Sample ID: GP-3 (1-3')
Collection Date: 3/26/2002
Matrix: SOIL

Analyses	Method Ref.	Result	Q	PQL	Units	DF	Analyst	Date
TOTAL METAL(s) by ICP								
1. Chromium	SW6010B	540,000		1,000	µg/Kg-dry	1	RHS	4/2/2002
2. Iron	SW6010B	21,000,000		1,000	µg/Kg-dry	1	RHS	4/2/2002
3. Molybdenum	SW6010B	580,000		500	µg/Kg-dry	1	RHS	4/2/2002
4. Nickel	SW6010B	59,000		1,000	µg/Kg-dry	1	RHS	4/2/2002
VOLATILES by GC/MS (5035)								
1. 1,3,5-Trimethylbenzene	SW8260B	< 50		50	µg/Kg-dry	1	DRF	4/3/2002
2. Trichloroethene	SW8260B	< 50		50	µg/Kg-dry	1	DRF	4/3/2002

Definitions: PQL - Practical Quantitation Limit
DF - Dilution Factor

Qualifiers (Q): J - Detected below PQL but above MDL: Estimated
S - Spike Recovery Outside Acceptance Limits
B - Analyte detected in associated Method Blank
N - See case narrative for explanation

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3 of 17

Note: The sample results reported are based on the sample aliquot(s) tested.

BIO-CHEM Laboratories, Inc.

Date: 4/5/2002

ANALYTICAL REPORT

CLIENT: Dixon Environmental
Lab Order: 0203471
Project: 3890 Buchanan S.W.
Lab Sample ID: 0203471-04A

Project Number: 02-01-011
Client Sample ID: GP-4 (1-3')
Collection Date: 3/26/2002
Matrix: SOIL

Analyses	Method Ref.	Result	Q	PQL	Units	DF	Analyst	Date
TOTAL METAL(s) by ICP								
1. Chromium	SW6010B	82,000		1,000	µg/Kg-dry	1	RHS	4/2/2002
2. Iron	SW6010B	11,000,000		1,000	µg/Kg-dry	1	RHS	4/2/2002
3. Molybdenum	SW6010B	83,000		500	µg/Kg-dry	1	RHS	4/2/2002
4. Nickel	SW6010B	17,000		1,000	µg/Kg-dry	1	RHS	4/2/2002
VOLATILES by GC/MS (5035)								
1. 1,3,5-Trimethylbenzene	SW8260B	< 50		50	µg/Kg-dry	1	DRF	4/3/2002
2. Trichloroethene	SW8260B	< 50		50	µg/Kg-dry	1	DRF	4/3/2002

Definitions: PQL - Practical Quantitation Limit
DF - Dilution Factor

Qualifiers (Q): J - Detected below PQL but above MDL: Estimated
S - Spike Recovery Outside Acceptance Limits
B - Analyte detected in associated Method Blank
N - See case narrative for explanation

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4 of 17

Note: The sample results reported are based on the sample aliquot(s) tested.

BIO-CHEM Laboratories, Inc.

Date: 4/5/2002

ANALYTICAL REPORT

CLIENT: Dixon Environmental

Project Number: 02-01-011

Lab Order: 0203471

Client Sample ID: GP-5 (13-15')

Project: 3890 Buchanan S.W.

Collection Date: 3/26/2002

Lab Sample ID: 0203471-05A

Matrix: SOIL

Analyses	Method Ref.	Result	Q	PQL	Units	DF	Analyst	Date
TOTAL METAL(s) by ICP								
1. Chromium	SW6010B	110,000		1,000	µg/Kg-dry	1	RHS	4/2/2002
2. Iron	SW6010B	7,900,000		1,000	µg/Kg-dry	1	RHS	4/2/2002
3. Molybdenum	SW6010B	230,000		500	µg/Kg-dry	1	RHS	4/2/2002
4. Nickel	SW6010B	15,000		1,000	µg/Kg-dry	1	RHS	4/2/2002
VOLATILES by GC/MS (5035)								
1. 1,3,5-Trimethylbenzene	SW8260B	1,300		50	µg/Kg-dry	1	DRF	4/3/2002
2. Trichloroethene	SW8260B	< 50		50	µg/Kg-dry	1	DRF	4/3/2002

Definitions: PQL - Practical Quantitation Limit
DF - Dilution Factor

Qualifiers (Q): J - Detected below PQL but above MDL: Estimated
S - Spike Recovery Outside Acceptance Limits
B - Analyte detected in associated Method Blank
N - See case narrative for explanation

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5 of 17

Note: The sample results reported are based on the sample aliquot(s) tested.

BIO-CHEM Laboratories, Inc.

Date: 4/5/2002

ANALYTICAL REPORT

CLIENT: Dixon Environmental
Lab Order: 0203471
Project: 3890 Buchanan S.W.
Lab Sample ID: 0203471-06A

Project Number: 02-01-011
Client Sample ID: GP-6 (1-1.5')
Collection Date: 3/27/2002
Matrix: SOIL

Analyses	Method Ref.	Result	Q	PQL	Units	DF	Analyst	Date
TOTAL METAL(s) by ICP								
1. Chromium	SW6010B	7,200		1,000	µg/Kg-dry	1	RHS	4/2/2002
2. Iron	SW6010B	3,400,000		1,000	µg/Kg-dry	1	RHS	4/2/2002
3. Molybdenum	SW6010B	5,400		500	µg/Kg-dry	1	RHS	4/2/2002
4. Nickel	SW6010B	4,200		1,000	µg/Kg-dry	1	RHS	4/2/2002
VOLATILES by GC/MS (5035)								
1. 1,3,5-Trimethylbenzene	SW8260B	< 50		50	µg/Kg-dry	1	DRF	4/3/2002
2. Trichloroethene	SW8260B	< 50		50	µg/Kg-dry	1	DRF	4/3/2002

Definitions: PQL - Practical Quantitation Limit
DF - Dilution Factor

Qualifiers (Q): J - Detected below PQL but above MDL: Estimated
S - Spike Recovery Outside Acceptance Limits
B - Analyte detected in associated Method Blank
N - See case narrative for explanation

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6 of 17

Note: The sample results reported are based on the sample aliquot(s) tested.

BIO-CHEM Laboratories, Inc.

Date: 4/5/2002

ANALYTICAL REPORT

CLIENT: Dixon Environmental

Project Number: 02-01-011

Lab Order: 0203471

Client Sample ID: GP-7 (1-1.5')

Project: 3890 Buchanan S.W.

Collection Date: 3/27/2002

Lab Sample ID: 0203471-07A

Matrix: SOIL

Analyses	Method Ref.	Result	Q	PQL	Units	DF	Analyst	Date
TOTAL METAL(s) by ICP								
1. Chromium	SW6010B	8,800		1,000	µg/Kg-dry	1	RHS	4/2/2002
2. Iron	SW6010B	5,200,000		1,000	µg/Kg-dry	1	RHS	4/2/2002
3. Molybdenum	SW6010B	4,500		500	µg/Kg-dry	1	RHS	4/2/2002
4. Nickel	SW6010B	8,100		1,000	µg/Kg-dry	1	RHS	4/2/2002
VOLATILES by GC/MS (5035)								
1. 1,3,5-Trimethylbenzene	SW8260B	< 50		50	µg/Kg-dry	1	DRF	4/3/2002
2. Trichloroethene	SW8260B	< 50		50	µg/Kg-dry	1	DRF	4/3/2002

Definitions: PQL - Practical Quantitation Limit
DF - Dilution Factor

Qualifiers (Q): J - Detected below PQL but above MDL: Estimated
S - Spike Recovery Outside Acceptance Limits
B - Analyte detected in associated Method Blank
N - See case narrative for explanation

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Note: The sample results reported are based on the sample aliquot(s) tested.

BIO-CHEM Laboratories, Inc.

Date: 4/5/2002

ANALYTICAL REPORT

CLIENT: Dixon Environmental
Lab Order: 0203471
Project: 3890 Buchanan S.W.
Lab Sample ID: 0203471-08A

Project Number: 02-01-011
Client Sample ID: GP-8 (1-1.5')
Collection Date: 3/27/2002
Matrix: SOIL

Analyses	Method Ref.	Result	Q	PQL	Units	DF	Analyst	Date
TOTAL METAL(s) by ICP								
1. Chromium	SW6010B	62,000		1,000	µg/Kg-dry	1	RHS	4/2/2002
2. Iron	SW6010B	6,900,000		1,000	µg/Kg-dry	1	RHS	4/2/2002
3. Molybdenum	SW6010B	53,000		500	µg/Kg-dry	1	RHS	4/2/2002
4. Nickel	SW6010B	14,000		1,000	µg/Kg-dry	1	RHS	4/2/2002
VOLATILES by GC/MS (5035)								
1. 1,3,5-Trimethylbenzene	SW8260B	< 50		50	µg/Kg-dry	1	DRF	4/3/2002
2. Trichloroethene	SW8260B	< 50		50	µg/Kg-dry	1	DRF	4/3/2002

Definitions: PQL - Practical Quantitation Limit
DF - Dilution Factor

Qualifiers (Q): J - Detected below PQL but above MDL: Estimated
S - Spike Recovery Outside Acceptance Limits
B - Analyte detected in associated Method Blank
N - See case narrative for explanation

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Note: The sample results reported are based on the sample aliquot(s) tested.

BIO-CHEM Laboratories, Inc.

Date: 4/5/2002

ANALYTICAL REPORT

CLIENT: Dixon Environmental
Lab Order: 0203471
Project: 3890 Buchanan S.W.
Lab Sample ID: 0203471-09A

Project Number: 02-01-011
Client Sample ID: GP-9 (0.5-1')
Collection Date: 3/26/2002
Matrix: SOIL

Analyses	Method Ref.	Result	Q	PQL	Units	DF	Analyst	Date
TOTAL METAL(s) by GFAA								
1. Cadmium	SW7131A	330		50	µg/Kg-dry	1	RHS	4/2/2002
TOTAL METAL(s) by ICP								
1. Aluminum	SW6010B	4,400,000		1,000	µg/Kg-dry	1	RHS	4/2/2002
2. Arsenic	SW6010B	4,100		1,000	µg/Kg-dry	1	RHS	4/2/2002
3. Chromium	SW6010B	380,000		500	µg/Kg-dry	1	RHS	4/2/2002
4. Iron	SW6010B	13,000,000		500	µg/Kg-dry	1	RHS	4/2/2002
5. Lead	SW6010B	50,000		1,000	µg/Kg-dry	1	RHS	4/2/2002
6. Molybdenum	SW6010B	250,000		500	µg/Kg-dry	1	RHS	4/2/2002
7. Nickel	SW6010B	140,000		500	µg/Kg-dry	1	RHS	4/2/2002
8. Silver	SW6010B	15,000		500	µg/Kg-dry	1	RHS	4/2/2002
9. Zinc	SW6010B	210,000		500	µg/Kg-dry	1	RHS	4/2/2002
PNAs by GC/MS								
1. Acenaphthene	SW8270C	< 330		330	µg/Kg-dry	1	NVS	4/3/2002
2. Acenaphthylene	SW8270C	< 330		330	µg/Kg-dry	1	NVS	4/3/2002
3. Anthracene	SW8270C	< 330		330	µg/Kg-dry	1	NVS	4/3/2002
4. Benzo[a]anthracene	SW8270C	1,700		330	µg/Kg-dry	1	NVS	4/3/2002
5. Benzo[a]pyrene	SW8270C	1,800		330	µg/Kg-dry	1	NVS	4/3/2002
6. Benzo[b]fluoranthene	SW8270C	880		330	µg/Kg-dry	1	NVS	4/3/2002
7. Benzo[g,h,i]perylene	SW8270C	8,200		330	µg/Kg-dry	1	NVS	4/3/2002
8. Benzo[k]fluoranthene	SW8270C	750		330	µg/Kg-dry	1	NVS	4/3/2002
9. Chrysene	SW8270C	2,100		330	µg/Kg-dry	1	NVS	4/3/2002
10. Dibenzo[a,h]anthracene	SW8270C	4,400		330	µg/Kg-dry	1	NVS	4/3/2002
11. Fluoranthene	SW8270C	19,000		330	µg/Kg-dry	1	NVS	4/3/2002
12. Fluorene	SW8270C	< 330		330	µg/Kg-dry	1	NVS	4/3/2002
13. Indeno[1,2,3-cd]pyrene	SW8270C	6,500		330	µg/Kg-dry	1	NVS	4/3/2002
14. Naphthalene	SW8270C	1,200		330	µg/Kg-dry	1	NVS	4/3/2002
15. Phenanthrene	SW8270C	1,100		330	µg/Kg-dry	1	NVS	4/3/2002
16. Pyrene	SW8270C	13,000		330	µg/Kg-dry	1	NVS	4/3/2002

Definitions: PQL - Practical Quantitation Limit
 DF - Dilution Factor

Qualifiers (Q): J - Detected below PQL but above MDL: Estimated
 S - Spike Recovery Outside Acceptance Limits
 B - Analyte detected in associated Method Blank
 N - See case narrative for explanation

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Note: The sample results reported are based on the sample aliquot(s) tested.

BIO-CHEM Laboratories, Inc.

Date: 4/5/2002

ANALYTICAL REPORT

CLIENT: Dixon Environmental
Lab Order: 0203471
Project: 3890 Buchanan S.W.
Lab Sample ID: 0203471-09A

Project Number: 02-01-011
Client Sample ID: GP-9 (0.5-1')
Collection Date: 3/26/2002
Matrix: SOIL

Analyses	Method Ref.	Result	Q	PQL	Units	DF	Analyst	Date
VOLATILES by GC/MS (5035)								
1. 1,1,1-Trichloroethane	SW8260B	< 50		50	µg/Kg-dry	1	DRF	4/3/2002
2. 1,1,2,2-Tetrachloroethane	SW8260B	< 50		50	µg/Kg-dry	1	DRF	4/3/2002
3. 1,1,2-Trichloroethane	SW8260B	< 50		50	µg/Kg-dry	1	DRF	4/3/2002
4. 1,1-Dichloroethane	SW8260B	< 50		50	µg/Kg-dry	1	DRF	4/3/2002
5. 1,1-Dichloroethene	SW8260B	< 50		50	µg/Kg-dry	1	DRF	4/3/2002
6. 1,2,4-Trimethylbenzene	SW8260B	24,000		50	µg/Kg-dry	1	DRF	4/3/2002
7. 1,2-Dibromoethane	SW8260B	< 50		50	µg/Kg-dry	1	DRF	4/3/2002
8. 1,2-Dichlorobenzene	SW8260B	< 50		50	µg/Kg-dry	1	DRF	4/3/2002
9. 1,2-Dichloroethane	SW8260B	< 50		50	µg/Kg-dry	1	DRF	4/3/2002
10. 1,2-Dichloropropane	SW8260B	< 50		50	µg/Kg-dry	1	DRF	4/3/2002
11. 1,3,5-Trimethylbenzene	SW8260B	7,900		50	µg/Kg-dry	1	DRF	4/3/2002
12. 1,3-Dichlorobenzene	SW8260B	< 50		50	µg/Kg-dry	1	DRF	4/3/2002
13. 1,4-Dichlorobenzene	SW8260B	< 50		50	µg/Kg-dry	1	DRF	4/3/2002
14. Benzene	SW8260B	< 50		50	µg/Kg-dry	1	DRF	4/3/2002
15. Bromodichloromethane	SW8260B	< 50		50	µg/Kg-dry	1	DRF	4/3/2002
16. Bromoform	SW8260B	< 50		50	µg/Kg-dry	1	DRF	4/3/2002
17. Bromomethane	SW8260B	< 50		50	µg/Kg-dry	1	DRF	4/3/2002
18. Carbon tetrachloride	SW8260B	< 50		50	µg/Kg-dry	1	DRF	4/3/2002
19. Chlorobenzene	SW8260B	< 50		50	µg/Kg-dry	1	DRF	4/3/2002
20. Chloroethane	SW8260B	< 50		50	µg/Kg-dry	1	DRF	4/3/2002
21. Chloroform	SW8260B	< 50		50	µg/Kg-dry	1	DRF	4/3/2002
22. Chloromethane	SW8260B	< 50		50	µg/Kg-dry	1	DRF	4/3/2002
23. cis-1,3-Dichloropropene	SW8260B	< 50		50	µg/Kg-dry	1	DRF	4/3/2002
24. Dibromochloromethane	SW8260B	< 50		50	µg/Kg-dry	1	DRF	4/3/2002
25. Ethylbenzene	SW8260B	560		50	µg/Kg-dry	1	DRF	4/3/2002
26. m,p-Xylene	SW8260B	2,600		100	µg/Kg-dry	1	DRF	4/3/2002
27. Methyl tert-butyl ether	SW8260B	< 250		250	µg/Kg-dry	1	DRF	4/3/2002
28. Methylene chloride	SW8260B	< 250		250	µg/Kg-dry	1	DRF	4/3/2002
29. o-Xylene	SW8260B	2,200		50	µg/Kg-dry	1	DRF	4/3/2002
30. Tetrachloroethene	SW8260B	< 50		50	µg/Kg-dry	1	DRF	4/3/2002
31. Toluene	SW8260B	110		50	µg/Kg-dry	1	DRF	4/3/2002
32. trans-1,2-Dichloroethene	SW8260B	< 50		50	µg/Kg-dry	1	DRF	4/3/2002
33. trans-1,3-Dichloropropene	SW8260B	< 50		50	µg/Kg-dry	1	DRF	4/3/2002
34. Trichloroethene	SW8260B	< 50		50	µg/Kg-dry	1	DRF	4/3/2002
35. Trichlorofluoromethane	SW8260B	< 50		50	µg/Kg-dry	1	DRF	4/3/2002
36. Vinyl chloride	SW8260B	< 50		50	µg/Kg-dry	1	DRF	4/3/2002

Definitions: PQL - Practical Quantitation Limit
DF - Dilution Factor

Qualifiers (Q): J - Detected below PQL but above MDL; Estimated
S - Spike Recovery Outside Acceptance Limits
B - Analyte detected in associated Method Blank
N - See case narrative for explanation

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Note: The sample results reported are based on the sample aliquot(s) tested.

BIO-CHEM Laboratories, Inc.

Date: 4/5/2002

ANALYTICAL REPORT

CLIENT: Dixon Environmental
Lab Order: 0203471
Project: 3890 Buchanan S.W.
Lab Sample ID: 0203471-10A

Project Number: 02-01-011
Client Sample ID: GP-9 (9-11')
Collection Date: 3/26/2002
Matrix: SOIL

Analyses	Method Ref.	Result	Q	PQL	Units	DF	Analyst	Date
TOTAL METAL(s) by GFAA								
1. Cadmium	SW7131A	< 50		50	µg/Kg-dry	1	RHS	4/2/2002
TOTAL METAL(s) by ICP								
1. Aluminum	SW6010B	2,400,000		1,000	µg/Kg-dry	1	RHS	4/2/2002
2. Arsenic	SW6010B	1,400		1,000	µg/Kg-dry	1	RHS	4/2/2002
3. Chromium	SW6010B	9,100		500	µg/Kg-dry	1	RHS	4/2/2002
4. Iron	SW6010B	3,600,000		500	µg/Kg-dry	1	RHS	4/2/2002
5. Lead	SW6010B	2,000		1,000	µg/Kg-dry	1	RHS	4/2/2002
6. Molybdenum	SW6010B	8,700		500	µg/Kg-dry	1	RHS	4/2/2002
7. Nickel	SW6010B	6,000		500	µg/Kg-dry	1	RHS	4/2/2002
8. Silver	SW6010B	< 500		500	µg/Kg-dry	1	RHS	4/2/2002
9. Zinc	SW6010B	11,000		500	µg/Kg-dry	1	RHS	4/2/2002
PNAs by GC/MS								
1. Acenaphthene	SW8270C	< 330		330	µg/Kg-dry	1	NVS	4/3/2002
2. Acenaphthylene	SW8270C	< 330		330	µg/Kg-dry	1	NVS	4/3/2002
3. Anthracene	SW8270C	< 330		330	µg/Kg-dry	1	NVS	4/3/2002
4. Benzo[a]anthracene	SW8270C	< 330		330	µg/Kg-dry	1	NVS	4/3/2002
5. Benzo[a]pyrene	SW8270C	< 330		330	µg/Kg-dry	1	NVS	4/3/2002
6. Benzo[b]fluoranthene	SW8270C	< 330		330	µg/Kg-dry	1	NVS	4/3/2002
7. Benzo[g,h,i]perylene	SW8270C	< 330		330	µg/Kg-dry	1	NVS	4/3/2002
8. Benzo[k]fluoranthene	SW8270C	< 330		330	µg/Kg-dry	1	NVS	4/3/2002
9. Chrysene	SW8270C	< 330		330	µg/Kg-dry	1	NVS	4/3/2002
10. Dibenz[a,h]anthracene	SW8270C	< 330		330	µg/Kg-dry	1	NVS	4/3/2002
11. Fluoranthene	SW8270C	< 330		330	µg/Kg-dry	1	NVS	4/3/2002
12. Fluorene	SW8270C	< 330		330	µg/Kg-dry	1	NVS	4/3/2002
13. Indeno[1,2,3-cd]pyrene	SW8270C	< 330		330	µg/Kg-dry	1	NVS	4/3/2002
14. Naphthalene	SW8270C	< 330		330	µg/Kg-dry	1	NVS	4/3/2002
15. Phenanthrene	SW8270C	< 330		330	µg/Kg-dry	1	NVS	4/3/2002
16. Pyrene	SW8270C	< 330		330	µg/Kg-dry	1	NVS	4/3/2002

Definitions: PQL - Practical Quantitation Limit
DF - Dilution Factor

Qualifiers (Q): J - Detected below PQL but above MDL; Estimated
S - Spike Recovery Outside Acceptance Limits
B - Analyte detected in associated Method Blank
N - See case narrative for explanation

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Note: The sample results reported are based on the sample aliquot(s) tested.

BIO-CHEM Laboratories, Inc.

Date: 4/5/2002

ANALYTICAL REPORT

CLIENT: Dixon Environmental
Lab Order: 0203471
Project: 3890 Buchanan S.W.
Lab Sample ID: 0203471-10A

Project Number: 02-01-011
Client Sample ID: GP-9 (9-11')
Collection Date: 3/26/2002
Matrix: SOIL

Analyses	Method Ref.	Result	Q	PQL	Units	DF	Analyst	Date
VOLATILES by GC/MS (5035)								
1. 1,1,1-Trichloroethane	SW8260B	< 50		50	µg/Kg-dry	1	DRF	4/3/2002
2. 1,1,2,2-Tetrachloroethane	SW8260B	< 50		50	µg/Kg-dry	1	DRF	4/3/2002
3. 1,1,2-Trichloroethane	SW8260B	< 50		50	µg/Kg-dry	1	DRF	4/3/2002
4. 1,1-Dichloroethane	SW8260B	< 50		50	µg/Kg-dry	1	DRF	4/3/2002
5. 1,1-Dichloroethene	SW8260B	< 50		50	µg/Kg-dry	1	DRF	4/3/2002
6. 1,2,4-Trimethylbenzene	SW8260B	500		50	µg/Kg-dry	1	DRF	4/3/2002
7. 1,2-Dibromoethane	SW8260B	< 50		50	µg/Kg-dry	1	DRF	4/3/2002
8. 1,2-Dichlorobenzene	SW8260B	< 50		50	µg/Kg-dry	1	DRF	4/3/2002
9. 1,2-Dichloroethane	SW8260B	< 50		50	µg/Kg-dry	1	DRF	4/3/2002
10. 1,2-Dichloropropane	SW8260B	< 50		50	µg/Kg-dry	1	DRF	4/3/2002
11. 1,3,5-Trimethylbenzene	SW8260B	130		50	µg/Kg-dry	1	DRF	4/3/2002
12. 1,3-Dichlorobenzene	SW8260B	< 50		50	µg/Kg-dry	1	DRF	4/3/2002
13. 1,4-Dichlorobenzene	SW8260B	< 50		50	µg/Kg-dry	1	DRF	4/3/2002
14. Benzene	SW8260B	< 50		50	µg/Kg-dry	1	DRF	4/3/2002
15. Bromodichloromethane	SW8260B	< 50		50	µg/Kg-dry	1	DRF	4/3/2002
16. Bromoform	SW8260B	< 50		50	µg/Kg-dry	1	DRF	4/3/2002
17. Bromomethane	SW8260B	< 50		50	µg/Kg-dry	1	DRF	4/3/2002
18. Carbon tetrachloride	SW8260B	< 50		50	µg/Kg-dry	1	DRF	4/3/2002
19. Chlorobenzene	SW8260B	< 50		50	µg/Kg-dry	1	DRF	4/3/2002
20. Chloroethane	SW8260B	< 50		50	µg/Kg-dry	1	DRF	4/3/2002
21. Chloroform	SW8260B	< 50		50	µg/Kg-dry	1	DRF	4/3/2002
22. Chloromethane	SW8260B	< 50		50	µg/Kg-dry	1	DRF	4/3/2002
23. cis-1,3-Dichloropropene	SW8260B	< 50		50	µg/Kg-dry	1	DRF	4/3/2002
24. Dibromochloromethane	SW8260B	< 50		50	µg/Kg-dry	1	DRF	4/3/2002
25. Ethylbenzene	SW8260B	< 50		50	µg/Kg-dry	1	DRF	4/3/2002
26. m,p-Xylene	SW8260B	< 100		100	µg/Kg-dry	1	DRF	4/3/2002
27. Methyl tert-butyl ether	SW8260B	< 250		250	µg/Kg-dry	1	DRF	4/3/2002
28. Methylene chloride	SW8260B	< 250		250	µg/Kg-dry	1	DRF	4/3/2002
29. o-Xylene	SW8260B	< 50		50	µg/Kg-dry	1	DRF	4/3/2002
30. Tetrachloroethene	SW8260B	< 50		50	µg/Kg-dry	1	DRF	4/3/2002
31. Toluene	SW8260B	< 50		50	µg/Kg-dry	1	DRF	4/3/2002
32. trans-1,2-Dichloroethene	SW8260B	< 50		50	µg/Kg-dry	1	DRF	4/3/2002
33. trans-1,3-Dichloropropene	SW8260B	< 50		50	µg/Kg-dry	1	DRF	4/3/2002
34. Trichloroethene	SW8260B	< 50		50	µg/Kg-dry	1	DRF	4/3/2002
35. Trichlorofluoromethane	SW8260B	< 50		50	µg/Kg-dry	1	DRF	4/3/2002
36. Vinyl chloride	SW8260B	< 50		50	µg/Kg-dry	1	DRF	4/3/2002

Definitions: PQL - Practical Quantitation Limit
DF - Dilution Factor

Qualifiers (Q): J - Detected below PQL but above MDL: Estimated
S - Spike Recovery Outside Acceptance Limits
B - Analyte detected in associated Method Blank
N - See case narrative for explanation

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Note: The sample results reported are based on the sample aliquot(s) tested.

BIO-CHEM Laboratories, Inc.

Date: 4/5/2002

ANALYTICAL REPORT

CLIENT: Dixon Environmental

Project Number: 02-01-011

Lab Order: 0203471

Client Sample ID: GP-10 (1')

Project: 3890 Buchanan S.W.

Collection Date: 3/27/2002

Lab Sample ID: 0203471-11A

Matrix: SOIL

Analyses	Method Ref.	Result	Q	PQL	Units	DF	Analyst	Date
TOTAL METAL(s) by ICP								
1. Chromium	SW6010B	6,300		1,000	µg/Kg-dry	1	RHS	4/2/2002
2. Iron	SW6010B	5,100,000		1,000	µg/Kg-dry	1	RHS	4/2/2002
3. Molybdenum	SW6010B	950		500	µg/Kg-dry	1	RHS	4/2/2002
4. Nickel	SW6010B	6,300		1,000	µg/Kg-dry	1	RHS	4/2/2002
VOLATILES by GC/MS (5035)								
1. 1,3,5-Trimethylbenzene	SW8260B	< 50		50	µg/Kg-dry	1	DRF	4/3/2002
2. Trichloroethene	SW8260B	< 50		50	µg/Kg-dry	1	DRF	4/3/2002

Definitions: PQL - Practical Quantitation Limit
DF - Dilution Factor

Qualifiers (Q): J - Detected below PQL but above MDL: Estimated
S - Spike Recovery Outside Acceptance Limits
B - Analyte detected in associated Method Blank
N - See case narrative for explanation

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Note: The sample results reported are based on the sample aliquot(s) tested.

BIO-CHEM Laboratories, Inc.

Date: 4/5/2002

ANALYTICAL REPORT

CLIENT: Dixon Environmental
Lab Order: 0203471
Project: 3890 Buchanan S.W.
Lab Sample ID: 0203471-12A

Project Number: 02-01-011
Client Sample ID: GP-1 (17.5-19')
Collection Date: 3/26/2002
Matrix: AQUEOUS

Analyses	Method Ref.	Result	Q	PQL	Units	DF	Analyst	Date
DISSOLVED METAL(s) by GFAA								
1. Chromium	SW7191	< 5		5	µg/L	1	RHS	4/1/2002
DISSOLVED METAL(s) by ICP								
1. Iron	SW6010B	< 50		50	µg/L	1	RHS	4/3/2002
2. Molybdenum	SW6010B	< 10		10	µg/L	1	RHS	4/3/2002
3. Nickel	SW6010B	< 20		20	µg/L	1	RHS	4/3/2002
VOLATILES by GC/MS								
1. 1,3,5-Trimethylbenzene	SW8260B	< 1		1	µg/L	1	DRF	4/1/2002
2. Trichloroethene	SW8260B	14		1	µg/L	1	DRF	4/1/2002

Definitions: PQL - Practical Quantitation Limit
DF - Dilution Factor

Qualifiers (Q): J - Detected below PQL but above MDL: Estimated
S - Spike Recovery Outside Acceptance Limits
B - Analyte detected in associated Method Blank
N - See case narrative for explanation

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Note: The sample results reported are based on the sample aliquot(s) tested.

BIO-CHEM Laboratories, Inc.

Date: 4/5/2002

ANALYTICAL REPORT

CLIENT: Dixon Environmental
Lab Order: 0203471
Project: 3890 Buchanan S.W.
Lab Sample ID: 0203471-13A

Project Number: 02-01-011
Client Sample ID: GP-5 (17-19')
Collection Date: 3/26/2002
Matrix: AQUEOUS

Analyses	Method Ref.	Result	Q	PQL	Units	DF	Analyst	Date
DISSOLVED METAL(s) by GFAA								
1. Chromium	SW7191	< 5		5	µg/L	1	RHS	4/1/2002
DISSOLVED METAL(s) by ICP								
1. Iron	SW6010B	< 50		50	µg/L	1	RHS	4/3/2002
2. Molybdenum	SW6010B	< 10		10	µg/L	1	RHS	4/3/2002
3. Nickel	SW6010B	< 20		20	µg/L	1	RHS	4/3/2002
VOLATILES by GC/MS								
1. 1,3,5-Trimethylbenzene	SW8260B	< 1		1	µg/L	1	DRF	4/1/2002
2. Trichloroethene	SW8260B	100		1	µg/L	1	DRF	4/1/2002

Definitions: PQL - Practical Quantitation Limit
DF - Dilution Factor

Qualifiers (Q): J - Detected below PQL but above MDL: Estimated
S - Spike Recovery Outside Acceptance Limits
B - Analyte detected in associated Method Blank
N - See case narrative for explanation

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15 of 17

Note: The sample results reported are based on the sample aliquot(s) tested.

BIO-CHEM Laboratories, Inc.

Date: 4/5/2002

ANALYTICAL REPORT

CLIENT: Dixon Environmental
Lab Order: 0203471
Project: 3890 Buchanan S.W.
Lab Sample ID: 0203471-14A

Project Number: 02-01-011
Client Sample ID: GP-9 (15-17)
Collection Date: 3/26/2002
Matrix: AQUEOUS

Analyses	Method Ref.	Result	Q	PQL	Units	DF	Analyst	Date
DISSOLVED METAL(s) by GFAA								
1. Lead	SW7421	< 3		3	µg/L	1	RHS	3/27/2002
DISSOLVED METAL(s) by GFAA								
1. Chromium	SW7191	< 5		5	µg/L	1	RHS	4/1/2002
DISSOLVED METAL(s) by GFAA								
1. Cadmium	SW7131A	< 0.5		0.5	µg/L	1	RHS	4/1/2002
DISSOLVED METAL(s) by GFAA								
1. Silver	SW7761	< 0.5		0.5	µg/L	1	RHS	4/1/2002
DISSOLVED METAL(s) by ICP								
1. Aluminum	SW6010B	< 50		50	µg/L	1	RHS	4/3/2002
2. Arsenic	SW6010B	< 20		20	µg/L	1	RHS	4/3/2002
3. Iron	SW6010B	< 50		50	µg/L	1	RHS	4/3/2002
4. Molybdenum	SW6010B	22		10	µg/L	1	RHS	4/3/2002
5. Nickel	SW6010B	< 20		20	µg/L	1	RHS	4/3/2002
6. Zinc	SW6010B	29		20	µg/L	1	RHS	4/3/2002

Definitions: PQL - Practical Quantitation Limit
DF - Dilution Factor

Qualifiers (Q): J - Detected below PQL but above MDL; Estimated
S - Spike Recovery Outside Acceptance Limits
B - Analyte detected in associated Method Blank
N - See case narrative for explanation

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16 of 17

Note: The sample results reported are based on the sample aliquot(s) tested.

BIO-CHEM Laboratories, Inc.

Date: 4/5/2002

ANALYTICAL REPORT

CLIENT: Dixon Environmental
Lab Order: 0203471
Project: 3890 Buchanan S.W.
Lab Sample ID: 0203471-14A

Project Number: 02-01-011
Client Sample ID: GP-9 (15-17)
Collection Date: 3/26/2002
Matrix: AQUEOUS

Analyses	Method Ref.	Result	Q	PQL	Units	DF	Analyst	Date
VOLATILES by GC/MS								
1. 1,1,1-Trichloroethane	SW8260B	< 1		1	µg/L	1	DRF	4/1/2002
2. 1,1,2,2-Tetrachloroethane	SW8260B	< 1		1	µg/L	1	DRF	4/1/2002
3. 1,1,2-Trichloroethane	SW8260B	< 1		1	µg/L	1	DRF	4/1/2002
4. 1,1-Dichloroethane	SW8260B	< 1		1	µg/L	1	DRF	4/1/2002
5. 1,1-Dichloroethene	SW8260B	< 1		1	µg/L	1	DRF	4/1/2002
6. 1,2,4-Trimethylbenzene	SW8260B	< 1		1	µg/L	1	DRF	4/1/2002
7. 1,2-Dibromoethane	SW8260B	< 1		1	µg/L	1	DRF	4/1/2002
8. 1,2-Dichlorobenzene	SW8260B	< 1		1	µg/L	1	DRF	4/1/2002
9. 1,2-Dichloroethane	SW8260B	< 1		1	µg/L	1	DRF	4/1/2002
10. 1,2-Dichloropropane	SW8260B	< 1		1	µg/L	1	DRF	4/1/2002
11. 1,3,5-Trimethylbenzene	SW8260B	< 1		1	µg/L	1	DRF	4/1/2002
12. 1,3-Dichlorobenzene	SW8260B	< 1		1	µg/L	1	DRF	4/1/2002
13. 1,4-Dichlorobenzene	SW8260B	< 1		1	µg/L	1	DRF	4/1/2002
14. Benzene	SW8260B	< 1		1	µg/L	1	DRF	4/1/2002
15. Bromodichloromethane	SW8260B	< 1		1	µg/L	1	DRF	4/1/2002
16. Bromoform	SW8260B	< 1		1	µg/L	1	DRF	4/1/2002
17. Bromomethane	SW8260B	< 1		1	µg/L	1	DRF	4/1/2002
18. Carbon tetrachloride	SW8260B	< 1		1	µg/L	1	DRF	4/1/2002
19. Chlorobenzene	SW8260B	< 1		1	µg/L	1	DRF	4/1/2002
20. Chloroethane	SW8260B	< 1		1	µg/L	1	DRF	4/1/2002
21. Chloroform	SW8260B	< 1		1	µg/L	1	DRF	4/1/2002
22. Chloromethane	SW8260B	< 1		1	µg/L	1	DRF	4/1/2002
23. cis-1,3-Dichloropropene	SW8260B	< 1		1	µg/L	1	DRF	4/1/2002
24. Dibromochloromethane	SW8260B	< 1		1	µg/L	1	DRF	4/1/2002
25. Ethylbenzene	SW8260B	< 1		1	µg/L	1	DRF	4/1/2002
26. m,p-Xylene	SW8260B	< 2		2	µg/L	1	DRF	4/1/2002
27. Methyl tert-butyl ether	SW8260B	< 4		4	µg/L	1	DRF	4/1/2002
28. Methylene chloride	SW8260B	< 5		5	µg/L	1	DRF	4/1/2002
29. o-Xylene	SW8260B	< 1		1	µg/L	1	DRF	4/1/2002
30. Tetrachloroethene	SW8260B	< 1		1	µg/L	1	DRF	4/1/2002
31. Toluene	SW8260B	< 1		1	µg/L	1	DRF	4/1/2002
32. trans-1,2-Dichloroethene	SW8260B	< 1		1	µg/L	1	DRF	4/1/2002
33. trans-1,3-Dichloropropene	SW8260B	< 1		1	µg/L	1	DRF	4/1/2002
34. Trichloroethene	SW8260B	< 1		1	µg/L	1	DRF	4/1/2002
35. Trichlorofluoromethane	SW8260B	< 1		1	µg/L	1	DRF	4/1/2002
36. Vinyl chloride	SW8260B	< 1		1	µg/L	1	DRF	4/1/2002

Definitions: PQL - Practical Quantitation Limit
DF - Dilution Factor

Qualifiers (Q): J - Detected below PQL but above MDL: Estimated
S - Spike Recovery Outside Acceptance Limits
B - Analyte detected in associated Method Blank
N - See case narrative for explanation

This report shall not be reproduced except in full, without the written approval of BIO-CHEM Laboratories, Inc.

17 of 17

Note: The sample results reported are based on the sample aliquot(s) tested.

BIO-CHEM Laboratories, Inc.

04/04/2002

ANALYTICAL DETAIL REPORT

Lab Order: 0203471
Client: Dixon Environmental
Project: 3890 Buchanan S.W.

Sample ID	Client Sample ID	Matrix	Test Name	Date Sampled	TCLP/SPLP Date	Prep Date	QC Batch	Analysis Date	Analytical Batch
0203471-01A	GP-1 (9-10')	Soil	TOTAL METAL(s) by ICP	03/26/2002		03/29/2002	9656	04/02/2002	MTL_G_ICP_020402A
	GP-1 (9-10')	Soil	VOLATILES by GC/MS (5035)	03/26/2002		04/02/2002	9679	04/03/2002	GCMS_Q_020402B
0203471-02A	GP-2 (1-3')	Soil	TOTAL METAL(s) by ICP	03/26/2002		03/29/2002	9656	04/02/2002	MTL_G_ICP_020402A
	GP-2 (1-3')	Soil	VOLATILES by GC/MS (5035)	03/26/2002		04/02/2002	9679	04/03/2002	GCMS_Q_020402B
0203471-03A	GP-3 (1-3')	Soil	TOTAL METAL(s) by ICP	03/26/2002		03/29/2002	9656	04/02/2002	MTL_G_ICP_020402A
	GP-3 (1-3')	Soil	VOLATILES by GC/MS (5035)	03/26/2002		04/02/2002	9679	04/03/2002	GCMS_Q_020402B
0203471-04A	GP-4 (1-3')	Soil	TOTAL METAL(s) by ICP	03/26/2002		03/29/2002	9656	04/02/2002	MTL_G_ICP_020402A
	GP-4 (1-3')	Soil	VOLATILES by GC/MS (5035)	03/26/2002		04/02/2002	9679	04/03/2002	GCMS_Q_020402B
0203471-05A	GP-5 (13-15')	Soil	TOTAL METAL(s) by ICP	03/26/2002		03/29/2002	9656	04/02/2002	MTL_G_ICP_020402A
	GP-5 (13-15')	Soil	VOLATILES by GC/MS (5035)	03/26/2002		04/02/2002	9679	04/03/2002	GCMS_Q_020402B
0203471-06A	GP-6 (1-1.5')	Soil	TOTAL METAL(s) by ICP	03/27/2002		03/29/2002	9656	04/02/2002	MTL_G_ICP_020402A
	GP-6 (1-1.5')	Soil	VOLATILES by GC/MS (5035)	03/27/2002		04/02/2002	9679	04/03/2002	GCMS_Q_020402B
0203471-07A	GP-7 (1-1.5')	Soil	TOTAL METAL(s) by ICP	03/27/2002		03/29/2002	9656	04/02/2002	MTL_G_ICP_020402A
	GP-7 (1-1.5')	Soil	VOLATILES by GC/MS (5035)	03/27/2002		04/02/2002	9679	04/03/2002	GCMS_Q_020402B
0203471-08A	GP-8 (1-1.5')	Soil	TOTAL METAL(s) by ICP	03/27/2002		03/29/2002	9656	04/02/2002	MTL_G_ICP_020402A
	GP-8 (1-1.5')	Soil	VOLATILES by GC/MS (5035)	03/27/2002		04/02/2002	9679	04/03/2002	GCMS_Q_020402B
0203471-09A	GP-9 (0.5-1')	Soil	PNAs by GC/MS	03/26/2002		03/27/2002	9640	04/03/2002	GCMS_E_020403A
	GP-9 (0.5-1')	Soil	TOTAL METAL(s) by GF/AA	03/26/2002		03/29/2002	9656	04/02/2002	MTL_F_GF_020402A
	GP-9 (0.5-1')	Soil	TOTAL METAL(s) by ICP	03/26/2002		03/29/2002	9655	04/02/2002	MTL_G_ICP_020402A
	GP-9 (0.5-1')	Soil	VOLATILES by GC/MS (5035)	03/26/2002		04/02/2002	9679	04/03/2002	GCMS_Q_020402B
0203471-10A	GP-9 (9-11')	Soil	PNAs by GC/MS	03/26/2002		03/27/2002	9640	04/03/2002	GCMS_E_020402A
	GP-9 (9-11')	Soil	TOTAL METAL(s) by GF/AA	03/26/2002		03/29/2002	9656	04/02/2002	MTL_F_GF_020402A
	GP-9 (9-11')	Soil	TOTAL METAL(s) by ICP	03/26/2002		03/29/2002	9655	04/02/2002	MTL_G_ICP_020402A
	GP-9 (9-11')	Soil	VOLATILES by GC/MS (5035)	03/26/2002		04/02/2002	9679	04/03/2002	GCMS_Q_020402B
0203471-11A	GP-10 (1')	Soil	TOTAL METAL(s) by ICP	03/27/2002		03/29/2002	9656	04/02/2002	MTL_G_ICP_020402A
	GP-10 (1')	Soil	VOLATILES by GC/MS (5035)	03/27/2002		04/02/2002	9679	04/03/2002	GCMS_Q_020402B
0203471-12A	GP-1 (17.5-19')	Aqueous	DISSOLVED METAL(s) by GF	03/26/2002		04/01/2002	9664	04/01/2002	MTL_F_GF_020401A

BIO-CHEM Laboratories, Inc.

04/04/2002

ANALYTICAL DETAIL REPORT

Lab Order: 0203471

Client: Dixon Environmental

Project: 3890 Buchanan S.W.

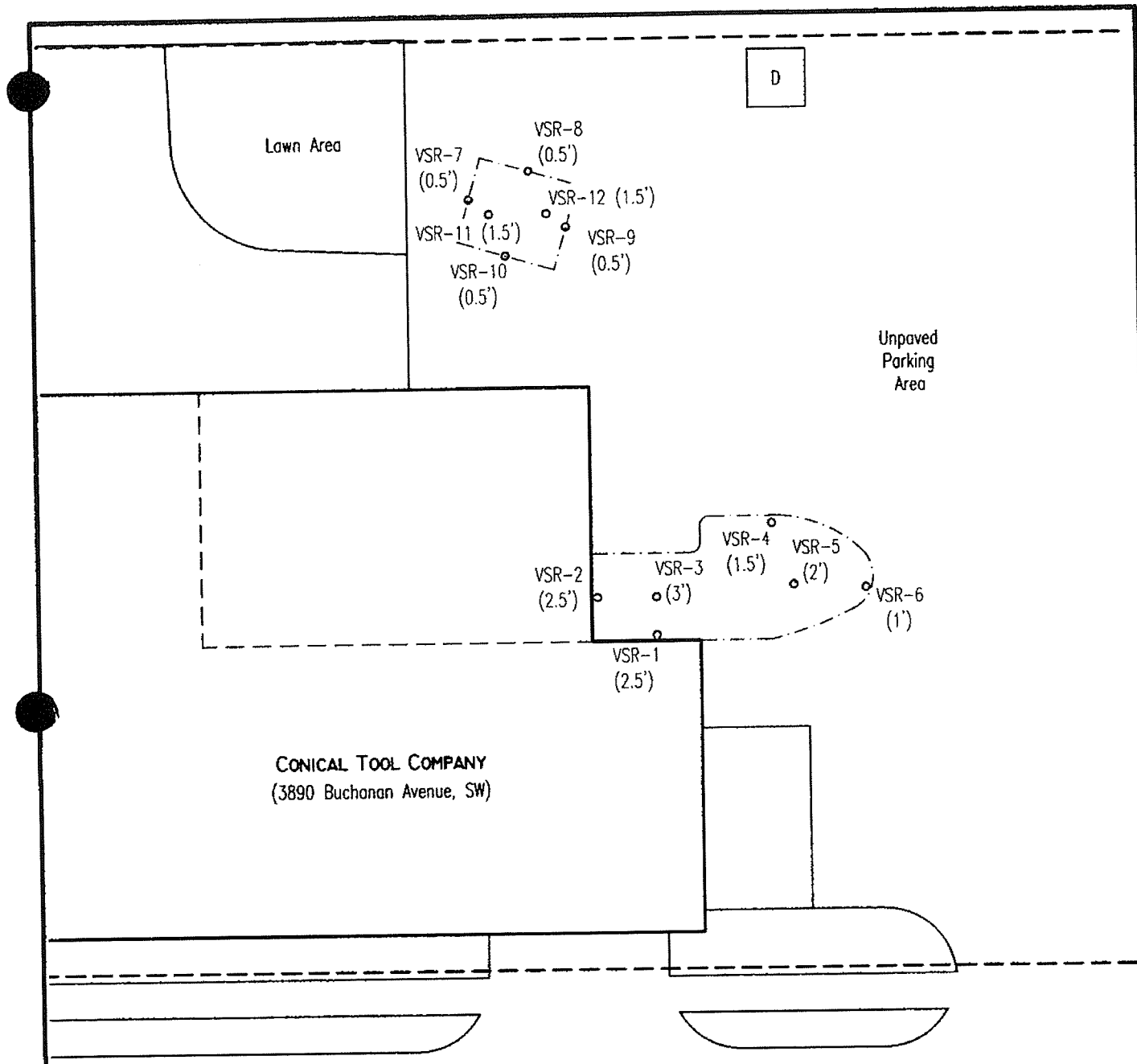
Sample ID	Client Sample ID	Matrix	Test Name	Date Sampled	TCLP/SPLP Date	Prep Date	QC Batch	Analysis Date	Analytical Batch
0203471-12A	GP-1 (17.5-19')	Aqueous	DISSOLVED METAL(s) by IC	03/26/2002		04/01/2002	9664	04/03/2002	MTL_G_ICP_020403B
	GP-1 (17.5-19')	Aqueous	VOLATILES by GC/MS	03/26/2002			GCMS_Z_020401A	04/01/2002	GCMS_Z_020401A
0203471-13A	GP-5 (17-19')	Aqueous	DISSOLVED METAL(s) by GF	03/26/2002		04/01/2002	9664	04/01/2002	MTL_F_GF_020401A
	GP-5 (17-19')	Aqueous	DISSOLVED METAL(s) by IC	03/26/2002		04/01/2002	9664	04/03/2002	MTL_G_ICP_020403B
	GP-5 (17-19')	Aqueous	VOLATILES by GC/MS	03/26/2002			GCMS_Z_020401A	04/01/2002	GCMS_Z_020401A
0203471-14A	GP-9 (15-17')	Aqueous	DISSOLVED METAL(s) by GF	03/26/2002		04/01/2002	9664	04/01/2002	MTL_F_GF_020401B
	GP-9 (15-17')	Aqueous	DISSOLVED METAL(s) by GF	03/26/2002		03/27/2002	9642	03/27/2002	MTL_F_GF_020327C
	GP-9 (15-17')	Aqueous	DISSOLVED METAL(s) by GF	03/26/2002		04/01/2002	9664	04/01/2002	MTL_F_GF_020401C
	GP-9 (15-17')	Aqueous	DISSOLVED METAL(s) by GF	03/26/2002		04/01/2002	9664	04/01/2002	MTL_F_GF_020401A
	GP-9 (15-17')	Aqueous	DISSOLVED METAL(s) by IC	03/26/2002		04/01/2002	9664	04/03/2002	MTL_G_ICP_020403C
	GP-9 (15-17')	Aqueous	VOLATILES by GC/MS	03/26/2002		04/01/2002	GCMS_Z_020401A	04/01/2002	GCMS_Z_020401A

E

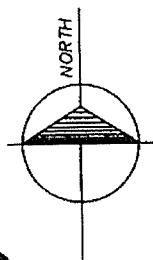
DIXON
ENVIRONMENTAL CONSULTING, INC.

APPENDIX E

**VERIFICATION OF SOIL REMEDIATION SAMPLE LOCATION
DIAGRAM AND CHEMICAL ANALYSIS RESULTS CONDUCTED
IN JULY 2002 (NO REPORT)**



CONICAL TOOL COMPANY
(3890 Buchanan Avenue, SW)



LEGEND

- PROPERTY BOUNDARY
 - FORMER LIMITS OF BUILDING
 - ☐ SOLID WASTE DUMPSTER
 - APPROXIMATE EXCAVATION LIMITS
 - VSR SOIL SAMPLE LOCATION
- VSR-1
(2.5')

D I X O N
ENVIRONMENTAL CONSULTING, INC.

INTERIM RESPONSE ACTIVITIES REMEDIAL EXCAVATION AND VSR SAMPLE LOCATION DIAGRAM

CONICAL TOOL COMPANY PROPERTY
3890 BUCHANAN AVENUE, SW
WYOMING, KENT COUNTY, MICHIGAN

PROJECT NO: 02-06-011 JULY 31, 2002

750 OTTAWA AVENUE, NW TELEPHONE: (616) 742-5511
GRAND RAPIDS, MI 49503 FACSIMILE: (616) 742-5522

NOTES: THIS DIAGRAM IS NOT A LEGAL SURVEY. APPROXIMATE SCALE: 1" = 20'



1049 - 28th Street SE
Grand Rapids, MI 49508
Ph: 616/248-4900
Toll Free: 800/362-LABS
Fax: 616/248-4904

July 16, 2002

Mike Marshall
Dixon Environmental
750 Ottawa Ave. NW
Grand Rapids, MI 49503
TEL: (616) 742-5511
FAX: (616) 742-5522

RE: 3890 Buchanan, SW

Order No.: 0207120

Dear Mike Marshall,

BIO-CHEM Laboratories, Inc. completely received 12 samples on 07/09/2002 for the analyses presented in the following report.

There were no problems with the analyses and all data for associated QC met EPA or laboratory specifications except where noted in the Case Narrative.

If you have any questions regarding these tests results, please feel free to call.

Please note that unless otherwise instructed, residual samples will be held for sixty (60) days from the original report date. At that time, all non-hazardous samples will be disposed of in accordance with federal, state and local regulations and ordinances, and hazardous samples shall be returned to you. Please contact the laboratory within thirty (30) days if other arrangements for sample retention need to be made.

Sincerely,

Cindy Euwema
Office Manager

1049 28th Street SE
Grand Rapids, MI 49508
PH: (616) 248-4900
Toll Free: 800-362-LABS
FAX: (616) 248-4904

Chain of Custody

$$\sin \frac{1}{2}$$

Project Number

Firm Name		Turn around time		Date		Date Due	
Firm Address		Project Name		Analysis Desired (One per line)		Remarks	
City, State, Zip		State Samples Taken From		Number of Containers			
Phone	Fax	Contact Person	Sample Description (sample type: water, soil, other)	Time Taken	Date Taken	Client Sample Number	Lab I.D.
1	2	3	4	5	6	7	8
9	10	11	12	13	14	15	16
17	18	19	20	21	22	23	24
25	26	27	28	29	30	31	32
33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48
49	50	51	52	53	54	55	56
57	58	59	60	61	62	63	64
65	66	67	68	69	70	71	72
73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88
89	90	91	92	93	94	95	96
97	98	99	100	101	102	103	104
105	106	107	108	109	110	111	112
113	114	115	116	117	118	119	120
121	122	123	124	125	126	127	128
129	130	131	132	133	134	135	136
137	138	139	140	141	142	143	144
145	146	147	148	149	150	151	152
153	154	155	156	157	158	159	160
161	162	163	164	165	166	167	168
169	170	171	172	173	174	175	176
177	178	179	180	181	182	183	184
185	186	187	188	189	190	191	192
193	194	195	196	197	198	199	200
201	202	203	204	205	206	207	208
209	210	211	212	213	214	215	216
217	218	219	220	221	222	223	224
225	226	227	228	229	230	231	232
233	234	235	236	237	238	239	240
241	242	243	244	245	246	247	248
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273	274	275	276	277	278	279	280
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313	314	315	316	317	318	319	320
321	322	323	324	325	326	327	328
329	330	331	332	333	334	335	336
337	338	339	340	341	342	343	344
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377	378	379	380	381	382	383	384
385	386	387	388	389	390	391	392
393	394	395	396	397	398	399	400



1049 28th Street SE
Grand Rapids, MI 49508
PH: (616) 248-4900
Toll Free: 800-362-LABS
FAX: (616) 248-4904

Chain of Custody

Project Number

Firm Name

Turn around time

Date

Date Due

Firm Address

Project Name

City, State, Zip

State Samples Taken From

Phone

Fax

Contact Person

Lab I.D.

Client Sample Number

Date Taken

Time Taken

Sample Description
(sample type: water, soil, other)

Number of Containers

Analysis Desired
(One per line)

Remarks

Released by

Received by

Date

Time

Laboratory use only

☐ Blue Ice _____°

☐ Regular Ice

☐ No Coolant

BIO-CHEM Laboratories, Inc.

Date: 07/16/2002

CLIENT: Dixon Environmental**Project:** 3890 Buchanan, SW**Lab Order:** 0207120**Completely Received:** 07/09/2002**Work Order Sample Summary****Date Reported:** 07/16/2002

Lab Sample ID	Client Sample ID	Matrix	Date Collected	Date Received
0207120-01A	VSR-1 (2.5')	Soil	07/09/2002	07/09/2002
0207120-02A	VSR-2 (2.5')	Soil	07/09/2002	07/09/2002
0207120-03A	VSR-3 (3')	Soil	07/09/2002	07/09/2002
0207120-04A	VSR-4 (1.5')	Soil	07/09/2002	07/09/2002
0207120-05A	VSR-5 (2')	Soil	07/09/2002	07/09/2002
0207120-06A	VSR-6 (1')	Soil	07/09/2002	07/09/2002
0207120-07A	VSR-7 (0.5')	Soil	07/09/2002	07/09/2002
0207120-08A	VSR-8 (0.5')	Soil	07/09/2002	07/09/2002
0207120-09A	VSR-9 (0.5')	Soil	07/09/2002	07/09/2002
0207120-10A	VSR-10 (0.5')	Soil	07/09/2002	07/09/2002
0207120-11A	VSR-11 (1.5')	Soil	07/09/2002	07/09/2002
0207120-12A	VSR-12 (1.5')	Soil	07/09/2002	07/09/2002

BIO-CHEM Laboratories, Inc.**Date:** 07/16/2002

CLIENT: Dixon Environmental**Project:** 3890 Buchanan. SW**Lab Order:** 0207120**CASE NARRATIVE**

Samples are routinely analyzed using methods outlined in the following references:

(SW) Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW846, 3rd Ed.

(E) Methods for Chemical Analysis of Water and Wastes, EPA-600/4-79-020.

(A) Standard Methods for the Examination of Water and Wastewater, APHA, 18th Ed.

(D) Annual Book of ASTM Standards.

Specific methods utilized for this project are provided in the analytical report and are identified by the reference document abbreviation () followed by the method number.

All QA/QC and sample analyses met method, laboratory and/or regulatory data quality objectives unless otherwise specified below.

No data qualifications required.

BIO-CHEM Laboratories, Inc.

Date: 07/16/2002

ANALYTICAL REPORT

CLIENT: Dixon Environmental
Lab Order: 0207120
Project: 3890 Buchanan, SW
Lab Sample ID: 0207120-01A

Project Number: N/A
Client Sample ID: VSR-1 (2.5')
Collection Date: 07/09/2002
Matrix: SOIL

Analyses	Method Ref.	Result	Q	PQL	Units	DF	Analyst	Date
TOTAL METAL(s) by ICP								
1. Chromium	SW6010B	2,400		500	µg/Kg-dry	1	RHS	07/15/2002
2. Iron	SW6010B	2,200,000		500	µg/Kg-dry	1	RHS	07/15/2002
3. Molybdenum	SW6010B	3,400		250	µg/Kg-dry	1	RHS	07/15/2002
4. Nickel	SW6010B	3,200		500	µg/Kg-dry	1	RHS	07/15/2002
5. Silver	SW6010B	< 500		500	µg/Kg-dry	1	RHS	07/15/2002
PNAs by GC/MS								
1. Dibenzo[a,h]anthracene	SW8270C	< 330		330	µg/Kg-dry	1	NVS	07/12/2002
VOLATILES by GC/MS (5035)								
1. Trichloroethene	SW8260B	< 50		50	µg/Kg-dry	1	DRF	07/10/2002

Definitions: PQL - Practical Quantitation Limit
DF - Dilution Factor

Qualifiers (Q): J - Detected below PQL but above MDL: Estimated
S - Spike Recovery Outside Acceptance Limits
B - Analyte detected in associated Method Blank
N - See case narrative for explanation

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BIO-CHEM Laboratories, Inc.

Date: 07/16/2002

ANALYTICAL REPORT

CLIENT: Dixon Environmental
Lab Order: 0207120
Project: 3890 Buchanan, SW
Lab Sample ID: 0207120-02A

Project Number: N/A
Client Sample ID: VSR-2 (2.5')
Collection Date: 07/09/2002
Matrix: SOIL

Analyses	Method Ref.	Result	Q	PQL	Units	DF	Analyst	Date
TOTAL METAL(s) by ICP								
1. Chromium	SW6010B	69,000		500	µg/Kg-dry	1	RHS	07/15/2002
2. Iron	SW6010B	8,300,000		500	µg/Kg-dry	1	RHS	07/15/2002
3. Molybdenum	SW6010B	57,000		250	µg/Kg-dry	1	RHS	07/15/2002
4. Nickel	SW6010B	17,000		500	µg/Kg-dry	1	RHS	07/15/2002
5. Silver	SW6010B	< 500		500	µg/Kg-dry	1	RHS	07/15/2002
PNAs by GC/MS								
1. Dibenz[a,h]anthracene	SW8270C	< 330		330	µg/Kg-dry	1	NVS	07/11/2002
VOLATILES by GC/MS (5035)								
1. Trichloroethene	SW8260B	< 50		50	µg/Kg-dry	1	DRF	07/10/2002

Definitions: PQL - Practical Quantitation Limit
DF - Dilution Factor

Qualifiers (Q): J - Detected below PQL but above MDL: Estimated
S - Spike Recovery Outside Acceptance Limits
B - Analyte detected in associated Method Blank
N - See case narrative for explanation

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Note: The sample results reported are based on the sample aliquot(s) tested.

BIO-CHEM Laboratories, Inc.

Date: 07/16/2002

ANALYTICAL REPORT

CLIENT: Dixon Environmental
Lab Order: 0207120
Project: 3890 Buchanan, SW
Lab Sample ID: 0207120-03A

Project Number: N/A
Client Sample ID: VSR-3 (3')
Collection Date: 07/09/2002
Matrix: SOIL

Analyses	Method Ref.	Result	Q	PQL	Units	DF	Analyst	Date
TOTAL METAL(s) by ICP								
1. Chromium	SW6010B	4,900		500	µg/Kg-dry	1	RHS	07/15/2002
2. Iron	SW6010B	4,600,000		500	µg/Kg-dry	1	RHS	07/15/2002
3. Molybdenum	SW6010B	2,800		250	µg/Kg-dry	1	RHS	07/15/2002
4. Nickel	SW6010B	4,200		500	µg/Kg-dry	1	RHS	07/15/2002
5. Silver	SW6010B	< 500		500	µg/Kg-dry	1	RHS	07/15/2002
PNAs by GC/MS								
1. Dibenz[a,h]anthracene	SW8270C	< 330		330	µg/Kg-dry	1	NVS	07/11/2002
VOLATILES by GC/MS (5035)								
1. Trichloroethene	SW8260B	< 50		50	µg/Kg-dry	1	DRF	07/10/2002

Definitions: PQL - Practical Quantitation Limit
DF - Dilution Factor

Qualifiers (Q): J - Detected below PQL but above MDL: Estimated
S - Spike Recovery Outside Acceptance Limits
B - Analyte detected in associated Method Blank
N - See case narrative for explanation

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Note: The sample results reported are based on the sample aliquot(s) tested.

BIO-CHEM Laboratories, Inc.

Date: 07/16/2002

ANALYTICAL REPORT

CLIENT: Dixon Environmental
Lab Order: 0207120
Project: 3890 Buchanan, SW
Lab Sample ID: 0207120-04A

Project Number: N/A
Client Sample ID: VSR-4 (1.5')
Collection Date: 07/09/2002
Matrix: SOIL

Analyses	Method Ref.	Result	Q	PQL	Units	DF	Analyst	Date
TOTAL METAL(s) by ICP								
1. Chromium	SW6010B	21,000		500	µg/Kg-dry	1	RHS	07/15/2002
2. Iron	SW6010B	7,200,000		500	µg/Kg-dry	1	RHS	07/15/2002
3. Molybdenum	SW6010B	18,000		250	µg/Kg-dry	1	RHS	07/15/2002
4. Nickel	SW6010B	14,000		500	µg/Kg-dry	1	RHS	07/15/2002
5. Silver	SW6010B	< 500		500	µg/Kg-dry	1	RHS	07/15/2002
PNAs by GC/MS								
1. Dibenz[a,h]anthracene	SW8270C	1,100		330	µg/Kg-dry	1	NVS	07/11/2002
VOLATILES by GC/MS (5035)								
1. Trichloroethene	SW8260B	< 50		50	µg/Kg-dry	1	DRF	07/10/2002

Definitions: PQL - Practical Quantitation Limit
DF - Dilution Factor

Qualifiers (Q): J - Detected below PQL but above MDL: Estimated
S - Spike Recovery Outside Acceptance Limits
B - Analyte detected in associated Method Blank
N - See case narrative for explanation

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Note: The sample results reported are based on the sample aliquot(s) tested.

BIO-CHEM Laboratories, Inc.

Date: 07/16/2002

ANALYTICAL REPORT

CLIENT: Dixon Environmental
Lab Order: 0207120
Project: 3890 Buchanan, SW
Lab Sample ID: 0207120-05A

Project Number: N/A
Client Sample ID: VSR-5 (2')
Collection Date: 07/09/2002
Matrix: SOIL

Analyses	Method Ref.	Result	Q	PQL	Units	DF	Analyst	Date
TOTAL METAL(s) by ICP								
1. Chromium	SW6010B	10,000		500	µg/Kg-dry	1	RHS	07/15/2002
2. Iron	SW6010B	6,200,000		500	µg/Kg-dry	1	RHS	07/15/2002
3. Molybdenum	SW6010B	6,500		250	µg/Kg-dry	1	RHS	07/15/2002
4. Nickel	SW6010B	6,900		500	µg/Kg-dry	1	RHS	07/15/2002
5. Silver	SW6010B	< 500		500	µg/Kg-dry	1	RHS	07/15/2002
PNAs by GC/MS								
1. Dibenz[a,h]anthracene	SW8270C	< 330		330	µg/Kg-dry	1	NVS	07/11/2002
VOLATILES by GC/MS (5035)								
1. Trichloroethene	SW8260B	< 50		50	µg/Kg-dry	1	DRF	07/10/2002

Definitions: PQL - Practical Quantitation Limit
DF - Dilution Factor

Qualifiers (Q): J - Detected below PQL but above MDL: Estimated
S - Spike Recovery Outside Acceptance Limits
B - Analyte detected in associated Method Blank
N - See case narrative for explanation

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Note: The sample results reported are based on the sample aliquot(s) tested.

BIO-CHEM Laboratories, Inc.

Date: 07/16/2002

ANALYTICAL REPORT

CLIENT: Dixon Environmental
Lab Order: 0207120
Project: 3890 Buchanan, SW
Lab Sample ID: 0207120-06A

Project Number: N/A
Client Sample ID: VSR-6 (1')
Collection Date: 07/09/2002
Matrix: SOIL

Analyses	Method Ref.	Result	Q	PQL	Units	DF	Analyst	Date
TOTAL METAL(s) by ICP								
1. Chromium	SW6010B	6,500		500	µg/Kg-dry	1	RHS	07/15/2002
2. Iron	SW6010B	5,000.000		500	µg/Kg-dry	1	RHS	07/15/2002
3. Molybdenum	SW6010B	3,400		250	µg/Kg-dry	1	RHS	07/15/2002
4. Nickel	SW6010B	5,800		500	µg/Kg-dry	1	RHS	07/15/2002
5. Silver	SW6010B	< 500		500	µg/Kg-dry	1	RHS	07/15/2002
PNAs by GC/MS								
1. Dibenz[a,h]anthracene	SW8270C	< 330		330	µg/Kg-dry	1	NVS	07/11/2002
VOLATILES by GC/MS (5035)								
1. Trichloroethene	SW8260B	< 50		50	µg/Kg-dry	1	DRF	07/10/2002

Definitions: PQL - Practical Quantitation Limit
DF - Dilution Factor

Qualifiers (Q): J - Detected below PQL but above MDL: Estimated
S - Spike Recovery Outside Acceptance Limits
B - Analyte detected in associated Method Blank
N - See case narrative for explanation

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Note: The sample results reported are based on the sample aliquot(s) tested.

BIO-CHEM Laboratories, Inc.

Date: 07/16/2002

ANALYTICAL REPORT

CLIENT: Dixon Environmental
Lab Order: 0207120
Project: 3890 Buchanan, SW
Lab Sample ID: 0207120-07A

Project Number: N/A
Client Sample ID: VSR-7 (0.5')
Collection Date: 07/09/2002
Matrix: SOIL

Analyses	Method Ref.	Result	Q	PQL	Units	DF	Analyst	Date
TOTAL METAL(s) by ICP								
1. Chromium	SW6010B	450,000		500	µg/Kg-dry	1	RHS	07/15/2002
2. Iron	SW6010B	25,000,000		500	µg/Kg-dry	1	RHS	07/15/2002
3. Molybdenum	SW6010B	330,000		250	µg/Kg-dry	1	RHS	07/15/2002
4. Nickel	SW6010B	58,000		500	µg/Kg-dry	1	RHS	07/15/2002
5. Silver	SW6010B	< 500		500	µg/Kg-dry	1	RHS	07/15/2002
PNAs by GC/MS								
1. Dibenz[a,h]anthracene	SW8270C	< 630		630	µg/Kg-dry	1	NVS	07/11/2002
VOLATILES by GC/MS (5035)								
1. Trichloroethene	SW8260B	< 50		50	µg/Kg-dry	1	DRF	07/10/2002

Definitions: PQL - Practical Quantitation Limit
DF - Dilution Factor

Qualifiers (Q): J - Detected below PQL but above MDL: Estimated
S - Spike Recovery Outside Acceptance Limits
B - Analyte detected in associated Method Blank
N - See case narrative for explanation

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Note: The sample results reported are based on the sample aliquot(s) tested

BIO-CHEM Laboratories, Inc.

Date: 07/16/2002

ANALYTICAL REPORT

CLIENT: Dixon Environmental
Lab Order: 0207120
Project: 3890 Buchanan, SW
Lab Sample ID: 0207120-08A

Project Number: N/A
Client Sample ID: VSR-8 (0.5')
Collection Date: 07/09/2002
Matrix: SOIL

Analyses	Method Ref.	Result	Q	PQL	Units	DF	Analyst	Date
TOTAL METAL(s) by ICP								
1. Chromium	SW6010B	110,000		500	µg/Kg-dry	1	RHS	07/15/2002
2. Iron	SW6010B	11,000,000		500	µg/Kg-dry	1	RHS	07/15/2002
3. Molybdenum	SW6010B	120,000		250	µg/Kg-dry	1	RHS	07/15/2002
4. Nickel	SW6010B	18,000		500	µg/Kg-dry	1	RHS	07/15/2002
5. Silver	SW6010B	< 500		500	µg/Kg-dry	1	RHS	07/15/2002
PNAs by GC/MS								
1. Dibenz[a,h]anthracene	SW8270C	< 330		330	µg/Kg-dry	1	NVS	07/11/2002
VOLATILES by GC/MS (5035)								
1. Trichloroethene	SW8260B	< 50		50	µg/Kg-dry	1	DRF	07/10/2002

Definitions: PQL - Practical Quantitation Limit
DF - Dilution Factor

Qualifiers (Q): J - Detected below PQL but above MDL: Estimated
S - Spike Recovery Outside Acceptance Limits
B - Analyte detected in associated Method Blank
N - See case narrative for explanation

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Note: The sample results reported are based on the sample aliquot(s) tested.

BIO-CHEM Laboratories, Inc.

Date: 07/16/2002

ANALYTICAL REPORT

CLIENT: Dixon Environmental
Lab Order: 0207120
Project: 3890 Buchanan, SW
Lab Sample ID: 0207120-09A

Project Number: N/A
Client Sample ID: VSR-9 (0.5')
Collection Date: 07/09/2002
Matrix: SOIL

Analyses	Method Ref.	Result	Q	PQL	Units	DF	Analyst	Date
TOTAL METAL(s) by ICP								
1. Chromium	SW6010B	12,000		500	µg/Kg-dry	1	RHS	07/15/2002
2. Iron	SW6010B	6,400,000		500	µg/Kg-dry	1	RHS	07/15/2002
3. Molybdenum	SW6010B	27,000		250	µg/Kg-dry	1	RHS	07/15/2002
4. Nickel	SW6010B	7,800		500	µg/Kg-dry	1	RHS	07/15/2002
5. Silver	SW6010B	< 500		500	µg/Kg-dry	1	RHS	07/15/2002
PNAs by GC/MS								
1. Dibenz[a,h]anthracene	SW8270C	< 330		330	µg/Kg-dry	1	NVS	07/11/2002
VOLATILES by GC/MS (5035)								
1. Trichloroethene	SW8260B	< 50		50	µg/Kg-dry	1	DRF	07/10/2002

Definitions: PQL - Practical Quantitation Limit
DF - Dilution Factor

Qualifiers (Q): J - Detected below PQL but above MDL: Estimated
S - Spike Recovery Outside Acceptance Limits
B - Analyte detected in associated Method Blank
N - See case narrative for explanation

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Note: The sample results reported are based on the sample aliquot(s) tested.

BIO-CHEM Laboratories, Inc.

Date: 07/16/2002

ANALYTICAL REPORT

CLIENT: Dixon Environmental
Lab Order: 0207120
Project: 3890 Buchanan, SW
Lab Sample ID: 0207120-10A

Project Number: N/A
Client Sample ID: VSR-10 (0.5")
Collection Date: 07/09/2002
Matrix: SOIL

Analyses	Method Ref.	Result	Q	PQL	Units	DF	Analyst	Date
TOTAL METAL(s) by ICP								
1. Chromium	SW6010B	25,000		500	µg/Kg-dry	1	RHS	07/15/2002
2. Iron	SW6010B	5,900,000		500	µg/Kg-dry	1	RHS	07/15/2002
3. Molybdenum	SW6010B	24,000		250	µg/Kg-dry	1	RHS	07/15/2002
4. Nickel	SW6010B	6,500		500	µg/Kg-dry	1	RHS	07/15/2002
5. Silver	SW6010B	< 500		500	µg/Kg-dry	1	RHS	07/15/2002
PNAs by GC/MS								
1. Dibenzo[a,h]anthracene	SW8270C	< 330		330	µg/Kg-dry	1	NVS	07/11/2002
VOLATILES by GC/MS (5035)								
1. Trichloroethene	SW8260B	< 50		50	µg/Kg-dry	1	DRF	07/10/2002

Definitions: PQL - Practical Quantitation Limit
DF - Dilution Factor

Qualifiers (Q):

J - Detected below PQL but above MDL: Estimated
S - Spike Recovery Outside Acceptance Limits
B - Analyte detected in associated Method Blank
N - See case narrative for explanation

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Note: The sample results reported are based on the sample aliquot(s) tested.

BIO-CHEM Laboratories, Inc.

Date: 07/16/2002

ANALYTICAL REPORT

CLIENT: Dixon Environmental
Lab Order: 0207120
Project: 3890 Buchanan, SW
Lab Sample ID: 0207120-11A

Project Number: N/A
Client Sample ID: VSR-11 (1.5')
Collection Date: 07/09/2002
Matrix: SOIL

Analyses	Method Ref.	Result	Q	PQL	Units	DF	Analyst	Date
TOTAL METAL(s) by ICP								
1. Chromium	SW6010B	6,100		500	µg/Kg-dry	1	RHS	07/15/2002
2. Iron	SW6010B	5,300,000		500	µg/Kg-dry	1	RHS	07/15/2002
3. Molybdenum	SW6010B	4,500		250	µg/Kg-dry	1	RHS	07/15/2002
4. Nickel	SW6010B	4,800		500	µg/Kg-dry	1	RHS	07/15/2002
5. Silver	SW6010B	< 500		500	µg/Kg-dry	1	RHS	07/15/2002
PNAs by GC/MS								
1. Dibenz[a,h]anthracene	SW8270C	< 330		330	µg/Kg-dry	1	NVS	07/11/2002
VOLATILES by GC/MS (5035)								
1. Trichloroethene	SW8260B	< 50		50	µg/Kg-dry	1	DRF	07/10/2002

Definitions: PQL - Practical Quantitation Limit
DF - Dilution Factor

Qualifiers (Q): J - Detected below PQL but above MDL: Estimated
S - Spike Recovery Outside Acceptance Limits
B - Analyte detected in associated Method Blank
N - See case narrative for explanation

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Note: The sample results reported are based on the sample aliquot(s) tested.

BIO-CHEM Laboratories, Inc.

Date: 07/16/2002

ANALYTICAL REPORT

CLIENT: Dixon Environmental
Lab Order: 0207120
Project: 3890 Buchanan, SW
Lab Sample ID: 0207120-12A

Project Number: N/A
Client Sample ID: VSR-12 (1.5')
Collection Date: 07/09/2002
Matrix: SOIL

Analyses	Method Ref.	Result	Q	PQL	Units	DF	Analyst	Date
TOTAL METAL(s) by ICP								
1. Chromium	SW6010B	6.600		500	µg/Kg-dry	1	RHS	07/15/2002
2. Iron	SW6010B	5,400,000		500	µg/Kg-dry	1	RHS	07/15/2002
3. Molybdenum	SW6010B	8.900		250	µg/Kg-dry	1	RHS	07/15/2002
4. Nickel	SW6010B	4.900		500	µg/Kg-dry	1	RHS	07/15/2002
5. Silver	SW6010B	< 500		500	µg/Kg-dry	1	RHS	07/15/2002
PNAs by GC/MS								
1. Dibenz[a,h]anthracene	SW8270C	< 330		330	µg/Kg-dry	1	NVS	07/11/2002
VOLATILES by GC/MS (5035)								
1. Trichloroethene	SW8260B	< 50		50	µg/Kg-dry	1	DRF	07/10/2002

Definitions: PQL - Practical Quantitation Limit
DF - Dilution Factor

Qualifiers (Q): J - Detected below PQL but above MDL: Estimated
S - Spike Recovery Outside Acceptance Limits
B - Analyte detected in associated Method Blank
N - See case narrative for explanation

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Note: The sample results reported are based on the sample aliquot(s) tested.

BIO-CHEM Laboratories, Inc.

07/16/2002

ANALYTICAL DETAIL REPORT

Lab Order: 0207120

Client: Dixon Environmental

Project: 3890 Buchanan, SW

Sample ID	Client Sample ID	Matrix	Test Name	Date Sampled	TCLP/SPLP Date	Prep Date	QC Batch	Analysis Date	Analytical Batch
0207120-01A	VSR-1 (2.5')	Soil	PNAs by GC/MS	07/09/2002		07/09/2002	10581	07/12/2002	GCMS_1_020711A
	VSR-1 (2.5')	Soil	TOTAL METAL(s) by ICP	07/09/2002		07/12/2002	10615	07/15/2002	MTL_G_ICP_020715C
	VSR-1 (2.5')	Soil	VOLATILES by GC/MS (5035)	07/09/2002		07/10/2002	10607	07/10/2002	GCMS_X_020710B
0207120-02A	VSR-2 (2.5')	Soil	PNAs by GC/MS	07/09/2002		07/09/2002	10581	07/11/2002	GCMS_1_020711A
	VSR-2 (2.5')	Soil	TOTAL METAL(s) by ICP	07/09/2002		07/12/2002	10615	07/15/2002	MTL_G_ICP_020715C
	VSR-2 (2.5')	Soil	VOLATILES by GC/MS (5035)	07/09/2002		07/10/2002	10607	07/10/2002	GCMS_X_020710B
0207120-03A	VSR-3 (3')	Soil	PNAs by GC/MS	07/09/2002		07/09/2002	10581	07/11/2002	GCMS_1_020711A
	VSR-3 (3')	Soil	TOTAL METAL(s) by ICP	07/09/2002		07/12/2002	10615	07/15/2002	MTL_G_ICP_020715C
	VSR-3 (3')	Soil	VOLATILES by GC/MS (5035)	07/09/2002		07/10/2002	10607	07/10/2002	GCMS_X_020710B
0207120-04A	VSR-4 (1.5')	Soil	PNAs by GC/MS	07/09/2002		07/09/2002	10581	07/11/2002	GCMS_1_020711A
	VSR-4 (1.5')	Soil	TOTAL METAL(s) by ICP	07/09/2002		07/12/2002	10615	07/15/2002	MTL_G_ICP_020715C
	VSR-4 (1.5')	Soil	VOLATILES by GC/MS (5035)	07/09/2002		07/10/2002	10607	07/10/2002	GCMS_X_020710B
0207120-05A	VSR-5 (2')	Soil	PNAs by GC/MS	07/09/2002		07/09/2002	10581	07/11/2002	GCMS_1_020711A
	VSR-5 (2')	Soil	TOTAL METAL(s) by ICP	07/09/2002		07/12/2002	10615	07/15/2002	MTL_G_ICP_020715C
	VSR-5 (2')	Soil	VOLATILES by GC/MS (5035)	07/09/2002		07/10/2002	10607	07/10/2002	GCMS_X_020710B
0207120-06A	VSR-6 (1')	Soil	PNAs by GC/MS	07/09/2002		07/10/2002	10585	07/11/2002	GCMS_1_020711A
	VSR-6 (1')	Soil	TOTAL METAL(s) by ICP	07/09/2002		07/12/2002	10615	07/15/2002	MTL_G_ICP_020715C
	VSR-6 (1')	Soil	VOLATILES by GC/MS (5035)	07/09/2002		07/10/2002	10607	07/10/2002	GCMS_X_020710B
0207120-07A	VSR-7 (0.5')	Soil	PNAs by GC/MS	07/09/2002		07/10/2002	10585	07/11/2002	GCMS_1_020711A
	VSR-7 (0.5')	Soil	TOTAL METAL(s) by ICP	07/09/2002		07/12/2002	10615	07/15/2002	MTL_G_ICP_020715C
	VSR-7 (0.5')	Soil	VOLATILES by GC/MS (5035)	07/09/2002		07/10/2002	10607	07/10/2002	GCMS_X_020710B
0207120-08A	VSR-8 (0.5')	Soil	PNAs by GC/MS	07/09/2002		07/10/2002	10585	07/11/2002	GCMS_1_020711A
	VSR-8 (0.5')	Soil	TOTAL METAL(s) by ICP	07/09/2002		07/12/2002	10615	07/15/2002	MTL_G_ICP_020715C
	VSR-8 (0.5')	Soil	VOLATILES by GC/MS (5035)	07/09/2002		07/10/2002	10607	07/10/2002	GCMS_X_020710B
0207120-09A	VSR-9 (0.5')	Soil	PNAs by GC/MS	07/09/2002		07/10/2002	10585	07/11/2002	GCMS_1_020711A
	VSR-9 (0.5')	Soil	TOTAL METAL(s) by ICP	07/09/2002		07/12/2002	10615	07/15/2002	MTL_G_ICP_020715C
	VSR-9 (0.5')	Soil	VOLATILES by GC/MS (5035)	07/09/2002		07/10/2002	10607	07/10/2002	GCMS_X_020710B

ANALYTICAL DETAIL REPORT

Lab Order: 0207120

Client: Dixon Environmental

Project: 3890 Buchanan, SW

Sample ID	Client Sample ID	Matrix	Test Name	Date Sampled	TCLP/SPLP Date	Prep Date	QC Batch	Analysis Date	Analytical Batch
0207120-10A	VSR-10 (0.5')	Soil	PNAs by GC/MS	07/09/2002		07/10/2002	10585	07/11/2002	GCMS_L_020711A
	VSR-10 (0.5')	Soil	TOTAL METAL(s) by ICP	07/09/2002		07/12/2002	10615	07/15/2002	MTL_G_ICP_020715C
	VSR-10 (0.5')	Soil	VOLATILES by GC/MS (5035)	07/09/2002		07/10/2002	10607	07/10/2002	GCMS_X_020710B
0207120-11A	VSR-11 (1.5')	Soil	PNAs by GC/MS	07/09/2002		07/10/2002	10585	07/11/2002	GCMS_L_020711A
	VSR-11 (1.5')	Soil	TOTAL METAL(s) by ICP	07/09/2002		07/12/2002	10615	07/15/2002	MTL_G_ICP_020715C
	VSR-11 (1.5')	Soil	VOLATILES by GC/MS (5035)	07/09/2002		07/10/2002	10607	07/10/2002	GCMS_X_020710B
0207120-12A	VSR-12 (1.5')	Soil	PNAs by GC/MS	07/09/2002		07/10/2002	10585	07/11/2002	GCMS_L_020711A
	VSR-12 (1.5')	Soil	TOTAL METAL(s) by ICP	07/09/2002		07/12/2002	10615	07/15/2002	MTL_G_ICP_020715C
	VSR-12 (1.5')	Soil	VOLATILES by GC/MS (5035)	07/09/2002		07/10/2002	10607	07/10/2002	GCMS_X_020710B

BIO-CHEM Laboratories, Inc.

Date: 7/22/2002

CLIENT: Dixon Environmental

Project: 3890 Buchanan SW

Lab Order: 0207246

CASE NARRATIVE

Samples are routinely analyzed using methods outlined in the following references:

(SW) Test Methods for Evaluating Solid Waste. Physical/Chemical Methods, SW846, 3rd Ed.

(E) Methods for Chemical Analysis of Water and Wastes, EPA-600/4-79-020.

(A) Standard Methods for the Examination of Water and Wastewater, APHA, 18th Ed.

(D) Annual Book of ASTM Standards.

Specific methods utilized for this project are provided in the analytical report and are identified by the reference document abbreviation () followed by the method number.

All QA/QC and sample analyses met method, laboratory and/or regulatory data quality objectives unless otherwise specified below.

No data qualifications required.

BIO-CHEM Laboratories, Inc.

Date: 7/22/2002

CLIENT: Dixon Environmental**Project:** 3890 Buchanan SW**Lab Order:** 0207246**Completely Received:** 7/9/2002**Work Order Sample Summary****Date Reported:** 7/22/2002

Lab Sample ID	Client Sample ID	Matrix	Date Collected	Date Received
0207246-01A	VSR-7 (.5')	Soil	7/9/2002	7/9/2002

BIO-CHEM Laboratories, Inc.

Date: 7/22/2002

ANALYTICAL REPORT

CLIENT: Dixon Environmental

Project Number: 02-06-011

Lab Order: 0207246

Client Sample ID: VSR-7 (.5')

Project: 3890 Buchanan SW

Collection Date: 7/9/2002

Lab Sample ID: 0207246-01A

Matrix: SOIL

Analyses	Method Ref.	Result	Q	PQL	Units	DF	Analyst	Date
HEXAVALENT CHROMIUM								
1. Chromium, Hexavalent	SW7196A	< 500		500	ug/Kg-dry	1	SCL	7/19/2002

Definitions: PQL - Practical Quantitation Limit
DF - Dilution Factor

Qualifiers (Q): J - Detected below PQL but above MDL: Estimated
S - Spike Recovery Outside Acceptance Limits
B - Analyte detected in associated Method Blank
N - See case narrative for explanation

This report shall not be reproduced except in full, without the written approval of BIO-CHEM Laboratories, Inc.

1 of 1

Note: The sample results reported are based on the sample aliquot(s) tested.

BIO-CHEM Laboratories, Inc.

7/22/2002

Lab Order: 0207246

Client: Dixon Environmental

Project: 3890 Buchanan SW

ANALYTICAL DETAIL REPORT

Sample ID	Client Sample ID	Matrix	Test Name	Date Sampled	TCLP/SPLP Date	Prep Date	QC Batch	Analysis Date	Analytical Batch
0207246-01A	VSR-7 (5')	Soil	HEXAVALENT CHROMIUM	7/9/2002			2903-1	7/19/2002	SCW_020722A

DIXON
ENVIRONMENTAL CONSULTING, INC.

F

APPENDIX F
PROPERTY LEGAL DESCRIPTION

PROPERTY LEGAL DESCRIPTION

3890 Buchanan Avenue, SW

Lots 51, 52 & 53, also that part of vacated portion of Buchanan Avenue adjacent on the West, also Lots 78, 79 & 80, Roselawn Park No.1, Wyoming, Kent County, Michigan, according to the plat thereof.

Tax Parcel Identification Number: 41-17-24-276-014

STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY

IN THE MATTER OF

NPDES CERTIFICATE OF COVERAGE NO. MIR11G119

Conical Tool Company
3890 Buchanan Avenue, SW
Grand Rapids, Michigan 49548

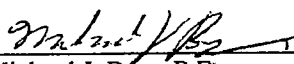
NPDES CERTIFICATE OF COVERAGE TERMINATION

TO: Ms. Harriet Stanaback
Conical Tool Company
3890 Buchanan Avenue, SW
Grand Rapids, Michigan 49548

By letter received April 22, 1998, Harriet Stanaback of Conical Tool Company stated that storm water that discharges from Conical Tool Company no longer comes into contact with industrial activities, and has requested that National Pollutant Discharge Elimination System (NPDES) Certificate of Coverage No. MIR11G119 be terminated. Staff of the Michigan Department of Environmental Quality, Surface Water Quality Division has confirmed that storm water at this facility no longer comes into contact with industrial activities, and has recommended that the certificate of coverage be terminated.

Therefore, Certificate of Coverage No. MIR11G119 is hereby terminated. There shall be no surface water discharge of storm water associated with industrial activity from this facility without applying for and obtaining a new NPDES permit.

This certificate of coverage is terminated December 14, 1998.



Michael J. Bray, P.E.
Grand Rapids District Supervisor
Surface Water Quality Division



MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY - SURFACE WATER QUALITY DIVISION
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
UNDER GENERAL PERMIT NO. MIR000000
FOR STORM WATER DISCHARGES ASSOCIATED WITH INDUSTRIAL ACTIVITIES
Authorized by Michigan Act 451, Public Acts of 1994

DO NOT WRITE BELOW - FOR DEQ USE ONLY
Upon issuance of the certificate of coverage, a copy will be returned to the applicant.

CERTIFICATE OF COVERAGE

STORM WATER GENERAL PERMIT

CERTIFICATE OF COVERAGE NO.: MIR11G119
DESIGNATED NAME: CONICAL TOOL COMPANY
PERMITTEE MAILING ADDRESS: CONICAL TOOL COMPANY
3890 BUCHANAN AVE SW
GRAND RAPIDS, MI 49548

This certificate of coverage authorizes Conical Tool Company, to discharge storm water which meets the criteria established in General Permit No. MIR000000. The discharge is from a facility located at 3890 Buchanan Avenue SW, Grand Rapids, Michigan 49548. The discharge is to Buck Creek from the facility located in the SE1/4 of the SE1/4 of Section 24, T6N, R12W, Kent County.

Based on the coverage date of May 24, 1996, the permittee shall have a storm water certified operator by May 24, 1997. The Storm Water Pollution Prevention Plan must be developed by November 24, 1997 with the non-structural provisions of the plan implemented by May 24, 1998 and the structural provisions, if required, implemented by May 24, 1999 (See Part I.B.2. of this general permit.)

References in General Permit No. MIR000000 to the District Supervisor of the Surface Water Quality Division shall be defined as the Grand Rapids District Supervisor of the Surface Water Quality Division. The Grand Rapids District office is located at Grand Rapids State Office Bldg, 6th Floor, 350 Ottawa Ave., N.W., Grand Rapids, Michigan 49503, telephone: (616) 456-5071, Fax: (616) 456-1239.

Any party who is aggrieved by this certificate of coverage may file a sworn petition for a contested case hearing on this certificate of coverage with the Office of Administrative Hearings of the Michigan Department of Environmental Quality in accordance with the provisions of Section 2192(c) of the Part 21 Rules of Act 451, Public Acts of 1994, Part 31. A petition may be rejected by the Department as being untimely if it is filed more than 60 days after the Surface Water Quality Division reports that this certificate of coverage is issued.

This certificate of coverage is based on a complete application received by the Department of Environmental Quality on May 14, 1996, and is subject to all conditions specified in General Permit No. MIR000000 Issued February 15, 1994. This certificate of coverage may be modified, terminated, reissued, or revoked as allowed for in General Permit No. MIR000000.

May 24, 1996
Date Issued

PR4676 (4/95)


Frederick T. Eyer
Grand Rapids District Supervisor
Surface Water Quality Division

STATE OF MICHIGAN



JOHN ENGLER, Governor
DEPARTMENT OF ENVIRONMENTAL QUALITY

"Better Service for a Better Environment"

HOLLISTER BUILDING, PO BOX 30473, LANSING MI 48909-7973

INTERNET: www.deq.state.mi.us

RUSSELL J. HARDING, Director

REPLY TO:

GRAND RAPIDS DISTRICT OFFICE
STATE OFFICE BLDG 6TH FLOOR
350 OTTAWA NW
GRAND RAPIDS MI 49503-2341

December 16, 1998

CERTIFIED MAIL

Ms. Harriet Stanaback
Conical Tool Company
3890 Buchanan Avenue, SW
Grand Rapids, Michigan 49548

Dear Ms. Stanaback:

SUBJECT: National Pollutant Discharge Elimination System (NPDES)
Certificate of Coverage No. MIR11G119
Designated Name: Conical Tool Company

Enclosed is a copy of the termination statement for NPDES Certificate of Coverage No. MIR11G119, issued to Conical Tool Company, located at 3890 Buchanan Avenue, SW, Grand Rapids, Michigan 49548. NPDES Certificate of Coverage No. MIR11G119 was terminated December 14, 1998. If you have any questions or concerns, please contact me.

Sincerely,

A handwritten signature in black ink, appearing to read "Steve Houtteman", written over a horizontal line.

Steve Houtteman
Grand Rapids District Office
Surface Water Quality Division
616-356-0271

SGH/kad

Enclosure: Termination Document

cc: PCS Unit, SWQD (with Termination Document)
File

CHECK LIST FOR TERMINATIONS IN NMS (24/98 draft)

Designated Name: Conical Tool Company Permit No: M12116119 Assigned to: Northems
 Permit ID & Version: 8347.2 Supplication ID: 9182 Termination Date: 12-14-98

Verify that the following information has been entered or is correct in NMS.

PERMIT MAINTENANCE FIELDS	
Permit Number	✓
Permit Type	✓
Category (if applicable)	✓
Issued Date of Permit or COC Being Terminated	✓
Permittee Name and Address	✓
SUPPLICATION MAINTENANCE FIELDS	
Received Date	✓
Complete Date	✓
Action (Must Be Termination)	✓
Contact Name and Address	✓
FACILITY MAINTENANCE FIELDS	
Designated Name	✓
Location Information (County, District, 1/4, 1/4, S, T, R, etc.)	✓
Location Name and Address	✓

Presently, the NMS Administrator will enter the correct dates in NMS for the termination and close out the tasks. The district supervisor will send a groupwise note to the Administrator with the permit id, permit or COC number, designated name and termination date. Upon notification in the future, district staff will enter the dates and close the tasks.

Have the proposed termination letter (if applicable), termination form and cover letter been finalized? NO

PID: 8347.2
SID: 9182
P. Tolm.
FNSP.
CONICALTM
tapered end mills
still a cut aboveTM

April 21, 1998

Mark Fife
MICH. DEPT. OF ENVIRONMENTAL QUALITY
Surface Water Quality Division
350 Ottawa
GRAND RAPIDS MI 49503

RECEIVED

APR 22 1998

**SURFACE WATER QUALITY DIV.
GRAND RAPIDS**

Dear Mr. Fife;

I am requesting termination of our Storm Water Permit.
We have complied with your requests. We have built an
attached roof over our metal chips, which prevents rain
run-off into the ground. We are emptying our coolants
into barrels, which are being picked up and emptied off
our premises.

I think we were to have this accomplished by May 31, 1998.

I am also in the process of getting bids to asphalt our
parking area.

Yours truly,
CONICAL TOOL COMPANY

Harriet Stanaback
Harriet Stanaback, Pres.

11/25/98 NO OPPOS we
M. H.

Conical Tool Company, 3890 Buchanan Ave. S.W., Grand Rapids, MI 49548. Phone (616) 531-8500 · FAX (616) 531-7742

STATE OF MICHIGAN



JOHN ENGLER, Governor
DEPARTMENT OF ENVIRONMENTAL QUALITY
HOLLISTER BUILDING, PO BOX 30473, LANSING MI 48909-7973
RUSSELL J. HARDING, Director

REPLY TO:

GRAND RAPIDS DISTRICT OFFICE
STATE OFFICE BLDG 6TH FLOOR
350 OTTAWA NW
GRAND RAPIDS MI 49503-2341

May 28, 1996

Harriet Stanaback
Conical Tool Company
3890 Buchanan Avenue SW
Grand Rapids, MI 49548

Dear Ms. Stanabach:

SUBJECT: Storm Water General Permit
Certificate of Coverage MIR11G119
CONICAL TOOL COMPANY

The Grand Rapids District Office of the Surface Water Quality Division received on May 14, 1996, your Notice of Intent to be covered under the Storm Water General Permit (Permit No. MIR000000).

Please find enclosed a Certificate of Coverage, MIR11G119 granting this request and a copy of this storm water general permit. The effective date of this coverage is May 24, 1996. The granting of this coverage under this storm water general permit establishes several compliance requirements which are detailed in the Certificate of Coverage.

Based on the issuance of this Certificate of Coverage, your storm water discharge control facility is officially classified as A.1.i, Storm Water Management Industrial Site. The training materials necessary to prepare for the certification exam are enclosed. Please contact me if you have any questions or to schedule a certification exam.

Sincerely,

A handwritten signature in cursive script, appearing to read "Mark Fife".

Mark Fife
Grand Rapids District Office
Surface Water Quality Division
(616) 456-5071

Enclosure

cc: PCS Unit, SWQD (with COC)
File

RECEIVED

MAY 14 1996

NOTICE OF INTENT for coverage under
National Pollutant Discharge Elimination System (NPDES)
GENERAL PERMIT
Storm Water Discharges Associated with Industrial Activity
By Authority of Act 245, P.A. 1929 as amended

SURFACE WATER QUALITY DIV.
GRAND RAPIDS

Submission of this Notice of Intent (NOI) constitutes notice that the party identified in Section I.A. of this form requests authorization to discharge under NPDES General Permit No. MI0000000 issued for storm water discharges associated with industrial activity in Michigan. The Michigan Department of Natural Resources may deny coverage under this general permit and require submittal of USEPA application forms 1 and 2F for an individual permit or an application to be covered under an alternative general permit. Becoming a permittee obligates a discharger to comply with the terms and conditions of the general permit. Failure to comply with these provisions may result in fines of up to \$25,000 per day and the possibility of imprisonment, in accordance with Act 245.

ALL NECESSARY INFORMATION MUST BE PROVIDED ON THIS FORM.

Print or type in the spaces provided. Attach extra sheets of paper, if needed, clearly indicating which section you are addressing.

I. PERMITTEE/SITE INFORMATION	
A. Parent Company, Division & Owner: Give the name of the parent company/division/owner. If this is the same as the facility name, leave this space blank. B. Primary Standard Industrial Classification (SIC) Code: To determine the activity in which a facility is primarily engaged, the SIC Manual recommends using a value of receipts or revenues approach. For example, if a facility manufactures both metal and plastic products, the facility would total receipts for each operation. The operation that generates the highest revenue for the facility indicates the operation in which the facility is primarily engaged. C. Facility Name & Address: Give the name and address of the facility where storm water discharge associated with industrial activity occurs. D. Contact Person, Mailing Address & Telephone #: Give the name, mailing address, and telephone number of the person to contact in case questions and/or problems arise from this form or the general permit. E. Facility Location: Identify the proper location of the center of the facility in terms of quarter-quarter section, quarter section, section, township, range, and county. F. Receiving Waters: Name the water(s) that directly receive storm water runoff from the site. If the discharge flows through a municipal separate storm sewer, name the owner/operator of the municipal separate storm sewer system and the surface water into which the storm sewer discharges.	
A. PARENT COMPANY, DIVISION & OWNER: _____	B. PRIMARY STANDARD INDUSTRIAL CLASSIFICATION(SIC) CODE: Use 4 digits: <u>3 5 4 5</u>
C. FACILITY NAME & ADDRESS: <u>CONICAL TOOL COMPANY</u> <u>3890 BUCHANAN AVE S W</u> <u>GRAND RAPIDS MI 49548-3111</u>	D. CONTACT PERSON, MAILING ADDRESS & TELEPHONE #: <u>Harriet Stanaback</u> <u>Conical Tool Company</u> _____ _____
E. FACILITY LOCATION: <u>SE 1/4, SE 1/4, Section 24, Town 6N</u> Range <u>12W</u> County: <u>Kent</u>	F. RECEIVING WATERS: <u>BUCK CREEK</u> OWNER/OPERATOR OF MUNICIPAL SEPARATE STORM SEWER SYSTEM: _____ _____

DNR USE ONLY - DO NOT WRITE IN SHADED AREA

NPDES PERMIT NUMBER:

MI R 1 1 G 1 1 9

DESIGNATED NAME:

CONICAL TOOL COMPANY

BASIN CODE:

0828 03

BASIN YEAR:

96

LAT = 42°53'48"

04050006

LONG = 85°40'54"

CONTINUED ON REVERSE SIDE

Conical Tool Comp

Based on 42°30'

$$\begin{aligned}\text{LAT} &= \underline{11 \frac{8}{16}} = \underline{11.5} \quad (12,500 / 1\text{in}) (1\text{min} / 6050\text{ft}) = \underline{23.8} ' \\ &= \underline{.8} ' \quad (60\text{sec} / 1\text{min}) = \underline{48} ''\end{aligned}$$

$$\text{LAT} = \underline{42^{\circ}53'48''}$$

Based on 85°

$$\begin{aligned}\text{LONG} &= \underline{14 \frac{6}{16}} = \underline{14.5} \quad (12,500 / 1\text{in}) (1\text{min} / 4400\text{ft}) = \underline{409} ' \\ &= \underline{.9} ' \quad (60\text{sec} / 1\text{min}) = \underline{54} ''\end{aligned}$$

$$\begin{aligned}\text{LONG} &= \underline{\cancel{85^{\circ}41'12''}} \\ &\quad \underline{85^{\circ}40'54''}\end{aligned}$$

STATE OF MICHIGAN



JOHN ENGLER, Governor
DEPARTMENT OF ENVIRONMENTAL QUALITY

HOLLISTER BUILDING, PO BOX 30473, LANSING MI 48909-7973

RUSSELL J. HARDING, Director

April 22, 1996

CERTIFIED MAIL

Mrs. Harriet Stanaback
Conical
3890 Buchanan S.W.
Grand Rapids, Michigan 49548

Dear Mrs. Stanaback:

This letter is to inform you of my inspection of your operations on April 18, 1996. This inspection was conducted as part of Michigan's Industrial Storm Water Discharge program.

The following observations were made during the inspection:

Waste materials from industrial activity stored outside exposed to storm water. These materials included barrels, scrap metals in dumpsters.

Facilities classified under the storm water regulation 40 CFR 122.26(b) (14) (xi) are not required to submit storm water discharge permit applications unless material handling equipment or activities, raw materials, intermediate products, final products, waste materials, by-products, or industrial machinery are exposed to storm water. However, once exposure occurs, the application requirements are triggered. This includes exposure that has occurred in the past, as well as ongoing exposure. Accidental spills, minor leaks, loss during loading and unloading and other types of intermittent sources of exposure should be considered when determining whether exposure to storm water has occurred.

Based on the inspection observations, as well as the storm water regulations, Conical does have exposure of industrial materials which discharge to Buck Creek via the storm sewer system. Conical is required to have a storm water discharge permit in accordance

Mrs. Harriet Stanaback
April 22, 1996
Page 2

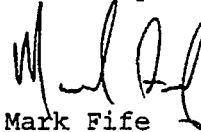
with 40 CFR 122.26 (14) (xi) and is in violation of Part 31 of the Natural Resources and Environmental Protection Act, 1994 PA 451 (formerly Section 7 of the Michigan Water Resources Commission Act, 1929 PA 245).

Please review the provisions of the General Permit No. MIR000000, and complete and return the enclosed Notice of Intent (NOI) by May 3, 1996, to the Grand Rapids District Office, Surface Water Quality Division.

Failure to comply with these provisions may result in fines up to \$25,000 per violation, per day.

If you have any questions, please feel free to call at (616) 356-0211.

Sincerely,

A handwritten signature in black ink, appearing to read 'Mark Fife', with a stylized flourish at the end.

Mark Fife
Environmental Quality Analyst
Surface Water Quality Division

MF/kad
Enclosure

cc: District File

DEPARTMENT OF NATURAL RESOURCES
SURFACE WATER QUALITY DIVISION

STORMWATER AUDIT INSPECTION CHECKLIST
INDUSTRIAL FACILITIES

FACILITY NAME: Conical PERMIT NO. _____
ADDRESS: 3890 Buchanan Ave S.W. CITY: G.R. 49548
DESIGNATED NAME (PCS):
FACILITY REPRESENTATIVE: Harriet Stanback
CERTIFIED OPERATOR: _____ NO. _____ PHONE: _____
Industrial/commercial activities conducted at the facility
(describe):

1. SIC Code(s) * : _____ (see attachment for key) If facility's SIC code is within a regulated category, skip to question # 3. If facility's SIC code is unknown or is not within a regulated category, continue with questions # 2 through 12.

The following questions are based on Federal regulations in 40 CFR 122.25(b)(14):

- Y N 2. Is facility subject to federal storm water effluent limitations guidelines, new source performance standards, or toxic pollutant effluent standards under 40 CFR subchapter N?
- Y N 3. Is facility engaged in treatment, storage or disposal of hazardous waste? (regulated under Act 64 or RCRA?)
- Y N 4. Is facility a landfill, land application site or open dump that receives or has received any industrial wastes? [and is not regulated under Act 641] ("industrial wastes" include wastes received from facilities regulated under this subsection, including those subject to regulation under subtitle D of RCRA).

* For facilities with two or more SIC codes, storm water regulation is based on the primary SIC code.

Y N 5. Is facility involved in recycling of materials, including metal scrapyards, battery reclaimers, salvage yards, automobile junkyards, including but limited to SIC 5015 (used motor vehicle parts) and 5093 (scrap and waste materials)? This does not include municipal drop-off recycling facilities.

Y N 6. Is facility a steam electric power generating facility (including coal handling sites)? This includes universities and hospitals, even if their SIC codes do not fall within a regulated category.

Y N 7. Is facility a transportation facility which has a vehicle maintenance shop (including vehicle rehabilitation, mechanical repairs, painting, fueling, and lubrication), equipment cleaning operations, or airport deicing operations AND belongs to the following list of SIC code groups or industry numbers: 40, 41, 42, 43, 44, 45, 5171 (see attached key).

Y N 8. If the facility falls into one of the categories in questions 1-7, then where does storm water from the facility go - is there a discharge off the site?

Y N 9. Does the storm water discharge go to a municipal combined sewer system (i.e., discharges to POTW)?

Y N 10. If the answer to question # 9 is "no", is there any identifiable conveyance from which "storm water associated with industrial activity" might enter the waters of the State? A conveyance is broadly defined to include changes to land (such as an impervious surface), grading patterns which assist the discharge of runoff to waters of the state and municipal separate storm sewers.

Y N 11. If the facility's SIC code is listed under Category (xi), do any of the following specific exposures exist? (circle the appropriate letter)

a. Industrial materials in or around outside dumpsters, hoppers or scrap bins?

b. Exposure or spillage during shipping, receiving or handling of industrial materials?

c. Handling or cleaning of wastes from outside baghouses, filters, etc.?

d. Storage of used pallets or drums outside?

e. Any other exposures as defined under 40 CFR 122.26 (b) (14) (xi)? (See attached SIC key)

12. If question 11 was answered "yes", does any storm water that contacts the exposed items/areas discharge to waters of the State?

IF THE ANSWER TO QUESTION 8, 10, 11 OR 12 IS "NO" OR THE ANSWER TO QUESTION 9 IS "YES", THEN NO PERMIT IS REQUIRED, OTHERWISE, A PERMIT IS REQUIRED.

NOTE: Employee parking lots and roof runoff from administration buildings are not subject to regulation.

COMMENTS: Scrap metals in Dumpster
Barrels outside of Steam Service

Audit Conducted By: [Signature] Date: 4/18/96
(Don-site, phone)

SURFACE WATER QUALITY DIVISION
GRAND RAPIDS DISTRICT OFFICE

REPORT OF COMPLAINT

COMPLAINANT

Name _____ ☒ Anonymous ☐ PEAS Coordinator

Address _____

(Name)

Telephone # _____

(Date & Time rec'd by PEAS)

(PEAS Number)

COMPLAINT

Name of Party Conide Tool Company 3890 Barkan Ave.

Location 3890 Barkan Ave.

Body of Water Involved _____

Nature of Complaint Dumping oils, solvents, cutting fluids

outside, mineral spirits - getting clean →

Also Dumping Acid into sinks

- Etching Fluid where does it go?

Received by [Signature] Date 4/16/96 11:20 a.m./p.m.

FOLLOWUP ACTIVITY

Date(s) 4/18/96 Wolverine CC

Action Taken solvents manufacturing

3545

By: _____



**CONESTOGA-ROVERS
& ASSOCIATES**

620 S. Capitol Ave., Suite 100

Lansing, Michigan 48933

Telephone: (517) 316-2397

www.CRAworld.com

Fax: (517) 316-2398

MEMORANDUM

**PRIVILEGED AND CONFIDENTIAL
PREPARED AT ENCORE COUNSEL'S REQUEST**

TO: Kurt Blizzard REF. NO.: 017360-10
FROM: Jeni Quigley/ JQ Kevin Kowalk/cr/52/Lan. DATE: December 5, 2007
C.C.: Gary Klepper
RE: Summary of Adjacent Property Review - West Side of Cole Drain
General Motors Corporation
Grand Rapids Metal Plant
Wyoming, Michigan

1.0 INTRODUCTION

The purpose of this memorandum is to summarize the adjacent property review completed by Conestoga-Rovers & Associates (CRA) for the area along the west side of Cole Drain, along Clay Avenue between 32nd Street and 36th Street in Wyoming, Michigan. These activities were completed in conjunction with the on-going groundwater investigation and remediation at the General Motors Corporation (GM) Grand Rapids Metal Plant located at 300 36th Avenue in Wyoming, Michigan (Site). Figure 1 shows the area reviewed by CRA.

2.0 SCOPE OF WORK

2.1 ADJACENT PROPERTY VISUAL INSPECTION

CRA completed a visual adjacent property review for the area along to the west side of Cole Drain, along Clay Avenue between 32nd Street and 36th Street on April 10, 2007. The adjacent property review included observing and recording the addresses and facility names of properties along 32nd Street, 36th Street and Clay Avenue, along the west side of Cole Drain, to the north of the Site. The following facilities and corresponding addresses were observed to be present in this area during an area walkover:

<u>Facility</u>	<u>Address</u>
Price & Company	425 36 th Street SW
Shoemaker Inc. Heating & Cooling Supply	5075 Clay Avenue
Good Metals Company	440 32 nd Street SW
American Metal & Plastics, Inc.	450 32 nd Street SW

Figure 1 identifies the reviewed properties and their locations.

PRIVILEGED AND CONFIDENTIAL
PREPARED AT ENCORE COUNSEL'S REQUEST

2.2 FREEDOM OF INFORMATION ACT FILE REVIEW

Based on the results of the adjacent property visual identification, a written Freedom of Information Act (FOIA) request was submitted to the Michigan Department of Environmental Quality (MDEQ) on April 11, 2007. The FOIA request included the aforementioned properties.

Documentation that was received by CRA from the MDEQ Remediation and Redevelopment Division (RRD) for review on April 25, 2007 for the Wyoming Warehouse, Inc. (currently Price & Company) property located at 425 36th Street SW included:

- Clean - Up Report, prepared by Gillhespy - RV Seaman, Inc. for the Wyoming Warehouse Inc., dated December 26, 1989;
- Hydrogeological and Soil Investigation at Wyoming Warehouse, Inc. prepared by Westshore Engineering & Surveying, Inc. (Westshore), dated April 28, 1992;
- Hydrogeological and Soil Investigation at Wyoming Warehouse, Inc. prepared by Westshore, dated December 4, 1992; and
- Leaking Underground Storage Tank (LUST) Closure Letter from Michigan Department of Natural Resources (MDNR) dated November 17, 1993 and associated letters.

Documentation that was received by CRA from the MDEQ Water Bureau for review on April 25, 2007 for the American Metals & Plastics Inc. (AMPI) located at 450 32nd Street SW included:

- A National Pollutant Discharge Elimination System (NPDES) Certificate of Coverage and associated documentation;
- MDNR Resource Conservation and Recovery Act (RCRA)/Michigan Hazardous Waste Management Act inspection, dated June 9, 1994; and
- MDEQ Waste Management Division inspection documentation dated May 30, 2002.

Documentation that was received by CRA from the MDEQ Waste Management Division, for review on April 25, 2007 for Metal Source Company (currently Good Metals Company property) located at 440 32nd Street SW included:

- Letter from the Kent County Health Department regarding Improper Disposal of Cutting/Cooling Oil at 440 32nd Street SW dated October 6, 1986.

A copy of the documents obtained during the FOIA are presented in Attachment A. The following summarizes the information obtained during the review of these documents.

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2.2.1 PRICE & COMPANY (FORMERLY WYOMING WAREHOUSE, INC.)

Clean-Up Report, Gillhespy - RV Seaman, Inc., December 26, 1989

A Clean-Up Report was prepared by Gillhespy - RV Seaman, Inc. and summarized in a letter dated December 26, 1989. The scope of work for the clean-up was to conduct a corrective action for Wyoming Warehouse for a release of petroleum products.

Based on information provided in the Clean-Up Report, a release of petroleum products (diesel fuel) was reported during removal of a diesel UST to the State Fire Marshal on December 26, 1989 indicating that a tank was removed from the Site. The UST was located to the south of the southeast corner of the Site building. On January 17, 1990 Gillhespy - RV Seaman, Inc. screened soils with an O.V.M. meter to confirm that excavated soils and backfill material were contaminated. Based on the O.V.M. meter readings encountered, additional soils were excavated and screened with an O.V.M. meter. A total of 42.28 tons of soil were removed on January 17, 1990, 46.61 tons of soils were removed on January 18, 1990 and 52.77 tons were removed on January 19, 1990. All soils were disposed at the Kent County Landfill. The degree of contamination was observed to be increasing with depth and width of the excavation. Based on review of the report, the excavation was approximately 25 feet long by 15 feet wide and 13 feet deep. A test hole was advanced with moist sand encountered at 11.5 feet below ground surface (bgs). A water sample was collected which showed free product and had an O.V.M. reading of 155 parts per million (ppm). The MDNR was contacted and a 12-inch polyvinyl chloride (PVC) monitoring well was installed.

Letter to Mr. David Lindsay of the MDNR, Westshore, February 8, 1991

In a letter to Mr. David Lindsay of the MDNR, dated February 8, 1991, Westshore summarized activities performed to date at the Wyoming Warehouse Site. Based on review of the letter, static water levels were recorded on April 26, 1990, May 8, 1990 and September 26, 1990, respectively. Groundwater levels were consistent on all three dates and it was determined that the groundwater flow direction was towards the northeast (towards Cole Drain). Free product recovery was determined to be complete by utilizing a portable electric pump in the 12-inch recovery well located in the center of the excavation area. Free product recovery ceased in December 1990 based on a lack of measurable free product. A total of nine 55-gallon drums of free-product were removed from the recovery well during the operation of the well.

Groundwater samples were collected from MW-2, located down-gradient of the excavation area, on May 4, 1990 and analyzed for BTEX, TPH and diesel fuel components. Analytical results indicated that the sample was below detection limits for all constituents.

The remainder of the letter detailed investigation activities to be conducted as part of a hydrological and soil investigation at the property.

Hydrological and Soil Investigation at Wyoming Warehouse, Inc., Westshore, April 28, 1992

A Hydrological and Soil Investigation was conducted by Westshore and summarized in a report dated April 28, 1992 for the Wyoming Warehouse, Inc. property.

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The scope of work for the hydrological and soil investigation was determined based on correspondence between Westshore and the MDNR. Four soil borings were installed approximately 1 to 3 feet from the sides of the excavation to investigate the lateral extent of the contamination from the former diesel fuel tank by utilizing a 4 ¼ inch hollow stem auger (HSA). Split spoon samples were collected at five-foot intervals to the water table and screened with an Organic Vapor Analyzer (OVA) by head space methods. No readings were detected via field screening, therefore, samples were collected from just above the water table and submitted for laboratory analysis for benzene, toluene, ethylbenzene and xylenes (BTEX) and polynuclear aromatic hydrocarbons (PNAs). One soil sample, collected from soil boring 3 (SB-3), contained toluene at a concentration of 15 micrograms per kilogram (µg/kg). All soil samples were collected from nine feet bgs based on groundwater levels encountered at approximately 9 to 11 feet bgs.

As compared to current regulations, toluene was detected below the MDEQ Part 201 Residential & Commercial I Drinking Water Criteria and Part 213 Tier 1 RBSL and GSI Criteria.

Groundwater samples were collected from monitoring wells MW-1, MW-2, MW-3 and MW-4 and analyzed for BTEX and PNAs. Based on analytical results, BTEX and PNA compounds were determined to be present in MW-4, which replaced the 12-inch recovery well in the center of the former tank excavation. During groundwater sampling, hydrocarbon odors were noted by Westshore in MW-2 and MW-3.

Based on the results of the hydrological and soil investigation, Westshore recommended the following:

- Resampling of MW-2, MW-3 and MW-4 for total petroleum hydrocarbons (TPH);
- Installation of a test boring with vertical aquifer sampling (VAS) at approximately 10 to 15 feet downgradient of the center of the excavation via HSA drilling methods. Collection of groundwater samples at 10-foot intervals beginning at the top of the water table and continuing until a lower impervious layer was encountered or two consecutive 10-foot samples tested clean utilizing a Carian 2400 Field Gas Chromatograph. The drilling to proceed one-foot into the impervious layer with a split-spoon two feet into the impervious layer. Wells logs from the area indicated an impervious layer may exist at 20 to 30 feet bgs. Groundwater samples collected for laboratory analysis of BTEX and PNAs; and
- Collection of two soil sample from immediately above the capillary fringe zone within the former boundaries of the UST excavation and analyzed for BTEX and PNAs.

Hydrological and Soil Investigation at Wyoming Warehouse, Inc., Westshore, December 4, 1992

A Hydrological and Soil Investigation was conducted by Westshore and summarized in a report dated December 4, 1992.

The scope of work for the hydrological and soil investigation was detailed in the previous hydrological and soil investigation report, dated April 28, 1992 and is summarized above. The scope of work consisted of collecting groundwater samples from MW-2, MW-3 and MW-4 for TPH analysis, conducting VAS at test borehole 1 (TB-1) located approximately 10 to 15 feet downgradient of the center of the former excavation area, the collection of two soil samples from immediately above the capillary fringe zone within the former

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boundaries of the UST excavation and the collection of one soil sample outward from the previous soil boring SB-3 for BTEX analysis.

Based on analytical results and OVA readings, no impacts to soil were observed by Westshore during the additional investigation. Analytical results for the groundwater samples collected from MW-2, MW-3 and TB-1 were non-detect for BTEX and PNAs. Monitoring well MW-4 contained TPH at a concentration of 22 milligrams per liter (mg/L), fluorene at 5.3 micrograms per liter ($\mu\text{g/L}$), naphthalene at 35 $\mu\text{g/L}$ and phenanthrene at 8.6 $\mu\text{g/L}$. Based on analytical results, Westshore concluded that the vertical and horizontal extent of impacts were defined and recommended quarterly monitoring of MW-4, as it was the highest zone of contamination with historic concentrations of naphthalene at 30 $\mu\text{g/L}$ and xylenes at 300 $\mu\text{g/L}$.

As compared to current regulations, fluorene is below the MDEQ Part 201 Residential & Commercial I Drinking Water Criteria and Part 213 Tier 1 RBSL. Phenanthrene and naphthalene are below the MDEQ Part 201 Residential & Commercial I Drinking Water Criteria and Part 213 Tier 1 RBSL of 52 $\mu\text{g/L}$ and 520 $\mu\text{g/L}$, respectively but above the GSI Criteria and RBSL of 2.4 $\mu\text{g/L}$ and 13 $\mu\text{g/L}$, respectively.

Letter to MDNR from Westshore, October 18, 1993

According to the letter from Westshore to the MDNR, dated October 18, 1993, analytical results from sampling activities conducted at MW-4 on October 8, 1992 indicated that naphthalene was detected at a concentration of 21 $\mu\text{g/L}$ and xylenes were detected at a concentration of 94 $\mu\text{g/L}$, which were both below Type B closure criteria and which Westshore attributed to the hydrocarbon odor detected in the well. These results were the second set of results in a row that were below the Type B closure criteria and therefore, Westshore requested no further remediation at the Site and Type B closure for soil and groundwater based on comments regarding closure summarized in a letter to Mr. Orrin Sunde from the MDNR dated December 29, 1992.

As compared to current regulations, naphthalene and xylenes are below the MDEQ Part 201 Residential & Commercial I Drinking Water Criteria and Part 213 Tier 1 RBSL of 520 $\mu\text{g/L}$ and 280 $\mu\text{g/L}$, respectively but above the GSI Criteria and RBSL of 13 $\mu\text{g/L}$ and 35 $\mu\text{g/L}$, respectively.

Letter to Mr. Orrin Sunde of Wyoming Warehouse from MDNR, November 17, 1993

The letter to Mr. Orrin Sunde of Wyoming Warehouse from Mr. Gerard J. Heyt of the MDNR, concurs with the letter from Westshore to the MDNR on October 18, 1993 that the interim response activities at the Site have reduced the contamination to concentrations acceptable for a Type B Closure. According to the letter, a total of 142 cubic yards of soil were excavated and removed from the Site and 750 gallons of contaminated groundwater were removed from a monitoring well (MW-4) located at the source of the contamination.

As compared to current regulations, xylenes detected at 94 $\mu\text{g/L}$ is below the MDEQ Part 201 Residential & Commercial I Drinking Water Criteria and Part 213 Tier 1 Risk-Based Screening Level (RBSL) of 280 $\mu\text{g/L}$, but above the Groundwater Surface Water Interface (GSI) Criteria and RBSL of 35 $\mu\text{g/L}$.

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As compared to current regulations, naphthalene detected at 21 µg/L is below the MDEQ Part 201 Residential & Commercial I Drinking Water Criteria and Part 213 Tier 1 RBSL of 520 µg/L, but above the GSI Criteria and RBSL of 13 µg/L.

2.2.2 AMERICAN METALS AND PLASTICS, INC. (AMPI)

NPDES Certificate of Coverage and Associated Documentation

A NPDES Certificate of Coverage (COC) for the AMPI site located at 450 32nd Street SW in Wyoming, Michigan was reviewed by CRA. According to the COC, AMPI is authorized to discharge an unspecified amount of stormwater, which meets the criteria established in General Permit No. MIS110000. The discharge is from the Site located at 450 32nd Street SW and the discharge is to Plaster Creek. It should be noted that the AMPI site first discharges to the Cole Drain, located directly to the east of the AMPI site and eventually into Plaster Creek. The COC was issued on May 11, 2006 and was effective immediately. The COC expires on April 1, 2011. Previous COCs were issued on April 1, 2001, March 13, 2000, and December 2, 1994 for the Site under the General NPDES Permit.

Letter to AMPI from MDEQ, August 10, 1998

A letter to AMPI from the MDEQ, dated August 10, 1998 was reviewed by CRA. The letter identified deficiencies in reporting compliance with particular requirements of the NPDES General Permit for the Site including:

- Part I B.2 of the General Permit which states that a certified stormwater operator will be in place within one year of the COC for the permit;
- Part I B.2.b. of the General Permit states that a Stormwater Pollution Prevention Plan (SWPPP) will be developed within 18 months of the effective date of the COC. According to the letter, the district supervisor had not received the SWPP at the time of the letter;
- Part I B.2.b. of the General Permit also states that all non-stormwater discharges have been covered under a separate NPDES permit or eliminated or an application has been filed for coverage under a separate permit. According to the letter, the district supervisor had not received the information at the time of the letter;
- Part I B.2.c. of the General Permit states that implementation of the non-structural requirements of the permit will have been completed within two years of the effective date of the COC. According to the letter, the district supervisor had not received this certification at the time of the letter;
- Part I B.2.d. of the General Permit states that the permittee will have completed the construction of and put into operation all structural stormwater pollution controls at the Site within three years of the effective date of the COC. According to the letter, the district supervisor had not received certification that the structural controls were implemented at the time of the letter; and
- Part I B.4. of the General Permit states that failure to comply with schedules of the permit and certification requirements constitutes a violation of the permit.

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Letter to AMPI from MDEQ, February 12, 2004

A letter to AMPI, dated February 12, 2004 was available for review by CRA. The letter summarizes the findings of a stormwater permit compliance inspection conducted on August 5, 2003 by the MDEQ. The following observations were made during the inspection:

- Finished and partially finished products, pallets, racks, and baskets and used equipment were observed to be stored outside and exposed to stormwater runoff. The AMPI site's SWPPP should contain control measures for all identified process materials or residuals associated with the process materials that are exposed to stormwater runoff to ensure that stormwater discharges are not negatively impacted by the presence of these materials;
- Catch basins located between the main building and the south annex of the building were plugged with a dark and thick substance. It was recommended that the substance be removed and the catchbasins should be cleaned per acceptable housekeeping standards; and
- The facility's SWPPP was found to be incomplete in that the AMPI site map did not fulfill all of the minimum requirements; the preventative measures and source controls were not implemented and developed as required; and the documentation of the applicable reviews of the SWPPP were not available for review by the MDEQ upon request.

Letter to MDEQ from AMPI, April 15, 2004

A letter to Mr. Mike Worm of the MDEQ-WB, dated April 15, 2004, was available for review by CRA. The letter was written in response to comments presented in the letter from the MDEQ to AMPI, dated February 12, 2004 regarding stormwater permit compliance. The responses to the comments are summarized as follows:

- AMPI contracted Fishbeck Thomson, Carr & Huber, Inc. (FTC&H) to update AMPI's SWPPP for the site and insure that control measures are in place to ensure that any item stored outside are free of particulate matter and residues that may impact stormwater;
- The dark substances observed on the catch basins was determined to be dust and sediment that had collected over time. The catch basins were cleaned and control measures were implemented to ensure that the area is swept and cleaned regularly; and
- The SWPPP would be updated, including the site map, to ensure significant materials are prevented from contacting stormwater. FTC&H would serve as the site's certified stormwater operator and will conduct semi-annual stormwater inspection and provide an annual review of the SWPPP.

Letter to AMPI from MDEQ, November 9, 2006

A letter to AMPI, dated November 9, 2006, was available for review by CRA. The letter summarizes the findings of a stormwater permit compliance inspection conducted on November 2, 2006 by the MDEQ. The following observations and recommendations were made by the MDEQ during the inspection:

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- The system of dikes to contain stormwater in the outside storage area and direct it to a catch basin inside an enclosure should be monitored during heavy rainfall events to assure it is functioning as intended;
- The flow from the catch basin located adjacent to the die storage rack outside the diked area should be inspected and confirmed to discharge to the catch basin in the enclosure. Periodic inspections of the catch basins should be included in the SWPPP;
- No contaminants were observed at the stormwater outfalls to the vegetated ditch along US 131; and
- Additional information is required to complete the SWPPP.

Letter to MDEQ from AMPI, December 8, 2006

A letter to Mr. Ryan Grant of the MDEQ, dated December 8, 2006, was available for review by CRA. The letter was written in response to comments presented in the letter from the MDEQ to AMPI, dated November 9, 2006 regarding stormwater permit compliance. The responses to the comments are summarized as follows:

- AMPI agreed to monitor the catch basin collection system during heavy rainfall events and cut a large opening in the bottom of the enclosure to prevent stormwater from heavy rain events from backing up and overflowing the enclosure. Monthly inspections of the oil-water separator were added to the preventative maintenance program of the SWPPP;
- AMPI completed an inspection of the catch basin adjacent to the die storage rack, including securing drawings of the system design from MacDonald Plumbing. Based on review of the design drawings, the catch basin is not connected to the catch basin in the enclosure, but is connected to other catch basins located in the driveway to the east. Also, the oil-water separator discharges to the sanitary sewer system and not the stormwater sewer system; and
- FTC&H is currently finalizing the SWPPP for AMPI, which should have been finalized by January 1, 2007 and submitted to the MDEQ.

2.2.3 440 32nd STREET SW

Letter from the Kent County Health Department Regarding Improper Disposal of Cutting/Cooling Oil at 440 32nd Street SW, October 6, 1986

A letter to Mr. David Potts of Metal Source Company, located at 440 32nd Street SW in Wyoming, Michigan, from the Kent County Health Department (KCHD) was available for review by CRA. Based on review of the letter, the KCHD conducted an investigation of a report of the improper disposal of cutting/cooling oil at the site. The inspection confirmed that oil saturated soils were present at the southwest corner of the building as a result of oil and oil soaked metal cuttings bypassing the metal shaving recovery system, being deposited on the roof by recovery system exhaust fans, and flowing down the roof and side of the building to the soil below. Per discussions with the site, the situation would be corrected and following necessary repairs, the metal shaving recovery system would be changed to have a covered 55-gallon drum receive oil

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from a properly vented duct extension. Furthermore, the oil stained soil would have to be removed from the site and disposed of at a licensed Type II landfill.

3.0 DISCUSSION

Groundwater flow direction from both the Grand Rapids Metal Plant and the property located at 425 36th Street SW are in a northwest and northeast direction, respectively, towards the Cole Drain. Based on groundwater flow data to date, the Cole Drain appears to be a gaining stream with groundwater flowing to the northwest and northeast towards the drain from the east and west sides of the drain respectively.

Based on the review of available information obtained from the FOIA request, it appears that there has been a former source of xylenes and naphthalene at the Price & Company Site (formerly Wyoming Warehouse Inc.). Xylenes, phenanthrene and naphthalene were identified in groundwater at concentrations above the current Michigan Act 451, Part 201 GSI Criteria. It should be noted that groundwater and soil samples were not analyzed for a full Target Compound List (TCL) volatile organic compound (VOC) scan, which includes chlorinated VOCs. Selected excavation was conducted at the source area of the xylene, phenanthrene and naphthalene impacts as part of a UST removal.

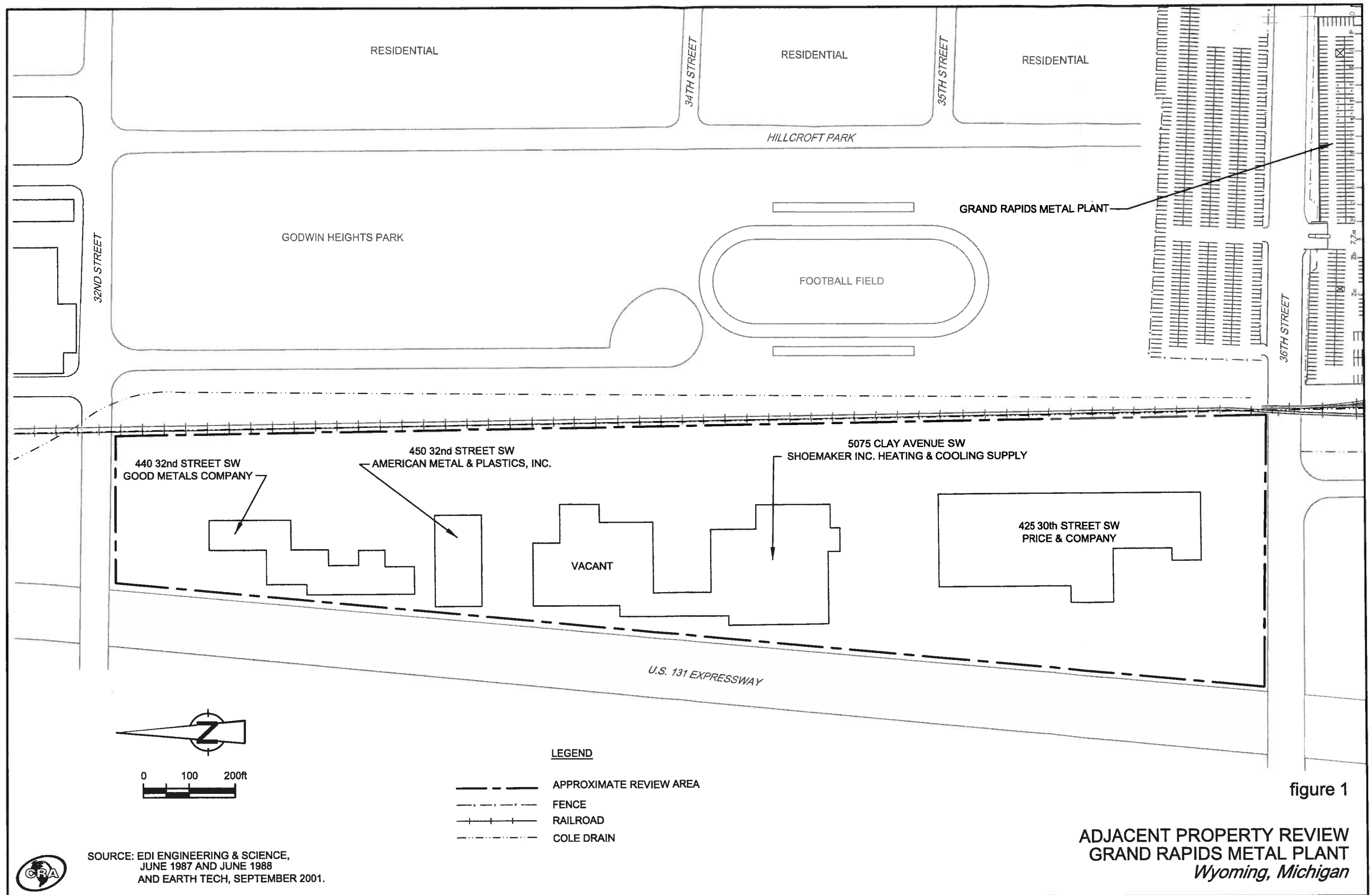
Additionally, in 1986, oil-saturated soils were present at the property at 440 32nd Street SW. The oil was associated with cutting oils and coolants from a metals shavings recovery system. No further information regarding this release was available in the files reviewed.

4.0 CONCLUSIONS

Based on the review of available documentation, CRA provides the following conclusions:

- Xylenes and naphthalene were detected in groundwater on the Price & Company (formerly Wyoming Warehouse, Inc.) property, located hydraulically downgradient of the Site with groundwater flow direction towards the Cole Drain to the northeast; and
- Oil-saturated soils were present at the property at 440 32nd Street SW in 1986. The oil was associated with cutting oils and coolants from a metals shavings recovery system and no further information was available regarding the nature of the impacted soil.

Should you have any questions regarding this memorandum, please contact Jeni Quigley at (517) 316-2397.





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MEMORANDUM

TO: Kurt Blizzard/GM ENCORE

REF. NO.: 017360-10

FROM: Jeni Quigley/jq/49/Lan

DATE: September 8, 2006

C.C.: Gary Klepper/CRA

RE: **Summary of Soil Investigations
Former Soil Vapor Extraction System Area
General Motors Corporation Metal Fabrication Division
Grand Rapids Metal Plant
Wyoming, Michigan**

This memorandum presents a summary of the soil investigations (Summary) conducted by Conestoga-Rovers & Associates, Inc. (CRA) in the vicinity of the former soil vapor extraction (SVE) system at the General Motors Corporation (GM) Metal Fabrication Division (MFD) Grand Rapids Metal Plant (Plant) located at 300 36th Street in Wyoming, Michigan (Site). The soil investigations were conducted to evaluate and delineate volatile organic compound (VOC) concentrations in the vicinity of the former SVE system.

1.0 INTRODUCTION/BACKGROUND

From 1953 to 1979 (the exact date of activity cessation is unknown), the Site conducted degreasing operations inside the facility, near Column A-15, utilizing chlorinated compounds. This area is the suspected source of chlorinated compound contamination in soil and groundwater at the Site. Numerous subsurface investigations were conducted between 1985 and 1989 to identify and delineate the chlorinated compound contamination and geological/hydrogeological conditions at the Site and on the area located hydraulically downgradient of the Site to the north. Based on the results of the investigations, a SVE system and a groundwater extraction system was constructed in the source area in 1989, and a second groundwater extraction well was installed in the north parking lot of the Site in 1993 to remediate soil and groundwater at the Site. The SVE system was located in the source area for chlorinated compounds, namely trichloroethene (TCE), impacts to soil and groundwater at the Site. The SVE system was shut down in 2003, with concurrence with the Michigan Department of Environmental Quality (MDEQ), after a review was conducted to evaluate the SVE system and determine if the SVE system was removing significant VOC mass from the soil. At that time, it was determined that the SVE system was not removing significant VOC mass from soil; however, significant mass had historically been removed. The SVE system was subsequently abandoned by pressure grouting the former wells in place in July 2004. Seven pressure monitoring wells associated with the SVE system were abandoned in place using a bentonite/grout powder hydrated at one-foot intervals to the top of the well. The SVE extraction well was abandoned in place using

bentonite/grout chips hydrated at one-foot intervals to the top of the well. The abandoned locations were finished with concrete and wood floor block, as appropriate.

2.0 SCOPE OF WORK

Subsequent to the SVE system shutdown, subsurface investigation activities were conducted to assess VOC concentrations in the vadose, or unsaturated zone. Investigation activities were conducted in July 2004, July 2005, and December 2005, respectively. The scope of work for the investigative activities included the advancement of soil borings and the collection of soil samples in the area of the former SVE system for analysis for Target Compound List (TCL) VOCs. The subsections below present a summary of each sampling event.

2.1 JULY 2004 SOIL INVESTIGATION

Five soil borings, SB1-04 through SB5-04, were advanced at the Site on July 14 and 15, 2004, and a total of 55 soil samples were collected to define current soil conditions at the historic VOC release area. The five soil borings were installed in the area surrounding air purge well 87-3, associated with the former SVE treatment system, to vertically and horizontally determine the current concentrations of chlorinated compounds in the vadose, or unsaturated zone. Stratigraphic soil boring logs are presented in Attachment A.

Soil borings were advanced utilizing a 4 1/4-inch inside diameter hollow stem auger (HSA) with continuous split spoon sampling. Soil samples were collected starting at the top of the ground surface and continuing at two-foot intervals until a terminal depth of twenty-two feet bgs, which is above the water table. A two-foot long, two-inch outside diameter stainless steel split spoon sampler driven into the undisturbed material through the 4 1/4-inch HSA annulus. Soil samples were described and classified according to the Unified Soil Classification System (USCS) by a CRA Geologist. Soil samples were field screened for visual/olfactory evidence of impact and with an 11.7 eV photoionization detector (PID). PID readings were recorded on the stratigraphic logs presented in Attachment A, with the exception of SB2-04, due to the fact that the PID malfunctioned during the installation of the soil boring. No PID readings are available for SB2-04. One soil sample was collected from each two-foot split spoon interval for analysis for TCL VOCs. Collected samples were placed in pre-cleaned ENCORE samplers, properly labeled, and shipped under chain-of-custody (COC) protocol via overnight courier to Severn Trent Laboratories (STL) in North Canton, Ohio to be analyzed on a two week turnaround time (TAT). Table 1 presents a soil sample summary.

Upon completion of soil sample collection, each borehole was abandoned. All soil borings were abandoned using a tremie method to backfill the annulus with bentonite grout to the ground surface. Floor block and concrete surfaces were patched, as necessary.

2.2 JULY 2005 SOIL INVESTIGATION

After the July 2004 soil investigation was conducted, the MDEQ sample collection guidance for VOCs was revised, and results from ENCORE sampling methods were no longer recommended. On this basis, a second round of sampling was conducted in the former SVE system area in July 2005. Nine soil borings,

SB6-05 through SB14-05, were advanced at the Site on July 11 and 12, 2005, and a total of 93 soil samples were collected to define current soil conditions at the historic VOC release area. The nine soil borings were installed in the area surrounding air purge well 87-3, associated with the former SVE treatment system, to further vertically and horizontally evaluate the current concentrations of chlorinated compounds in the vadose, or unsaturated zone. Stratigraphic soil boring logs are presented in Attachment A.

Soil borings were advanced utilizing a direct push Geoprobe® rig with continuous macrocore sampling. Soil samples were collected starting at the top of the ground surface and continuing at two-foot intervals until a terminal depth of twenty feet bgs, which is immediately above the water table. A five-foot long, two-inch outside diameter stainless steel macrocore, with plastic inner sleeve, was driven into the undisturbed material. Soil samples were described and classified according to the USCS by a CRA Geologist. Soil samples were field screened for visual/olfactory evidence of impact and with an 11.7 eV PID. PID readings were recorded on the stratigraphic logs presented in Attachment A. One soil sample was collected per two-foot interval for analysis for TCL VOCs. Samples were collected consistent with MDEQ Remediation and Redevelopment Division (RRD) Operational Memorandum No. 2, October 2004. Collected samples were placed in pre-cleaned laboratory containers, properly labeled, and shipped under COC protocol via overnight courier to STL in North Canton, Ohio to be analyzed on a two week TAT. Table 1 presents a soil sample summary.

Soil boring abandonment was conducted as specified in Section 2.1.

2.3 DECEMBER 2005 SOIL INVESTIGATION

Based on the results of the July 2005 soil investigation, four soil borings, SB15-05 through SB18-05, were advanced at the Site on December 3, 2005, and a total of 43 soil samples were collected to further define current soil conditions at the historic VOC release area. The soil borings were installed in the area surrounding SB8-05, where TCE was detected in July 2005 above the Michigan Act 451, Part 201 Generic Cleanup Criteria, to further vertically and horizontally evaluate the current concentrations of chlorinated compounds in the vadose, or unsaturated zone. Stratigraphic soil boring logs are presented in Attachment A.

Soil borings were advanced utilizing a direct push Geoprobe® rig with continuous macrocore sampling. Soil samples were collected starting at the top of the ground surface and continuing at two-foot intervals until a terminal depth of twenty feet bgs, which is immediately above the water table. A five-foot long, two-inch outside diameter stainless steel macrocore, with plastic inner sleeve, was driven into the undisturbed material. Soil samples were described and classified according to USCS by a CRA Geologist. Soil samples were field screened for visual/olfactory evidence of impact and with an 11.7 eV PID. PID readings were recorded on the stratigraphic logs presented in Attachment A. One soil sample was collected per two-foot interval for analysis for TCL VOCs. Samples were collected consistent with MDEQ RRD Operational Memorandum No. 2, October 2004. Collected samples were placed in pre-cleaned laboratory containers, properly labeled, and shipped under COC protocol via overnight courier to STL in North Canton, Ohio to be analyzed on a two week TAT. Table 1 presents a soil sample summary.

Soil boring abandonment was conducted as specified in Section 2.1.

3.0 RESULTS

Laboratory analytical results were compared to Michigan Public Act 451, Part 201 Generic Residential and Commercial I Cleanup Criteria (Part 201 Residential), as well as the Michigan Public Act 451, Part 201 Generic Industrial and Commercial II, III, and IV Criteria (Part 201 Industrial). A summary of analytical results compared to the Part 201 Residential Cleanup Criteria is presented in Table 2. Figure 1 provides a comparison to the Part 201 Residential Cleanup Criteria by location. A summary of analytical results compared to the Part 201 Industrial Cleanup Criteria is presented in Table 3. Figure 2 provides a comparison to the Part 201 Industrial Cleanup Criteria by location. Analytical results for the investigations are provided in Attachment B. A copy of the data validation memorandums is provided in Attachment C.

3.1 JULY 2004 SOIL INVESTIGATION

TCE was detected in the soil samples collected from SB1-04 (at 0 to 2 feet below ground surface (bgs), SB2-04 (at 0 to 2 feet bgs), SB3-04 (at 0 to 2 feet bgs), SB4-04 (at 0 to 2 feet bgs), and SB5-04 (at 0 to 2 feet bgs) at concentrations above the Part 201 Residential and Industrial Drinking Water Protection Criteria (DWPC). TCE was also detected in the soil samples collected from SB2-04 (at 0 to 2 feet bgs) and SB5-04 (at 0 to 2 feet bgs) at concentrations exceeding the Part 201 Residential and Industrial Groundwater Surface Water Interface Criteria (GSIC). The concentration of TCE detected in the soil sample collected from SB2-04 (at 0 to 2 feet bgs) also exceeded the Part 201 Residential Soil Volatilization to Indoor Air Criteria (SVIAC), but below the Part 201 Industrial SVIAC.

No other TCL VOCs were detected in the soil samples collected from SB1-04 through SB5-04 at concentrations above the aforementioned comparison Part 201 Cleanup Criteria.

3.2 JULY 2005 SOIL INVESTIGATION

TCE was detected in the soil samples collected from SB7-05 (at 0 to 2 feet bgs, 2 to 4 feet bgs, 14 to 16 feet bgs, and 16 to 18 feet bgs), SB8-05 (at 0 to 2 feet bgs, 2 to 4 feet bgs, 10 to 12 feet bgs, and 16 to 18 feet bgs), SB10-05 (at 0 to 2 feet bgs), SB12-05 (at 0 to 2 feet bgs, 2 to 4 feet bgs, 4 to 6 feet bgs, and 14 to 16 feet bgs), SB13-05 (at 0 to 2 feet bgs, 12 to 14 feet bgs, and 16 to 18 feet bgs), and SB14-05 (at 0 to 2 feet bgs and 16 to 18 feet bgs) at concentrations above the Part 201 Residential and Industrial DWPC. TCE was also detected in the soil samples collected from SB8-05 (at 0 to 2 feet bgs and 10 to 12 feet bgs), SB12-05 (at 2 to 4 feet bgs) at concentrations exceeding the Part 201 Residential and Industrial GSIC. The concentration of TCE detected in the soil sample collected from SB8-05 (at 0 to 2 feet bgs) also exceeded the Part 201 Residential and Industrial SVIAC.

Xylenes were detected in the soil sample collected from SB12-05 (at 2 to 4 feet bgs) at a concentration above the Part 201 Residential and Industrial GSIC.

No other TCL VOCs were detected in the soil samples collected from SB5-05 through SB14-05 at concentrations above the aforementioned comparison Part 201 Cleanup Criteria.

3.3 DECEMBER 2005 SOIL INVESTIGATION

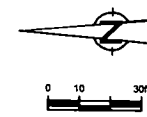
TCE was detected in the soil samples collected from SB15-05 (at 0 to 2 feet bgs and 10 to 12 feet bgs), SB16-05 (at 0 to 2 feet bgs and 6 to 8 feet bgs) at concentrations above the Part 201 Residential and Industrial DWPC. TCE was also detected in the soil sample collected from SB15-05 (at 10 to 12 feet bgs) at a concentration exceeding the Part 201 Residential and Industrial GSIC. The concentration of TCE in the soil sample collected from SB15-05 (at 10 to 12 feet bgs) also exceeded the Part 201 Residential SVIAC, but was below the Part 201 Industrial SVIAC.

No other TCL VOCs were detected in the soil samples collected from SB15-05 through SB18-05 at concentrations above the aforementioned comparison Part 201 Residential Cleanup Criteria.

4.0 CONCLUSIONS AND RECOMMENDATIONS

Based on the detected VOCs currently present in soil, additional investigation is required to delineate the extent of contamination which is subject to Michigan Act 451, Part 201.

A Work Plan will be developed to further evaluate the extent of VOCs currently present in soil.

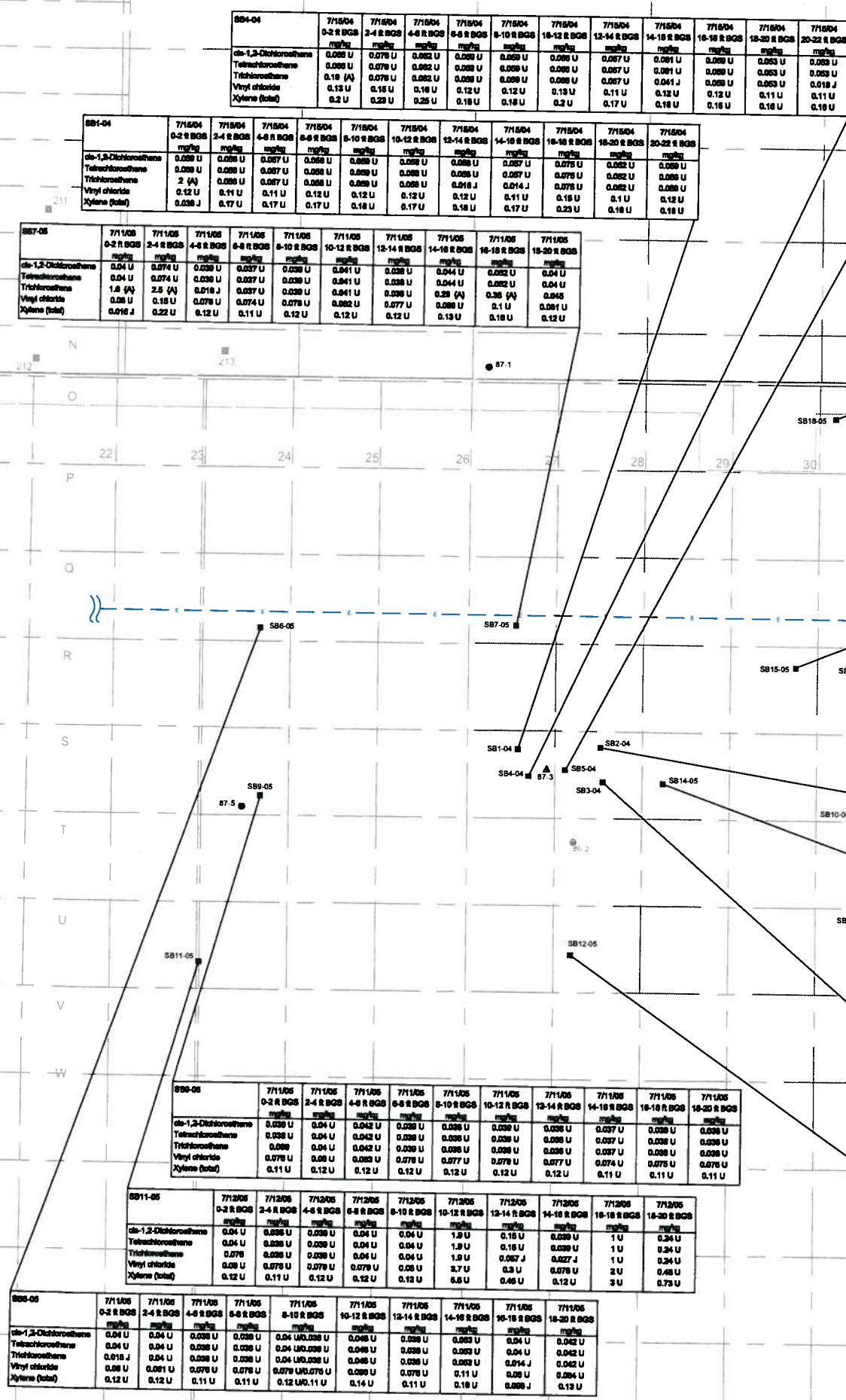


- LEGEND**
- M-72 MONITORING WELL LOCATION
 - P-72 PURGE WELL LOCATION
 - S-72 SOIL BORING LOCATION
 - ▲ A-72 APPROXIMATE AIR PURGE WELL LOCATION
 - S-20-04 SOIL BORING LOCATIONS
 - ROW/COLUM
 - ELECTRIC CONDUIT

Compound (mg/kg)	Drinking Water Protection		Groundwater Surface Water Interface Protection		Soil Volatilization to Indoor Air Inhalation		Direct Contact	
	A	B	C	D	C	D	C	D
dis-1,2-Dichloroethene	1.4	12	22	640				
Tetrachloroethene	0.1	0.9	11	88				
Trichloroethene	0.1	4	7.1	500				
Vinyl chloride	0.04	0.3	0.27	3.8				
Xylene (total)	5.6	0.7	150	150				

A - PART 201 RESIDENTIAL DRINKING WATER PROTECTION CRITERIA EXCEEDANCE
B - PART 201 RESIDENTIAL GROUNDWATER SURFACE WATER INTERFACE PROTECTION CRITERIA EXCEEDANCE
C - PART 201 RESIDENTIAL SOIL VOLATILIZATION TO INDOOR AIR CRITERIA EXCEEDANCE
D - PART 201 RESIDENTIAL DIRECT CONTACT CRITERIA EXCEEDANCE

SAMPLES FROM SB1-04 THROUGH SB5-04 WERE COLLECTED USING ENCORE SAMPLERS.



SB5-04	7/15/04 0-2 R BGS	7/15/04 2-4 R BGS	7/15/04 4-6 R BGS	7/15/04 6-8 R BGS	7/15/04 8-10 R BGS	7/15/04 10-12 R BGS	7/15/04 12-14 R BGS	7/15/04 14-16 R BGS	7/15/04 16-18 R BGS	7/15/04 18-20 R BGS	7/15/04 20-22 R BGS
dis-1,2-Dichloroethene	0.2 U	0.11 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U
Tetrachloroethene	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U
Trichloroethene	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U
Vinyl chloride	0.4 U	0.23 U	0.13 U	0.12 U	0.12 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U
Xylene (total)	0.2 J	0.34 U	0.2 U	0.18 U	0.18 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U

SB10-05	12/3/05 0-2 R BGS	12/3/05 2-4 R BGS	12/3/05 4-6 R BGS	12/3/05 6-8 R BGS	12/3/05 8-10 R BGS	12/3/05 10-12 R BGS	12/3/05 12-14 R BGS	12/3/05 14-16 R BGS	12/3/05 16-18 R BGS	12/3/05 18-20 R BGS	12/3/05 20-22 R BGS
dis-1,2-Dichloroethene	0.043 U	0.041 U	0.043 U	0.043 U	0.043 U	0.043 U	0.043 U	0.043 U	0.043 U	0.043 U	0.043 U
Tetrachloroethene	0.043 U	0.041 U	0.043 U	0.043 U	0.043 U	0.043 U	0.043 U	0.043 U	0.043 U	0.043 U	0.043 U
Trichloroethene	0.043 U	0.041 U	0.043 U	0.043 U	0.043 U	0.043 U	0.043 U	0.043 U	0.043 U	0.043 U	0.043 U
Vinyl chloride	0.088 J	0.088 J	0.088 J	0.088 J	0.088 J	0.088 J	0.088 J	0.088 J	0.088 J	0.088 J	0.088 J
Xylene (total)	0.19 U	0.12 U	0.13 U	0.13 U	0.13 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U

SB17-05	12/3/05 0-2 R BGS	12/3/05 2-4 R BGS	12/3/05 4-6 R BGS	12/3/05 6-8 R BGS	12/3/05 8-10 R BGS	12/3/05 10-12 R BGS	12/3/05 12-14 R BGS	12/3/05 14-16 R BGS	12/3/05 16-18 R BGS	12/3/05 18-20 R BGS	12/3/05 20-22 R BGS
dis-1,2-Dichloroethene	0.043 U	0.042 U	0.042 U	0.044 U	0.044 U	0.044 U	0.044 U	0.044 U	0.044 U	0.044 U	0.044 U
Tetrachloroethene	0.043 U	0.042 U	0.042 U	0.044 U	0.044 U	0.044 U	0.044 U	0.044 U	0.044 U	0.044 U	0.044 U
Trichloroethene	0.043 U	0.042 U	0.042 U	0.044 U	0.044 U	0.044 U	0.044 U	0.044 U	0.044 U	0.044 U	0.044 U
Vinyl chloride	0.087 U	0.088 U	0.088 U	0.088 U	0.088 U	0.088 U	0.088 U	0.088 U	0.088 U	0.088 U	0.088 U
Xylene (total)	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.12 U	0.14 U	0.14 U	0.12 U	0.13 U	0.13 U

SB18-05	12/3/05 0-2 R BGS	12/3/05 2-4 R BGS	12/3/05 4-6 R BGS	12/3/05 6-8 R BGS	12/3/05 8-10 R BGS	12/3/05 10-12 R BGS	12/3/05 12-14 R BGS	12/3/05 14-16 R BGS	12/3/05 16-18 R BGS	12/3/05 18-20 R BGS	12/3/05 20-22 R BGS
dis-1,2-Dichloroethene	0.044 U	0.042 U	0.044 U	0.044 U	0.044 U	0.044 U	0.044 U	0.044 U	0.044 U	0.044 U	0.044 U
Tetrachloroethene	0.044 U	0.042 U	0.044 U	0.044 U	0.044 U	0.044 U	0.044 U	0.044 U	0.044 U	0.044 U	0.044 U
Trichloroethene	0.044 U	0.042 U	0.044 U	0.044 U	0.044 U	0.044 U	0.044 U	0.044 U	0.044 U	0.044 U	0.044 U
Vinyl chloride	0.087 U	0.088 U	0.088 U	0.088 U	0.088 U	0.088 U	0.088 U	0.088 U	0.088 U	0.088 U	0.088 U
Xylene (total)	0.19 U	0.13 U	0.13 U	0.13 U	0.13 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U

SB9-05	7/12/05 0-2 R BGS	7/12/05 2-4 R BGS	7/12/05 4-6 R BGS	7/12/05 6-8 R BGS	7/12/05 8-10 R BGS	7/12/05 10-12 R BGS	7/12/05 12-14 R BGS	7/12/05 14-16 R BGS	7/12/05 16-18 R BGS	7/12/05 18-20 R BGS	7/12/05 20-22 R BGS
dis-1,2-Dichloroethene	1.3 U	0.04 U	0.039 U	0.039 U	0.04 U	0.16 U	0.048 U	0.04 U	0.048 U	0.037 U	0.037 U
Tetrachloroethene	1.3 U	0.04 U	0.039 U	0.039 U	0.04 U	0.16 U	0.048 U	0.04 U	0.048 U	0.037 U	0.037 U
Trichloroethene	48 (ABC)	1.5 (A)	0.027 J	0.016 J	0.012 J	0.9 (AB)	0.1 J	0.049	0.17 (A)	0.033	0.033
Vinyl chloride	2.7 U	0.08 U	0.078 U	0.078 U	0.08 U	0.3 U	0.082 U	0.08 U	0.082 U	0.074 U	0.074 U
Xylene (total)	4 U	0.12 U	0.12 U	0.12 U	0.12 U	0.46 U	0.14 U	0.14 U	0.14 U	0.11 U	0.11 U

SB16-05	12/3/05 0-2 R BGS	12/3/05 2-4 R BGS	12/3/05 4-6 R BGS	12/3/05 6-8 R BGS	12/3/05 8-10 R BGS	12/3/05 10-12 R BGS	12/3/05 12-14 R BGS	12/3/05 14-16 R BGS	12/3/05 16-18 R BGS	12/3/05 18-20 R BGS	12/3/05 20-22 R BGS
dis-1,2-Dichloroethene	0.043 U	0.042 U	0.042 U	0.044 U	0.044 U	0.044 U	0.044 U	0.044 U	0.044 U	0.044 U	0.044 U
Tetrachloroethene	0.043 U	0.042 U	0.042 U	0.044 U	0.044 U	0.044 U	0.044 U	0.044 U	0.044 U	0.044 U	0.044 U
Trichloroethene	0.043 U	0.042 U	0.042 U	0.044 U	0.044 U	0.044 U	0.044 U	0.044 U	0.044 U	0.044 U	0.044 U
Vinyl chloride	0.088 J	0.088 J	0.088 J	0.088 J	0.088 J	0.088 J	0.088 J	0.088 J	0.088 J	0.088 J	0.088 J
Xylene (total)	0.11 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U

SB3-04	7/14/04 0-2 R BGS	7/14/04 2-4 R BGS	7/14/04 4-6 R BGS	7/14/04 6-8 R BGS	7/14/04 8-10 R BGS	7/14/04 10-12 R BGS	7/14/04 12-14 R BGS	7/14/04 14-16 R BGS	7/14/04 16-18 R BGS	7/14/04 18-20 R BGS	7/14/04 20-22 R BGS
dis-1,2-Dichloroethene	0.43 U	0.038 U	0.031 U	0.038 U	0.038 U	0.04 J	0.022 J	0.022 J	0.027	0.027	0.027
Tetrachloroethene	0.43 U	0.038 U	0.031 U	0.038 U	0.038 U	0.04 J	0.022 J	0.022 J	0.027	0.027	0.027
Trichloroethene	12 (ABC)	0.038 U	0.031 U	0.038 U	0.038 U	0.04 J	0.022 J	0.022 J	0.027	0.027	0.027
Vinyl chloride	0.88 U	0.12 U	0.12 U	0.12 U	0.12 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U
Xylene (total)	0.26 J	0.17 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U

SB10-05	7/12/05 0-2 R BGS	7/12/05 2-4 R BGS	7/12/05 4-6 R BGS	7/12/05 6-8 R BGS	7/12/05 8-10 R BGS	7/12/05 10-12 R BGS	7/12/05 12-14 R BGS	7/12/05 14-16 R BGS	7/12/05 16-18 R BGS	7/12/05 18-20 R BGS	7/12/05 20-22 R BGS
dis-1,2-Dichloroethene	0.037 U	0.038 U	0.041 U	0.038 U	0.038 U	0.041 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U
Tetrachloroethene	0.037 U	0.038 U	0.041 U	0.038 U	0.038 U	0.041 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U
Trichloroethene	0.037 U	0.038 U	0.041 U	0.038 U	0.038 U	0.041 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U
Vinyl chloride	0.074 U	0.078 U	0.082 U	0.078 U	0.078 U	0.082 U	0.078 U	0.078 U	0.078 U	0.078 U	0.078 U
Xylene (total)	0.027 J	0.11 U	0.12 U	0.12 U	0.11 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U

SB14-05	7/12/05 0-2 R BGS	7/12/05 2-4 R BGS	7/12/05 4-6 R BGS	7/12/05 6-8 R BGS	7/12/05 8-10 R BGS	7/12/05 10-12 R BGS	7/12/05 12-14 R BGS	7/12/05 14-16 R BGS	7/12/05 16-18 R BGS	7/12/05 18-20 R BGS	7/12/05 20-22 R BGS
dis-1,2-Dichloroethene	0.04 U	0.048 U	0.042 U	0.04 U	0.04 U	0.042 U	0.04 U	0.04 U	0.048 U	0.037 U	0.037 U
Tetrachloroethene	0.04 U	0.048 U	0.042 U	0.04 U	0.04 U	0.042 U	0.04 U	0.04 U	0.048 U	0.037 U	0.037 U
Trichloroethene	0.04 U	0.048 U	0.042 U	0.04 U	0.04 U	0.042 U	0.04 U	0.04 U	0.048 U	0.037 U	0.037 U
Vinyl chloride	0.08 U	0.088 U	0.078 U	0.08 U	0.08 U	0.078 U	0.08 U	0.08 U	0.088 U	0.074 U	0.074 U
Xylene (total)	0.021 J	0.14 U	0.13 U	0.12 U	0.12 U	0.13 U	0.13 U	0.13 U	0.13 U	0.11 U	0.11 U

SB13-05	7/12/05 0-2 R BGS	7/12/05 2-4 R BGS	7/12/05 4-6 R BGS	7/12/05 6-8 R BGS	7/12/05 8-10 R BGS	7/12/05 10-12 R BGS	7/12/05 12-14 R BGS	7/12/05 14-16 R BGS	7/12/05 16-18 R BGS	7/12/05 18-20 R BGS	7/12/05 20-22 R BGS
dis-1,2-Dichloroethene	0.037 U	0.038 U	0.037 U	0.04 U	0.04 U	0.038 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U
Tetrachloroethene	0.037 U	0.038 U	0.037 U	0.04 U	0.04 U	0.038 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U
Trichloroethene	0.037 U	0.038 U	0.037 U	0.04 U	0.04 U	0.038 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U
Vinyl chloride	0.074 U	0.078 U	0.082 U	0.078 U	0.078 U	0.082 U	0.078 U	0.078 U	0.078 U	0.078 U	0.078 U
Xylene (total)	0.16	0.12 U	0.11 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U

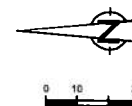
SB3-04	7/14/04 0-2 R BGS	7/14/04 2-4 R BGS	7/14/04 4-6 R BGS	7/14/04 6-8 R BGS	7/14/04 8-10 R BGS	7/14/04 10-12 R BGS	7/14/04 12-14 R BGS	7/14/04 14-16 R BGS	7/14/04 16-18 R BGS	7/14/04 18-20 R BGS	7/14/04 20-22 R BGS
dis-1,2-Dichloroethene	0.11 U	0.033 U	0.038 U	0.038 U	0.038 U	0.038 U	0.038 U	0.038 U	0.038 U	0.038 U	0.038 U
Tetrachloroethene	0.11 U	0.033 U	0.038 U	0.038 U	0.038 U	0.038 U	0.038 U	0.038 U	0.038 U	0.038 U	0.038 U
Trichloroethene	2.8 (A)	0.033 U	0.038 U	0.038 U	0.038 U	0.038 U	0.038 U	0.038 U	0.038 U	0.038 U	0.038 U
Vinyl chloride	0.23 U	0.13 U	0.12 U	0.12 U	0.11 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Xylene (total)	0.094 J	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U

SB13-05	7/12/05 0-2 R BGS	7/12/05 2-4 R BGS	7/12/05 4-6 R BGS	7/12/05 6-8 R BGS	7/12/05 8-10 R BGS	7/12/05 10-12 R BGS	7/12/05 12-14 R BGS	7/12/05 14-16 R BGS	7/12/05 16-18 R BGS	7/12/05 18-20 R BGS	7/12/05 20-22 R BGS
dis-1,2-Dichloroethene	0.04 U	0.16 U	0.037 U	0.038 U	0.038 U	0.038 U	0.038 U	0.04 U	0.037 U	0.038 U	0.038 U
Tetrachloroethene	0.04 U	0.16 U	0.037 U	0.038 U	0.038 U	0.038 U	0.038 U	0.04 U	0.037 U	0.038 U	0.038 U
Trichloroethene	2.2 (A)	0.16 U	0.037 U	0.038 U	0.038 U	0.038 U	0.038 U	0.04 U	0.037 U	0.038 U	0.038 U
Vinyl chloride	0.082 U	0.32 U	0.074 U	0.078 U	0.078 U	0.078 U	0.078 U	0.074 U	0.074 U	0.074 U	0.074 U
Xylene (total)	0.18	0.81 (B)	0.098 J	0.12 U	0.12 U	0.12 U	0.11 U	0.098 J	0.11 U	0.11 U	0.11 U

SCALE VERIFICATION

THIS BAR MEASURES 1" ON ORIGINAL. ADJUST SCALE ACCORDINGLY.





- LEGEND**
- 17-2 MONITORING WELL LOCATION
 - 81-2 PURGE WELL LOCATION
 - 30-2 SOIL BORING LOCATION
 - △ 87-3 APPROXIMATE AIR PURGE WELL LOCATION
 - SB2-04 SOIL BORING LOCATIONS
 - ELECTRIC CONDUIT

Compound (mg/kg)	Industrial and Commercial Drinking Water A	Groundwater Surface Water Interface Protection B	Groundwater Contact Protection C	Soil Volatilization to Indoor Air Inhalation D	Direct Contact Industrial and Commercial II E
1,2-Dichloroethane	1.4	12	640	41	640
Tetrachloroethane	0.1	0.9	88	60	88
Trichloroethane	0.1	4	440	37	500
Vinyl chloride	0.04	0.3	20	2.8	34
Xylene (total)	5.6	0.7	150	150	150

A - PART 201 INDUSTRIAL AND COMMERCIAL DRINKING WATER PROTECTION CRITERIA EXCEEDANCE
B - PART 201 GROUNDWATER SURFACE WATER INTERFACE PROTECTION CRITERIA EXCEEDANCE
C - PART 201 GROUNDWATER CONTACT PROTECTION CRITERIA EXCEEDANCE
D - PART 201 SOIL VOLATILIZATION TO INDOOR AIR INHALATION CRITERIA EXCEEDANCE
E - PART 201 DIRECT CONTACT INDUSTRIAL AND COMMERCIAL CRITERIA EXCEEDANCE
SAMPLES FROM SB1-04 THROUGH SB5-04 WERE COLLECTED USING ENCORE SAMPLES.

SCALE VERIFICATION

THIS BAR MEASURES 1" ON ORIGINAL. ADJUST SCALE ACCORDINGLY.

SELECT VOCs IN SOIL COMPARED TO PART 201 INDUSTRIAL CRITERIA

WYOMING, MICHIGAN

GRAND RAPIDS METAL PLANT



Project Manager: G.K.	Reviewed By: B.M.	Date: JULY 2006
Scale: 1"=30'	Project N°: 17360-10	Report N°: MEMO049 figure 2

17360-10(MEMO049)GN-DE03 J04 28/2006

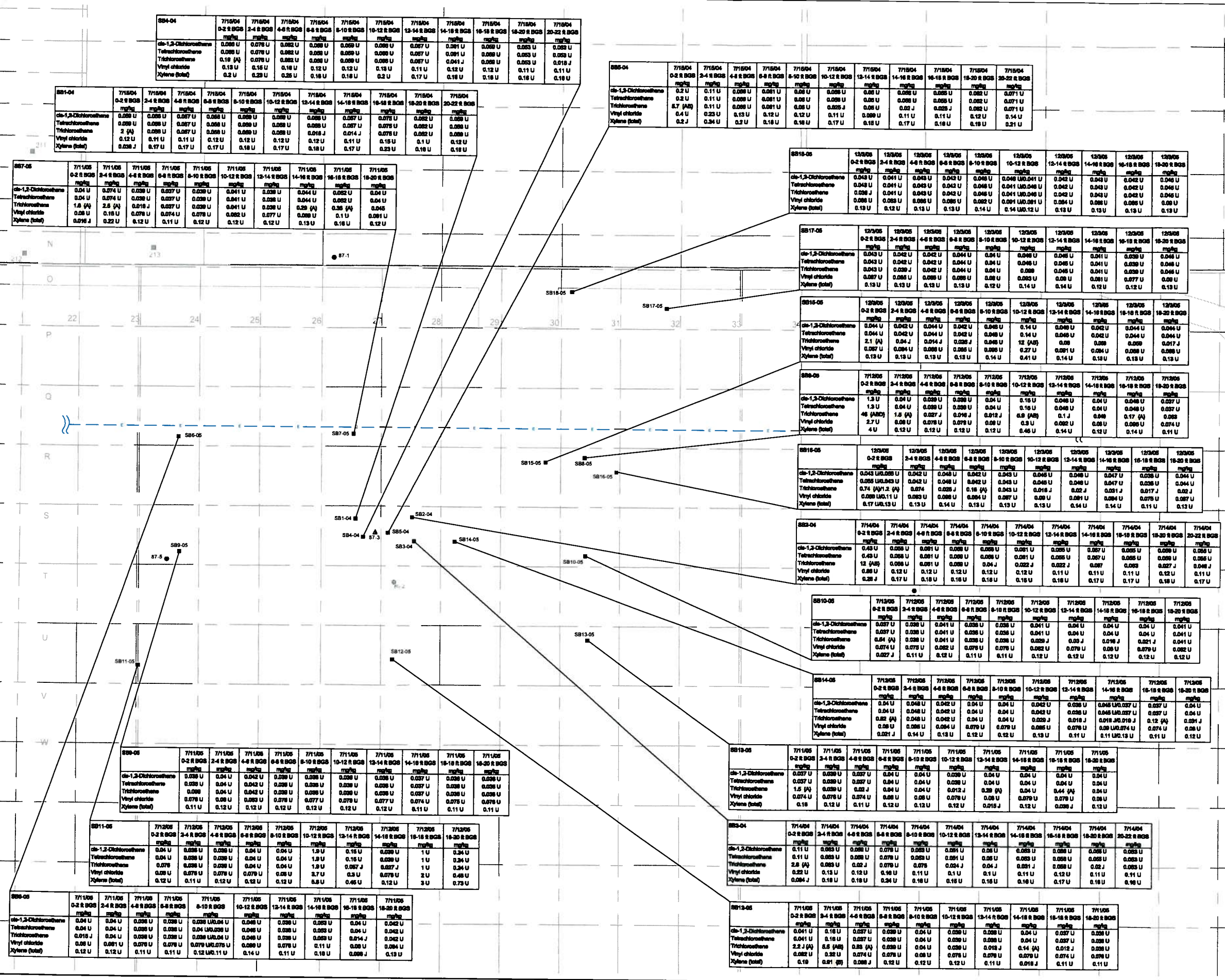


TABLE 1

**SAMPLE COLLECTION AND ANALYSIS SUMMARY
SVE SOIL INVESTIGATION
GENERAL MOTORS CORPORATION
GRAND RAPIDS METAL PLANT
WYOMING, MICHIGAN**

<i>Sample Identification</i>	<i>Sample Location</i>	<i>Sample Depth</i>		<i>Matrix</i>	<i>QC Sample</i>	<i>Parameter</i>
		<i>Start (ft bgs)</i>	<i>End (ft bgs)</i>			
S-17360-071404-DCR-078	SB3-04	0	2	Soil		TCL VOCs
S-17360-071404-DCR-079	SB3-04	2	4	Soil		TCL VOCs
S-17360-071404-DCR-080	SB3-04	4	6	Soil		TCL VOCs
S-17360-071404-DCR-081	SB3-04	6	8	Soil		TCL VOCs
S-17360-071404-DCR-082	SB3-04	8	10	Soil		TCL VOCs
S-17360-071404-DCR-083	SB3-04	10	12	Soil		TCL VOCs
S-17360-071404-DCR-084	SB3-04	12	14	Soil		TCL VOCs
S-17360-071404-DCR-085	SB3-04	14	16	Soil		TCL VOCs
S-17360-071404-DCR-086	SB3-04	16	18	Soil		TCL VOCs
S-17360-071404-DCR-087	SB3-04	18	20	Soil		TCL VOCs
S-17360-071404-DCR-088	SB3-04	20	22	Soil		TCL VOCs
S-17360-071404-DCR-089	SB2-04	0	2	Soil		TCL VOCs
S-17360-071404-DCR-090	SB2-04	2	4	Soil		TCL VOCs
S-17360-071404-DCR-091	SB2-04	4	6	Soil		TCL VOCs
S-17360-071404-DCR-092	SB2-04	6	8	Soil		TCL VOCs
S-17360-071404-DCR-093	SB2-04	8	10	Soil		TCL VOCs
S-17360-071404-DCR-094	SB2-04	10	12	Soil		TCL VOCs
S-17360-071404-DCR-095	SB2-04	12	14	Soil		TCL VOCs
S-17360-071404-DCR-096	SB2-04	14	16	Soil		TCL VOCs
S-17360-071404-DCR-097	SB2-04	16	18	Soil		TCL VOCs
S-17360-071404-DCR-098	SB2-04	18	20	Soil		TCL VOCs
S-17360-071404-DCR-099	SB2-04	20	22	Soil		TCL VOCs
S-17360-071504-DCR-100	SB5-04	0	2	Soil		TCL VOCs
S-17360-071504-DCR-101	SB5-04	2	4	Soil		TCL VOCs
S-17360-071504-DCR-102	SB5-04	4	6	Soil		TCL VOCs
S-17360-071504-DCR-103	SB5-04	6	8	Soil		TCL VOCs
S-17360-071504-DCR-104	SB5-04	8	10	Soil		TCL VOCs
S-17360-071504-DCR-105	SB5-04	10	12	Soil		TCL VOCs
S-17360-071504-DCR-106	SB5-04	12	14	Soil		TCL VOCs
S-17360-071504-DCR-107	SB5-04	14	16	Soil		TCL VOCs
S-17360-071504-DCR-108	SB5-04	16	18	Soil		TCL VOCs
S-17360-071504-DCR-109	SB5-04	18	20	Soil		TCL VOCs
S-17360-071504-DCR-110	SB5-04	20	22	Soil		TCL VOCs
S-17360-071504-DCR-111	SB4-04	0	2	Soil		TCL VOCs
S-17360-071504-DCR-112	SB4-04	2	4	Soil		TCL VOCs
S-17360-071504-DCR-113	SB4-04	4	6	Soil		TCL VOCs
S-17360-071504-DCR-114	SB4-04	6	8	Soil		TCL VOCs
S-17360-071504-DCR-115	SB4-04	8	10	Soil		TCL VOCs
S-17360-071504-DCR-116	SB4-04	10	12	Soil		TCL VOCs
S-17360-071504-DCR-117	SB4-04	12	14	Soil		TCL VOCs
S-17360-071504-DCR-118	SB4-04	14	16	Soil		TCL VOCs
S-17360-071504-DCR-119	SB4-04	16	18	Soil		TCL VOCs
S-17360-071504-DCR-120	SB4-04	18	20	Soil		TCL VOCs
S-17360-071504-DCR-121	SB4-04	20	22	Soil		TCL VOCs
S-17360-071504-DCR-122	SB1-04	0	2	Soil		TCL VOCs
S-17360-071504-DCR-123	SB1-04	2	4	Soil		TCL VOCs
S-17360-071504-DCR-124	SB1-04	4	6	Soil		TCL VOCs
S-17360-071504-DCR-125	SB1-04	6	8	Soil		TCL VOCs
S-17360-071504-DCR-126	SB1-04	8	10	Soil		TCL VOCs
S-17360-071504-DCR-127	SB1-04	10	12	Soil		TCL VOCs
S-17360-071504-DCR-128	SB1-04	12	14	Soil		TCL VOCs
S-17360-071504-DCR-129	SB1-04	14	16	Soil		TCL VOCs
S-17360-071504-DCR-130	SB1-04	16	18	Soil		TCL VOCs
S-17360-071504-DCR-131	SB1-04	18	20	Soil		TCL VOCs

TABLE 1

**SAMPLE COLLECTION AND ANALYSIS SUMMARY
SVE SOIL INVESTIGATION
GENERAL MOTORS CORPORATION
GRAND RAPIDS METAL PLANT
WYOMING, MICHIGAN**

<i>Sample Identification</i>	<i>Sample Location</i>	<i>Sample Depth</i>		<i>Matrix</i>	<i>QC Sample</i>	<i>Parameter</i>
		<i>Start (ft bgs)</i>	<i>End (ft bgs)</i>			
S-17360-071504-DCR-132	SB1-04	20	22	Soil		TCL VOCs
SO-17360-071105-DCR-409	SB13-05	0	2	Soil		TCL VOCs
SO-17360-071105-DCR-410	SB13-05	2	4	Soil		TCL VOCs
SO-17360-071105-DCR-411	SB13-05	4	6	Soil		TCL VOCs
SO-17360-071105-DCR-412	SB13-05	6	8	Soil		TCL VOCs
SO-17360-071105-DCR-413	SB13-05	8	10	Soil		TCL VOCs
SO-17360-071105-DCR-414	SB13-05	10	12	Soil		TCL VOCs
SO-17360-071105-DCR-415	SB13-05	12	14	Soil		TCL VOCs
SO-17360-071105-DCR-416	SB13-05	14	16	Soil		TCL VOCs
SO-17360-071105-DCR-417	SB13-05	16	18	Soil		TCL VOCs
SO-17360-071105-DCR-418	SB13-05	18	20	Soil	MS/MSD	TCL VOCs
SO-17360-071105-DCR-419	SB6-05	0	2	Soil		TCL VOCs
SO-17360-071105-DCR-420	SB6-05	2	4	Soil		TCL VOCs
SO-17360-071105-DCR-421	SB6-05	4	6	Soil		TCL VOCs
SO-17360-071105-DCR-422	SB6-05	6	8	Soil		TCL VOCs
SO-17360-071105-DCR-423	SB6-05	8	10	Soil		TCL VOCs
SO-17360-071105-DCR-424	SB6-05	10	12	Soil		TCL VOCs
SO-17360-071105-DCR-425	SB6-05	12	14	Soil		TCL VOCs
SO-17360-071105-DCR-426	SB6-05	14	16	Soil		TCL VOCs
SO-17360-071105-DCR-427	SB6-05	16	18	Soil		TCL VOCs
SO-17360-071105-DCR-428	SB6-05	18	20	Soil		TCL VOCs
SO-17360-071105-DCR-429	SB6-05	8	10	Soil	Duplicate (423)	TCL VOCs
SO-17360-071105-DCR-430	SB9-05	0	2	Soil		TCL VOCs
SO-17360-071105-DCR-431	SB9-05	2	4	Soil		TCL VOCs
SO-17360-071105-DCR-432	SB9-05	4	6	Soil		TCL VOCs
SO-17360-071105-DCR-433	SB9-05	6	8	Soil		TCL VOCs
SO-17360-071105-DCR-434	SB9-05	8	10	Soil		TCL VOCs
SO-17360-071105-DCR-435	SB9-05	10	12	Soil		TCL VOCs
SO-17360-071105-DCR-436	SB9-05	12	14	Soil		TCL VOCs
SO-17360-071105-DCR-437	SB9-05	14	16	Soil		TCL VOCs
SO-17360-071105-DCR-438	SB9-05	16	18	Soil		TCL VOCs
SO-17360-071105-DCR-439	SB9-05	18	20	Soil		TCL VOCs
SO-17360-071105-DCR-440	SB12-05	0	2	Soil	MS/MSD	TCL VOCs
SO-17360-071105-DCR-441	SB12-05	2	4	Soil		TCL VOCs
SO-17360-071105-DCR-442	SB12-05	4	6	Soil		TCL VOCs
SO-17360-071105-DCR-443	SB12-05	6	8	Soil		TCL VOCs
SO-17360-071105-DCR-444	SB12-05	8	10	Soil		TCL VOCs
SO-17360-071105-DCR-445	SB12-05	10	12	Soil		TCL VOCs
SO-17360-071105-DCR-446	SB12-05	12	14	Soil		TCL VOCs
SO-17360-071105-DCR-447	SB12-05	14	16	Soil		TCL VOCs
SO-17360-071105-DCR-448	SB12-05	16	18	Soil		TCL VOCs
SO-17360-071105-DCR-449	SB12-05	18	20	Soil		TCL VOCs
SO-17360-071105-DCR-450	SB7-05	0	2	Soil		TCL VOCs
SO-17360-071105-DCR-451	SB7-05	2	4	Soil		TCL VOCs
SO-17360-071105-DCR-452	SB7-05	4	6	Soil		TCL VOCs
SO-17360-071105-DCR-453	SB7-05	6	8	Soil		TCL VOCs
SO-17360-071105-DCR-454	SB7-05	8	10	Soil		TCL VOCs
SO-17360-071105-DCR-455	SB7-05	10	12	Soil		TCL VOCs
SO-17360-071105-DCR-456	SB7-05	12	14	Soil		TCL VOCs
SO-17360-071105-DCR-457	SB7-05	14	16	Soil		TCL VOCs
SO-17360-071105-DCR-458	SB7-05	16	18	Soil		TCL VOCs
SO-17360-071105-DCR-459	SB7-05	18	20	Soil		TCL VOCs
SO-17360-071205-DCR-460	SB14-05	0	2	Soil		TCL VOCs

TABLE 1

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SVE SOIL INVESTIGATION
GENERAL MOTORS CORPORATION
GRAND RAPIDS METAL PLANT
WYOMING, MICHIGAN**

<i>Sample Identification</i>	<i>Sample Location</i>	<i>Sample Depth</i>		<i>Matrix</i>	<i>QC Sample</i>	<i>Parameter</i>
		<i>Start (ft bgs)</i>	<i>End (ft bgs)</i>			
SO-17360-071205-DCR-461	SB14-05	2	4	Soil	Duplicate (467)	TCL VOCs
SO-17360-071205-DCR-462	SB14-05	4	6	Soil		TCL VOCs
SO-17360-071205-DCR-463	SB14-05	6	8	Soil		TCL VOCs
SO-17360-071205-DCR-464	SB14-05	8	10	Soil		TCL VOCs
SO-17360-071205-DCR-465	SB14-05	10	12	Soil		TCL VOCs
SO-17360-071205-DCR-466	SB14-05	12	14	Soil		TCL VOCs
SO-17360-071205-DCR-467	SB14-05	14	16	Soil		TCL VOCs
SO-17360-071205-DCR-468	SB14-05	14	16	Soil	MS/MSD	TCL VOCs
SO-17360-071205-DCR-469	SB14-05	16	18	Soil		TCL VOCs
SO-17360-071205-DCR-470	SB14-05	18	20	Soil		TCL VOCs
SO-17360-071205-DCR-471	SB8-05	0	2	Soil		TCL VOCs
SO-17360-071205-DCR-472	SB8-05	2	4	Soil		TCL VOCs
SO-17360-071205-DCR-473	SB8-05	4	6	Soil		TCL VOCs
SO-17360-071205-DCR-474	SB8-05	6	8	Soil		TCL VOCs
SO-17360-071205-DCR-475	SB8-05	8	10	Soil		TCL VOCs
SO-17360-071205-DCR-476	SB8-05	10	12	Soil		TCL VOCs
SO-17360-071205-DCR-477	SB8-05	12	14	Soil		TCL VOCs
SO-17360-071205-DCR-478	SB8-05	14	16	Soil		TCL VOCs
SO-17360-071205-DCR-479	SB8-05	16	18	Soil		TCL VOCs
SO-17360-071205-DCR-480	SB8-05	18	20	Soil		TCL VOCs
SO-17360-071205-DCR-481	SB10-05	0	2	Soil		TCL VOCs
SO-17360-071205-DCR-482	SB10-05	2	4	Soil		TCL VOCs
SO-17360-071205-DCR-483	SB10-05	4	6	Soil		TCL VOCs
SO-17360-071205-DCR-484	SB10-05	6	8	Soil		TCL VOCs
SO-17360-071205-DCR-485	SB10-05	8	10	Soil		TCL VOCs
SO-17360-071205-DCR-486	SB10-05	10	12	Soil		TCL VOCs
SO-17360-071205-DCR-487	SB10-05	12	14	Soil		TCL VOCs
SO-17360-071205-DCR-488	SB10-05	14	16	Soil		TCL VOCs
SO-17360-071205-DCR-489	SB10-05	16	18	Soil		TCL VOCs
SO-17360-071205-DCR-490	SB10-05	18	20	Soil		TCL VOCs
SO-17360-071205-DCR-491	SB11-05	0	2	Soil		TCL VOCs
SO-17360-071205-DCR-492	SB11-05	2	4	Soil		TCL VOCs
SO-17360-071205-DCR-493	SB11-05	4	6	Soil		TCL VOCs
SO-17360-071205-DCR-494	SB11-05	6	8	Soil		TCL VOCs
SO-17360-071205-DCR-495	SB11-05	8	10	Soil		TCL VOCs
SO-17360-071205-DCR-496	SB11-05	10	12	Soil		TCL VOCs
SO-17360-071205-DCR-497	SB11-05	12	14	Soil		TCL VOCs
SO-17360-071205-DCR-498	SB11-05	14	16	Soil		TCL VOCs
SO-17360-071205-DCR-499	SB11-05	16	18	Soil		TCL VOCs
SO-17360-071205-DCR-500	SB11-05	18	20	Soil		TCL VOCs
TB-17360-071205-DCR-501	--	--	--	Methanol	Trip Blank	TCL VOCs
SO-17360-120305-DCR-508	SB16-05	0	2	Soil	Duplicate (508)	TCL VOCs
SO-17360-120305-DCR-509	SB16-05	0	2	Soil		TCL VOCs
SO-17360-120305-DCR-510	SB16-05	2	4	Soil		TCL VOCs
SO-17360-120305-DCR-511	SB16-05	4	6	Soil		TCL VOCs
SO-17360-120305-DCR-512	SB16-05	6	8	Soil		TCL VOCs
SO-17360-120305-DCR-513	SB16-05	8	10	Soil		TCL VOCs
SO-17360-120305-DCR-514	SB16-05	10	12	Soil		TCL VOCs
SO-17360-120305-DCR-515	SB16-05	12	14	Soil		TCL VOCs
SO-17360-120305-DCR-516	SB16-05	14	16	Soil		TCL VOCs
SO-17360-120305-DCR-517	SB16-05	16	18	Soil		TCL VOCs
SO-17360-120305-DCR-518	SB16-05	18	20	Soil		TCL VOCs
SO-17360-120305-DCR-519	SB17-05	0	2	Soil		TCL VOCs

TABLE 1
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SVE SOIL INVESTIGATION
GENERAL MOTORS CORPORATION
GRAND RAPIDS METAL PLANT
WYOMING, MICHIGAN

<i>Sample Identification</i>	<i>Sample Location</i>	<i>Sample Depth</i>		<i>Matrix</i>	<i>QC Sample</i>	<i>Parameter</i>
		<i>Start (ft bgs)</i>	<i>End (ft bgs)</i>			
SO-17360-120305-DCR-520	SB17-05	2	4	Soil		TCL VOCs
SO-17360-120305-DCR-521	SB17-05	4	6	Soil		TCL VOCs
SO-17360-120305-DCR-522	SB17-05	6	8	Soil		TCL VOCs
SO-17360-120305-DCR-523	SB17-05	8	10	Soil		TCL VOCs
SO-17360-120305-DCR-524	SB17-05	10	12	Soil		TCL VOCs
SO-17360-120305-DCR-525	SB17-05	12	14	Soil		TCL VOCs
SO-17360-120305-DCR-526	SB17-05	14	16	Soil		TCL VOCs
SO-17360-120305-DCR-527	SB17-05	16	18	Soil		TCL VOCs
SO-17360-120305-DCR-528	SB17-05	18	20	Soil		TCL VOCs
SO-17360-120305-DCR-529	SB18-05	0	2	Soil		TCL VOCs
SO-17360-120305-DCR-530	SB18-05	2	4	Soil		TCL VOCs
SO-17360-120305-DCR-531	SB18-05	4	6	Soil		TCL VOCs
SO-17360-120305-DCR-532	SB18-05	6	8	Soil		TCL VOCs
SO-17360-120305-DCR-533	SB18-05	8	10	Soil		TCL VOCs
SO-17360-120305-DCR-534	SB18-05	10	12	Soil		TCL VOCs
SO-17360-120305-DCR-535	SB18-05	10	12	Soil	Duplicate (535)	TCL VOCs
SO-17360-120305-DCR-536	SB18-05	12	14	Soil		TCL VOCs
SO-17360-120305-DCR-537	SB18-05	14	16	Soil		TCL VOCs
SO-17360-120305-DCR-538	SB18-05	16	18	Soil		TCL VOCs
SO-17360-120305-DCR-539	SB18-05	18	20	Soil		TCL VOCs
SO-17360-120305-DCR-540	SB15-05	0	2	Soil		TCL VOCs
SO-17360-120305-DCR-541	SB15-05	2	4	Soil		TCL VOCs
SO-17360-120305-DCR-542	SB15-05	4	6	Soil		TCL VOCs
SO-17360-120305-DCR-543	SB15-05	6	8	Soil		TCL VOCs
SO-17360-120305-DCR-544	SB15-05	8	10	Soil		TCL VOCs
SO-17360-120305-DCR-545	SB15-05	10	12	Soil		TCL VOCs
SO-17360-120305-DCR-546	SB15-05	12	14	Soil		TCL VOCs
SO-17360-120305-DCR-547	SB15-05	14	16	Soil		TCL VOCs
SO-17360-120305-DCR-548	SB15-05	16	18	Soil		TCL VOCs
SO-17360-120305-DCR-549	SB15-05	18	20	Soil		TCL VOCs
TB-17360-120305-DCR-550	--	--	--	Methanol	Trip Blank	TCL VOCs

Notes:

TCL - Target Compound List

VOC - Volatile Organic Compounds

QC - Quality Control

MS/MSD - Matrix Spike /Matrix Spike Duplicate

TABLE 2

SUMMARY OF SOIL SAMPLES COMPARED TO MICHIGAN ACT 451, PART 201 RESIDENTIAL CRITERIA
SVE SOIL INVESTIGATION
GENERAL MOTORS CORPORATION
GRAND RAPIDS METAL PLANT
WYOMING, MICHIGAN

Sample Location	Michigan Act 451, Part 201 Residential and Commercial ⁽¹⁾											SBI-04	SBI-04	SBI-04	SBI-04	SBI-04	SBI-04
Sample Identification	Drinking Water	Groundwater Surface Water	Groundwater Contact	Soil Volatilization to Indoor Air	Infinite Source Volatile Soil	Finite VSIC for 5 Meter Source	Finite VSIC for 2 Meter Source	Particulate Soil Inhalation	Direct Contact	Soil Saturation Concentration	S-17360-071504-DCR-122	S-17360-071504-DCR-123	S-17360-071504-DCR-124	S-17360-071504-DCR-125	S-17360-071504-DCR-126	S-17360-071504-DCR-127	
Sample Date	Protection	Interface Protection	Protection	Inhalation	Inhalation	Thickness	Thickness				7/15/2004	7/15/2004	7/15/2004	7/15/2004	7/15/2004	7/15/2004	
Sample Depth	a	b	c	d	e	f	g	h	i	j	0-2 ft BGS	2-4 ft BGS	4-6 ft BGS	6-8 ft BGS	8-10 ft BGS	10-12 ft BGS	
Sample Type	Units																
Volatile Organic Compounds																	
1,1,1-Trichloroethane	mg/kg	4	4	460	250	3800	12000	28000	67000000	460	460	0.059 U	0.056 U	0.057 U	0.058 U	0.059 U	
1,1,2,2-Tetrachloroethane	mg/kg	0.17	1.6	94	4.3	10	10	14	54000	53	870	0.12 U	0.11 U	0.11 U	0.12 U	0.12 U	
1,1,2-Trichloroethane	mg/kg	0.1	6.6	420	4.6	17	21	44	190000	180	920	0.059 U	0.056 U	0.057 U	0.058 U	0.059 U	
1,1-Dichloroethane	mg/kg	18	15	890	230	2100	5900	14000	33000000	890	890	0.059 U	0.056 U	0.057 U	0.058 U	0.059 U	
1,1-Dichloroethene	mg/kg	0.14	1.3	220	0.062	1.1	5.3	13	62000	200	570	0.059 U	0.056 U	0.057 U	0.058 U	0.059 U	
1,2,4-Trichlorobenzene	mg/kg	4.2	1.8	1100	1100	28000	28000	28000	25000000	990	1100	0.29 U	0.28 U	0.28 U	0.29 U	0.03 J	
1,2-Dibromo-3-chloropropane (DBCP)	mg/kg	0.01		1.2	1.2	13	13	13	13000	1.2	1.2	0.29 U	0.28 U	0.28 U	0.29 U	0.3 U	
1,2-Dibromoethane (Ethylene Dibromide)	mg/kg	0.02	0.02	0.5	0.67	1.7	1.7	3.3	14000	0.092	890	0.29 U	0.28 U	0.28 U	0.29 U	0.3 U	
1,2-Dichlorobenzene	mg/kg	14	0.36	210	210	39000	39000	52000	100000000	210	210	0.12 U	0.11 U	0.11 U	0.12 U	0.12 U	
1,2-Dichloroethane	mg/kg	0.1	7.2	380	2.1	6.2	11	26	120000	91	1200	0.059 U	0.056 U	0.057 U	0.058 U	0.059 U	
1,2-Dichloropropane	mg/kg	0.1	5.8	320	4	25	50	110	270000	140	550	0.059 U	0.056 U	0.057 U	0.058 U	0.059 U	
1,3-Dichlorobenzene	mg/kg	0.17	1.1	51	ID	ID	ID	ID	ID	170	170	0.12 U	0.11 U	0.11 U	0.12 U	0.12 U	
1,4-Dichlorobenzene	mg/kg	1.7	0.29	140	19	77	77	110	450000	400		0.12 U	0.11 U	0.11 U	0.12 U	0.12 U	
2-Butanone (Methyl Ethyl Ketone)	mg/kg	260	44	27000	27000	29000	29000	35000	67000000	27000	27000	0.88 U	0.84 U	0.85 U	0.87 U	0.89 U	
2-Hexanone	mg/kg	20		2500	990	1100	1100	1400	2700000	2500	2500	2.9 U	2.8 U	2.8 U	2.9 U	3 U	
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	mg/kg	36	ID	2700	2700	45000	45000	67000	140000000	2700	2700	2.9 U	2.8 U	2.8 U	2.9 U	3 U	
Acetone	mg/kg	15	34	110000	110000	130000	130000	190000	390000000	23000	110000	0.88 U	0.84 U	0.85 U	0.87 U	0.89 U	
Benzene	mg/kg	0.1	4	220	1.6	13	34	79	380000	180	400	0.059 U	0.056 U	0.057 U	0.058 U	0.059 U	
Bromodichloromethane	mg/kg	1.6	ID	280	1.2	9.1	9.7	19	84000	110	1500	0.12 U	0.11 U	0.11 U	0.12 U	0.12 U	
Bromoform	mg/kg	1.6	ID	870	150	900	900	900	2800000	820	870	0.12 U	0.11 U	0.11 U	0.12 U	0.12 U	
Bromomethane (Methyl Bromide)	mg/kg	0.2	0.7	1400	0.86	11	57	140	330000	320	2200	0.29 U	0.28 U	0.28 U	0.29 U	0.3 U	
Carbon disulfide	mg/kg	16	ID	280	76	1300	7900	19000	47000000	280	280	0.29 U	0.28 U	0.28 U	0.29 U	0.3 U	
Carbon tetrachloride	mg/kg	0.1	0.9	92	0.19	3.5	12	28	130000	96	390	0.059 U	0.056 U	0.057 U	0.058 U	0.059 U	
Chlorobenzene	mg/kg	2	0.94	260	120	770	990	2100	4700000	260	260	0.059 U	0.056 U	0.057 U	0.058 U	0.059 U	
Chloroethane	mg/kg	8.6	ID	950	950	30000	120000	280000	670000000	950	950	0.29 U	0.28 U	0.28 U	0.29 U	0.3 U	
Chloroform (Trichloromethane)	mg/kg	1.6	3.4	1500	7.2	45	120	270	1300000	1200	1500	0.059 U	0.056 U	0.057 U	0.058 U	0.059 U	
Chloromethane (Methyl Chloride)	mg/kg	5.2	ID	1100	2.3	40	410	1000	4900000	1100	1100	0.29 U	0.28 U	0.28 U	0.29 U	0.3 U	
cis-1,2-Dichloroethene	mg/kg	1.4	12	640	22	180	420	990	2300000	640	640	0.059 U	0.056 U	0.057 U	0.058 U	0.059 U	
cis-1,3-Dichloropropene	mg/kg											0.059 U	0.056 U	0.057 U	0.058 U	0.059 U	
Cyclohexane	mg/kg											1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	
Dibromochloromethane	mg/kg	1.6	ID	360	3.9	24	24	33	130000	110	610	0.059 U	0.056 U	0.057 U	0.058 U	0.059 U	
Dichlorodifluoromethane (CFC-12)	mg/kg	95	ID	1000	900	53000	550000	1400000	3300000000	1000	1000	0.12 U	0.11 U	0.11 U	0.12 U	0.12 U	
Ethylbenzene	mg/kg	1.5	0.36	140	87	720	1000	2200	10000000	140	140	0.059 U	0.056 U	0.057 U	0.058 U	0.059 U	
Isopropylbenzene	mg/kg	91	ID	390	390	1700	1700	2800	5800000	390	390	0.29 U	0.28 U	0.28 U	0.29 U	0.3 U	
Methyl acetate	mg/kg											1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	
Methyl cyclohexane	mg/kg											0.039 J	1.4 U	1.4 U	1.4 U	1.4 U	
Methyl Tert Butyl Ether	mg/kg	0.8	15	5900	5900	25000	39000	87000	200000000	1500	5900	0.29 U	0.28 U	0.28 U	0.29 U	0.3 U	
Methylene chloride	mg/kg	0.1	19	2300	45	210	590	1400	6600000	1300	2300	0.29 U	0.28 U	0.28 U	0.29 U	0.3 U	
Styrene	mg/kg	2.7	2.2	270	250	970	970	1400	5500000	400	520	0.059 U	0.056 U	0.057 U	0.058 U	0.059 U	
Tetrachloroethene	mg/kg	0.1	0.9	88	11	180	480	1100	5400000	88	88	0.059 U	0.056 U	0.057 U	0.058 U	0.059 U	
Toluene	mg/kg	16	2.8	250	250	2800	5100	12000	27000000	250	250	0.021 J	0.11 U	0.11 U	0.12 U	0.12 U	
trans-1,2-Dichloroethene	mg/kg	2	30	1400	23	280	830	2000	4700000	1400	1400	0.059 U	0.056 U	0.057 U	0.058 U	0.059 U	
trans-1,3-Dichloropropene	mg/kg											0.059 U	0.056 U	0.057 U	0.058 U	0.059 U	
Trichloroethene	mg/kg	0.1	4	440	7.1	78	170	390	1800000	500	500	2"		0.056 U	0.057 U	0.058 U	
Trichlorofluoromethane (CFC-11)	mg/kg	52		560	560	92000	630000	1500000	3800000000	560	560	0.12 U	0.11 U	0.11 U	0.12 U	0.12 U	
Trifluorotrichloroethane (Freon 113)	mg/kg	550	1.7	550	550	180000	880000	2100000	5100000000	550	550	0.29 U	0.28 U	0.28 U	0.29 U	0.3 U	
Vinyl chloride	mg/kg	0.04	0.3	20	0.27	4.2	30	73	350000	3.8	490	0.12 U	0.11 U	0.11 U	0.12 U	0.12 U	
Xylene (total)	mg/kg	5.6	0.7	150	150	46000	61000	130000	290000000	150	150	0.038 J	0.17 U	0.17 U	0.17 U	0.18 U	

Notes:
⁽¹⁾ Cleanup criteria identified by MDEQ RRD Op Memo No. 1, updated 1/23/2006, pursuant to 1994 PA 451 as amended.
U - Not present at or above the associated value.
J - Estimated concentration.
UJ - Estimated reporting limit.
☐ - Value exceeds referenced Part 201 Criteria (I.e. a, b, etc.).

TABLE 2

SUMMARY OF SOIL SAMPLES COMPARED TO MICHIGAN ACT 451, PART 201 RESIDENTIAL CRITERIA
SVE SOIL INVESTIGATION
GENERAL MOTORS CORPORATION
GRAND RAPIDS METAL PLANT
WYOMING, MICHIGAN

Sample Location	Michigan Act 451, Part 201 Residential and Commercial ⁽¹⁾											SBI-04	SBI-04	SBI-04	SBI-04	SBI-04	SBI-04
Sample Identification	Drinking Water	Groundwater Surface Water	Groundwater Contact	Soil Volatilization to Indoor Air	Infinite Source Volatile Soil Inhalation	Finite VSIC for 5 Meter Source Thickness	Finite VSIC for 2 Meter Source Thickness	Particulate Soil Inhalation	Direct Contact	Soil Saturation Concentration Screening	S-17360-071504-DCR-128	S-17360-071504-DCR-129	S-17360-071504-DCR-130	S-17360-071504-DCR-131	S-17360-071504-DCR-132	S-17360-071404-DCR-089	
Sample Date	Protection	Interface Protection	Protection	Inhalation	Inhalation	Thickness	Thickness				7/15/2004	7/15/2004	7/15/2004	7/15/2004	7/15/2004	7/14/2004	
Sample Depth	a	b	c	d	e	f	g	h	i	j	12-14 ft BGS	14-16 ft BGS	16-18 ft BGS	18-20 ft BGS	20-22 ft BGS	0-2 ft BGS	
Sample Type	Units																
Volatile Organic Compounds																	
1,1,1-Trichloroethane	mg/kg	4	4	460	250	3800	12000	28000	67000000	460	460	0.058 U	0.057 U	0.075 U	0.052 U	0.059 U	0.43 U
1,1,2,2-Tetrachloroethane	mg/kg	0.17	1.6	94	4.3	10	10	14	54000	53	870	0.12 U	0.11 U	0.15 U	0.1 U	0.12 U	0.86 U
1,1,2-Trichloroethane	mg/kg	0.1	6.6	420	4.6	17	21	44	190000	180	920	0.058 U	0.057 U	0.075 U	0.052 U	0.059 U	0.43 U
1,1-Dichloroethane	mg/kg	18	15	890	230	2100	5900	14000	33000000	890	890	0.058 U	0.057 U	0.075 U	0.052 U	0.059 U	0.43 U
1,1-Dichloroethene	mg/kg	0.14	1.3	220	0.062	1.1	5.3	13	62000	200	570	0.058 U	0.057 U	0.075 U	0.052 U	0.059 U	0.43 U
1,2,4-Trichlorobenzene	mg/kg	4.2	1.8	1100	1100	28000	28000	28000	25000000	990	1100	0.29 U	0.29 U	0.38 U	0.26 U	0.29 U	2.2 U
1,2-Dibromo-3-chloropropane (DBCP)	mg/kg	0.01		1.2	1.2	13	13	13	13000	1.2	1.2	0.29 U	0.29 U	0.38 U	0.26 U	0.29 U	2.2 U
1,2-Dibromoethane (Ethylene Dibromide)	mg/kg	0.02	0.02	0.5	0.67	1.7	1.7	3.3	14000	0.092	890	0.29 U	0.29 U	0.38 U	0.26 U	0.29 U	2.2 U
1,2-Dichlorobenzene	mg/kg	14	0.36	210	210	39000	39000	52000	100000000	210	210	0.12 U	0.11 U	0.15 U	0.1 U	0.12 U	0.86 U
1,2-Dichloroethane	mg/kg	0.1	7.2	380	2.1	6.2	11	26	120000	91	1200	0.058 U	0.057 U	0.075 U	0.052 U	0.059 U	0.43 U
1,2-Dichloropropane	mg/kg	0.1	5.8	320	4	25	50	110	270000	140	550	0.058 U	0.057 U	0.075 U	0.052 U	0.059 U	0.43 U
1,3-Dichlorobenzene	mg/kg	0.17	1.1	51	ID	ID	ID	ID	ID	170	170	0.12 U	0.11 U	0.15 U	0.1 U	0.12 U	0.86 U
1,4-Dichlorobenzene	mg/kg	1.7	0.29	140	19	77	77	110	450000	400		0.12 U	0.11 U	0.15 U	0.1 U	0.12 U	0.86 U
2-Butanone (Methyl Ethyl Ketone)	mg/kg	260	44	27000	27000	29000	29000	35000	67000000	27000	27000	0.88 U	0.86 U	1.1 U	0.78 U	0.88 U	6.5 U
2-Hexanone	mg/kg	20		2500	990	1100	1100	1400	2700000	2500	2500	0.29 U	0.29 U	0.38 U	0.26 U	0.29 U	2.2 U
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	mg/kg	36	ID	2700	2700	45000	45000	67000	140000000	2700	2700	0.29 U	0.29 U	0.38 U	0.26 U	0.29 U	2.2 U
Acetone	mg/kg	15	34	110000	110000	130000	130000	190000	390000000	23000	110000	0.88 U	0.86 U	1.1 U	0.78 U	0.88 U	6.5 U
Benzene	mg/kg	0.1	4	220	1.6	13	34	79	380000	180	400	0.058 U	0.057 U	0.075 U	0.052 U	0.059 U	0.43 U
Bromodichloromethane	mg/kg	1.6	ID	280	1.2	9.1	9.7	19	84000	110	1500	0.12 U	0.11 U	0.15 U	0.1 U	0.12 U	0.86 U
Bromoform	mg/kg	1.6	ID	870	150	900	900	900	2800000	820	870	0.12 U	0.11 U	0.15 U	0.1 U	0.12 U	0.86 U
Bromomethane (Methyl Bromide)	mg/kg	0.2	0.7	1400	0.86	11	57	140	330000	320	2200	0.29 U	0.29 U	0.38 U	0.26 U	0.29 U	2.2 U
Carbon disulfide	mg/kg	16	ID	280	76	1300	7900	19000	47000000	280	280	0.29 U	0.29 U	0.38 U	0.26 U	0.29 U	2.2 U
Carbon tetrachloride	mg/kg	0.1	0.9	92	0.19	3.5	12	28	130000	96	390	0.058 U	0.057 U	0.075 U	0.052 U	0.059 U	0.43 U
Chlorobenzene	mg/kg	2	0.94	260	120	770	990	2100	4700000	260	260	0.058 U	0.057 U	0.075 U	0.052 U	0.059 U	0.43 U
Chloroethane	mg/kg	8.6	ID	950	950	30000	120000	280000	670000000	950	950	0.29 U	0.29 U	0.38 U	0.26 U	0.29 U	2.2 U
Chloroform (Trichloromethane)	mg/kg	1.6	3.4	1500	7.2	45	120	270	1300000	1200	1500	0.058 U	0.057 U	0.075 U	0.052 U	0.059 U	0.43 U
Chloromethane (Methyl Chloride)	mg/kg	5.2	ID	1100	2.3	40	410	1000	4900000	1100	1100	0.29 U	0.29 U	0.38 U	0.26 U	0.29 U	2.2 U
cis-1,2-Dichloroethene	mg/kg	1.4	12	640	22	180	420	990	2300000	640	640	0.058 U	0.057 U	0.075 U	0.052 U	0.059 U	0.43 U
cis-1,3-Dichloropropene	mg/kg											0.058 U	0.057 U	0.075 U	0.052 U	0.059 U	0.43 U
Cyclohexane	mg/kg											1.4 U	1.4 U	1.8 U	1.2 U	1.4 U	10 U
Dibromochloromethane	mg/kg	1.6	ID	360	3.9	24	24	33	130000	110	610	0.058 U	0.057 U	0.075 U	0.052 U	0.059 U	0.43 U
Dichlorodifluoromethane (CFC-12)	mg/kg	95	ID	1000	900	53000	550000	1400000	3300000000	1000	1000	0.12 U	0.11 U	0.15 U	0.1 U	0.12 U	0.86 U
Ethylbenzene	mg/kg	1.5	0.36	140	87	720	1000	2200	10000000	140	140	0.058 U	0.057 U	0.075 U	0.052 U	0.059 U	0.43 U
Isopropylbenzene	mg/kg	91	ID	390	390	1700	1700	2800	5800000	390	390	0.29 U	0.29 U	0.38 U	0.26 U	0.29 U	2.2 U
Methyl acetate	mg/kg											1.4 U	1.4 U	1.8 U	1.2 U	1.4 U	10 U
Methyl cyclohexane	mg/kg											1.4 U	1.4 U	1.8 U	1.2 U	1.4 U	0.2 J
Methyl Tert Butyl Ether	mg/kg	0.8	15	5900	5900	25000	39000	87000	200000000	1500	5900	0.29 U	0.29 U	0.38 U	0.26 U	0.29 U	2.2 U
Methylene chloride	mg/kg	0.1	19	2300	45	210	590	1400	6600000	1300	2300	0.29 U	0.29 U	0.38 U	0.26 U	0.29 U	2.2 U
Styrene	mg/kg	2.7	2.2	270	250	970	970	1400	5500000	400	520	0.058 U	0.057 U	0.075 U	0.052 U	0.059 U	0.43 U
Tetrachloroethene	mg/kg	0.1	0.9	88	11	180	480	1100	5400000	88	88	0.058 U	0.057 U	0.075 U	0.052 U	0.059 U	0.43 U
Toluene	mg/kg	16	2.8	250	250	2800	5100	12000	27000000	250	250	0.12 U	0.11 U	0.15 U	0.1 U	0.12 U	0.16 J
trans-1,2-Dichloroethene	mg/kg	2	30	1400	23	280	830	2000	4700000	1400	1400	0.058 U	0.057 U	0.075 U	0.052 U	0.059 U	0.43 U
trans-1,3-Dichloropropene	mg/kg											0.058 U	0.057 U	0.075 U	0.052 U	0.059 U	0.43 U
Trichloroethene	mg/kg	0.1	4	440	7.1	78	170	390	1800000	500	500	0.016 J	0.014 J	0.075 U	0.052 U	0.059 U	12 ^{not}
Trichlorofluoromethane (CFC-11)	mg/kg	52		560	560	92000	630000	1500000	3800000000	560	560	0.12 U	0.11 U	0.15 U	0.1 U	0.12 U	0.86 U
Trifluorotrichloroethane (Freon 113)	mg/kg	550	1.7	550	550	180000	880000	2100000	5100000000	550	550	0.29 U	0.29 U	0.38 U	0.26 U	0.29 U	2.2 U
Vinyl chloride	mg/kg	0.04	0.3	20	0.27	4.2	30	73	350000	3.8	490	0.12 U	0.11 U	0.15 U	0.1 U	0.12 U	0.86 U
Xylene (total)	mg/kg	5.6	0.7	150	150	46000	61000	130000	290000000	150	150	0.18 U	0.17 U	0.23 U	0.16 U	0.18 U	0.28 J

Notes:
⁽¹⁾ Cleanup criteria identified by MDEQ RRD Op Memo No. 1, updated 1/23/2006, pursuant to 1994 PA 451 as amended.
U - Not present at or above the associated value.
J - Estimated concentration.
UJ - Estimated reporting limit.
 - Value exceeds referenced Part 201 Criteria (I.e. a, b, etc.)

TABLE 2

SUMMARY OF SOIL SAMPLES COMPARED TO MICHIGAN ACT 451, PART 201 RESIDENTIAL CRITERIA
SVE SOIL INVESTIGATION
GENERAL MOTORS CORPORATION
GRAND RAPIDS METAL PLANT
WYOMING, MICHIGAN

Sample Location	<i>Michigan Act 451, Part 201 Residential and Commercial ⁽¹⁾</i>											<i>SB2-04</i>	<i>SB2-04</i>	<i>SB2-04</i>	<i>SB2-04</i>	<i>SB2-04</i>	<i>SB2-04</i>
Sample Identification	Drinking Water	Groundwater Surface Water	Groundwater Contact	Soil Volatilization to Indoor Air	Infinite Source Volatile Soil Inhalation	Finite VSIC for 5 Meter Source Thickness	Finite VSIC for 2 Meter Source Thickness	Particulate Soil Inhalation	Direct Contact	Soil Saturation Concentration Screening	<i>S-17360-071404-DCR-090</i>	<i>S-17360-071404-DCR-091</i>	<i>S-17360-071404-DCR-092</i>	<i>S-17360-071404-DCR-093</i>	<i>S-17360-071404-DCR-094</i>	<i>S-17360-071404-DCR-095</i>	
Sample Date	Protection	Interface Protection	Protection	Inhalation	Inhalation	Thickness	Thickness				<i>7/14/2004</i>	<i>7/14/2004</i>	<i>7/14/2004</i>	<i>7/14/2004</i>	<i>7/14/2004</i>	<i>7/14/2004</i>	
Sample Depth											<i>2-4 ft BGS</i>	<i>4-6 ft BGS</i>	<i>6-8 ft BGS</i>	<i>8-10 ft BGS</i>	<i>10-12 ft BGS</i>	<i>12-14 ft BGS</i>	
Sample Type	a	b	c	d	e	f	g	h	i	j							
<i>Units</i>																	
<i>Volatile Organic Compounds</i>																	
1,1,1-Trichloroethane	mg/kg	4	4	460	250	3800	12000	28000	67000000	460	460	0.058 U	0.061 U	0.059 U	0.058 U	0.061 U	0.055 U
1,1,2,2-Tetrachloroethane	mg/kg	0.17	1.6	94	4.3	10	10	14	54000	53	870	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.11 U
1,1,2-Trichloroethane	mg/kg	0.1	6.6	420	4.6	17	21	44	190000	180	920	0.058 U	0.061 U	0.059 U	0.058 U	0.061 U	0.055 U
1,1-Dichloroethane	mg/kg	18	15	890	230	2100	5900	14000	33000000	890	890	0.058 U	0.061 U	0.059 U	0.058 U	0.061 U	0.055 U
1,1-Dichloroethene	mg/kg	0.14	1.3	220	0.062	1.1	5.3	13	62000	200	570	0.058 U	0.061 U	0.059 U	0.058 U	0.061 U	0.055 U
1,2,4-Trichlorobenzene	mg/kg	4.2	1.8	1100	1100	28000	28000	28000	25000000	990	1100	0.29 U	0.31 U	0.29 U	0.29 U	0.31 U	0.27 U
1,2-Dibromo-3-chloropropane (DBCP)	mg/kg	0.01		1.2	1.2	13	13	13	13000	1.2	1.2	0.29 U	0.31 U	0.29 U	0.29 U	0.31 U	0.27 U
1,2-Dibromoethane (Ethylene Dibromide)	mg/kg	0.02	0.02	0.5	0.67	1.7	1.7	3.3	14000	0.092	890	0.29 U	0.31 U	0.29 U	0.29 U	0.31 U	0.27 U
1,2-Dichlorobenzene	mg/kg	14	0.36	210	210	39000	39000	52000	100000000	210	210	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.11 U
1,2-Dichloroethane	mg/kg	0.1	7.2	380	2.1	6.2	11	26	120000	91	1200	0.058 U	0.061 U	0.059 U	0.058 U	0.061 U	0.055 U
1,2-Dichloropropane	mg/kg	0.1	5.8	320	4	25	50	110	270000	140	550	0.058 U	0.061 U	0.059 U	0.058 U	0.061 U	0.055 U
1,3-Dichlorobenzene	mg/kg	0.17	1.1	51	ID	ID	ID	ID	ID	170	170	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.11 U
1,4-Dichlorobenzene	mg/kg	1.7	0.29	140	19	77	77	110	450000	400		0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.11 U
2-Butanone (Methyl Ethyl Ketone)	mg/kg	260	44	27000	27000	29000	29000	35000	67000000	27000	27000	0.87 U	0.92 U	0.88 U	0.88 U	0.92 U	0.82 U
2-Hexanone	mg/kg	20		2500	990	1100	1100	1400	2700000	2500	2500	2.9 U	3.1 U	2.9 U	2.9 U	3.1 U	2.7 U
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	mg/kg	36	ID	2700	2700	45000	45000	67000	140000000	2700	2700	2.9 U	3.1 U	2.9 U	2.9 U	3.1 U	2.7 U
Acetone	mg/kg	15	34	110000	110000	130000	130000	190000	390000000	23000	110000	0.87 U	0.92 U	0.88 U	0.88 U	0.92 U	0.82 U
Benzene	mg/kg	0.1	4	220	1.6	13	34	79	380000	180	400	0.058 U	0.061 U	0.059 U	0.058 U	0.061 U	0.055 U
Bromodichloromethane	mg/kg	1.6	ID	280	1.2	9.1	9.7	19	84000	110	1500	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.11 U
Bromoform	mg/kg	1.6	ID	870	150	900	900	900	2800000	820	870	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.11 U
Bromomethane (Methyl Bromide)	mg/kg	0.2	0.7	1400	0.86	11	57	140	330000	320	2200	0.29 U	0.31 U	0.29 U	0.29 U	0.31 U	0.27 U
Carbon disulfide	mg/kg	16	ID	280	76	1300	7900	19000	47000000	280	280	0.29 U	0.31 U	0.29 U	0.29 U	0.31 U	0.27 U
Carbon tetrachloride	mg/kg	0.1	0.9	92	0.19	3.5	12	28	130000	96	390	0.058 U	0.061 U	0.059 U	0.058 U	0.061 U	0.055 U
Chlorobenzene	mg/kg	2	0.94	260	120	770	990	2100	4700000	260	260	0.058 U	0.061 U	0.059 U	0.058 U	0.061 U	0.055 U
Chloroethane	mg/kg	8.6	ID	950	950	30000	120000	280000	670000000	950	950	0.29 U	0.31 U	0.29 U	0.29 U	0.31 U	0.27 U
Chloroform (Trichloromethane)	mg/kg	1.6	3.4	1500	7.2	45	120	270	1300000	1200	1500	0.058 U	0.061 U	0.059 U	0.058 U	0.061 U	0.055 U
Chloromethane (Methyl Chloride)	mg/kg	5.2	ID	1100	2.3	40	410	1000	4900000	1100	1100	0.29 U	0.31 U	0.29 U	0.29 U	0.31 U	0.27 U
cis-1,2-Dichloroethene	mg/kg	1.4	12	640	22	180	420	990	2300000	640	640	0.058 U	0.061 U	0.059 U	0.058 U	0.061 U	0.055 U
cis-1,3-Dichloropropene	mg/kg											0.058 U	0.061 U	0.059 U	0.058 U	0.061 U	0.055 U
Cyclohexane	mg/kg											1.4 U	1.5 U	1.4 U	1.4 U	1.5 U	1.3 U
Dibromochloromethane	mg/kg	1.6	ID	360	3.9	24	24	33	130000	110	610	0.058 U	0.061 U	0.059 U	0.058 U	0.061 U	0.055 U
Dichlorodifluoromethane (CFC-12)	mg/kg	95	ID	1000	900	53000	550000	1400000	3300000000	1000	1000	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.11 U
Ethylbenzene	mg/kg	1.5	0.36	140	87	720	1000	2200	10000000	140	140	0.058 U	0.061 U	0.059 U	0.058 U	0.061 U	0.055 U
Isopropylbenzene	mg/kg	91	ID	390	390	1700	1700	2800	5800000	390	390	0.29 U	0.31 U	0.29 U	0.29 U	0.31 U	0.27 U
Methyl acetate	mg/kg											1.4 U	1.5 U	1.4 U	1.4 U	1.5 U	1.3 U
Methyl cyclohexane	mg/kg											1.4 U	1.5 U	1.4 U	1.4 U	1.5 U	1.3 U
Methyl Tert Butyl Ether	mg/kg	0.8	15	5900	5900	25000	39000	87000	200000000	1500	5900	0.29 U	0.31 U	0.29 U	0.29 U	0.31 U	0.27 U
Methylene chloride	mg/kg	0.1	19	2300	45	210	590	1400	6600000	1300	2300	0.29 U	0.31 U	0.29 U	0.29 U	0.31 U	0.27 U
Styrene	mg/kg	2.7	2.2	270	250	970	970	1400	5500000	400	520	0.058 U	0.061 U	0.059 U	0.058 U	0.061 U	0.055 U
Tetrachloroethene	mg/kg	0.1	0.9	88	11	180	480	1100	5400000	88	88	0.058 U	0.061 U	0.059 U	0.058 U	0.061 U	0.055 U
Toluene	mg/kg	16	2.8	250	250	2800	5100	12000	27000000	250	250	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.11 U
trans-1,2-Dichloroethene	mg/kg	2	30	1400	23	280	830	2000	4700000	1400	1400	0.058 U	0.061 U	0.059 U	0.058 U	0.061 U	0.055 U
trans-1,3-Dichloropropene	mg/kg											0.058 U	0.061 U	0.059 U	0.058 U	0.061 U	0.055 U
Trichloroethene	mg/kg	0.1	4	440	7.1	78	170	390	1800000	500	500	0.058 U	0.061 U	0.059 U	0.04 J	0.022 J	0.022 J
Trichlorofluoromethane (CFC-11)	mg/kg	52		560	560	92000	630000	1500000	3800000000	560	560	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.11 U
Trifluorotrichloroethane (Freon 113)	mg/kg	550	1.7	550	550	180000	880000	2100000	5100000000	550	550	0.29 U	0.31 U	0.29 U	0.29 U	0.31 U	0.27 U
Vinyl chloride	mg/kg	0.04	0.3	20	0.27	4.2	30	73	350000	3.8	490	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.11 U
Xylene (total)	mg/kg	5.6	0.7	150	150	46000	61000	130000	290000000	150	150	0.17 U	0.18 U	0.18 U	0.18 U	0.18 U	0.16 U

Notes:
⁽¹⁾ Cleanup criteria identified by MDEQ RRD Op Memo No. 1, updated 1/23/2006, pursuant to 1994 PA 451 as amended.
U - Not present at or above the associated value.
J - Estimated concentration.
UJ - Estimated reporting limit.
 - Value exceeds referenced Part 201 Criteria (I.e. a, b, etc.)

TABLE 2

SUMMARY OF SOIL SAMPLES COMPARED TO MICHIGAN ACT 451, PART 201 RESIDENTIAL CRITERIA
SVE SOIL INVESTIGATION
GENERAL MOTORS CORPORATION
GRAND RAPIDS METAL PLANT
WYOMING, MICHIGAN

Sample Location	Michigan Act 451, Part 201 Residential and Commercial ⁽¹⁾											SB2-04	SB2-04	SB2-04	SB2-04	SB3-04	SB3-04
Sample Identification	Drinking Water	Groundwater Surface Water	Groundwater Contact	Soil Volatilization to Indoor Air	Infinite Source Volatile Soil Inhalation	Finite VSIC for 5 Meter Source Thickness	Finite VSIC for 2 Meter Source Thickness	Particulate Soil Inhalation	Direct Contact	Soil Saturation Concentration Screening	S-17360-071404-DCR-096	S-17360-071404-DCR-097	S-17360-071404-DCR-098	S-17360-071404-DCR-099	S-17360-071404-DCR-078	S-17360-071404-DCR-079	
Sample Date	Protection	Interface Protection	Protection	Inhalation	Inhalation	Thickness	Thickness				7/14/2004	7/14/2004	7/14/2004	7/14/2004	7/14/2004	7/14/2004	
Sample Depth											14-16 ft BGS	16-18 ft BGS	18-20 ft BGS	20-22 ft BGS	0-2 ft BGS	2-4 ft BGS	
Sample Type	a	b	c	d	e	f	g	h	i	j							
Units																	
Volatile Organic Compounds																	
1,1,1-Trichloroethane	mg/kg	4	4	460	250	3800	12000	28000	67000000	460	460	0.057 U	0.055 U	0.059 U	0.055 U	0.11 U	0.063 U
1,1,2,2-Tetrachloroethane	mg/kg	0.17	1.6	94	4.3	10	10	14	54000	53	870	0.11 U	0.11 U	0.12 U	0.11 U	0.22 U	0.13 U
1,1,2-Trichloroethane	mg/kg	0.1	6.6	420	4.6	17	21	44	190000	180	920	0.057 U	0.055 U	0.059 U	0.055 U	0.11 U	0.063 U
1,1-Dichloroethane	mg/kg	18	15	890	230	2100	5900	14000	33000000	890	890	0.057 U	0.055 U	0.059 U	0.055 U	0.11 U	0.063 U
1,1-Dichloroethene	mg/kg	0.14	1.3	220	0.062	1.1	5.3	13	62000	200	570	0.057 U	0.055 U	0.059 U	0.055 U	0.11 U	0.063 U
1,2,4-Trichlorobenzene	mg/kg	4.2	1.8	1100	1100	28000	28000	28000	25000000	990	1100	0.29 U	0.28 U	0.3 U	0.28 U	0.54 U	0.32 U
1,2-Dibromo-3-chloropropane (DBCP)	mg/kg	0.01		1.2	1.2	13	13	13	13000	1.2	1.2	0.29 U	0.28 U	0.3 U	0.28 U	0.54 U	0.32 U
1,2-Dibromoethane (Ethylene Dibromide)	mg/kg	0.02	0.02	0.5	0.67	1.7	1.7	3.3	14000	0.092	890	0.29 U	0.28 U	0.3 U	0.28 U	0.54 U	0.32 U
1,2-Dichlorobenzene	mg/kg	14	0.36	210	210	39000	39000	52000	100000000	210	210	0.11 U	0.11 U	0.12 U	0.11 U	0.22 U	0.13 U
1,2-Dichloroethane	mg/kg	0.1	7.2	380	2.1	6.2	11	26	120000	91	1200	0.057 U	0.055 U	0.059 U	0.055 U	0.11 U	0.063 U
1,2-Dichloropropane	mg/kg	0.1	5.8	320	4	25	50	110	270000	140	550	0.057 U	0.055 U	0.059 U	0.055 U	0.11 U	0.063 U
1,3-Dichlorobenzene	mg/kg	0.17	1.1	51	ID	ID	ID	ID	ID	170	170	0.11 U	0.11 U	0.12 U	0.11 U	0.22 U	0.13 U
1,4-Dichlorobenzene	mg/kg	1.7	0.29	140	19	77	77	110	450000	400		0.11 U	0.11 U	0.12 U	0.11 U	0.22 U	0.13 U
2-Butanone (Methyl Ethyl Ketone)	mg/kg	260	44	27000	27000	29000	29000	35000	67000000	27000	27000	0.86 U	0.83 U	0.89 U	0.83 U	1.6 U	0.95 U
2-Hexanone	mg/kg	20		2500	990	1100	1100	1400	2700000	2500	2500	2.9 U	2.8 U	3 U	2.8 U	5.4 U	3.2 U
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	mg/kg	36	ID	2700	2700	45000	45000	67000	140000000	2700	2700	2.9 U	2.8 U	3 U	2.8 U	5.4 U	3.2 U
Acetone	mg/kg	15	34	110000	110000	130000	130000	190000	390000000	23000	110000	0.86 U	0.83 U	0.89 U	0.83 U	1.6 U	0.95 U
Benzene	mg/kg	0.1	4	220	1.6	13	34	79	380000	180	400	0.057 U	0.055 U	0.059 U	0.055 U	0.11 U	0.063 U
Bromodichloromethane	mg/kg	1.6	ID	280	1.2	9.1	9.7	19	84000	110	1500	0.11 U	0.11 U	0.12 U	0.11 U	0.22 U	0.13 U
Bromoform	mg/kg	1.6	ID	870	150	900	900	900	2800000	820	870	0.11 U	0.11 U	0.12 U	0.11 U	0.22 U	0.13 U
Bromomethane (Methyl Bromide)	mg/kg	0.2	0.7	1400	0.86	11	57	140	330000	320	2200	0.29 U	0.28 U	0.3 U	0.28 U	0.54 U	0.32 U
Carbon disulfide	mg/kg	16	ID	280	76	1300	7900	19000	47000000	280	280	0.29 U	0.28 U	0.3 U	0.28 U	0.54 U	0.32 U
Carbon tetrachloride	mg/kg	0.1	0.9	92	0.19	3.5	12	28	130000	96	390	0.057 U	0.055 U	0.059 U	0.055 U	0.11 U	0.063 U
Chlorobenzene	mg/kg	2	0.94	260	120	770	990	2100	4700000	260	260	0.057 U	0.055 U	0.059 U	0.055 U	0.11 U	0.063 U
Chloroethane	mg/kg	8.6	ID	950	950	30000	120000	280000	670000000	950	950	0.29 U	0.28 U	0.3 U	0.28 U	0.54 U	0.32 U
Chloroform (Trichloromethane)	mg/kg	1.6	3.4	1500	7.2	45	120	270	1300000	1200	1500	0.057 U	0.055 U	0.059 U	0.055 U	0.11 U	0.063 U
Chloromethane (Methyl Chloride)	mg/kg	5.2	ID	1100	2.3	40	410	1000	4900000	1100	1100	0.29 U	0.28 U	0.3 U	0.28 U	0.54 U	0.32 U
cis-1,2-Dichloroethene	mg/kg	1.4	12	640	22	180	420	990	2300000	640	640	0.057 U	0.055 U	0.059 U	0.055 U	0.11 U	0.063 U
cis-1,3-Dichloropropene	mg/kg											0.057 U	0.055 U	0.059 U	0.055 U	0.11 U	0.063 U
Cyclohexane	mg/kg											1.4 U	1.3 U	1.4 U	1.3 U	0.018 J	1.5 U
Dibromochloromethane	mg/kg	1.6	ID	360	3.9	24	24	33	130000	110	610	0.057 U	0.055 U	0.059 U	0.055 U	0.11 U	0.063 U
Dichlorodifluoromethane (CFC-12)	mg/kg	95	ID	1000	900	53000	550000	1400000	3300000000	1000	1000	0.11 U	0.11 U	0.12 U	0.11 U	0.22 U	0.13 U
Ethylbenzene	mg/kg	1.5	0.36	140	87	720	1000	2200	10000000	140	140	0.057 U	0.055 U	0.059 U	0.055 U	0.11 U	0.063 U
Isopropylbenzene	mg/kg	91	ID	390	390	1700	1700	2800	5800000	390	390	0.29 U	0.28 U	0.3 U	0.28 U	0.54 U	0.32 U
Methyl acetate	mg/kg											1.4 U	1.3 U	1.4 U	1.3 U	2.6 U	1.5 U
Methyl cyclohexane	mg/kg											1.4 U	1.3 U	1.4 U	1.3 U	0.1 J	1.5 U
Methyl Tert Butyl Ether	mg/kg	0.8	15	5900	5900	25000	39000	87000	200000000	1500	5900	0.29 U	0.28 U	0.3 U	0.28 U	0.54 U	0.32 U
Methylene chloride	mg/kg	0.1	19	2300	45	210	590	1400	6600000	1300	2300	0.29 U	0.28 U	0.3 U	0.28 U	0.54 U	0.32 U
Styrene	mg/kg	2.7	2.2	270	250	970	970	1400	5500000	400	520	0.057 U	0.055 U	0.059 U	0.055 U	0.11 U	0.063 U
Tetrachloroethene	mg/kg	0.1	0.9	88	11	180	480	1100	5400000	88	88	0.057 U	0.055 U	0.059 U	0.055 U	0.11 U	0.063 U
Toluene	mg/kg	16	2.8	250	250	2800	5100	12000	27000000	250	250	0.11 U	0.11 U	0.12 U	0.11 U	0.042 J	0.13 U
trans-1,2-Dichloroethene	mg/kg	2	30	1400	23	280	830	2000	4700000	1400	1400	0.057 U	0.055 U	0.059 U	0.055 U	0.11 U	0.063 U
trans-1,3-Dichloropropene	mg/kg											0.057 U	0.055 U	0.059 U	0.055 U	0.11 U	0.063 U
Trichloroethene	mg/kg	0.1	4	440	7.1	78	170	390	1800000	500	500	0.087	0.063	0.027 J	0.046 J	2.8*	0.063 U
Trichlorofluoromethane (CFC-11)	mg/kg	52		560	560	92000	630000	1500000	3800000000	560	560	0.11 U	0.11 U	0.12 U	0.11 U	0.22 U	0.13 U
Trifluorotrichloroethane (Freon 113)	mg/kg	550	1.7	550	550	180000	880000	2100000	5100000000	550	550	0.29 U	0.28 U	0.3 U	0.28 U	0.54 U	0.32 U
Vinyl chloride	mg/kg	0.04	0.3	20	0.27	4.2	30	73	350000	3.8	490	0.11 U	0.11 U	0.12 U	0.11 U	0.22 U	0.13 U
Xylene (total)	mg/kg	5.6	0.7	150	150	46000	61000	130000	290000000	150	150	0.17 U	0.17 U	0.18 U	0.17 U	0.084 J	0.19 U

Notes:
⁽¹⁾ Cleanup criteria identified by MDEQ RRD Op Memo No. 1, updated 1/23/2006, pursuant to 1994 PA 451 as amended.
U - Not present at or above the associated value.
J - Estimated concentration.
UJ - Estimated reporting limit.
☐ - Value exceeds referenced Part 201 Criteria (I.e. a, b, etc.).

TABLE 2

SUMMARY OF SOIL SAMPLES COMPARED TO MICHIGAN ACT 451, PART 201 RESIDENTIAL CRITERIA
SVE SOIL INVESTIGATION
GENERAL MOTORS CORPORATION
GRAND RAPIDS METAL PLANT
WYOMING, MICHIGAN

Sample Location	<i>Michigan Act 451, Part 201 Residential and Commercial ⁽¹⁾</i>											<i>SB3-04</i>	<i>SB3-04</i>	<i>SB3-04</i>	<i>SB3-04</i>	<i>SB3-04</i>	<i>SB3-04</i>
Sample Identification	Drinking Water	Groundwater Surface Water	Groundwater Contact	Soil Volatilization to Indoor Air	Infinite Source Volatile Soil Inhalation	Finite VSIC for 5 Meter Source Thickness	Finite VSIC for 2 Meter Source Thickness	Particulate Soil Inhalation	Direct Contact	Soil Saturation Concentration Screening	<i>S-17360-071404-DCR-080</i>	<i>S-17360-071404-DCR-081</i>	<i>S-17360-071404-DCR-082</i>	<i>S-17360-071404-DCR-083</i>	<i>S-17360-071404-DCR-084</i>	<i>S-17360-071404-DCR-085</i>	
Sample Date	Protection	Interface Protection	Protection	Inhalation	Inhalation	Thickness	Thickness				<i>7/14/2004</i>	<i>7/14/2004</i>	<i>7/14/2004</i>	<i>7/14/2004</i>	<i>7/14/2004</i>	<i>7/14/2004</i>	
Sample Depth											<i>4-6 ft BGS</i>	<i>6-8 ft BGS</i>	<i>8-10 ft BGS</i>	<i>10-12 ft BGS</i>	<i>12-14 ft BGS</i>	<i>14-16 ft BGS</i>	
Sample Type	a	b	c	d	e	f	g	h	i	j							
<i>Units</i>																	
<i>Volatile Organic Compounds</i>																	
1,1,1-Trichloroethane	mg/kg	4	4	460	250	3800	12000	28000	67000000	460	460	0.059 U	0.079 U	0.053 U	0.051 U	0.05 U	0.053 U
1,1,2,2-Tetrachloroethane	mg/kg	0.17	1.6	94	4.3	10	10	14	54000	53	870	0.12 U	0.16 U	0.11 U	0.1 U	0.1 U	0.11 U
1,1,2-Trichloroethane	mg/kg	0.1	6.6	420	4.6	17	21	44	190000	180	920	0.059 U	0.079 U	0.053 U	0.051 U	0.05 U	0.053 U
1,1-Dichloroethane	mg/kg	18	15	890	230	2100	5900	14000	33000000	890	890	0.059 U	0.079 U	0.053 U	0.051 U	0.05 U	0.053 U
1,1-Dichloroethene	mg/kg	0.14	1.3	220	0.062	1.1	5.3	13	62000	200	570	0.059 U	0.079 U	0.053 U	0.051 U	0.05 U	0.053 U
1,2,4-Trichlorobenzene	mg/kg	4.2	1.8	1100	1100	28000	28000	28000	25000000	990	1100	0.3 U	0.4 U	0.27 U	0.26 U	0.25 U	0.26 U
1,2-Dibromo-3-chloropropane (DBCP)	mg/kg	0.01		1.2	1.2	13	13	13	13000	1.2	1.2	0.3 U	0.4 U	0.27 U	0.26 U	0.25 U	0.26 U
1,2-Dibromoethane (Ethylene Dibromide)	mg/kg	0.02	0.02	0.5	0.67	1.7	1.7	3.3	14000	0.092	890	0.3 U	0.4 U	0.27 U	0.26 U	0.25 U	0.26 U
1,2-Dichlorobenzene	mg/kg	14	0.36	210	210	39000	39000	52000	100000000	210	210	0.12 U	0.16 U	0.11 U	0.1 U	0.1 U	0.11 U
1,2-Dichloroethane	mg/kg	0.1	7.2	380	2.1	6.2	11	26	120000	91	1200	0.059 U	0.079 U	0.053 U	0.051 U	0.05 U	0.053 U
1,2-Dichloropropane	mg/kg	0.1	5.8	320	4	25	50	110	270000	140	550	0.059 U	0.079 U	0.053 U	0.051 U	0.05 U	0.053 U
1,3-Dichlorobenzene	mg/kg	0.17	1.1	51	ID	ID	ID	ID	ID	170	170	0.12 U	0.16 U	0.11 U	0.1 U	0.1 U	0.11 U
1,4-Dichlorobenzene	mg/kg	1.7	0.29	140	19	77	77	110	450000	400		0.12 U	0.16 U	0.11 U	0.1 U	0.1 U	0.11 U
2-Butanone (Methyl Ethyl Ketone)	mg/kg	260	44	27000	27000	29000	29000	35000	67000000	27000	27000	0.89 U	1.2 U	0.8 U	0.77 U	0.75 U	0.79 U
2-Hexanone	mg/kg	20		2500	990	1100	1100	1400	2700000	2500	2500	3 U	4 U	2.7 U	2.6 U	2.5 U	2.6 U
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	mg/kg	36	ID	2700	2700	45000	45000	67000	140000000	2700	2700	3 U	4 U	2.7 U	2.6 U	2.5 U	2.6 U
Acetone	mg/kg	15	34	110000	110000	130000	130000	190000	390000000	23000	110000	0.89 U	1.2 U	0.8 U	0.77 U	0.75 U	0.79 U
Benzene	mg/kg	0.1	4	220	1.6	13	34	79	380000	180	400	0.059 U	0.079 U	0.053 U	0.051 U	0.05 U	0.053 U
Bromodichloromethane	mg/kg	1.6	ID	280	1.2	9.1	9.7	19	84000	110	1500	0.12 U	0.16 U	0.11 U	0.1 U	0.1 U	0.11 U
Bromoform	mg/kg	1.6	ID	870	150	900	900	900	2800000	820	870	0.12 U	0.16 U	0.11 U	0.1 U	0.1 U	0.11 U
Bromomethane (Methyl Bromide)	mg/kg	0.2	0.7	1400	0.86	11	57	140	330000	320	2200	0.3 U	0.4 U	0.27 U	0.26 U	0.25 U	0.26 U
Carbon disulfide	mg/kg	16	ID	280	76	1300	7900	19000	47000000	280	280	0.3 U	0.4 U	0.27 U	0.26 U	0.25 U	0.26 U
Carbon tetrachloride	mg/kg	0.1	0.9	92	0.19	3.5	12	28	130000	96	390	0.059 U	0.079 U	0.053 U	0.051 U	0.05 U	0.053 U
Chlorobenzene	mg/kg	2	0.94	260	120	770	990	2100	4700000	260	260	0.059 U	0.079 U	0.053 U	0.051 U	0.05 U	0.053 U
Chloroethane	mg/kg	8.6	ID	950	950	30000	120000	280000	670000000	950	950	0.3 U	0.4 U	0.27 U	0.26 U	0.25 U	0.26 U
Chloroform (Trichloromethane)	mg/kg	1.6	3.4	1500	7.2	45	120	270	1300000	1200	1500	0.059 U	0.079 U	0.053 U	0.051 U	0.05 U	0.053 U
Chloromethane (Methyl Chloride)	mg/kg	5.2	ID	1100	2.3	40	410	1000	4900000	1100	1100	0.3 U	0.4 U	0.27 U	0.26 U	0.25 U	0.26 U
cis-1,2-Dichloroethene	mg/kg	1.4	12	640	22	180	420	990	2300000	640	640	0.059 U	0.079 U	0.053 U	0.051 U	0.05 U	0.053 U
cis-1,3-Dichloropropene	mg/kg											0.059 U	0.079 U	0.053 U	0.051 U	0.05 U	0.053 U
Cyclohexane	mg/kg											1.4 U	1.9 U	1.3 U	1.2 U	1.2 U	1.3 U
Dibromochloromethane	mg/kg	1.6	ID	360	3.9	24	24	33	130000	110	610	0.059 U	0.079 U	0.053 U	0.051 U	0.05 U	0.053 U
Dichlorodifluoromethane (CFC-12)	mg/kg	95	ID	1000	900	53000	550000	1400000	3300000000	1000	1000	0.12 U	0.16 U	0.11 U	0.1 U	0.1 U	0.11 U
Ethylbenzene	mg/kg	1.5	0.36	140	87	720	1000	2200	10000000	140	140	0.059 U	0.079 U	0.053 U	0.051 U	0.05 U	0.053 U
Isopropylbenzene	mg/kg	91	ID	390	390	1700	1700	2800	5800000	390	390	0.3 U	0.4 U	0.27 U	0.26 U	0.25 U	0.26 U
Methyl acetate	mg/kg											1.4 U	1.9 U	1.3 U	1.2 U	1.2 U	1.3 U
Methyl cyclohexane	mg/kg											1.4 U	1.9 U	1.3 U	1.2 U	1.2 U	1.3 U
Methyl Tert Butyl Ether	mg/kg	0.8	15	5900	5900	25000	39000	87000	200000000	1500	5900	0.3 U	0.4 U	0.27 U	0.26 U	0.25 U	0.26 U
Methylene chloride	mg/kg	0.1	19	2300	45	210	590	1400	6600000	1300	2300	0.3 U	0.4 U	0.27 U	0.26 U	0.25 U	0.26 U
Styrene	mg/kg	2.7	2.2	270	250	970	970	1400	5500000	400	520	0.059 U	0.079 U	0.053 U	0.051 U	0.05 U	0.053 U
Tetrachloroethene	mg/kg	0.1	0.9	88	11	180	480	1100	5400000	88	88	0.059 U	0.079 U	0.053 U	0.051 U	0.05 U	0.053 U
Toluene	mg/kg	16	2.8	250	250	2800	5100	12000	27000000	250	250	0.12 U	0.16 U	0.11 U	0.1 U	0.1 U	0.11 U
trans-1,2-Dichloroethene	mg/kg	2	30	1400	23	280	830	2000	4700000	1400	1400	0.059 U	0.079 U	0.053 U	0.051 U	0.05 U	0.053 U
trans-1,3-Dichloropropene	mg/kg											0.059 U	0.079 U	0.053 U	0.051 U	0.05 U	0.053 U
Trichloroethene	mg/kg	0.1	4	440	7.1	78	170	390	1800000	500	500	0.02 J	0.079 U	0.078	0.024 J	0.04 J	0.031 J
Trichlorofluoromethane (CFC-11)	mg/kg	52		560	560	92000	630000	1500000	3800000000	560	560	0.12 U	0.16 U	0.11 U	0.1 U	0.1 U	0.11 U
Trifluorotrichloroethane (Freon 113)	mg/kg	550	1.7	550	550	180000	880000	2100000	5100000000	550	550	0.3 U	0.4 U	0.27 U	0.26 U	0.25 U	0.26 U
Vinyl chloride	mg/kg	0.04	0.3	20	0.27	4.2	30	73	350000	3.8	490	0.12 U	0.16 U	0.11 U	0.1 U	0.1 U	0.11 U
Xylene (total)	mg/kg	5.6	0.7	150	150	46000	61000	130000	290000000	150	150	0.18 U	0.24 U	0.16 U	0.15 U	0.15 U	0.16 U

Notes:
⁽¹⁾ Cleanup criteria identified by MDEQ RRD Op Memo No. 1, updated 1/23/2006, pursuant to 1994 PA 451 as amended.
U - Not present at or above the associated value.
J - Estimated concentration.
UJ - Estimated reporting limit.
 - Value exceeds referenced Part 201 Criteria (I.e. a, b, etc.)

TABLE 2

SUMMARY OF SOIL SAMPLES COMPARED TO MICHIGAN ACT 451, PART 201 RESIDENTIAL CRITERIA
SVE SOIL INVESTIGATION
GENERAL MOTORS CORPORATION
GRAND RAPIDS METAL PLANT
WYOMING, MICHIGAN

Sample Location	Michigan Act 451, Part 201 Residential and Commercial ⁽¹⁾											SB3-04	SB3-04	SB3-04	SB4-04	SB4-04	SB4-04
Sample Identification	Drinking Water	Groundwater Surface Water	Groundwater Contact	Soil Volatilization to Indoor Air	Infinite Source Volatile Soil Inhalation	Finite VSIC for 5 Meter Source Thickness	Finite VSIC for 2 Meter Source Thickness	Particulate Soil Inhalation	Direct Contact	Soil Saturation Concentration	S-17360-071404-DCR-086	S-17360-071404-DCR-087	S-17360-071404-DCR-088	S-17360-071504-DCR-111	S-17360-071504-DCR-112	S-17360-071504-DCR-113	
Sample Date	Protection	Interface Protection	Protection	Inhalation	Inhalation	Thickness	Thickness			Screening	7/14/2004	7/14/2004	7/14/2004	7/15/2004	7/15/2004	7/15/2004	
Sample Depth											16-18 ft BGS	18-20 ft BGS	20-22 ft BGS	0-2 ft BGS	2-4 ft BGS	4-6 ft BGS	
Sample Type	a	b	c	d	e	f	g	h	i	j							
Units																	
Volatile Organic Compounds																	
1,1,1-Trichloroethane	mg/kg	4	4	460	250	3800	12000	28000	67000000	460	460	0.058 U	0.055 U	0.053 U	0.066 U	0.076 U	0.082 U
1,1,2,2-Tetrachloroethane	mg/kg	0.17	1.6	94	4.3	10	10	14	54000	53	870	0.12 U	0.11 U	0.11 U	0.13 U	0.15 U	0.16 U
1,1,2-Trichloroethane	mg/kg	0.1	6.6	420	4.6	17	21	44	190000	180	920	0.058 U	0.055 U	0.053 U	0.066 U	0.076 U	0.082 U
1,1-Dichloroethane	mg/kg	18	15	890	230	2100	5900	14000	33000000	890	890	0.058 U	0.055 U	0.053 U	0.066 U	0.076 U	0.082 U
1,1-Dichloroethene	mg/kg	0.14	1.3	220	0.062	1.1	5.3	13	62000	200	570	0.058 U	0.055 U	0.053 U	0.066 U	0.076 U	0.082 U
1,2,4-Trichlorobenzene	mg/kg	4.2	1.8	1100	1100	28000	28000	28000	25000000	990	1100	0.29 U	0.27 U	0.26 U	0.33 U	0.38 U	0.41 U
1,2-Dibromo-3-chloropropane (DBCP)	mg/kg	0.01		1.2	1.2	13	13	13	13000	1.2	1.2	0.29 U	0.27 U	0.26 U	0.33 U	0.38 U	0.41 U
1,2-Dibromoethane (Ethylene Dibromide)	mg/kg	0.02	0.02	0.5	0.67	1.7	1.7	3.3	14000	0.092	890	0.29 U	0.27 U	0.26 U	0.33 U	0.38 U	0.41 U
1,2-Dichlorobenzene	mg/kg	14	0.36	210	210	39000	39000	52000	100000000	210	210	0.12 U	0.11 U	0.11 U	0.13 U	0.15 U	0.16 U
1,2-Dichloroethane	mg/kg	0.1	7.2	380	2.1	6.2	11	26	120000	91	1200	0.058 U	0.055 U	0.053 U	0.066 U	0.076 U	0.082 U
1,2-Dichloropropane	mg/kg	0.1	5.8	320	4	25	50	110	270000	140	550	0.058 U	0.055 U	0.053 U	0.066 U	0.076 U	0.082 U
1,3-Dichlorobenzene	mg/kg	0.17	1.1	51	ID	ID	ID	ID	ID	170	170	0.12 U	0.11 U	0.11 U	0.13 U	0.15 U	0.16 U
1,4-Dichlorobenzene	mg/kg	1.7	0.29	140	19	77	77	110	450000	400		0.12 U	0.11 U	0.11 U	0.13 U	0.15 U	0.16 U
2-Butanone (Methyl Ethyl Ketone)	mg/kg	260	44	27000	27000	29000	29000	35000	67000000	27000	27000	0.86 U	0.82 U	0.79 U	0.99 U	1.1 U	1.2 U
2-Hexanone	mg/kg	20		2500	990	1100	1100	1400	2700000	2500	2500	2.9 U	2.7 U	2.6 U	3.3 U	3.8 U	4.1 U
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	mg/kg	36	ID	2700	2700	45000	45000	67000	140000000	2700	2700	2.9 U	2.7 U	2.6 U	3.3 U	3.8 U	4.1 U
Acetone	mg/kg	15	34	110000	110000	130000	130000	190000	390000000	23000	110000	0.86 U	0.82 U	0.79 U	0.99 U	1.1 U	1.2 U
Benzene	mg/kg	0.1	4	220	1.6	13	34	79	380000	180	400	0.058 U	0.055 U	0.053 U	0.066 U	0.076 U	0.082 U
Bromodichloromethane	mg/kg	1.6	ID	280	1.2	9.1	9.7	19	84000	110	1500	0.12 U	0.11 U	0.11 U	0.13 U	0.15 U	0.16 U
Bromoform	mg/kg	1.6	ID	870	150	900	900	900	2800000	820	870	0.12 U	0.11 U	0.11 U	0.13 U	0.15 U	0.16 U
Bromomethane (Methyl Bromide)	mg/kg	0.2	0.7	1400	0.86	11	57	140	330000	320	2200	0.29 U	0.27 U	0.26 U	0.33 U	0.38 U	0.41 U
Carbon disulfide	mg/kg	16	ID	280	76	1300	7900	19000	47000000	280	280	0.29 U	0.27 U	0.26 U	0.33 U	0.38 U	0.41 U
Carbon tetrachloride	mg/kg	0.1	0.9	92	0.19	3.5	12	28	130000	96	390	0.058 U	0.055 U	0.053 U	0.066 U	0.076 U	0.082 U
Chlorobenzene	mg/kg	2	0.94	260	120	770	990	2100	4700000	260	260	0.058 U	0.055 U	0.053 U	0.066 U	0.076 U	0.082 U
Chloroethane	mg/kg	8.6	ID	950	950	30000	120000	280000	670000000	950	950	0.29 U	0.27 U	0.26 U	0.33 U	0.38 U	0.41 U
Chloroform (Trichloromethane)	mg/kg	1.6	3.4	1500	7.2	45	120	270	1300000	1200	1500	0.058 U	0.055 U	0.053 U	0.066 U	0.076 U	0.082 U
Chloromethane (Methyl Chloride)	mg/kg	5.2	ID	1100	2.3	40	410	1000	4900000	1100	1100	0.29 U	0.27 U	0.26 U	0.33 U	0.027 J	0.41 U
cis-1,2-Dichloroethene	mg/kg	1.4	12	640	22	180	420	990	2300000	640	640	0.058 U	0.055 U	0.053 U	0.066 U	0.076 U	0.082 U
cis-1,3-Dichloropropene	mg/kg											0.058 U	0.055 U	0.053 U	0.066 U	0.076 U	0.082 U
Cyclohexane	mg/kg											1.4 U	1.3 U	1.3 U	1.6 U	1.8 U	2 U
Dibromochloromethane	mg/kg	1.6	ID	360	3.9	24	24	33	130000	110	610	0.058 U	0.055 U	0.053 U	0.066 U	0.076 U	0.082 U
Dichlorodifluoromethane (CFC-12)	mg/kg	95	ID	1000	900	53000	550000	1400000	3300000000	1000	1000	0.12 U	0.11 U	0.11 U	0.13 U	0.15 U	0.16 U
Ethylbenzene	mg/kg	1.5	0.36	140	87	720	1000	2200	10000000	140	140	0.058 U	0.055 U	0.053 U	0.066 U	0.076 U	0.082 U
Isopropylbenzene	mg/kg	91	ID	390	390	1700	1700	2800	5800000	390	390	0.29 U	0.27 U	0.26 U	0.33 U	0.38 U	0.41 U
Methyl acetate	mg/kg											1.4 U	1.3 U	1.3 U	1.6 U	1.8 U	2 U
Methyl cyclohexane	mg/kg											1.4 U	1.3 U	1.3 U	1.6 U	1.8 U	2 U
Methyl Tert Butyl Ether	mg/kg	0.8	15	5900	5900	25000	39000	87000	200000000	1500	5900	0.29 U	0.27 U	0.26 U	0.33 U	0.38 U	0.41 U
Methylene chloride	mg/kg	0.1	19	2300	45	210	590	1400	6600000	1300	2300	0.29 U	0.27 U	0.26 U	0.33 U	0.38 U	0.41 U
Styrene	mg/kg	2.7	2.2	270	250	970	970	1400	5500000	400	520	0.058 U	0.055 U	0.053 U	0.066 U	0.076 U	0.082 U
Tetrachloroethene	mg/kg	0.1	0.9	88	11	180	480	1100	5400000	88	88	0.058 U	0.055 U	0.053 U	0.066 U	0.076 U	0.082 U
Toluene	mg/kg	16	2.8	250	250	2800	5100	12000	27000000	250	250	0.12 U	0.11 U	0.11 U	0.13 U	0.15 U	0.16 U
trans-1,2-Dichloroethene	mg/kg	2	30	1400	23	280	830	2000	4700000	1400	1400	0.058 U	0.055 U	0.053 U	0.066 U	0.076 U	0.082 U
trans-1,3-Dichloropropene	mg/kg											0.058 U	0.055 U	0.053 U	0.066 U	0.076 U	0.082 U
Trichloroethene	mg/kg	0.1	4	440	7.1	78	170	390	1800000	500	500	0.058 U	0.02 J	0.053 U	0.19*	0.076 U	0.082 U
Trichlorofluoromethane (CFC-11)	mg/kg	52		560	560	92000	630000	1500000	3800000000	560	560	0.12 U	0.11 U	0.11 U	0.13 U	0.15 U	0.16 U
Trifluorotrichloroethane (Freon 113)	mg/kg	550	1.7	550	550	180000	880000	2100000	5100000000	550	550	0.29 U	0.27 U	0.26 U	0.33 U	0.38 U	0.41 U
Vinyl chloride	mg/kg	0.04	0.3	20	0.27	4.2	30	73	350000	3.8	490	0.12 U	0.11 U	0.11 U	0.13 U	0.15 U	0.16 U
Xylene (total)	mg/kg	5.6	0.7	150	150	46000	61000	130000	290000000	150	150	0.17 U	0.16 U	0.16 U	0.2 U	0.23 U	0.25 U

Notes:
⁽¹⁾ Cleanup criteria identified by MDEQ RRD Op Memo No. 1, updated 1/23/2006, pursuant to 1994 PA 451 as amended.
U - Not present at or above the associated value.
J - Estimated concentration.
UJ - Estimated reporting limit.
☐ - Value exceeds referenced Part 201 Criteria (I.e. a, b, etc.)

TABLE 2

SUMMARY OF SOIL SAMPLES COMPARED TO MICHIGAN ACT 451, PART 201 RESIDENTIAL CRITERIA
SVE SOIL INVESTIGATION
GENERAL MOTORS CORPORATION
GRAND RAPIDS METAL PLANT
WYOMING, MICHIGAN

Sample Location	<i>Michigan Act 451, Part 201 Residential and Commercial ⁽¹⁾</i>											<i>SB4-04</i>	<i>SB4-04</i>	<i>SB4-04</i>	<i>SB4-04</i>	<i>SB4-04</i>	<i>SB4-04</i>
Sample Identification	Drinking Water	Groundwater Surface Water	Groundwater Contact	Soil Volatilization to Indoor Air	Infinite Source Volatile Soil Inhalation	Finite VSIC for 5 Meter Source Thickness	Finite VSIC for 2 Meter Source Thickness	Particulate Soil Inhalation	Direct Contact	Soil Saturation Concentration Screening	<i>S-17360-071504-DCR-114</i>	<i>S-17360-071504-DCR-115</i>	<i>S-17360-071504-DCR-116</i>	<i>S-17360-071504-DCR-117</i>	<i>S-17360-071504-DCR-118</i>	<i>S-17360-071504-DCR-119</i>	
Sample Date	Protection	Interface Protection	Protection	Inhalation	Inhalation	Thickness	Thickness				<i>7/15/2004</i>	<i>7/15/2004</i>	<i>7/15/2004</i>	<i>7/15/2004</i>	<i>7/15/2004</i>	<i>7/15/2004</i>	
Sample Depth											<i>6-8 ft BGS</i>	<i>8-10 ft BGS</i>	<i>10-12 ft BGS</i>	<i>12-14 ft BGS</i>	<i>14-16 ft BGS</i>	<i>16-18 ft BGS</i>	
Sample Type	a	b	c	d	e	f	g	h	i	j							
<i>Units</i>																	
<i>Volatile Organic Compounds</i>																	
1,1,1-Trichloroethane	mg/kg	4	4	460	250	3800	12000	28000	67000000	460	460	0.059 U	0.059 U	0.066 U	0.057 U	0.061 U	0.059 U
1,1,2,2-Tetrachloroethane	mg/kg	0.17	1.6	94	4.3	10	10	14	54000	53	870	0.12 U	0.12 U	0.13 U	0.11 U	0.12 U	0.12 U
1,1,2-Trichloroethane	mg/kg	0.1	6.6	420	4.6	17	21	44	190000	180	920	0.059 U	0.059 U	0.066 U	0.057 U	0.061 U	0.059 U
1,1-Dichloroethane	mg/kg	18	15	890	230	2100	5900	14000	33000000	890	890	0.059 U	0.059 U	0.066 U	0.057 U	0.061 U	0.059 U
1,1-Dichloroethene	mg/kg	0.14	1.3	220	0.062	1.1	5.3	13	62000	200	570	0.059 U	0.059 U	0.066 U	0.057 U	0.061 U	0.059 U
1,2,4-Trichlorobenzene	mg/kg	4.2	1.8	1100	1100	28000	28000	28000	25000000	990	1100	0.3 U	0.29 U	0.33 U	0.28 U	0.31 U	0.29 U
1,2-Dibromo-3-chloropropane (DBCP)	mg/kg	0.01		1.2	1.2	13	13	13	13000	1.2	1.2	0.3 U	0.29 U	0.33 U	0.28 U	0.31 U	0.29 U
1,2-Dibromoethane (Ethylene Dibromide)	mg/kg	0.02	0.02	0.5	0.67	1.7	1.7	3.3	14000	0.092	890	0.3 U	0.29 U	0.33 U	0.28 U	0.31 U	0.29 U
1,2-Dichlorobenzene	mg/kg	14	0.36	210	210	39000	39000	52000	100000000	210	210	0.12 U	0.12 U	0.13 U	0.11 U	0.12 U	0.12 U
1,2-Dichloroethane	mg/kg	0.1	7.2	380	2.1	6.2	11	26	120000	91	1200	0.059 U	0.059 U	0.066 U	0.057 U	0.061 U	0.059 U
1,2-Dichloropropane	mg/kg	0.1	5.8	320	4	25	50	110	270000	140	550	0.059 U	0.059 U	0.066 U	0.057 U	0.061 U	0.059 U
1,3-Dichlorobenzene	mg/kg	0.17	1.1	51	ID	ID	ID	ID	ID	170	170	0.12 U	0.12 U	0.13 U	0.11 U	0.12 U	0.12 U
1,4-Dichlorobenzene	mg/kg	1.7	0.29	140	19	77	77	110	450000	400		0.12 U	0.12 U	0.13 U	0.11 U	0.12 U	0.12 U
2-Butanone (Methyl Ethyl Ketone)	mg/kg	260	44	27000	27000	29000	29000	35000	67000000	27000	27000	0.89 U	0.88 U	0.98 U	0.85 U	0.92 U	0.88 U
2-Hexanone	mg/kg	20		2500	990	1100	1100	1400	2700000	2500	2500	3 U	2.9 U	3.3 U	2.8 U	3.1 U	2.9 U
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	mg/kg	36	ID	2700	2700	45000	45000	67000	140000000	2700	2700	3 U	2.9 U	3.3 U	2.8 U	3.1 U	2.9 U
Acetone	mg/kg	15	34	110000	110000	130000	130000	190000	390000000	23000	110000	0.89 U	0.88 U	0.98 U	0.85 U	0.92 U	0.88 U
Benzene	mg/kg	0.1	4	220	1.6	13	34	79	380000	180	400	0.059 U	0.059 U	0.066 U	0.057 U	0.061 U	0.059 U
Bromodichloromethane	mg/kg	1.6	ID	280	1.2	9.1	9.7	19	84000	110	1500	0.12 U	0.12 U	0.13 U	0.11 U	0.12 U	0.12 U
Bromoform	mg/kg	1.6	ID	870	150	900	900	900	2800000	820	870	0.12 U	0.12 U	0.13 U	0.11 U	0.12 U	0.12 U
Bromomethane (Methyl Bromide)	mg/kg	0.2	0.7	1400	0.86	11	57	140	330000	320	2200	0.3 U	0.29 U	0.33 U	0.28 U	0.31 U	0.29 U
Carbon disulfide	mg/kg	16	ID	280	76	1300	7900	19000	47000000	280	280	0.3 U	0.29 U	0.33 U	0.28 U	0.31 U	0.29 U
Carbon tetrachloride	mg/kg	0.1	0.9	92	0.19	3.5	12	28	130000	96	390	0.059 U	0.059 U	0.066 U	0.057 U	0.061 U	0.059 U
Chlorobenzene	mg/kg	2	0.94	260	120	770	990	2100	4700000	260	260	0.059 U	0.059 U	0.066 U	0.057 U	0.061 U	0.059 U
Chloroethane	mg/kg	8.6	ID	950	950	30000	120000	280000	670000000	950	950	0.3 U	0.29 U	0.33 U	0.28 U	0.31 U	0.29 U
Chloroform (Trichloromethane)	mg/kg	1.6	3.4	1500	7.2	45	120	270	1300000	1200	1500	0.059 U	0.059 U	0.066 U	0.057 U	0.061 U	0.059 U
Chloromethane (Methyl Chloride)	mg/kg	5.2	ID	1100	2.3	40	410	1000	4900000	1100	1100	0.3 U	0.29 U	0.021 J	0.018 J	0.31 U	0.29 U
cis-1,2-Dichloroethene	mg/kg	1.4	12	640	22	180	420	990	2300000	640	640	0.059 U	0.059 U	0.066 U	0.057 U	0.061 U	0.059 U
cis-1,3-Dichloropropene	mg/kg											0.059 U	0.059 U	0.066 U	0.057 U	0.061 U	0.059 U
Cyclohexane	mg/kg											1.4 U		1.6 U	1.4 U	1.5 U	1.4 U
Dibromochloromethane	mg/kg	1.6	ID	360	3.9	24	24	33	130000	110	610	0.059 U	0.059 U	0.066 U	0.057 U	0.061 U	0.059 U
Dichlorodifluoromethane (CFC-12)	mg/kg	95	ID	1000	900	53000	550000	1400000	3300000000	1000	1000	0.12 U	0.12 U	0.13 U	0.11 U	0.12 U	0.12 U
Ethylbenzene	mg/kg	1.5	0.36	140	87	720	1000	2200	10000000	140	140	0.059 U	0.059 U	0.066 U	0.057 U	0.061 U	0.059 U
Isopropylbenzene	mg/kg	91	ID	390	390	1700	1700	2800	5800000	390	390	0.3 U	0.29 U	0.33 U	0.28 U	0.31 U	0.29 U
Methyl acetate	mg/kg											1.4 U		1.6 U	1.4 U	1.5 U	1.4 U
Methyl cyclohexane	mg/kg											1.4 U		1.6 U	1.4 U	1.5 U	1.4 U
Methyl Tert Butyl Ether	mg/kg	0.8	15	5900	5900	25000	39000	87000	200000000	1500	5900	0.3 U	0.29 U	0.33 U	0.28 U	0.31 U	0.29 U
Methylene chloride	mg/kg	0.1	19	2300	45	210	590	1400	6600000	1300	2300	0.3 U	0.29 U	0.33 U	0.28 U	0.31 U	0.29 U
Styrene	mg/kg	2.7	2.2	270	250	970	970	1400	5500000	400	520	0.059 U	0.059 U	0.066 U	0.057 U	0.061 U	0.059 U
Tetrachloroethene	mg/kg	0.1	0.9	88	11	180	480	1100	5400000	88	88	0.059 U	0.059 U	0.066 U	0.057 U	0.061 U	0.059 U
Toluene	mg/kg	16	2.8	250	250	2800	5100	12000	27000000	250	250	0.12 U	0.12 U	0.13 U	0.11 U	0.12 U	0.12 U
trans-1,2-Dichloroethene	mg/kg	2	30	1400	23	280	830	2000	4700000	1400	1400	0.059 U	0.059 U	0.066 U	0.057 U	0.061 U	0.059 U
trans-1,3-Dichloropropene	mg/kg											0.059 U	0.059 U	0.066 U	0.057 U	0.061 U	0.059 U
Trichloroethene	mg/kg	0.1	4	440	7.1	78	170	390	1800000	500	500	0.059 U	0.059 U	0.066 U	0.057 U	0.041 J	0.059 U
Trichlorofluoromethane (CFC-11)	mg/kg	52		560	560	92000	630000	1500000	3800000000	560	560	0.12 U	0.12 U	0.13 U	0.11 U	0.12 U	0.12 U
Trifluorotrichloroethane (Freon 113)	mg/kg	550	1.7	550	550	180000	880000	2100000	5100000000	550	550	0.3 U	0.29 U	0.33 U	0.28 U	0.31 U	0.29 U
Vinyl chloride	mg/kg	0.04	0.3	20	0.27	4.2	30	73	350000	3.8	490	0.12 U	0.12 U	0.13 U	0.11 U	0.12 U	0.12 U
Xylene (total)	mg/kg	5.6	0.7	150	150	46000	61000	130000	290000000	150	150	0.18 U		0.18 U	0.17 U	0.18 U	0.18 U

Notes:
⁽¹⁾ Cleanup criteria identified by MDEQ RRD Op Memo No. 1, updated 1/23/2006, pursuant to 1994 PA 451 as amended.
U - Not present at or above the associated value.
J - Estimated concentration.
UJ - Estimated reporting limit.
 - Value exceeds referenced Part 201 Criteria (I.e. a, b, etc.)

TABLE 2

SUMMARY OF SOIL SAMPLES COMPARED TO MICHIGAN ACT 451, PART 201 RESIDENTIAL CRITERIA
SVE SOIL INVESTIGATION
GENERAL MOTORS CORPORATION
GRAND RAPIDS METAL PLANT
WYOMING, MICHIGAN

Sample Location	<i>Michigan Act 451, Part 201 Residential and Commercial</i> ⁽¹⁾											<i>SB4-04</i>	<i>SB4-04</i>	<i>SB5-04</i>	<i>SB5-04</i>	<i>SB5-04</i>	<i>SB5-04</i>
Sample Identification	Drinking Water Protection	Groundwater Surface Water Interface Protection	Groundwater Contact Protection	Soil Volatilization to Indoor Air Inhalation	Infinite Source Volatile Soil Inhalation	Finite VSIC for 5 Meter Source Thickness	Finite VSIC for 2 Meter Source Thickness	Particulate Soil Inhalation	Direct Contact	Soil Saturation Concentration Screening	<i>S-17360-071504-DCR-120</i>	<i>S-17360-071504-DCR-121</i>	<i>S-17360-071504-DCR-100</i>	<i>S-17360-071504-DCR-101</i>	<i>S-17360-071504-DCR-102</i>	<i>S-17360-071504-DCR-103</i>	
Sample Date											<i>7/15/2004</i>	<i>7/15/2004</i>	<i>7/15/2004</i>	<i>7/15/2004</i>	<i>7/15/2004</i>	<i>7/15/2004</i>	
Sample Depth											<i>18-20 ft BGS</i>	<i>20-22 ft BGS</i>	<i>0-2 ft BGS</i>	<i>2-4 ft BGS</i>	<i>4-6 ft BGS</i>	<i>6-8 ft BGS</i>	
Sample Type	a	b	c	d	e	f	g	h	i	j							
<i>Units</i>																	
<i>Volatile Organic Compounds</i>																	
1,1,1-Trichloroethane	mg/kg	4	4	460	250	3800	12000	28000	67000000	460	460	0.053 U	0.053 U	0.2 U	0.11 U	0.066 U	0.061 U
1,1,2,2-Tetrachloroethane	mg/kg	0.17	1.6	94	4.3	10	10	14	54000	53	870	0.11 U	0.11 U	0.4 U	0.23 U	0.13 U	0.12 U
1,1,2-Trichloroethane	mg/kg	0.1	6.6	420	4.6	17	21	44	190000	180	920	0.053 U	0.053 U	0.2 U	0.11 U	0.066 U	0.061 U
1,1-Dichloroethane	mg/kg	18	15	890	230	2100	5900	14000	33000000	890	890	0.053 U	0.053 U	0.2 U	0.11 U	0.066 U	0.061 U
1,1-Dichloroethene	mg/kg	0.14	1.3	220	0.062	1.1	5.3	13	62000	200	570	0.053 U	0.053 U	0.2 U	0.11 U	0.066 U	0.061 U
1,2,4-Trichlorobenzene	mg/kg	4.2	1.8	1100	1100	28000	28000	28000	25000000	990	1100	0.27 U	0.27 U	1 U	0.57 U	0.33 U	0.3 U
1,2-Dibromo-3-chloropropane (DBCP)	mg/kg	0.01		1.2	1.2	13	13	13	13000	1.2	1.2	0.27 U	0.27 U	1 U	0.57 U	0.33 U	0.3 U
1,2-Dibromoethane (Ethylene Dibromide)	mg/kg	0.02	0.02	0.5	0.67	1.7	1.7	3.3	14000	0.092	890	0.27 U	0.27 U	1 U	0.57 U	0.33 U	0.3 U
1,2-Dichlorobenzene	mg/kg	14	0.36	210	210	39000	39000	52000	100000000	210	210	0.11 U	0.11 U	0.4 U	0.23 U	0.13 U	0.12 U
1,2-Dichloroethane	mg/kg	0.1	7.2	380	2.1	6.2	11	26	120000	91	1200	0.053 U	0.053 U	0.2 U	0.11 U	0.066 U	0.061 U
1,2-Dichloropropane	mg/kg	0.1	5.8	320	4	25	50	110	270000	140	550	0.053 U	0.053 U	0.2 U	0.11 U	0.066 U	0.061 U
1,3-Dichlorobenzene	mg/kg	0.17	1.1	51	ID	ID	ID	ID	ID	170	170	0.11 U	0.11 U	0.4 U	0.23 U	0.13 U	0.12 U
1,4-Dichlorobenzene	mg/kg	1.7	0.29	140	19	77	77	110	450000	400		0.11 U	0.11 U	0.4 U	0.23 U	0.13 U	0.12 U
2-Butanone (Methyl Ethyl Ketone)	mg/kg	260	44	27000	27000	29000	29000	35000	67000000	27000	27000	0.8 U	0.8 U	3 U	1.7 U	0.99 U	0.059 J
2-Hexanone	mg/kg	20		2500	990	1100	1100	1400	2700000	2500	2500	2.7 U	2.7 U	10 U	5.7 U	3.3 U	3 U
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	mg/kg	36	ID	2700	2700	45000	45000	67000	140000000	2700	2700	2.7 U	2.7 U	10 U	5.7 U	3.3 U	3 U
Acetone	mg/kg	15	34	110000	110000	130000	130000	190000	390000000	23000	110000	0.8 U	0.8 U	3 U	1.7 U	0.99 U	0.91 U
Benzene	mg/kg	0.1	4	220	1.6	13	34	79	380000	180	400	0.053 U	0.053 U	0.033 J	0.11 U	0.066 U	0.061 U
Bromodichloromethane	mg/kg	1.6	ID	280	1.2	9.1	9.7	19	84000	110	1500	0.11 U	0.11 U	0.4 U	0.23 U	0.13 U	0.12 U
Bromoform	mg/kg	1.6	ID	870	150	900	900	900	2800000	820	870	0.11 U	0.11 U	0.4 U	0.23 U	0.13 U	0.12 U
Bromomethane (Methyl Bromide)	mg/kg	0.2	0.7	1400	0.86	11	57	140	330000	320	2200	0.27 U	0.27 U	1 U	0.57 U	0.33 U	0.3 U
Carbon disulfide	mg/kg	16	ID	280	76	1300	7900	19000	47000000	280	280	0.27 U	0.27 U	1 U	0.57 U	0.33 U	0.3 U
Carbon tetrachloride	mg/kg	0.1	0.9	92	0.19	3.5	12	28	130000	96	390	0.053 U	0.053 U	0.2 U	0.11 U	0.066 U	0.061 U
Chlorobenzene	mg/kg	2	0.94	260	120	770	990	2100	4700000	260	260	0.053 U	0.053 U	0.2 U	0.11 U	0.066 U	0.061 U
Chloroethane	mg/kg	8.6	ID	950	950	30000	120000	280000	670000000	950	950	0.27 U	0.27 U	1 U	0.57 U	0.33 U	0.3 U
Chloroform (Trichloromethane)	mg/kg	1.6	3.4	1500	7.2	45	120	270	1300000	1200	1500	0.053 U	0.053 U	0.2 U	0.11 U	0.066 U	0.061 U
Chloromethane (Methyl Chloride)	mg/kg	5.2	ID	1100	2.3	40	410	1000	4900000	1100	1100	0.27 U	0.023 J	1 U	0.57 U	0.33 U	0.3 U
cis-1,2-Dichloroethene	mg/kg	1.4	12	640	22	180	420	990	2300000	640	640	0.053 U	0.053 U	0.2 U	0.11 U	0.066 U	0.061 U
cis-1,3-Dichloropropene	mg/kg											0.053 U	0.053 U	0.2 U	0.11 U	0.066 U	0.061 U
Cyclohexane	mg/kg											1.3 U	1.3 U	0.031 J	2.7 U	1.6 U	1.5 U
Dibromochloromethane	mg/kg	1.6	ID	360	3.9	24	24	33	130000	110	610	0.053 U	0.053 U	0.2 U	0.11 U	0.066 U	0.061 U
Dichlorodifluoromethane (CFC-12)	mg/kg	95	ID	1000	900	53000	550000	1400000	3300000000	1000	1000	0.11 U	0.11 U	0.4 U	0.23 U	0.13 U	0.12 U
Ethylbenzene	mg/kg	1.5	0.36	140	87	720	1000	2200	10000000	140	140	0.053 U	0.053 U	0.2 U	0.11 U	0.066 U	0.061 U
Isopropylbenzene	mg/kg	91	ID	390	390	1700	1700	2800	5800000	390	390	0.27 U	0.27 U	0.025 J	0.57 U	0.33 U	0.3 U
Methyl acetate	mg/kg											1.3 U	1.3 U	4.8 U	2.7 U	1.6 U	1.5 U
Methyl cyclohexane	mg/kg											1.3 U	1.3 U	0.2 J	2.7 U	1.6 U	1.5 U
Methyl Tert Butyl Ether	mg/kg	0.8	15	5900	5900	25000	39000	87000	200000000	1500	5900	0.27 U	0.27 U	1 U	0.57 U	0.33 U	0.3 U
Methylene chloride	mg/kg	0.1	19	2300	45	210	590	1400	6600000	1300	2300	0.27 U	0.27 U	1 U	0.57 U	0.33 U	0.3 U
Styrene	mg/kg	2.7	2.2	270	250	970	970	1400	5500000	400	520	0.053 U	0.053 U	0.2 U	0.11 U	0.066 U	0.061 U
Tetrachloroethene	mg/kg	0.1	0.9	88	11	180	480	1100	5400000	88	88	0.053 U	0.053 U	0.2 U	0.11 U	0.066 U	0.061 U
Toluene	mg/kg	16	2.8	250	250	2800	5100	12000	27000000	250	250	0.11 U	0.11 U	0.14 J	0.23 U	0.13 U	0.12 U
trans-1,2-Dichloroethene	mg/kg	2	30	1400	23	280	830	2000	4700000	1400	1400	0.053 U	0.053 U	0.2 U	0.11 U	0.066 U	0.061 U
trans-1,3-Dichloropropene	mg/kg											0.053 U	0.053 U	0.2 U	0.11 U	0.066 U	0.061 U
Trichloroethene	mg/kg	0.1	4	440	7.1	78	170	390	1800000	500	500	0.053 U	0.018 J	5.7 ⁰⁰	0.11 U	0.066 U	0.061 U
Trichlorofluoromethane (CFC-11)	mg/kg	52		560	560	92000	630000	1500000	3800000000	560	560	0.11 U	0.11 U	0.4 U	0.23 U	0.13 U	0.12 U
Trifluorotrichloroethane (Freon 113)	mg/kg	550	1.7	550	550	180000	880000	2100000	5100000000	550	550	0.27 U	0.27 U	1 U	0.57 U	0.33 U	0.3 U
Vinyl chloride	mg/kg	0.04	0.3	20	0.27	4.2	30	73	350000	3.8	490	0.11 U	0.11 U	0.4 U	0.23 U	0.13 U	0.12 U
Xylene (total)	mg/kg	5.6	0.7	150	150	46000	61000	130000	290000000	150	150	0.16 U	0.16 U	0.2 J	0.34 U	0.2 U	0.18 U

Notes:
⁽¹⁾ Cleanup criteria identified by MDEQ RRD Op Memo No. 1, updated 1/23/2006, pursuant to 1994 PA 451 as amended.
U - Not present at or above the associated value.
J - Estimated concentration.
UJ - Estimated reporting limit.
 - Value exceeds referenced Part 201 Criteria (I.e. a, b, etc.)

TABLE 2

SUMMARY OF SOIL SAMPLES COMPARED TO MICHIGAN ACT 451, PART 201 RESIDENTIAL CRITERIA
SVE SOIL INVESTIGATION
GENERAL MOTORS CORPORATION
GRAND RAPIDS METAL PLANT
WYOMING, MICHIGAN

Sample Location	<i>Michigan Act 451, Part 201 Residential and Commercial ⁽¹⁾</i>											<i>SB5-04</i>	<i>SB5-04</i>	<i>SB5-04</i>	<i>SB5-04</i>	<i>SB5-04</i>	<i>SB5-04</i>
Sample Identification	Drinking	Groundwater	Groundwater	Soil Volatilization	Infinite Source	Finite VSIC for	Finite VSIC for	Particulate	Direct	Soil Saturation	<i>S-17360-071504-DCR-104</i>	<i>S-17360-071504-DCR-105</i>	<i>S-17360-071504-DCR-106</i>	<i>S-17360-071504-DCR-107</i>	<i>S-17360-071504-DCR-108</i>	<i>S-17360-071504-DCR-109</i>	
Sample Date	Water	Surface Water	Contact	to Indoor Air	Volatile Soil	5 Meter Source	2 Meter Source	Soil Inhalation	Contact	Concentration	<i>7/15/2004</i>	<i>7/15/2004</i>	<i>7/15/2004</i>	<i>7/15/2004</i>	<i>7/15/2004</i>	<i>7/15/2004</i>	
Sample Depth	Protection	Interface Protection	Protection	Inhalation	Inhalation	Thickness	Thickness			Screening	<i>8-10 ft BGS</i>	<i>10-12 ft BGS</i>	<i>12-14 ft BGS</i>	<i>14-16 ft BGS</i>	<i>16-18 ft BGS</i>	<i>18-20 ft BGS</i>	
Sample Type	a	b	c	d	e	f	g	h	i	j							
<i>Units</i>																	
<i>Volatile Organic Compounds</i>																	
1,1,1-Trichloroethane	mg/kg	4	4	460	250	3800	12000	28000	67000000	460	460	0.06 U	0.056 U	0.05 U	0.056 U	0.055 U	0.062 U
1,1,2,2-Tetrachloroethane	mg/kg	0.17	1.6	94	4.3	10	10	14	54000	53	870	0.12 U	0.11 U	0.099 U	0.11 U	0.11 U	0.12 U
1,1,2-Trichloroethane	mg/kg	0.1	6.6	420	4.6	17	21	44	190000	180	920	0.06 U	0.056 U	0.05 U	0.056 U	0.055 U	0.062 U
1,1-Dichloroethane	mg/kg	18	15	890	230	2100	5900	14000	33000000	890	890	0.06 U	0.056 U	0.05 U	0.056 U	0.055 U	0.062 U
1,1-Dichloroethene	mg/kg	0.14	1.3	220	0.062	1.1	5.3	13	62000	200	570	0.06 U	0.056 U	0.05 U	0.056 U	0.055 U	0.062 U
1,2,4-Trichlorobenzene	mg/kg	4.2	1.8	1100	1100	28000	28000	28000	25000000	990	1100	0.3 U	0.28 U	0.25 U	0.28 U	0.27 U	0.31 U
1,2-Dibromo-3-chloropropane (DBCP)	mg/kg	0.01		1.2	1.2	13	13	13	13000	1.2	1.2	0.3 U	0.28 U	0.25 U	0.28 U	0.27 U	0.31 U
1,2-Dibromoethane (Ethylene Dibromide)	mg/kg	0.02	0.02	0.5	0.67	1.7	1.7	3.3	14000	0.092	890	0.3 U	0.28 U	0.25 U	0.28 U	0.27 U	0.31 U
1,2-Dichlorobenzene	mg/kg	14	0.36	210	210	39000	39000	52000	100000000	210	210	0.12 U	0.11 U	0.099 U	0.11 U	0.11 U	0.12 U
1,2-Dichloroethane	mg/kg	0.1	7.2	380	2.1	6.2	11	26	120000	91	1200	0.06 U	0.056 U	0.05 U	0.056 U	0.055 U	0.062 U
1,2-Dichloropropane	mg/kg	0.1	5.8	320	4	25	50	110	270000	140	550	0.06 U	0.056 U	0.05 U	0.056 U	0.055 U	0.062 U
1,3-Dichlorobenzene	mg/kg	0.17	1.1	51	ID	ID	ID	ID	ID	170	170	0.12 U	0.11 U	0.099 U	0.11 U	0.11 U	0.12 U
1,4-Dichlorobenzene	mg/kg	1.7	0.29	140	19	77	77	110	450000	400		0.12 U	0.11 U	0.099 U	0.11 U	0.11 U	0.12 U
2-Butanone (Methyl Ethyl Ketone)	mg/kg	260	44	27000	27000	29000	29000	35000	67000000	27000	27000	0.9 U	0.83 U	0.75 U	0.84 U	0.82 U	0.93 U
2-Hexanone	mg/kg	20		2500	990	1100	1100	1400	2700000	2500	2500	3 U	2.8 U	2.5 U	2.8 U	2.7 U	3.1 U
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	mg/kg	36	ID	2700	2700	45000	45000	67000	140000000	2700	2700	3 U	2.8 U	2.5 U	2.8 U	2.7 U	3.1 U
Acetone	mg/kg	15	34	110000	110000	130000	130000	190000	390000000	23000	110000	0.9 U	0.83 U	0.75 U	0.84 U	0.82 U	0.93 U
Benzene	mg/kg	0.1	4	220	1.6	13	34	79	380000	180	400	0.06 U	0.056 U	0.05 U	0.056 U	0.055 U	0.062 U
Bromodichloromethane	mg/kg	1.6	ID	280	1.2	9.1	9.7	19	84000	110	1500	0.12 U	0.11 U	0.099 U	0.11 U	0.11 U	0.12 U
Bromoform	mg/kg	1.6	ID	870	150	900	900	900	2800000	820	870	0.12 U	0.11 U	0.099 U	0.11 U	0.11 U	0.12 U
Bromomethane (Methyl Bromide)	mg/kg	0.2	0.7	1400	0.86	11	57	140	330000	320	2200	0.3 U	0.28 U	0.25 U	0.28 U	0.27 U	0.31 U
Carbon disulfide	mg/kg	16	ID	280	76	1300	7900	19000	47000000	280	280	0.3 U	0.28 U	0.25 U	0.28 U	0.27 U	0.31 U
Carbon tetrachloride	mg/kg	0.1	0.9	92	0.19	3.5	12	28	130000	96	390	0.06 U	0.056 U	0.05 U	0.056 U	0.055 U	0.062 U
Chlorobenzene	mg/kg	2	0.94	260	120	770	990	2100	4700000	260	260	0.06 U	0.056 U	0.05 U	0.056 U	0.055 U	0.062 U
Chloroethane	mg/kg	8.6	ID	950	950	30000	120000	280000	670000000	950	950	0.3 U	0.28 U	0.25 U	0.28 U	0.27 U	0.31 U
Chloroform (Trichloromethane)	mg/kg	1.6	3.4	1500	7.2	45	120	270	1300000	1200	1500	0.06 U	0.056 U	0.05 U	0.056 U	0.055 U	0.062 U
Chloromethane (Methyl Chloride)	mg/kg	5.2	ID	1100	2.3	40	410	1000	4900000	1100	1100	0.3 U	0.28 U	0.25 U	0.28 U	0.27 U	0.31 U
cis-1,2-Dichloroethene	mg/kg	1.4	12	640	22	180	420	990	2300000	640	640	0.06 U	0.056 U	0.05 U	0.056 U	0.055 U	0.062 U
cis-1,3-Dichloropropene	mg/kg											0.06 U	0.056 U	0.05 U	0.056 U	0.055 U	0.062 U
Cyclohexane	mg/kg											1.4 U	1.3 U	1.2 U	1.3 U	1.3 U	1.5 U
Dibromochloromethane	mg/kg	1.6	ID	360	3.9	24	24	33	130000	110	610	0.06 U	0.056 U	0.05 U	0.056 U	0.055 U	0.062 U
Dichlorodifluoromethane (CFC-12)	mg/kg	95	ID	1000	900	53000	550000	1400000	3300000000	1000	1000	0.12 U	0.11 U	0.099 U	0.11 U	0.11 U	0.12 U
Ethylbenzene	mg/kg	1.5	0.36	140	87	720	1000	2200	10000000	140	140	0.06 U	0.056 U	0.05 U	0.056 U	0.055 U	0.062 U
Isopropylbenzene	mg/kg	91	ID	390	390	1700	1700	2800	5800000	390	390	0.3 U	0.28 U	0.25 U	0.28 U	0.27 U	0.31 U
Methyl acetate	mg/kg											1.4 U	1.3 U	1.2 U	1.3 U	1.3 U	1.5 U
Methyl cyclohexane	mg/kg											1.4 U	1.3 U	1.2 U	1.3 U	1.3 U	1.5 U
Methyl Tert Butyl Ether	mg/kg	0.8	15	5900	5900	25000	39000	87000	200000000	1500	5900	0.3 U	0.28 U	0.25 U	0.28 U	0.27 U	0.31 U
Methylene chloride	mg/kg	0.1	19	2300	45	210	590	1400	6600000	1300	2300	0.3 U	0.28 U	0.25 U	0.28 U	0.27 U	0.31 U
Styrene	mg/kg	2.7	2.2	270	250	970	970	1400	5500000	400	520	0.06 U	0.056 U	0.05 U	0.056 U	0.055 U	0.062 U
Tetrachloroethene	mg/kg	0.1	0.9	88	11	180	480	1100	5400000	88	88	0.06 U	0.056 U	0.05 U	0.056 U	0.055 U	0.062 U
Toluene	mg/kg	16	2.8	250	250	2800	5100	12000	27000000	250	250	0.12 U	0.11 U	0.099 U	0.11 U	0.11 U	0.12 U
trans-1,2-Dichloroethene	mg/kg	2	30	1400	23	280	830	2000	4700000	1400	1400	0.06 U	0.056 U	0.05 U	0.056 U	0.055 U	0.062 U
trans-1,3-Dichloropropene	mg/kg											0.06 U	0.056 U	0.05 U	0.056 U	0.055 U	0.062 U
Trichloroethene	mg/kg	0.1	4	440	7.1	78	170	390	1800000	500	500	0.06 U	0.025 J	0.05 U	0.02 J	0.025 J	0.062 U
Trichlorofluoromethane (CFC-11)	mg/kg	52		560	560	92000	630000	1500000	3800000000	560	560	0.12 U	0.11 U	0.099 U	0.11 U	0.11 U	0.12 U
Trifluorotrichloroethane (Freon 113)	mg/kg	550	1.7	550	550	180000	880000	2100000	5100000000	550	550	0.3 U	0.28 U	0.25 U	0.28 U	0.27 U	0.31 U
Vinyl chloride	mg/kg	0.04	0.3	20	0.27	4.2	30	73	350000	3.8	490	0.12 U	0.11 U	0.099 U	0.11 U	0.11 U	0.12 U
Xylene (total)	mg/kg	5.6	0.7	150	150	46000	61000	130000	290000000	150	150	0.18 U	0.17 U	0.15 U	0.17 U	0.16 U	0.19 U

Notes:
⁽¹⁾ Cleanup criteria identified by MDEQ RRD Op Memo No. 1, updated 1/23/2006, pursuant to 1994 PA 451 as amended.
U - Not present at or above the associated value.
J - Estimated concentration.
UJ - Estimated reporting limit.
 - Value exceeds referenced Part 201 Criteria (I.e. a, b, etc.)

TABLE 2

SUMMARY OF SOIL SAMPLES COMPARED TO MICHIGAN ACT 451, PART 201 RESIDENTIAL CRITERIA
SVE SOIL INVESTIGATION
GENERAL MOTORS CORPORATION
GRAND RAPIDS METAL PLANT
WYOMING, MICHIGAN

Sample Location	Michigan Act 451, Part 201 Residential and Commercial ⁽¹⁾											SB5-04	SB6-05	SB6-05	SB6-05	SB6-05	SB6-05
Sample Identification	Drinking Water	Groundwater Surface Water	Groundwater Contact	Soil Volatilization to Indoor Air	Infinite Source Volatile Soil Inhalation	Finite VSIC for 5 Meter Source Thickness	Finite VSIC for 2 Meter Source Thickness	Particulate Soil Inhalation	Direct Contact	Soil Saturation Concentration Screening	S-17360-071504-DCR-110	SO-17360-071105-DCR-419	SO-17360-071105-DCR-420	SO-17360-071105-DCR-421	SO-17360-071105-DCR-422	SO-17360-071105-DCR-423	
Sample Date	Protection	Interface Protection	Protection	Inhalation	Inhalation	Thickness	Thickness				7/15/2004	7/11/2005	7/11/2005	7/11/2005	7/11/2005	7/11/2005	
Sample Depth											20-22 ft BGS	0-2 ft BGS	2-4 ft BGS	4-6 ft BGS	6-8 ft BGS	8-10 ft BGS	
Sample Type	a	b	c	d	e	f	g	h	i	j							
Units																	
Volatile Organic Compounds																	
1,1,1-Trichloroethane	mg/kg	4	4	460	250	3800	12000	28000	67000000	460	460	0.071 U	0.04 U	0.04 U	0.038 U	0.038 U	
1,1,2,2-Tetrachloroethane	mg/kg	0.17	1.6	94	4.3	10	10	14	54000	53	870	0.14 U	0.08 U	0.081 U	0.076 U	0.075 U	
1,1,2-Trichloroethane	mg/kg	0.1	6.6	420	4.6	17	21	44	190000	180	920	0.071 U	0.04 U	0.04 U	0.038 U	0.038 U	
1,1-Dichloroethane	mg/kg	18	15	890	230	2100	5900	14000	33000000	890	890	0.071 U	0.04 U	0.04 U	0.038 U	0.038 U	
1,1-Dichloroethene	mg/kg	0.14	1.3	220	0.062	1.1	5.3	13	62000	200	570	0.071 U	0.04 U	0.04 U	0.038 U	0.038 U	
1,2,4-Trichlorobenzene	mg/kg	4.2	1.8	1100	1100	28000	28000	28000	25000000	990	1100	0.35 U	0.2 U	0.2 U	0.19 U	0.19 U	
1,2-Dibromo-3-chloropropane (DBCP)	mg/kg	0.01		1.2	1.2	13	13	13	13000	1.2	1.2	0.35 U	0.2 U	0.2 U	0.19 U	0.19 U	
1,2-Dibromoethane (Ethylene Dibromide)	mg/kg	0.02	0.02	0.5	0.67	1.7	1.7	3.3	14000	0.092	890	0.35 U	0.2 U	0.2 U	0.19 U	0.19 U	
1,2-Dichlorobenzene	mg/kg	14	0.36	210	210	39000	39000	52000	100000000	210	210	0.14 U	0.08 U	0.081 U	0.076 U	0.075 U	
1,2-Dichloroethane	mg/kg	0.1	7.2	380	2.1	6.2	11	26	120000	91	1200	0.071 U	0.04 U	0.04 U	0.038 U	0.038 U	
1,2-Dichloropropane	mg/kg	0.1	5.8	320	4	25	50	110	270000	140	550	0.071 U	0.04 U	0.04 U	0.038 U	0.038 U	
1,3-Dichlorobenzene	mg/kg	0.17	1.1	51	ID	ID	ID	ID	ID	170	170	0.14 U	0.08 U	0.081 U	0.076 U	0.075 U	
1,4-Dichlorobenzene	mg/kg	1.7	0.29	140	19	77	77	110	450000	400		0.14 U	0.08 U	0.081 U	0.076 U	0.075 U	
2-Butanone (Methyl Ethyl Ketone)	mg/kg	260	44	27000	27000	29000	29000	35000	67000000	27000	27000	1.1 U	0.6 U	0.61 U	0.57 U	0.56 U	
2-Hexanone	mg/kg	20		2500	990	1100	1100	1400	2700000	2500	2500	3.5 U	2 U	2 U	1.9 U	1.9 U	
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	mg/kg	36	ID	2700	2700	45000	45000	67000	140000000	2700	2700	3.5 U	2 U	2 U	1.9 U	1.9 U	
Acetone	mg/kg	15	34	110000	110000	130000	130000	190000	390000000	23000	110000	1.1 U	0.6 U	0.61 U	0.57 U	0.56 U	
Benzene	mg/kg	0.1	4	220	1.6	13	34	79	380000	180	400	0.071 U	0.04 U	0.04 U	0.038 U	0.038 U	
Bromodichloromethane	mg/kg	1.6	ID	280	1.2	9.1	9.7	19	84000	110	1500	0.14 U	0.08 UJ	0.081 UJ	0.076 UJ	0.075 UJ	
Bromoform	mg/kg	1.6	ID	870	150	900	900	900	2800000	820	870	0.14 U	0.08 U	0.081 U	0.076 U	0.075 U	
Bromomethane (Methyl Bromide)	mg/kg	0.2	0.7	1400	0.86	11	57	140	330000	320	2200	0.35 U	0.2 U	0.2 U	0.19 U	0.19 U	
Carbon disulfide	mg/kg	16	ID	280	76	1300	7900	19000	47000000	280	280	0.35 U	0.2 U	0.2 U	0.19 U	0.19 U	
Carbon tetrachloride	mg/kg	0.1	0.9	92	0.19	3.5	12	28	130000	96	390	0.071 U	0.04 U	0.04 U	0.038 U	0.038 U	
Chlorobenzene	mg/kg	2	0.94	260	120	770	990	2100	4700000	260	260	0.071 U	0.04 U	0.04 U	0.038 U	0.038 U	
Chloroethane	mg/kg	8.6	ID	950	950	30000	120000	280000	670000000	950	950	0.35 U	0.2 U	0.2 U	0.19 U	0.19 U	
Chloroform (Trichloromethane)	mg/kg	1.6	3.4	1500	7.2	45	120	270	1300000	1200	1500	0.071 U	0.04 U	0.04 U	0.038 U	0.038 U	
Chloromethane (Methyl Chloride)	mg/kg	5.2	ID	1100	2.3	40	410	1000	4900000	1100	1100	0.35 U	0.2 U	0.2 U	0.19 U	0.19 U	
cis-1,2-Dichloroethene	mg/kg	1.4	12	640	22	180	420	990	2300000	640	640	0.071 U	0.04 U	0.04 U	0.038 U	0.038 U	
cis-1,3-Dichloropropene	mg/kg											0.071 U	0.04 U	0.04 U	0.038 U	0.038 U	
Cyclohexane	mg/kg											1.7 U	0.96 U	0.97 U	0.91 U	0.9 U	
Dibromochloromethane	mg/kg	1.6	ID	360	3.9	24	24	33	130000	110	610	0.071 U	0.04 U	0.04 U	0.038 U	0.038 U	
Dichlorodifluoromethane (CFC-12)	mg/kg	95	ID	1000	900	53000	550000	1400000	3300000000	1000	1000	0.14 U	0.08 U	0.081 U	0.076 U	0.075 U	
Ethylbenzene	mg/kg	1.5	0.36	140	87	720	1000	2200	10000000	140	140	0.071 U	0.04 U	0.04 U	0.038 U	0.038 U	
Isopropylbenzene	mg/kg	91	ID	390	390	1700	1700	2800	5800000	390	390	0.35 U	0.2 U	0.2 U	0.19 U	0.19 U	
Methyl acetate	mg/kg											1.7 U	0.053 J	0.97 U	0.91 U	0.9 U	
Methyl cyclohexane	mg/kg											1.7 U	0.96 U	0.97 U	0.91 U	0.9 U	
Methyl Tert Butyl Ether	mg/kg	0.8	15	5900	5900	25000	39000	87000	200000000	1500	5900	0.35 U	0.2 U	0.2 U	0.19 U	0.19 U	
Methylene chloride	mg/kg	0.1	19	2300	45	210	590	1400	6600000	1300	2300	0.35 U	0.2 U	0.2 U	0.19 U	0.19 U	
Styrene	mg/kg	2.7	2.2	270	250	970	970	1400	5500000	400	520	0.071 U	0.04 U	0.04 U	0.038 U	0.038 U	
Tetrachloroethene	mg/kg	0.1	0.9	88	11	180	480	1100	5400000	88	88	0.071 U	0.04 U	0.04 U	0.038 U	0.038 U	
Toluene	mg/kg	16	2.8	250	250	2800	5100	12000	27000000	250	250	0.14 U	0.08 U	0.081 U	0.076 U	0.075 U	
trans-1,2-Dichloroethene	mg/kg	2	30	1400	23	280	830	2000	4700000	1400	1400	0.071 U	0.04 U	0.04 U	0.038 U	0.038 U	
trans-1,3-Dichloropropene	mg/kg											0.071 U	0.04 UJ	0.04 UJ	0.038 UJ	0.038 UJ	
Trichloroethene	mg/kg	0.1	4	440	7.1	78	170	390	1800000	500	500	0.071 U	0.015 J	0.04 U	0.038 U	0.038 U	
Trichlorofluoromethane (CFC-11)	mg/kg	52		560	560	92000	630000	1500000	3800000000	560	560	0.14 U	0.08 U	0.081 U	0.076 U	0.075 U	
Trifluorotrichloroethane (Freon 113)	mg/kg	550	1.7	550	550	180000	880000	2100000	5100000000	550	550	0.35 U	0.2 U	0.2 U	0.19 U	0.19 U	
Vinyl chloride	mg/kg	0.04	0.3	20	0.27	4.2	30	73	350000	3.8	490	0.14 U	0.08 U	0.081 U	0.076 U	0.075 U	
Xylene (total)	mg/kg	5.6	0.7	150	150	46000	61000	130000	290000000	150	150	0.21 U	0.12 U	0.12 U	0.11 U	0.11 U	

Notes:
⁽¹⁾ Cleanup criteria identified by MDEQ RRD Op Memo No. 1, updated 1/23/2006, pursuant to 1994 PA 451 as amended.
U - Not present at or above the associated value.
J - Estimated concentration.
UJ - Estimated reporting limit.
 - Value exceeds referenced Part 201 Criteria (I.e. a, b, etc.)

TABLE 2

SUMMARY OF SOIL SAMPLES COMPARED TO MICHIGAN ACT 451, PART 201 RESIDENTIAL CRITERIA
SVE SOIL INVESTIGATION
GENERAL MOTORS CORPORATION
GRAND RAPIDS METAL PLANT
WYOMING, MICHIGAN

Sample Location	<i>Michigan Act 451, Part 201 Residential and Commercial</i> ⁽¹⁾										<i>SB6-05</i>	<i>SB6-05</i>	<i>SB6-05</i>	<i>SB6-05</i>	<i>SB6-05</i>	<i>SB6-05</i>
Sample Identification	Drinking Water	Groundwater Surface Water	Groundwater Contact	Soil Volatilization to Indoor Air	Infinite Source Volatile Soil Inhalation	Finite VSIC for 5 Meter Source Thickness	Finite VSIC for 2 Meter Source Thickness	Particulate Soil Inhalation	Direct Contact	Soil Saturation Concentration Screening	<i>SO-17360-071105-DCR-424</i>	<i>SO-17360-071105-DCR-425</i>	<i>SO-17360-071105-DCR-426</i>	<i>SO-17360-071105-DCR-427</i>	<i>SO-17360-071105-DCR-428</i>	<i>SO-17360-071105-DCR-429</i>
Sample Date																
Sample Depth	Protection	Interface Protection	Protection	Inhalation	Inhalation	Thickness	Thickness				<i>7/11/2005</i>	<i>7/11/2005</i>	<i>7/11/2005</i>	<i>7/11/2005</i>	<i>7/11/2005</i>	<i>7/11/2005</i>
Sample Type	a	b	c	d	e	f	g	h	i	j	<i>10-12 ft BGS</i>	<i>12-14 ft BGS</i>	<i>14-16 ft BGS</i>	<i>16-18 ft BGS</i>	<i>18-20 ft BGS</i>	<i>Duplicate</i>
<i>Units</i>																
<i>Volatile Organic Compounds</i>																
1,1,1-Trichloroethane	mg/kg	4	4	460	250	3800	12000	28000	67000000	460	460	0.048 U	0.038 U	0.053 U	0.04 U	0.042 U
1,1,2,2-Tetrachloroethane	mg/kg	0.17	1.6	94	4.3	10	10	14	54000	53	870	0.096 U	0.076 U	0.11 U	0.08 U	0.084 U
1,1,2-Trichloroethane	mg/kg	0.1	6.6	420	4.6	17	21	44	190000	180	920	0.048 U	0.038 U	0.053 U	0.04 U	0.042 U
1,1-Dichloroethane	mg/kg	18	15	890	230	2100	5900	14000	33000000	890	890	0.048 U	0.038 U	0.053 U	0.04 U	0.042 U
1,1-Dichloroethene	mg/kg	0.14	1.3	220	0.062	1.1	5.3	13	62000	200	570	0.048 U	0.038 U	0.053 U	0.04 U	0.042 U
1,2,4-Trichlorobenzene	mg/kg	4.2	1.8	1100	1100	28000	28000	25000000	990	1100	0.24 U	0.19 U	0.26 U	0.2 U	0.21 U	0.2 U
1,2-Dibromo-3-chloropropane (DBCP)	mg/kg	0.01		1.2	1.2	13	13	13	13000	1.2	1.2	0.24 U	0.19 U	0.26 U	0.2 U	0.2 U
1,2-Dibromoethane (Ethylene Dibromide)	mg/kg	0.02	0.02	0.5	0.67	1.7	1.7	3.3	14000	0.092	890	0.24 U	0.19 U	0.26 U	0.2 U	0.2 U
1,2-Dichlorobenzene	mg/kg	14	0.36	210	210	39000	39000	52000	100000000	210	210	0.096 U	0.076 U	0.11 U	0.08 U	0.084 U
1,2-Dichloroethane	mg/kg	0.1	7.2	380	2.1	6.2	11	26	120000	91	1200	0.048 U	0.038 U	0.053 U	0.04 U	0.042 U
1,2-Dichloropropane	mg/kg	0.1	5.8	320	4	25	50	110	270000	140	550	0.048 U	0.038 U	0.053 U	0.04 U	0.042 U
1,3-Dichlorobenzene	mg/kg	0.17	1.1	51	ID	ID	ID	ID	ID	170	170	0.096 U	0.076 U	0.11 U	0.08 U	0.084 U
1,4-Dichlorobenzene	mg/kg	1.7	0.29	140	19	77	77	110	450000	400		0.096 U	0.076 U	0.11 U	0.08 U	0.084 U
2-Butanone (Methyl Ethyl Ketone)	mg/kg	260	44	27000	27000	29000	29000	35000	67000000	27000	27000	0.72 U	0.57 U	0.79 U	0.6 U	0.63 U
2-Hexanone	mg/kg	20		2500	990	1100	1100	1400	2700000	2500	2500	2.4 U	1.9 U	2.6 U	2 U	2.1 U
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	mg/kg	36	ID	2700	2700	45000	45000	67000	140000000	2700	2700	2.4 U	1.9 U	2.6 U	2 U	2.1 U
Acetone	mg/kg	15	34	110000	110000	130000	130000	190000	390000000	23000	110000	0.72 U	0.57 U	0.79 U	0.6 U	0.63 U
Benzene	mg/kg	0.1	4	220	1.6	13	34	79	380000	180	400	0.048 U	0.038 U	0.053 U	0.04 U	0.042 U
Bromodichloromethane	mg/kg	1.6	ID	280	1.2	9.1	9.7	19	84000	110	1500	0.096 UJ	0.076 UJ	0.11 UJ	0.08 UJ	0.084 U
Bromoform	mg/kg	1.6	ID	870	150	900	900	900	2800000	820	870	0.096 U	0.076 U	0.11 U	0.08 U	0.084 U
Bromomethane (Methyl Bromide)	mg/kg	0.2	0.7	1400	0.86	11	57	140	330000	320	2200	0.24 U	0.19 U	0.26 U	0.2 U	0.21 U
Carbon disulfide	mg/kg	16	ID	280	76	1300	7900	19000	47000000	280	280	0.24 U	0.19 U	0.26 U	0.2 U	0.21 U
Carbon tetrachloride	mg/kg	0.1	0.9	92	0.19	3.5	12	28	130000	96	390	0.048 U	0.038 U	0.053 U	0.04 U	0.042 U
Chlorobenzene	mg/kg	2	0.94	260	120	770	990	2100	4700000	260	260	0.048 U	0.038 U	0.053 U	0.04 U	0.042 U
Chloroethane	mg/kg	8.6	ID	950	950	30000	120000	280000	670000000	950	950	0.24 U	0.19 U	0.26 U	0.2 U	0.21 U
Chloroform (Trichloromethane)	mg/kg	1.6	3.4	1500	7.2	45	120	270	1300000	1200	1500	0.048 U	0.038 U	0.053 U	0.04 U	0.042 U
Chloromethane (Methyl Chloride)	mg/kg	5.2	ID	1100	2.3	40	410	1000	4900000	1100	1100	0.24 U	0.19 U	0.26 U	0.2 U	0.21 U
cis-1,2-Dichloroethene	mg/kg	1.4	12	640	22	180	420	990	2300000	640	640	0.048 U	0.038 U	0.053 U	0.04 U	0.042 U
cis-1,3-Dichloropropene	mg/kg											0.048 U	0.038 U	0.053 U	0.04 U	0.042 U
Cyclohexane	mg/kg											1.2 U	0.91 U	1.3 U	0.96 U	1 U
Dibromochloromethane	mg/kg	1.6	ID	360	3.9	24	24	33	130000	110	610	0.048 U	0.038 U	0.053 U	0.04 U	0.042 U
Dichlorodifluoromethane (CFC-12)	mg/kg	95	ID	1000	900	53000	550000	1400000	3300000000	1000	1000	0.096 U	0.076 U	0.11 U	0.08 U	0.084 U
Ethylbenzene	mg/kg	1.5	0.36	140	87	720	1000	2200	10000000	140	140	0.048 U	0.038 U	0.053 U	0.016 J	0.042 U
Isopropylbenzene	mg/kg	91	ID	390	390	1700	1700	2800	5800000	390	390	0.24 U	0.19 U	0.26 U	0.2 U	0.21 U
Methyl acetate	mg/kg											1.2 U	0.91 U	1.3 U	0.95 J	1 U
Methyl cyclohexane	mg/kg											1.2 U	0.91 U	1.3 U	0.96 U	1 U
Methyl Tert Butyl Ether	mg/kg	0.8	15	5900	5900	25000	39000	87000	200000000	1500	5900	0.24 U	0.19 U	0.26 U	0.2 U	0.21 U
Methylene chloride	mg/kg	0.1	19	2300	45	210	590	1400	6600000	1300	2300	0.24 U	0.19 U	0.26 U	0.2 U	0.21 U
Styrene	mg/kg	2.7	2.2	270	250	970	970	1400	5500000	400	520	0.048 U	0.038 U	0.053 U	0.04 U	0.042 U
Tetrachloroethene	mg/kg	0.1	0.9	88	11	180	480	1100	5400000	88	88	0.048 U	0.038 U	0.053 U	0.04 U	0.042 U
Toluene	mg/kg	16	2.8	250	250	2800	5100	12000	27000000	250	250	0.096 U	0.076 U	0.11 U	0.08 U	0.084 U
trans-1,2-Dichloroethene	mg/kg	2	30	1400	23	280	830	2000	4700000	1400	1400	0.048 U	0.038 U	0.053 U	0.04 U	0.042 U
trans-1,3-Dichloropropene	mg/kg											0.048 UJ	0.038 UJ	0.053 UJ	0.04 UJ	0.042 U
Trichloroethene	mg/kg	0.1	4	440	7.1	78	170	390	1800000	500	500	0.048 U	0.038 U	0.053 U	0.014 J	0.042 U
Trichlorofluoromethane (CFC-11)	mg/kg	52		560	560	92000	630000	1500000	3800000000	560	560	0.096 U	0.076 U	0.11 U	0.08 U	0.084 U
Trifluorotrichloroethane (Freon 113)	mg/kg	550	1.7	550	550	180000	880000	2100000	5100000000	550	550	0.24 U	0.19 U	0.26 U	0.2 U	0.21 U
Vinyl chloride	mg/kg	0.04	0.3	20	0.27	4.2	30	73	350000	3.8	490	0.096 U	0.076 U	0.11 U	0.08 U	0.084 U
Xylene (total)	mg/kg	5.6	0.7	150	150	46000	61000	130000	290000000	150	150	0.14 U	0.11 U	0.16 U	0.098 J	0.13 U

Notes:
⁽¹⁾ Cleanup criteria identified by MDEQ RRD Op Memo No. 1, updated 1/23/2006, pursuant to 1994 PA 451 as amended.
U - Not present at or above the associated value.
J - Estimated concentration.
UJ - Estimated reporting limit.
 Value exceeds referenced Part 201 Criteria (I.e. a, b, etc.)

TABLE 2

SUMMARY OF SOIL SAMPLES COMPARED TO MICHIGAN ACT 451, PART 201 RESIDENTIAL CRITERIA
SVE SOIL INVESTIGATION
GENERAL MOTORS CORPORATION
GRAND RAPIDS METAL PLANT
WYOMING, MICHIGAN

Sample Location	<i>Michigan Act 451, Part 201 Residential and Commercial</i> ⁽¹⁾											<i>SB7-05</i>	<i>SB7-05</i>	<i>SB7-05</i>	<i>SB7-05</i>	<i>SB7-05</i>	<i>SB7-05</i>
Sample Identification	Drinking Water	Groundwater Surface Water	Groundwater Contact	Soil Volatilization to Indoor Air	Infinite Source Volatile Soil Inhalation	Finite VSIC for 5 Meter Source Thickness	Finite VSIC for 2 Meter Source Thickness	Particulate Soil Inhalation	Direct Contact	Soil Saturation Concentration Screening	<i>SO-17360-071105-DCR-450</i>	<i>SO-17360-071105-DCR-451</i>	<i>SO-17360-071105-DCR-452</i>	<i>SO-17360-071105-DCR-453</i>	<i>SO-17360-071105-DCR-454</i>	<i>SO-17360-071105-DCR-455</i>	
Sample Date	Protection	Interface Protection	Protection	Inhalation	Inhalation	Thickness	Thickness				<i>7/11/2005</i>	<i>7/11/2005</i>	<i>7/11/2005</i>	<i>7/11/2005</i>	<i>7/11/2005</i>	<i>7/11/2005</i>	
Sample Depth											<i>0-2 ft BGS</i>	<i>2-4 ft BGS</i>	<i>4-6 ft BGS</i>	<i>6-8 ft BGS</i>	<i>8-10 ft BGS</i>	<i>10-12 ft BGS</i>	
Sample Type	a	b	c	d	e	f	g	h	i	j							
<i>Units</i>																	
<i>Volatile Organic Compounds</i>																	
1,1,1-Trichloroethane	mg/kg	4	4	460	250	3800	12000	28000	67000000	460	460	0.04 U	0.074 U	0.039 U	0.037 U	0.039 U	0.041 U
1,1,2,2-Tetrachloroethane	mg/kg	0.17	1.6	94	4.3	10	10	14	54000	53	870	0.08 U	0.15 U	0.078 U	0.074 U	0.078 U	0.082 U
1,1,2-Trichloroethane	mg/kg	0.1	6.6	420	4.6	17	21	44	190000	180	920	0.04 U	0.074 U	0.039 U	0.037 U	0.039 U	0.041 U
1,1-Dichloroethane	mg/kg	18	15	890	230	2100	5900	14000	33000000	890	890	0.04 U	0.074 U	0.039 U	0.037 U	0.039 U	0.041 U
1,1-Dichloroethene	mg/kg	0.14	1.3	220	0.062	1.1	5.3	13	62000	200	570	0.04 U	0.074 U	0.039 U	0.037 U	0.039 U	0.041 U
1,2,4-Trichlorobenzene	mg/kg	4.2	1.8	1100	1100	28000	28000	28000	25000000	990	1100	0.2 U	0.37 U	0.19 U	0.18 U	0.19 U	0.2 U
1,2-Dibromo-3-chloropropane (DBCP)	mg/kg	0.01		1.2	1.2	13	13	13	13000	1.2	1.2	0.2 U	0.37 U	0.19 U	0.18 U	0.19 U	0.2 U
1,2-Dibromoethane (Ethylene Dibromide)	mg/kg	0.02	0.02	0.5	0.67	1.7	1.7	3.3	14000	0.092	890	0.2 U	0.37 U	0.19 U	0.18 U	0.19 U	0.2 U
1,2-Dichlorobenzene	mg/kg	14	0.36	210	210	39000	39000	52000	100000000	210	210	0.08 U	0.15 U	0.078 U	0.074 U	0.078 U	0.082 U
1,2-Dichloroethane	mg/kg	0.1	7.2	380	2.1	6.2	11	26	120000	91	1200	0.04 U	0.074 U	0.039 U	0.037 U	0.039 U	0.041 U
1,2-Dichloropropane	mg/kg	0.1	5.8	320	4	25	50	110	270000	140	550	0.04 U	0.074 U	0.039 U	0.037 U	0.039 U	0.041 U
1,3-Dichlorobenzene	mg/kg	0.17	1.1	51	ID	ID	ID	ID	ID	170	170	0.08 U	0.15 U	0.078 U	0.074 U	0.078 U	0.082 U
1,4-Dichlorobenzene	mg/kg	1.7	0.29	140	19	77	77	110	450000	400		0.08 U	0.15 U	0.078 U	0.074 U	0.078 U	0.082 U
2-Butanone (Methyl Ethyl Ketone)	mg/kg	260	44	27000	27000	29000	29000	35000	67000000	27000	27000	0.6 U	1.1 U	0.58 U	0.55 U	0.58 U	0.61 U
2-Hexanone	mg/kg	20		2500	990	1100	1100	1400	2700000	2500	2500	2 U	3.7 U	1.9 U	1.8 U	1.9 U	2 U
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	mg/kg	36	ID	2700	2700	45000	45000	67000	140000000	2700	2700	2 U	3.7 U	1.9 U	1.8 U	1.9 U	2 U
Acetone	mg/kg	15	34	110000	110000	130000	130000	190000	390000000	23000	110000	0.6 U	1.1 U	0.58 U	0.55 U	0.58 U	0.61 U
Benzene	mg/kg	0.1	4	220	1.6	13	34	79	380000	180	400	0.04 U	0.074 U	0.039 U	0.037 U	0.039 U	0.041 U
Bromodichloromethane	mg/kg	1.6	ID	280	1.2	9.1	9.7	19	84000	110	1500	0.08 UJ	0.15 UJ	0.078 UJ	0.074 UJ	0.078 UJ	0.082 UJ
Bromoform	mg/kg	1.6	ID	870	150	900	900	900	2800000	820	870	0.08 U	0.15 U	0.078 U	0.074 U	0.078 U	0.082 U
Bromomethane (Methyl Bromide)	mg/kg	0.2	0.7	1400	0.86	11	57	140	330000	320	2200	0.2 U	0.37 U	0.19 U	0.18 U	0.19 U	0.2 U
Carbon disulfide	mg/kg	16	ID	280	76	1300	7900	19000	47000000	280	280	0.2 U	0.37 U	0.19 U	0.18 U	0.19 U	0.2 U
Carbon tetrachloride	mg/kg	0.1	0.9	92	0.19	3.5	12	28	130000	96	390	0.04 U	0.074 U	0.039 U	0.037 U	0.039 U	0.041 U
Chlorobenzene	mg/kg	2	0.94	260	120	770	990	2100	4700000	260	260	0.04 U	0.074 U	0.039 U	0.037 U	0.039 U	0.041 U
Chloroethane	mg/kg	8.6	ID	950	950	30000	120000	280000	670000000	950	950	0.2 U	0.37 U	0.19 U	0.18 U	0.19 U	0.2 U
Chloroform (Trichloromethane)	mg/kg	1.6	3.4	1500	7.2	45	120	270	1300000	1200	1500	0.04 U	0.074 U	0.039 U	0.037 U	0.039 U	0.041 U
Chloromethane (Methyl Chloride)	mg/kg	5.2	ID	1100	2.3	40	410	1000	4900000	1100	1100	0.2 U	0.37 U	0.19 U	0.18 U	0.19 U	0.2 U
cis-1,2-Dichloroethene	mg/kg	1.4	12	640	22	180	420	990	2300000	640	640	0.04 U	0.074 U	0.039 U	0.037 U	0.039 U	0.041 U
cis-1,3-Dichloropropene	mg/kg											0.04 U	0.074 U	0.039 U	0.037 U	0.039 U	0.041 U
Cyclohexane	mg/kg											0.008 J	1.8 U	0.93 U	0.88 U	0.93 U	0.98 U
Dibromochloromethane	mg/kg	1.6	ID	360	3.9	24	24	33	130000	110	610	0.04 U	0.074 U	0.039 U	0.037 U	0.039 U	0.041 U
Dichlorodifluoromethane (CFC-12)	mg/kg	95	ID	1000	900	53000	550000	1400000	3300000000	1000	1000	0.08 U	0.15 U	0.078 U	0.074 U	0.078 U	0.082 U
Ethylbenzene	mg/kg	1.5	0.36	140	87	720	1000	2200	10000000	140	140	0.04 U	0.074 U	0.039 U	0.037 U	0.039 U	0.041 U
Isopropylbenzene	mg/kg	91	ID	390	390	1700	1700	2800	5800000	390	390	0.2 U	0.37 U	0.19 U	0.18 U	0.19 U	0.2 U
Methyl acetate	mg/kg											0.96 U	1.8 U	0.93 U	0.88 U	0.93 U	0.98 U
Methyl cyclohexane	mg/kg											0.026 J	0.032 J	0.93 U	0.88 U	0.93 U	0.98 U
Methyl Tert Butyl Ether	mg/kg	0.8	15	5900	5900	25000	39000	87000	200000000	1500	5900	0.2 U	0.37 U	0.19 U	0.18 U	0.19 U	0.2 U
Methylene chloride	mg/kg	0.1	19	2300	45	210	590	1400	6600000	1300	2300	0.2 U	0.37 U	0.19 U	0.18 U	0.19 U	0.2 U
Styrene	mg/kg	2.7	2.2	270	250	970	970	1400	5500000	400	520	0.04 U	0.074 U	0.039 U	0.037 U	0.039 U	0.041 U
Tetrachloroethene	mg/kg	0.1	0.9	88	11	180	480	1100	5400000	88	88	0.04 U	0.074 U	0.039 U	0.037 U	0.039 U	0.041 U
Toluene	mg/kg	16	2.8	250	250	2800	5100	12000	27000000	250	250	0.08 U	0.15 U	0.078 U	0.074 U	0.078 U	0.082 U
trans-1,2-Dichloroethene	mg/kg	2	30	1400	23	280	830	2000	4700000	1400	1400	0.04 U	0.074 U	0.039 U	0.037 U	0.039 U	0.041 U
trans-1,3-Dichloropropene	mg/kg											0.04 U	0.074 U	0.039 U	0.037 U	0.039 U	0.041 U
Trichloroethene	mg/kg	0.1	4	440	7.1	78	170	390	1800000	500	500	1.6 ^a 2.5 ^a		0.016 J	0.037 U	0.039 U	0.041 U
Trichlorofluoromethane (CFC-11)	mg/kg	52		560	560	92000	630000	1500000	3800000000	560	560	0.08 U	0.15 U	0.078 U	0.074 U	0.078 U	0.082 U
Trifluorotrichloroethane (Freon 113)	mg/kg	550	1.7	550	550	180000	880000	2100000	5100000000	550	550	0.2 U	0.37 U	0.19 U	0.18 U	0.19 U	0.2 U
Vinyl chloride	mg/kg	0.04	0.3	20	0.27	4.2	30	73	350000	3.8	490	0.08 U	0.15 U	0.078 U	0.074 U	0.078 U	0.082 U
Xylene (total)	mg/kg	5.6	0.7	150	150	46000	61000	130000	290000000	150	150	0.016 J	0.22 U	0.12 U	0.11 U	0.12 U	0.12 U

Notes:
⁽¹⁾ Cleanup criteria identified by MDEQ RRD Op Memo No. 1, updated 1/23/2006, pursuant to 1994 PA 451 as amended.
U - Not present at or above the associated value.
J - Estimated concentration.
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 Value exceeds referenced Part 201 Criteria (I.e. a, b, etc.)

TABLE 2

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SVE SOIL INVESTIGATION
GENERAL MOTORS CORPORATION
GRAND RAPIDS METAL PLANT
WYOMING, MICHIGAN

Sample Location	Michigan Act 451, Part 201 Residential and Commercial ⁽¹⁾											SB7-05	SB7-05	SB7-05	SB7-05	SB8-05	SB8-05		
Sample Identification	Drinking Water	Groundwater Surface Water	Groundwater Contact	Soil Volatilization to Indoor Air Inhalation	Infinite Source Volatile Soil Inhalation	Finite VSIC for 5 Meter Source Thickness	Finite VSIC for 2 Meter Source Thickness	Particulate Soil Inhalation	Direct Contact	Soil Saturation Concentration Screening	SO-17360-071105-DCR-456	SO-17360-071105-DCR-457	SO-17360-071105-DCR-458	SO-17360-071105-DCR-459	SO-17360-071205-DCR-471	SO-17360-071205-DCR-472			
Sample Date	Protection	Interface Protection	Protection								7/11/2005	7/11/2005	7/11/2005	7/11/2005	7/12/2005	7/12/2005			
Sample Depth											12-14 ft BGS	14-16 ft BGS	16-18 ft BGS	18-20 ft BGS	0-2 ft BGS	2-4 ft BGS			
Sample Type	a	b	c	d	e	f	g	h	i	j									
	Units																		
Volatile Organic Compounds																			
1,1,1-Trichloroethane	mg/kg	4	4	460	250	3800	12000	28000	67000000	460	460	0.038 U	0.044 U	0.052 U	0.04 U	1.3 U	0.04 U		
1,1,2,2-Tetrachloroethane	mg/kg	0.17	1.6	94	4.3	10	10	14	54000	53	870	0.077 U	0.089 U	0.1 U	0.081 U	2.7 U	0.08 U		
1,1,2-Trichloroethane	mg/kg	0.1	6.6	420	4.6	17	21	44	190000	180	920	0.038 U	0.044 U	0.052 U	0.04 U	1.3 U	0.04 U		
1,1-Dichloroethane	mg/kg	18	15	890	230	2100	5900	14000	33000000	890	890	0.038 U	0.044 U	0.052 U	0.04 U	1.3 U	0.04 U		
1,1-Dichloroethene	mg/kg	0.14	1.3	220	0.062	1.1	5.3	13	62000	200	570	0.038 U	0.044 U	0.052 U	0.04 U	1.3 U	0.04 U		
1,2,4-Trichlorobenzene	mg/kg	4.2	1.8	1100	1100	28000	28000	28000	25000000	990	1100	0.19 U	0.22 U	0.26 U	0.2 U	6.7 U	0.2 U		
1,2-Dibromo-3-chloropropane (DBCP)	mg/kg	0.01		1.2	1.2	13	13	13	13000	1.2	1.2	0.19 U	0.22 U	0.26 U	0.2 U	6.7 U	0.2 U		
1,2-Dibromoethane (Ethylene Dibromide)	mg/kg	0.02	0.02	0.5	0.67	1.7	1.7	3.3	14000	0.092	890	0.19 U	0.22 U	0.26 U	0.2 U	6.7 U	0.2 U		
1,2-Dichlorobenzene	mg/kg	14	0.36	210	210	39000	39000	52000	100000000	210	210	0.077 U	0.089 U	0.1 U	0.081 U	2.7 U	0.08 U		
1,2-Dichloroethane	mg/kg	0.1	7.2	380	2.1	6.2	11	26	120000	91	1200	0.038 U	0.044 U	0.052 U	0.04 U	1.3 U	0.04 U		
1,2-Dichloropropane	mg/kg	0.1	5.8	320	4	25	50	110	270000	140	550	0.038 U	0.044 U	0.052 U	0.04 U	1.3 U	0.04 U		
1,3-Dichlorobenzene	mg/kg	0.17	1.1	51	ID	ID	ID	ID	ID	170	170	0.077 U	0.089 U	0.1 U	0.081 U	2.7 U	0.08 U		
1,4-Dichlorobenzene	mg/kg	1.7	0.29	140	19	77	77	110	450000	400		0.077 U	0.089 U	0.1 U	0.081 U	2.7 U	0.08 U		
2-Butanone (Methyl Ethyl Ketone)	mg/kg	260	44	27000	27000	29000	29000	35000	67000000	27000	27000	0.58 U	0.67 U	0.78 U	0.61 U	20 U	0.6 U		
2-Hexanone	mg/kg	20		2500	990	1100	1100	1400	2700000	2500	2500	1.9 U	2.2 U	2.6 U	2 U	67 U	2 U		
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	mg/kg	36	ID	2700	2700	45000	45000	67000	140000000	2700	2700	1.9 U	2.2 U	2.6 U	2 U	67 U	2 U		
Acetone	mg/kg	15	34	110000	110000	130000	130000	190000	390000000	23000	110000	0.58 U	0.67 U	0.78 U	0.61 U	20 U	0.6 U		
Benzene	mg/kg	0.1	4	220	1.6	13	34	79	380000	180	400	0.038 U	0.044 U	0.052 U	0.04 U	1.3 U	0.04 U		
Bromodichloromethane	mg/kg	1.6	ID	280	1.2	9.1	9.7	19	84000	110	1500	0.077 UJ	0.089 UJ	0.1 UJ	0.081 UJ	2.7 UJ	0.08 UJ		
Bromoform	mg/kg	1.6	ID	870	150	900	900	900	2800000	820	870	0.077 U	0.089 U	0.1 U	0.081 U	2.7 U	0.08 U		
Bromomethane (Methyl Bromide)	mg/kg	0.2	0.7	1400	0.86	11	57	140	330000	320	2200	0.19 U	0.22 U	0.26 U	0.2 U	6.7 U	0.2 U		
Carbon disulfide	mg/kg	16	ID	280	76	1300	7900	19000	47000000	280	280	0.19 U	0.22 U	0.26 U	0.2 U	6.7 U	0.2 U		
Carbon tetrachloride	mg/kg	0.1	0.9	92	0.19	3.5	12	28	130000	96	390	0.038 U	0.044 U	0.052 U	0.04 U	1.3 U	0.04 U		
Chlorobenzene	mg/kg	2	0.94	260	120	770	990	2100	4700000	260	260	0.038 U	0.044 U	0.052 U	0.04 U	1.3 U	0.04 U		
Chloroethane	mg/kg	8.6	ID	950	950	30000	120000	280000	670000000	950	950	0.19 U	0.22 U	0.26 U	0.2 U	6.7 U	0.2 U		
Chloroform (Trichloromethane)	mg/kg	1.6	3.4	1500	7.2	45	120	270	1300000	1200	1500	0.038 U	0.044 U	0.052 U	0.04 U	1.3 U	0.04 U		
Chloromethane (Methyl Chloride)	mg/kg	5.2	ID	1100	2.3	40	410	1000	4900000	1100	1100	0.19 U	0.22 U	0.26 U	0.2 U	6.7 U	0.2 U		
cis-1,2-Dichloroethene	mg/kg	1.4	12	640	22	180	420	990	2300000	640	640	0.038 U	0.044 U	0.052 U	0.04 U	1.3 U	0.04 U		
cis-1,3-Dichloropropene	mg/kg											0.038 U	0.044 U	0.052 U	0.04 U	1.3 UJ	0.04 UJ		
Cyclohexane	mg/kg											0.92 U	1.1 U	1.2 U	0.97 U	32 U	0.96 U		
Dibromochloromethane	mg/kg	1.6	ID	360	3.9	24	24	33	130000	110	610	0.038 U	0.044 U	0.052 U	0.04 U	1.3 U	0.04 U		
Dichlorodifluoromethane (CFC-12)	mg/kg	95	ID	1000	900	53000	550000	1400000	3300000000	1000	1000	0.077 U	0.089 U	0.1 U	0.081 U	2.7 U	0.08 U		
Ethylbenzene	mg/kg	1.5	0.36	140	87	720	1000	2200	10000000	140	140	0.038 U	0.044 U	0.052 U	0.04 U	1.3 U	0.04 U		
Isopropylbenzene	mg/kg	91	ID	390	390	1700	1700	2800	5800000	390	390	0.19 U	0.22 U	0.26 U	0.2 U	6.7 U	0.2 U		
Methyl acetate	mg/kg											0.92 U	0.19 J	0.14 J	0.97 U	32 U	0.96 U		
Methyl cyclohexane	mg/kg											0.92 U	1.1 U	1.2 U	0.97 U	0.57 J	0.96 U		
Methyl Tert Butyl Ether	mg/kg	0.8	15	5900	5900	25000	39000	87000	200000000	1500	5900	0.19 U	0.22 U	0.26 U	0.2 U	6.7 U	0.2 U		
Methylene chloride	mg/kg	0.1	19	2300	45	210	590	1400	6600000	1300	2300	0.19 U	0.22 U	0.26 U	0.2 U	6.7 U	0.2 U		
Styrene	mg/kg	2.7	2.2	270	250	970	970	1400	5500000	400	520	0.038 U	0.044 U	0.052 U	0.04 U	1.3 U	0.04 U		
Tetrachloroethene	mg/kg	0.1	0.9	88	11	180	480	1100	5400000	88	88	0.038 U	0.044 U	0.052 U	0.04 U	1.3 U	0.04 U		
Toluene	mg/kg	16	2.8	250	250	2800	5100	12000	27000000	250	250	0.077 U	0.089 U	0.1 U	0.081 U	2.7 U	0.08 U		
trans-1,2-Dichloroethene	mg/kg	2	30	1400	23	280	830	2000	4700000	1400	1400	0.038 U	0.044 U	0.052 U	0.04 U	1.3 U	0.04 U		
trans-1,3-Dichloropropene	mg/kg											0.038 U	0.044 U	0.052 U	0.04 U	1.3 UJ	0.04 UJ		
Trichloroethene	mg/kg	0.1	4	440	7.1	78	170	390	1800000	500	500	0.038 U	0.29 ^a		0.38 ^a	0.045	46 ^{add}		1.5 ^a
Trichlorofluoromethane (CFC-11)	mg/kg	52		560	560	92000	630000	1500000	3800000000	560	560	0.077 U	0.089 U	0.1 U	0.081 U	2.7 U	0.08 U		
Trifluorotrichloroethane (Freon 113)	mg/kg	550	1.7	550	550	180000	880000	2100000	5100000000	550	550	0.19 U	0.22 U	0.26 U	0.2 U	6.7 U	0.2 U		
Vinyl chloride	mg/kg	0.04	0.3	20	0.27	4.2	30	73	350000	3.8	490	0.077 U	0.089 U	0.1 U	0.081 U	2.7 U	0.08 U		
Xylene (total)	mg/kg	5.6	0.7	150	150	46000	61000	130000	290000000	150	150	0.12 U	0.13 U	0.16 U	0.12 U	4 U	0.12 U		

Notes:
⁽¹⁾ Cleanup criteria identified by MDEQ RRD Op Memo No. 1, updated 1/23/2006, pursuant to 1994 PA 451 as amended.
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GRAND RAPIDS METAL PLANT
WYOMING, MICHIGAN

Sample Location	Michigan Act 451, Part 201 Residential and Commercial ⁽¹⁾										SB8-05	SB8-05	SB8-05	SB8-05	SB8-05	SB8-05
Sample Identification	Drinking Water	Groundwater Surface Water	Groundwater Contact	Soil Volatilization to Indoor Air	Infinite Source Volatile Soil Inhalation	Finite VSIC for 5 Meter Source Thickness	Finite VSIC for 2 Meter Source Thickness	Particulate Soil Inhalation	Direct Contact	Soil Saturation Concentration Screening	SO-17360-071205-DCR-473	SO-17360-071205-DCR-474	SO-17360-071205-DCR-475	SO-17360-071205-DCR-476	SO-17360-071205-DCR-477	SO-17360-071205-DCR-478
Sample Date											7/12/2005	7/12/2005	7/12/2005	7/12/2005	7/12/2005	7/12/2005
Sample Depth	Protection	Interface Protection	Protection	Inhalation	Inhalation	Thickness	Thickness				4-6 ft BGS	6-8 ft BGS	8-10 ft BGS	10-12 ft BGS	12-14 ft BGS	14-16 ft BGS
Sample Type	a	b	c	d	e	f	g	h	i	j						
Units																
Volatile Organic Compounds																
1,1,1-Trichloroethane	mg/kg	4	4	460	250	3800	12000	28000	67000000	460	460	0.039 U	0.039 U	0.04 U	0.15 U	0.046 U
1,1,2,2-Tetrachloroethane	mg/kg	0.17	1.6	94	4.3	10	10	14	54000	53	870	0.078 U	0.078 U	0.08 U	0.3 U	0.092 U
1,1,2-Trichloroethane	mg/kg	0.1	6.6	420	4.6	17	21	44	190000	180	920	0.039 U	0.039 U	0.04 U	0.15 U	0.046 U
1,1-Dichloroethane	mg/kg	18	15	890	230	2100	5900	14000	33000000	890	890	0.039 U	0.039 U	0.04 U	0.15 U	0.046 U
1,1-Dichloroethene	mg/kg	0.14	1.3	220	0.062	1.1	5.3	13	62000	200	570	0.039 U	0.039 U	0.04 U	0.15 U	0.046 U
1,2,4-Trichlorobenzene	mg/kg	4.2	1.8	1100	1100	28000	28000	28000	25000000	990	1100	0.2 U	0.19 U	0.2 U	0.75 U	0.23 U
1,2-Dibromo-3-chloropropane (DBCP)	mg/kg	0.01		1.2	1.2	13	13	13	13000	1.2	1.2	0.2 U	0.19 U	0.2 U	0.75 U	0.23 U
1,2-Dibromoethane (Ethylene Dibromide)	mg/kg	0.02	0.02	0.5	0.67	1.7	1.7	3.3	14000	0.092	890	0.2 U	0.19 U	0.2 U	0.75 U	0.23 U
1,2-Dichlorobenzene	mg/kg	14	0.36	210	210	39000	39000	52000	100000000	210	210	0.078 U	0.078 U	0.08 U	0.3 U	0.092 U
1,2-Dichloroethane	mg/kg	0.1	7.2	380	2.1	6.2	11	26	120000	91	1200	0.039 U	0.039 U	0.04 U	0.15 U	0.046 U
1,2-Dichloropropane	mg/kg	0.1	5.8	320	4	25	50	110	270000	140	550	0.039 U	0.039 U	0.04 U	0.15 U	0.046 U
1,3-Dichlorobenzene	mg/kg	0.17	1.1	51	ID	ID	ID	ID	ID	170	170	0.078 U	0.078 U	0.08 U	0.3 U	0.092 U
1,4-Dichlorobenzene	mg/kg	1.7	0.29	140	19	77	77	110	450000	400		0.078 U	0.078 U	0.08 U	0.3 U	0.092 U
2-Butanone (Methyl Ethyl Ketone)	mg/kg	260	44	27000	27000	29000	29000	35000	67000000	27000	27000	0.59 U	0.58 U	0.6 U	2.2 U	0.69 U
2-Hexanone	mg/kg	20		2500	990	1100	1100	1400	2700000	2500	2500	2 U	1.9 U	2 U	7.5 U	2.3 U
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	mg/kg	36	ID	2700	2700	45000	45000	67000	140000000	2700	2700	2 U	1.9 U	2 U	7.5 U	2.3 U
Acetone	mg/kg	15	34	110000	110000	130000	130000	190000	390000000	23000	110000	0.59 U	0.58 U	0.6 U	2.2 U	0.69 UJ
Benzene	mg/kg	0.1	4	220	1.6	13	34	79	380000	180	400	0.039 U	0.039 U	0.04 U	0.15 U	0.046 U
Bromodichloromethane	mg/kg	1.6	ID	280	1.2	9.1	9.7	19	84000	110	1500	0.078 UJ	0.078 UJ	0.08 UJ	0.3 UJ	0.092 UJ
Bromoform	mg/kg	1.6	ID	870	150	900	900	900	2800000	820	870	0.078 U	0.078 U	0.08 U	0.3 U	0.092 U
Bromomethane (Methyl Bromide)	mg/kg	0.2	0.7	1400	0.86	11	57	140	330000	320	2200	0.2 U	0.19 U	0.2 U	0.75 U	0.23 U
Carbon disulfide	mg/kg	16	ID	280	76	1300	7900	19000	47000000	280	280	0.2 U	0.19 U	0.2 U	0.75 U	0.23 U
Carbon tetrachloride	mg/kg	0.1	0.9	92	0.19	3.5	12	28	130000	96	390	0.039 U	0.039 U	0.04 U	0.15 U	0.046 U
Chlorobenzene	mg/kg	2	0.94	260	120	770	990	2100	4700000	260	260	0.039 U	0.039 U	0.04 U	0.15 U	0.046 U
Chloroethane	mg/kg	8.6	ID	950	950	30000	120000	280000	670000000	950	950	0.2 U	0.19 U	0.2 U	0.75 U	0.23 U
Chloroform (Trichloromethane)	mg/kg	1.6	3.4	1500	7.2	45	120	270	1300000	1200	1500	0.039 U	0.039 U	0.04 U	0.15 U	0.046 U
Chloromethane (Methyl Chloride)	mg/kg	5.2	ID	1100	2.3	40	410	1000	4900000	1100	1100	0.2 U	0.19 U	0.2 U	0.75 U	0.23 U
cis-1,2-Dichloroethene	mg/kg	1.4	12	640	22	180	420	990	2300000	640	640	0.039 U	0.039 U	0.04 U	0.15 U	0.046 U
cis-1,3-Dichloropropene	mg/kg											0.039 UJ	0.039 UJ	0.04 UJ	0.15 UJ	0.046 UJ
Cyclohexane	mg/kg											0.94 U	0.93 U	0.96 U	3.6 U	1.1 U
Dibromochloromethane	mg/kg	1.6	ID	360	3.9	24	24	33	130000	110	610	0.039 U	0.039 U	0.04 U	0.15 U	0.046 U
Dichlorodifluoromethane (CFC-12)	mg/kg	95	ID	1000	900	53000	550000	1400000	3300000000	1000	1000	0.078 U	0.078 U	0.08 U	0.3 U	0.092 U
Ethylbenzene	mg/kg	1.5	0.36	140	87	720	1000	2200	10000000	140	140	0.039 U	0.039 U	0.04 U	0.15 U	0.046 U
Isopropylbenzene	mg/kg	91	ID	390	390	1700	1700	2800	5800000	390	390	0.2 U	0.19 U	0.2 U	0.75 U	0.23 U
Methyl acetate	mg/kg											0.94 U	0.93 U	0.96 U	3.6 U	1.1 U
Methyl cyclohexane	mg/kg											0.94 U	0.93 U	0.96 U	3.6 U	1.1 U
Methyl Tert Butyl Ether	mg/kg	0.8	15	5900	5900	25000	39000	87000	200000000	1500	5900	0.2 U	0.19 U	0.2 U	0.75 U	0.23 U
Methylene chloride	mg/kg	0.1	19	2300	45	210	590	1400	6600000	1300	2300	0.2 U	0.19 U	0.2 U	0.75 U	0.23 U
Styrene	mg/kg	2.7	2.2	270	250	970	970	1400	5500000	400	520	0.039 U	0.039 U	0.04 U	0.15 U	0.046 U
Tetrachloroethene	mg/kg	0.1	0.9	88	11	180	480	1100	5400000	88	88	0.039 U	0.039 U	0.04 U	0.15 U	0.046 U
Toluene	mg/kg	16	2.8	250	250	2800	5100	12000	27000000	250	250	0.078 U	0.078 U	0.08 U	0.3 U	0.092 U
trans-1,2-Dichloroethene	mg/kg	2	30	1400	23	280	830	2000	4700000	1400	1400	0.039 U	0.039 U	0.04 U	0.15 U	0.046 U
trans-1,3-Dichloropropene	mg/kg											0.039 UJ	0.039 UJ	0.04 UJ	0.15 UJ	0.046 UJ
Trichloroethene	mg/kg	0.1	4	440	7.1	78	170	390	1800000	500	500	0.027 J	0.016 J	0.012 J	5.9 ^{uo}	0.1 J
Trichlorofluoromethane (CFC-11)	mg/kg	52		560	560	92000	630000	1500000	3800000000	560	560	0.078 U	0.078 U	0.08 U	0.3 U	0.092 U
Trifluorotrichloroethane (Freon 113)	mg/kg	550	1.7	550	550	180000	880000	2100000	5100000000	550	550	0.2 U	0.19 U	0.2 U	0.75 U	0.23 U
Vinyl chloride	mg/kg	0.04	0.3	20	0.27	4.2	30	73	350000	3.8	490	0.078 U	0.078 U	0.08 U	0.3 U	0.092 U
Xylene (total)	mg/kg	5.6	0.7	150	150	46000	61000	130000	290000000	150	150	0.12 U	0.12 U	0.12 U	0.45 U	0.14 U

Notes:
⁽¹⁾ Cleanup criteria identified by MDEQ RRD Op Memo No. 1, updated 1/23/2006, pursuant to 1994 PA 451 as amended.
U - Not present at or above the associated value.
J - Estimated concentration.
UJ - Estimated reporting limit.
 Value exceeds referenced Part 201 Criteria (I.e. a, b, etc.)

TABLE 2

SUMMARY OF SOIL SAMPLES COMPARED TO MICHIGAN ACT 451, PART 201 RESIDENTIAL CRITERIA
SVE SOIL INVESTIGATION
GENERAL MOTORS CORPORATION
GRAND RAPIDS METAL PLANT
WYOMING, MICHIGAN

Sample Location	Michigan Act 451, Part 201 Residential and Commercial ⁽¹⁾											SB8-05	SB8-05	SB9-05	SB9-05	SB9-05	SB9-05
Sample Identification	Drinking Water	Groundwater Surface Water	Groundwater Contact	Soil Volatilization to Indoor Air	Infinite Source Volatile Soil Inhalation	Finite VSIC for 5 Meter Source Thickness	Finite VSIC for 2 Meter Source Thickness	Particulate Soil Inhalation	Direct Contact	Soil Saturation Concentration	SO-17360-071205-DCR-479	SO-17360-071205-DCR-480	SO-17360-071105-DCR-430	SO-17360-071105-DCR-431	SO-17360-071105-DCR-432	SO-17360-071105-DCR-433	
Sample Date	Protection	Interface Protection	Protection	Inhalation	Inhalation	Thickness	Thickness			Screening	7/12/2005	7/12/2005	7/11/2005	7/11/2005	7/11/2005	7/11/2005	
Sample Depth											16-18 ft BGS	18-20 ft BGS	0-2 ft BGS	2-4 ft BGS	4-6 ft BGS	6-8 ft BGS	
Sample Type	a	b	c	d	e	f	g	h	i	j							
Units																	
Volatile Organic Compounds																	
1,1,1-Trichloroethane	mg/kg	4	4	460	250	3800	12000	28000	67000000	460	460	0.048 U	0.037 U	0.038 U	0.04 U	0.042 U	0.039 U
1,1,2,2-Tetrachloroethane	mg/kg	0.17	1.6	94	4.3	10	10	14	54000	53	870	0.095 U	0.074 U	0.076 U	0.08 U	0.083 U	0.078 U
1,1,2-Trichloroethane	mg/kg	0.1	6.6	420	4.6	17	21	44	190000	180	920	0.048 U	0.037 U	0.038 U	0.04 U	0.042 U	0.039 U
1,1-Dichloroethane	mg/kg	18	15	890	230	2100	5900	14000	33000000	890	890	0.048 U	0.037 U	0.038 U	0.04 U	0.042 U	0.039 U
1,1-Dichloroethene	mg/kg	0.14	1.3	220	0.062	1.1	5.3	13	62000	200	570	0.048 U	0.037 U	0.038 U	0.04 U	0.042 U	0.039 U
1,2,4-Trichlorobenzene	mg/kg	4.2	1.8	1100	1100	28000	28000	28000	25000000	990	1100	0.24 U	0.18 U	0.19 U	0.2 U	0.21 U	0.2 U
1,2-Dibromo-3-chloropropane (DBCP)	mg/kg	0.01		1.2	1.2	13	13	13	13000	1.2	1.2	0.24 U	0.18 U	0.19 U	0.2 U	0.21 U	0.2 U
1,2-Dibromoethane (Ethylene Dibromide)	mg/kg	0.02	0.02	0.5	0.67	1.7	1.7	3.3	14000	0.092	890	0.24 U	0.18 U	0.19 U	0.2 U	0.21 U	0.2 U
1,2-Dichlorobenzene	mg/kg	14	0.36	210	210	39000	39000	52000	100000000	210	210	0.095 U	0.074 U	0.076 U	0.08 U	0.083 U	0.078 U
1,2-Dichloroethane	mg/kg	0.1	7.2	380	2.1	6.2	11	26	120000	91	1200	0.048 U	0.037 U	0.038 U	0.04 U	0.042 U	0.039 U
1,2-Dichloropropane	mg/kg	0.1	5.8	320	4	25	50	110	270000	140	550	0.048 U	0.037 U	0.038 U	0.04 U	0.042 U	0.039 U
1,3-Dichlorobenzene	mg/kg	0.17	1.1	51	ID	ID	ID	ID	ID	170	170	0.095 U	0.074 U	0.076 U	0.08 U	0.083 U	0.078 U
1,4-Dichlorobenzene	mg/kg	1.7	0.29	140	19	77	77	110	450000	400		0.095 U	0.074 U	0.076 U	0.08 U	0.083 U	0.078 U
2-Butanone (Methyl Ethyl Ketone)	mg/kg	260	44	27000	27000	29000	29000	35000	67000000	27000	27000	0.71 U	0.55 U	0.57 U	0.6 U	0.62 U	0.59 U
2-Hexanone	mg/kg	20		2500	990	1100	1100	1400	2700000	2500	2500	2.4 U	1.8 U	1.9 U	2 U	2.1 U	2 U
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	mg/kg	36	ID	2700	2700	45000	45000	67000	140000000	2700	2700	2.4 U	1.8 U	1.9 U	2 U	2.1 U	2 U
Acetone	mg/kg	15	34	110000	110000	130000	130000	190000	390000000	23000	110000	0.71 U	0.55 U	0.57 U	0.6 U	0.62 U	0.59 U
Benzene	mg/kg	0.1	4	220	1.6	13	34	79	380000	180	400	0.048 U	0.037 U	0.038 U	0.04 U	0.042 U	0.039 U
Bromodichloromethane	mg/kg	1.6	ID	280	1.2	9.1	9.7	19	84000	110	1500	0.095 UJ	0.074 UJ	0.076 U	0.08 U	0.083 U	0.078 U
Bromoform	mg/kg	1.6	ID	870	150	900	900	900	2800000	820	870	0.095 U	0.074 U	0.076 U	0.08 U	0.083 U	0.078 U
Bromomethane (Methyl Bromide)	mg/kg	0.2	0.7	1400	0.86	11	57	140	330000	320	2200	0.24 U	0.18 U	0.19 U	0.2 U	0.21 U	0.2 U
Carbon disulfide	mg/kg	16	ID	280	76	1300	7900	19000	47000000	280	280	0.24 U	0.18 U	0.19 U	0.2 U	0.21 U	0.2 U
Carbon tetrachloride	mg/kg	0.1	0.9	92	0.19	3.5	12	28	130000	96	390	0.048 U	0.037 U	0.038 U	0.04 U	0.042 U	0.039 U
Chlorobenzene	mg/kg	2	0.94	260	120	770	990	2100	4700000	260	260	0.048 U	0.037 U	0.038 U	0.04 U	0.042 U	0.039 U
Chloroethane	mg/kg	8.6	ID	950	950	30000	120000	280000	670000000	950	950	0.24 U	0.18 U	0.19 U	0.2 U	0.21 U	0.2 U
Chloroform (Trichloromethane)	mg/kg	1.6	3.4	1500	7.2	45	120	270	1300000	1200	1500	0.048 U	0.037 U	0.038 U	0.04 U	0.042 U	0.039 U
Chloromethane (Methyl Chloride)	mg/kg	5.2	ID	1100	2.3	40	410	1000	4900000	1100	1100	0.24 U	0.18 U	0.19 U	0.2 U	0.21 U	0.2 U
cis-1,2-Dichloroethene	mg/kg	1.4	12	640	22	180	420	990	2300000	640	640	0.048 U	0.037 U	0.038 U	0.04 U	0.042 U	0.039 U
cis-1,3-Dichloropropene	mg/kg											0.048 UJ	0.037 UJ	0.038 U	0.04 U	0.042 U	0.039 U
Cyclohexane	mg/kg											1.1 U	0.88 U	0.91 U	0.96 U	1 U	0.94 U
Dibromochloromethane	mg/kg	1.6	ID	360	3.9	24	24	33	130000	110	610	0.048 U	0.037 U	0.038 U	0.04 U	0.042 U	0.039 U
Dichlorodifluoromethane (CFC-12)	mg/kg	95	ID	1000	900	53000	550000	1400000	3300000000	1000	1000	0.095 U	0.074 U	0.076 U	0.08 U	0.083 U	0.078 U
Ethylbenzene	mg/kg	1.5	0.36	140	87	720	1000	2200	10000000	140	140	0.048 U	0.037 U	0.038 U	0.04 U	0.042 U	0.039 U
Isopropylbenzene	mg/kg	91	ID	390	390	1700	1700	2800	5800000	390	390	0.24 U	0.18 U	0.19 U	0.2 U	0.21 U	0.2 U
Methyl acetate	mg/kg											1.1 U	0.88 U	0.91 U	0.96 U	1 U	0.94 U
Methyl cyclohexane	mg/kg											1.1 U	0.88 U	0.91 U	0.96 U	1 U	0.94 U
Methyl Tert Butyl Ether	mg/kg	0.8	15	5900	5900	25000	39000	87000	200000000	1500	5900	0.24 U	0.18 U	0.19 U	0.2 U	0.21 U	0.2 U
Methylene chloride	mg/kg	0.1	19	2300	45	210	590	1400	6600000	1300	2300	0.24 U	0.18 U	0.19 U	0.2 U	0.21 U	0.2 U
Styrene	mg/kg	2.7	2.2	270	250	970	970	1400	5500000	400	520	0.048 U	0.037 U	0.038 U	0.04 U	0.042 U	0.039 U
Tetrachloroethene	mg/kg	0.1	0.9	88	11	180	480	1100	5400000	88	88	0.048 U	0.037 U	0.038 U	0.04 U	0.042 U	0.039 U
Toluene	mg/kg	16	2.8	250	250	2800	5100	12000	27000000	250	250	0.095 U	0.074 U	0.076 U	0.08 U	0.083 U	0.078 U
trans-1,2-Dichloroethene	mg/kg	2	30	1400	23	280	830	2000	4700000	1400	1400	0.048 U	0.037 U	0.038 U	0.04 U	0.042 U	0.039 U
trans-1,3-Dichloropropene	mg/kg											0.048 UJ	0.037 UJ	0.038 U	0.04 U	0.042 U	0.039 U
Trichloroethene	mg/kg	0.1	4	440	7.1	78	170	390	1800000	500	500	0.17 ^a	0.063	0.099	0.04 U	0.042 U	0.039 U
Trichlorofluoromethane (CFC-11)	mg/kg	52		560	560	92000	630000	1500000	3800000000	560	560	0.095 U	0.074 U	0.076 U	0.08 U	0.083 U	0.078 U
Trifluorotrichloroethane (Freon 113)	mg/kg	550	1.7	550	550	180000	880000	2100000	5100000000	550	550	0.24 U	0.18 U	0.19 U	0.2 U	0.21 U	0.2 U
Vinyl chloride	mg/kg	0.04	0.3	20	0.27	4.2	30	73	350000	3.8	490	0.095 U	0.074 U	0.076 U	0.08 U	0.083 U	0.078 U
Xylene (total)	mg/kg	5.6	0.7	150	150	46000	61000	130000	290000000	150	150	0.14 U	0.11 U	0.11 U	0.12 U	0.12 U	0.12 U

Notes:
⁽¹⁾ Cleanup criteria identified by MDEQ RRD Op Memo No. 1, updated 1/23/2006, pursuant to 1994 PA 451 as amended.
U - Not present at or above the associated value.
J - Estimated concentration.
UJ - Estimated reporting limit.
 Value exceeds referenced Part 201 Criteria (I.e. a, b, etc.)

TABLE 2

SUMMARY OF SOIL SAMPLES COMPARED TO MICHIGAN ACT 451, PART 201 RESIDENTIAL CRITERIA
SVE SOIL INVESTIGATION
GENERAL MOTORS CORPORATION
GRAND RAPIDS METAL PLANT
WYOMING, MICHIGAN

Sample Location	Michigan Act 451, Part 201 Residential and Commercial ⁽¹⁾											SB9-05	SB9-05	SB9-05	SB9-05	SB9-05	SB9-05
Sample Identification	Drinking Water	Groundwater Surface Water	Groundwater Contact	Soil Volatilization to Indoor Air	Infinite Source Volatile Soil Inhalation	Finite VSIC for 5 Meter Source Thickness	Finite VSIC for 2 Meter Source Thickness	Particulate Soil Inhalation	Direct Contact	Soil Saturation Concentration Screening	SO-17360-071105-DCR-434	SO-17360-071105-DCR-435	SO-17360-071105-DCR-436	SO-17360-071105-DCR-437	SO-17360-071105-DCR-438	SO-17360-071105-DCR-439	
Sample Date	Protection	Interface Protection	Protection	Inhalation	Inhalation	Thickness	Thickness				7/11/2005	7/11/2005	7/11/2005	7/11/2005	7/11/2005	7/11/2005	
Sample Depth											8-10 ft BGS	10-12 ft BGS	12-14 ft BGS	14-16 ft BGS	16-18 ft BGS	18-20 ft BGS	
Sample Type	a	b	c	d	e	f	g	h	i	j							
	Units																
Volatile Organic Compounds																	
1,1,1-Trichloroethane	mg/kg	4	4	460	250	3800	12000	28000	67000000	460	460	0.038 U	0.039 U	0.038 U	0.037 U	0.038 U	
1,1,2,2-Tetrachloroethane	mg/kg	0.17	1.6	94	4.3	10	10	14	54000	53	870	0.077 U	0.078 U	0.077 U	0.074 U	0.075 U	
1,1,2-Trichloroethane	mg/kg	0.1	6.6	420	4.6	17	21	44	190000	180	920	0.038 U	0.038 U	0.038 U	0.037 U	0.038 U	
1,1-Dichloroethane	mg/kg	18	15	890	230	2100	5900	14000	33000000	890	890	0.038 U	0.039 U	0.038 U	0.037 U	0.038 U	
1,1-Dichloroethene	mg/kg	0.14	1.3	220	0.062	1.1	5.3	13	62000	200	570	0.038 U	0.039 U	0.038 U	0.037 U	0.038 U	
1,2,4-Trichlorobenzene	mg/kg	4.2	1.8	1100	1100	28000	28000	28000	25000000	990	1100	0.19 U	0.2 U	0.19 U	0.18 U	0.19 U	
1,2-Dibromo-3-chloropropane (DBCP)	mg/kg	0.01		1.2	1.2	13	13	13	13000	1.2	1.2	0.19 U	0.2 U	0.19 U	0.18 U	0.19 U	
1,2-Dibromoethane (Ethylene Dibromide)	mg/kg	0.02	0.02	0.5	0.67	1.7	1.7	3.3	14000	0.092	890	0.19 U	0.2 U	0.19 U	0.18 U	0.19 U	
1,2-Dichlorobenzene	mg/kg	14	0.36	210	210	39000	39000	52000	100000000	210	210	0.077 U	0.078 U	0.077 U	0.074 U	0.075 U	
1,2-Dichloroethane	mg/kg	0.1	7.2	380	2.1	6.2	11	26	120000	91	1200	0.038 U	0.039 U	0.038 U	0.037 U	0.038 U	
1,2-Dichloropropane	mg/kg	0.1	5.8	320	4	25	50	110	270000	140	550	0.038 U	0.039 U	0.038 U	0.037 U	0.038 U	
1,3-Dichlorobenzene	mg/kg	0.17	1.1	51	ID	ID	ID	ID	ID	170	170	0.077 U	0.078 U	0.077 U	0.074 U	0.075 U	
1,4-Dichlorobenzene	mg/kg	1.7	0.29	140	19	77	77	110	450000	400		0.077 U	0.078 U	0.077 U	0.074 U	0.075 U	
2-Butanone (Methyl Ethyl Ketone)	mg/kg	260	44	27000	27000	29000	29000	35000	67000000	27000	27000	0.58 U	0.59 U	0.58 U	0.55 U	0.56 U	
2-Hexanone	mg/kg	20		2500	990	1100	1100	1400	2700000	2500	2500	1.9 U	2 U	1.9 U	1.8 U	1.9 U	
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	mg/kg	36	ID	2700	2700	45000	45000	67000	140000000	2700	2700	1.9 U	2 U	1.9 U	1.8 U	1.9 U	
Acetone	mg/kg	15	34	110000	110000	130000	130000	190000	390000000	23000	110000	0.58 U	0.59 U	0.58 U	0.55 U	0.56 U	
Benzene	mg/kg	0.1	4	220	1.6	13	34	79	380000	180	400	0.038 U	0.039 U	0.038 U	0.037 U	0.038 U	
Bromodichloromethane	mg/kg	1.6	ID	280	1.2	9.1	9.7	19	84000	110	1500	0.077 U	0.078 U	0.077 U	0.074 U	0.075 U	
Bromoform	mg/kg	1.6	ID	870	150	900	900	900	2800000	820	870	0.077 U	0.078 U	0.077 U	0.074 U	0.075 U	
Bromomethane (Methyl Bromide)	mg/kg	0.2	0.7	1400	0.86	11	57	140	330000	320	2200	0.19 U	0.2 U	0.19 U	0.18 U	0.19 U	
Carbon disulfide	mg/kg	16	ID	280	76	1300	7900	19000	47000000	280	280	0.19 U	0.2 U	0.19 U	0.18 U	0.19 U	
Carbon tetrachloride	mg/kg	0.1	0.9	92	0.19	3.5	12	28	130000	96	390	0.038 U	0.039 U	0.038 U	0.037 U	0.038 U	
Chlorobenzene	mg/kg	2	0.94	260	120	770	990	2100	4700000	260	260	0.038 U	0.039 U	0.038 U	0.037 U	0.038 U	
Chloroethane	mg/kg	8.6	ID	950	950	30000	120000	280000	670000000	950	950	0.19 U	0.2 U	0.19 U	0.18 U	0.19 U	
Chloroform (Trichloromethane)	mg/kg	1.6	3.4	1500	7.2	45	120	270	1300000	1200	1500	0.038 U	0.039 U	0.038 U	0.037 U	0.038 U	
Chloromethane (Methyl Chloride)	mg/kg	5.2	ID	1100	2.3	40	410	1000	4900000	1100	1100	0.19 U	0.2 U	0.19 U	0.18 U	0.19 U	
cis-1,2-Dichloroethene	mg/kg	1.4	12	640	22	180	420	990	2300000	640	640	0.038 U	0.039 U	0.038 U	0.037 U	0.038 U	
cis-1,3-Dichloropropene	mg/kg											0.038 U	0.039 U	0.038 U	0.037 U	0.038 U	
Cyclohexane	mg/kg											0.92 U	0.94 U	0.92 U	0.88 U	0.9 U	
Dibromochloromethane	mg/kg	1.6	ID	360	3.9	24	24	33	130000	110	610	0.038 U	0.039 U	0.038 U	0.037 U	0.038 U	
Dichlorodifluoromethane (CFC-12)	mg/kg	95	ID	1000	900	53000	550000	1400000	3300000000	1000	1000	0.077 U	0.078 U	0.077 U	0.074 U	0.075 U	
Ethylbenzene	mg/kg	1.5	0.36	140	87	720	1000	2200	10000000	140	140	0.038 U	0.039 U	0.038 U	0.037 U	0.038 U	
Isopropylbenzene	mg/kg	91	ID	390	390	1700	1700	2800	5800000	390	390	0.19 U	0.2 U	0.19 U	0.18 U	0.19 U	
Methyl acetate	mg/kg											0.92 U	0.94 U	0.92 U	0.88 U	0.1 J	
Methyl cyclohexane	mg/kg											0.92 U	0.94 U	0.92 U	0.88 U	0.9 U	
Methyl Tert Butyl Ether	mg/kg	0.8	15	5900	5900	25000	39000	87000	200000000	1500	5900	0.19 U	0.2 U	0.19 U	0.18 U	0.19 U	
Methylene chloride	mg/kg	0.1	19	2300	45	210	590	1400	6600000	1300	2300	0.19 U	0.2 U	0.19 U	0.18 U	0.19 U	
Styrene	mg/kg	2.7	2.2	270	250	970	970	1400	5500000	400	520	0.038 U	0.039 U	0.038 U	0.037 U	0.038 U	
Tetrachloroethene	mg/kg	0.1	0.9	88	11	180	480	1100	5400000	88	88	0.038 U	0.039 U	0.038 U	0.037 U	0.038 U	
Toluene	mg/kg	16	2.8	250	250	2800	5100	12000	27000000	250	250	0.077 U	0.078 U	0.077 U	0.074 U	0.075 U	
trans-1,2-Dichloroethene	mg/kg	2	30	1400	23	280	830	2000	4700000	1400	1400	0.038 U	0.039 U	0.038 U	0.037 U	0.038 U	
trans-1,3-Dichloropropene	mg/kg											0.038 U	0.039 U	0.038 U	0.037 U	0.038 U	
Trichloroethene	mg/kg	0.1	4	440	7.1	78	170	390	1800000	500	500	0.038 U	0.039 U	0.038 U	0.037 U	0.038 U	
Trichlorofluoromethane (CFC-11)	mg/kg	52		560	560	92000	630000	1500000	3800000000	560	560	0.077 U	0.078 U	0.077 U	0.074 U	0.075 U	
Trifluorotrichloroethane (Freon 113)	mg/kg	550	1.7	550	550	180000	880000	2100000	5100000000	550	550	0.19 U	0.2 U	0.19 U	0.18 U	0.19 U	
Vinyl chloride	mg/kg	0.04	0.3	20	0.27	4.2	30	73	350000	3.8	490	0.077 U	0.078 U	0.077 U	0.074 U	0.075 U	
Xylene (total)	mg/kg	5.6	0.7	150	150	46000	61000	130000	290000000	150	150	0.12 U	0.12 U	0.12 U	0.11 U	0.11 U	

Notes:
⁽¹⁾ Cleanup criteria identified by MDEQ RRD Op Memo No. 1, updated 1/23/2006, pursuant to 1994 PA 451 as amended.
U - Not present at or above the associated value.
J - Estimated concentration.
UJ - Estimated reporting limit.
 Value exceeds referenced Part 201 Criteria (I.e. a, b, etc.)

TABLE 2

SUMMARY OF SOIL SAMPLES COMPARED TO MICHIGAN ACT 451, PART 201 RESIDENTIAL CRITERIA
SVE SOIL INVESTIGATION
GENERAL MOTORS CORPORATION
GRAND RAPIDS METAL PLANT
WYOMING, MICHIGAN

Sample Location	<i>Michigan Act 451, Part 201 Residential and Commercial</i> ⁽¹⁾										<i>SB10-05</i>	<i>SB10-05</i>	<i>SB10-05</i>	<i>SB10-05</i>	<i>SB10-05</i>	<i>SB10-05</i>
Sample Identification	Drinking Water	Groundwater Surface Water	Groundwater Contact	Soil Volatilization to Indoor Air	Infinite Source Volatile Soil Inhalation	Finite VSIC for 5 Meter Source Thickness	Finite VSIC for 2 Meter Source Thickness	Particulate Soil Inhalation	Direct Contact	Soil Saturation Concentration Screening	<i>SO-17360-071205-DCR-481</i>	<i>SO-17360-071205-DCR-482</i>	<i>SO-17360-071205-DCR-483</i>	<i>SO-17360-071205-DCR-484</i>	<i>SO-17360-071205-DCR-485</i>	<i>SO-17360-071205-DCR-486</i>
Sample Date											<i>7/12/2005</i>	<i>7/12/2005</i>	<i>7/12/2005</i>	<i>7/12/2005</i>	<i>7/12/2005</i>	<i>7/12/2005</i>
Sample Depth	Protection	Interface Protection	Protection	Inhalation	Inhalation	Thickness	Thickness				<i>0-2 ft BGS</i>	<i>2-4 ft BGS</i>	<i>4-6 ft BGS</i>	<i>6-8 ft BGS</i>	<i>8-10 ft BGS</i>	<i>10-12 ft BGS</i>
Sample Type	a	b	c	d	e	f	g	h	i	j						
<i>Units</i>																
<i>Volatile Organic Compounds</i>																
1,1,1-Trichloroethane	mg/kg	4	4	460	250	3800	12000	28000	67000000	460	460	0.037 U	0.038 U	0.041 U	0.038 U	0.041 U
1,1,2,2-Tetrachloroethane	mg/kg	0.17	1.6	94	4.3	10	10	14	54000	53	870	0.074 U	0.075 U	0.082 U	0.076 U	0.082 U
1,1,2-Trichloroethane	mg/kg	0.1	6.6	420	4.6	17	21	44	190000	180	920	0.037 U	0.038 U	0.041 U	0.038 U	0.041 U
1,1-Dichloroethane	mg/kg	18	15	890	230	2100	5900	14000	33000000	890	890	0.037 U	0.038 U	0.041 U	0.038 U	0.041 U
1,1-Dichloroethene	mg/kg	0.14	1.3	220	0.062	1.1	5.3	13	62000	200	570	0.037 U	0.038 U	0.041 U	0.038 U	0.041 U
1,2,4-Trichlorobenzene	mg/kg	4.2	1.8	1100	1100	28000	28000	28000	25000000	990	1100	0.18 U	0.19 U	0.21 U	0.19 U	0.2 U
1,2-Dibromo-3-chloropropane (DBCP)	mg/kg	0.01		1.2	1.2	13	13	13	13000	1.2	1.2	0.18 U	0.19 U	0.21 U	0.19 U	0.2 U
1,2-Dibromoethane (Ethylene Dibromide)	mg/kg	0.02	0.02	0.5	0.67	1.7	1.7	3.3	14000	0.092	890	0.18 U	0.19 U	0.21 U	0.19 U	0.2 U
1,2-Dichlorobenzene	mg/kg	14	0.36	210	210	39000	39000	52000	100000000	210	210	0.074 U	0.075 U	0.082 U	0.076 U	0.082 U
1,2-Dichloroethane	mg/kg	0.1	7.2	380	2.1	6.2	11	26	120000	91	1200	0.037 U	0.038 U	0.041 U	0.038 U	0.041 U
1,2-Dichloropropane	mg/kg	0.1	5.8	320	4	25	50	110	270000	140	550	0.037 U	0.038 U	0.041 U	0.038 U	0.041 U
1,3-Dichlorobenzene	mg/kg	0.17	1.1	51	ID	ID	ID	ID	ID	170	170	0.074 U	0.075 U	0.082 U	0.076 U	0.082 U
1,4-Dichlorobenzene	mg/kg	1.7	0.29	140	19	77	77	110	450000	400		0.074 U	0.075 U	0.082 U	0.076 U	0.082 U
2-Butanone (Methyl Ethyl Ketone)	mg/kg	260	44	27000	27000	29000	29000	35000	67000000	27000	27000	0.55 U	0.56 U	0.62 U	0.57 U	0.61 U
2-Hexanone	mg/kg	20		2500	990	1100	1100	1400	2700000	2500	2500	1.8 U	1.9 U	2.1 U	1.9 U	2 U
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	mg/kg	36	ID	2700	2700	45000	45000	67000	140000000	2700	2700	1.8 U	1.9 U	2.1 U	1.9 U	2 U
Acetone	mg/kg	15	34	110000	110000	130000	130000	190000	390000000	23000	110000	0.55 U	0.56 U	0.62 U	0.57 U	0.61 U
Benzene	mg/kg	0.1	4	220	1.6	13	34	79	380000	180	400	0.037 U	0.038 U	0.041 U	0.038 U	0.041 U
Bromodichloromethane	mg/kg	1.6	ID	280	1.2	9.1	9.7	19	84000	110	1500	0.074 UJ	0.075 UJ	0.082 UJ	0.076 UJ	0.082 UJ
Bromoform	mg/kg	1.6	ID	870	150	900	900	900	2800000	820	870	0.074 U	0.075 U	0.082 U	0.076 U	0.082 U
Bromomethane (Methyl Bromide)	mg/kg	0.2	0.7	1400	0.86	11	57	140	330000	320	2200	0.18 U	0.19 U	0.21 U	0.19 U	0.2 U
Carbon disulfide	mg/kg	16	ID	280	76	1300	7900	19000	47000000	280	280	0.18 U	0.19 U	0.21 U	0.19 U	0.2 U
Carbon tetrachloride	mg/kg	0.1	0.9	92	0.19	3.5	12	28	130000	96	390	0.037 U	0.038 U	0.041 U	0.038 U	0.041 U
Chlorobenzene	mg/kg	2	0.94	260	120	770	990	2100	4700000	260	260	0.037 U	0.038 U	0.041 U	0.038 U	0.041 U
Chloroethane	mg/kg	8.6	ID	950	950	30000	120000	280000	670000000	950	950	0.18 U	0.19 U	0.21 U	0.19 U	0.2 U
Chloroform (Trichloromethane)	mg/kg	1.6	3.4	1500	7.2	45	120	270	1300000	1200	1500	0.037 U	0.038 U	0.041 U	0.038 U	0.041 U
Chloromethane (Methyl Chloride)	mg/kg	5.2	ID	1100	2.3	40	410	1000	4900000	1100	1100	0.18 U	0.19 U	0.21 U	0.19 U	0.2 U
cis-1,2-Dichloroethene	mg/kg	1.4	12	640	22	180	420	990	2300000	640	640	0.037 U	0.038 U	0.041 U	0.038 U	0.041 U
cis-1,3-Dichloropropene	mg/kg											0.037 UJ	0.038 UJ	0.041 UJ	0.038 UJ	0.041 UJ
Cyclohexane	mg/kg											0.01 J	0.9 U	0.99 U	0.91 U	0.98 U
Dibromochloromethane	mg/kg	1.6	ID	360	3.9	24	24	33	130000	110	610	0.037 U	0.038 U	0.041 U	0.038 U	0.041 U
Dichlorodifluoromethane (CFC-12)	mg/kg	95	ID	1000	900	53000	550000	1400000	3300000000	1000	1000	0.074 U	0.075 U	0.082 U	0.076 U	0.082 U
Ethylbenzene	mg/kg	1.5	0.36	140	87	720	1000	2200	10000000	140	140	0.037 U	0.038 U	0.041 U	0.038 U	0.041 U
Isopropylbenzene	mg/kg	91	ID	390	390	1700	1700	2800	5800000	390	390	0.18 U	0.19 U	0.21 U	0.19 U	0.2 U
Methyl acetate	mg/kg											0.076 J	0.9 U	0.99 U	0.91 U	0.98 U
Methyl cyclohexane	mg/kg											0.031 J	0.9 U	0.99 U	0.91 U	0.98 U
Methyl Tert Butyl Ether	mg/kg	0.8	15	5900	5900	25000	39000	87000	200000000	1500	5900	0.18 U	0.19 U	0.21 U	0.19 U	0.2 U
Methylene chloride	mg/kg	0.1	19	2300	45	210	590	1400	6600000	1300	2300	0.18 U	0.19 U	0.21 U	0.19 U	0.2 U
Styrene	mg/kg	2.7	2.2	270	250	970	970	1400	5500000	400	520	0.037 U	0.038 U	0.041 U	0.038 U	0.041 U
Tetrachloroethene	mg/kg	0.1	0.9	88	11	180	480	1100	5400000	88	88	0.037 U	0.038 U	0.041 U	0.038 U	0.041 U
Toluene	mg/kg	16	2.8	250	250	2800	5100	12000	27000000	250	250	0.012 J	0.075 U	0.082 U	0.076 U	0.082 U
trans-1,2-Dichloroethene	mg/kg	2	30	1400	23	280	830	2000	4700000	1400	1400	0.037 U	0.038 U	0.041 U	0.038 U	0.041 U
trans-1,3-Dichloropropene	mg/kg											0.037 UJ	0.038 UJ	0.041 UJ	0.038 UJ	0.041 UJ
Trichloroethene	mg/kg	0.1	4	440	7.1	78	170	390	1800000	500	500	0.54 ⁺	0.038 U	0.041 U	0.038 U	0.029 J
Trichlorofluoromethane (CFC-11)	mg/kg	52		560	560	92000	630000	1500000	3800000000	560	560	0.074 U	0.075 U	0.082 U	0.076 U	0.082 U
Trifluorotrichloroethane (Freon 113)	mg/kg	550	1.7	550	550	180000	880000	2100000	5100000000	550	550	0.18 U	0.19 U	0.21 U	0.19 U	0.2 U
Vinyl chloride	mg/kg	0.04	0.3	20	0.27	4.2	30	73	350000	3.8	490	0.074 U	0.075 U	0.082 U	0.076 U	0.082 U
Xylene (total)	mg/kg	5.6	0.7	150	150	46000	61000	130000	290000000	150	150	0.027 J	0.11 U	0.12 U	0.11 U	0.12 U

Notes:
⁽¹⁾ Cleanup criteria identified by MDEQ RRD Op Memo No. 1, updated 1/23/2006, pursuant to 1994 PA 451 as amended.
U - Not present at or above the associated value.
J - Estimated concentration.
UJ - Estimated reporting limit.
 Value exceeds referenced Part 201 Criteria (I.e. a, b, etc.)

TABLE 2

SUMMARY OF SOIL SAMPLES COMPARED TO MICHIGAN ACT 451, PART 201 RESIDENTIAL CRITERIA
SVE SOIL INVESTIGATION
GENERAL MOTORS CORPORATION
GRAND RAPIDS METAL PLANT
WYOMING, MICHIGAN

Sample Location	<i>Michigan Act 451, Part 201 Residential and Commercial</i> ⁽¹⁾										<i>SB10-05</i>	<i>SB10-05</i>	<i>SB10-05</i>	<i>SB10-05</i>	<i>SB11-05</i>	<i>SB11-05</i>
Sample Identification	Drinking Water	Groundwater Surface Water	Groundwater Contact	Soil Volatilization to Indoor Air	Infinite Source Volatile Soil Inhalation	Finite VSIC for 5 Meter Source Thickness	Finite VSIC for 2 Meter Source Thickness	Particulate Soil Inhalation	Direct Contact	Soil Saturation Concentration	<i>SO-17360-071205-DCR-487</i>	<i>SO-17360-071205-DCR-488</i>	<i>SO-17360-071205-DCR-489</i>	<i>SO-17360-071205-DCR-490</i>	<i>SO-17360-071205-DCR-491</i>	<i>SO-17360-071205-DCR-492</i>
Sample Date	Protection	Interface Protection	Protection	Inhalation	Inhalation	Thickness	Thickness			Screening	<i>7/12/2005</i>	<i>7/12/2005</i>	<i>7/12/2005</i>	<i>7/12/2005</i>	<i>7/12/2005</i>	<i>7/12/2005</i>
Sample Depth											<i>12-14 ft BGS</i>	<i>14-16 ft BGS</i>	<i>16-18 ft BGS</i>	<i>18-20 ft BGS</i>	<i>0-2 ft BGS</i>	<i>2-4 ft BGS</i>
Sample Type	a	b	c	d	e	f	g	h	i	j						
<i>Units</i>																
<i>Volatile Organic Compounds</i>																
1,1,1-Trichloroethane	mg/kg	4	4	460	250	3800	12000	28000	67000000	460	460	0.04 U	0.04 U	0.04 U	0.041 U	0.038 U
1,1,2,2-Tetrachloroethane	mg/kg	0.17	1.6	94	4.3	10	10	14	54000	53	870	0.079 U	0.08 U	0.079 U	0.082 U	0.076 U
1,1,2-Trichloroethane	mg/kg	0.1	6.6	420	4.6	17	21	44	190000	180	920	0.04 U	0.04 U	0.04 U	0.041 U	0.038 U
1,1-Dichloroethane	mg/kg	18	15	890	230	2100	5900	14000	33000000	890	890	0.04 U	0.04 U	0.04 U	0.041 U	0.038 U
1,1-Dichloroethene	mg/kg	0.14	1.3	220	0.062	1.1	5.3	13	62000	200	570	0.04 U	0.04 U	0.04 U	0.041 U	0.038 U
1,2,4-Trichlorobenzene	mg/kg	4.2	1.8	1100	1100	28000	28000	28000	25000000	990	1100	0.2 U	0.2 U	0.2 U	0.21 U	0.19 U
1,2-Dibromo-3-chloropropane (DBCP)	mg/kg	0.01		1.2	1.2	13	13	13	13000	1.2	1.2	0.2 U	0.2 U	0.2 U	0.21 U	0.19 U
1,2-Dibromoethane (Ethylene Dibromide)	mg/kg	0.02	0.02	0.5	0.67	1.7	1.7	3.3	14000	0.092	890	0.2 U	0.2 U	0.2 U	0.21 U	0.19 U
1,2-Dichlorobenzene	mg/kg	14	0.36	210	210	39000	39000	52000	100000000	210	210	0.079 U	0.08 U	0.079 U	0.082 U	0.076 U
1,2-Dichloroethane	mg/kg	0.1	7.2	380	2.1	6.2	11	26	120000	91	1200	0.04 U	0.04 U	0.04 U	0.041 U	0.038 U
1,2-Dichloropropane	mg/kg	0.1	5.8	320	4	25	50	110	270000	140	550	0.04 U	0.04 U	0.04 U	0.041 U	0.038 U
1,3-Dichlorobenzene	mg/kg	0.17	1.1	51	ID	ID	ID	ID	ID	170	170	0.079 U	0.08 U	0.079 U	0.082 U	0.076 U
1,4-Dichlorobenzene	mg/kg	1.7	0.29	140	19	77	77	110	450000	400		0.079 U	0.08 U	0.079 U	0.082 U	0.076 U
2-Butanone (Methyl Ethyl Ketone)	mg/kg	260	44	27000	27000	29000	29000	35000	67000000	27000	27000	0.59 U	0.6 U	0.59 U	0.62 U	0.57 U
2-Hexanone	mg/kg	20		2500	990	1100	1100	1400	2700000	2500	2500	2 U	2 U	2 U	2.1 U	1.9 U
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	mg/kg	36	ID	2700	2700	45000	45000	67000	140000000	2700	2700	2 U	2 U	2 U	2.1 U	1.9 U
Acetone	mg/kg	15	34	110000	110000	130000	130000	190000	390000000	23000	110000	0.59 U	0.6 U	0.59 U	0.62 U	0.57 U
Benzene	mg/kg	0.1	4	220	1.6	13	34	79	380000	180	400	0.04 U	0.04 U	0.04 U	0.041 U	0.038 U
Bromodichloromethane	mg/kg	1.6	ID	280	1.2	9.1	9.7	19	84000	110	1500	0.079 UJ	0.08 UJ	0.079 UJ	0.082 UJ	0.076 UJ
Bromoform	mg/kg	1.6	ID	870	150	900	900	900	2800000	820	870	0.079 U	0.08 U	0.079 U	0.082 U	0.076 U
Bromomethane (Methyl Bromide)	mg/kg	0.2	0.7	1400	0.86	11	57	140	330000	320	2200	0.2 U	0.2 U	0.2 U	0.21 U	0.19 U
Carbon disulfide	mg/kg	16	ID	280	76	1300	7900	19000	47000000	280	280	0.2 U	0.2 U	0.2 U	0.21 U	0.19 U
Carbon tetrachloride	mg/kg	0.1	0.9	92	0.19	3.5	12	28	130000	96	390	0.04 U	0.04 U	0.04 U	0.041 U	0.038 U
Chlorobenzene	mg/kg	2	0.94	260	120	770	990	2100	4700000	260	260	0.04 U	0.04 U	0.04 U	0.041 U	0.038 U
Chloroethane	mg/kg	8.6	ID	950	950	30000	120000	280000	670000000	950	950	0.2 U	0.2 U	0.2 U	0.21 U	0.19 U
Chloroform (Trichloromethane)	mg/kg	1.6	3.4	1500	7.2	45	120	270	1300000	1200	1500	0.04 U	0.04 U	0.04 U	0.041 U	0.038 U
Chloromethane (Methyl Chloride)	mg/kg	5.2	ID	1100	2.3	40	410	1000	4900000	1100	1100	0.2 U	0.2 U	0.2 U	0.21 U	0.19 U
cis-1,2-Dichloroethene	mg/kg	1.4	12	640	22	180	420	990	2300000	640	640	0.04 U	0.04 U	0.04 U	0.041 U	0.038 U
cis-1,3-Dichloropropene	mg/kg											0.04 UJ	0.04 UJ	0.04 UJ	0.041 UJ	0.038 UJ
Cyclohexane	mg/kg											0.95 U	0.96 U	0.95 U	0.99 U	0.91 U
Dibromochloromethane	mg/kg	1.6	ID	360	3.9	24	24	33	130000	110	610	0.04 U	0.04 U	0.04 U	0.041 U	0.038 U
Dichlorodifluoromethane (CFC-12)	mg/kg	95	ID	1000	900	53000	550000	1400000	3300000000	1000	1000	0.079 U	0.08 U	0.079 U	0.082 U	0.076 U
Ethylbenzene	mg/kg	1.5	0.36	140	87	720	1000	2200	10000000	140	140	0.04 U	0.04 U	0.04 U	0.041 U	0.038 U
Isopropylbenzene	mg/kg	91	ID	390	390	1700	1700	2800	5800000	390	390	0.2 U	0.2 U	0.2 U	0.21 U	0.19 U
Methyl acetate	mg/kg											0.95 U	0.96 U	0.95 U	0.99 U	0.91 U
Methyl cyclohexane	mg/kg											0.95 U	0.96 U	0.95 U	0.99 U	0.0063 J
Methyl Tert Butyl Ether	mg/kg	0.8	15	5900	5900	25000	39000	87000	200000000	1500	5900	0.2 U	0.2 U	0.2 U	0.21 U	0.19 U
Methylene chloride	mg/kg	0.1	19	2300	45	210	590	1400	6600000	1300	2300	0.2 U	0.2 U	0.2 U	0.21 U	0.19 U
Styrene	mg/kg	2.7	2.2	270	250	970	970	1400	5500000	400	520	0.04 U	0.04 U	0.04 U	0.041 U	0.038 U
Tetrachloroethene	mg/kg	0.1	0.9	88	11	180	480	1100	5400000	88	88	0.04 U	0.04 U	0.04 U	0.041 U	0.038 U
Toluene	mg/kg	16	2.8	250	250	2800	5100	12000	27000000	250	250	0.079 U	0.08 U	0.079 U	0.082 U	0.076 U
trans-1,2-Dichloroethene	mg/kg	2	30	1400	23	280	830	2000	4700000	1400	1400	0.04 U	0.04 U	0.04 U	0.041 U	0.038 U
trans-1,3-Dichloropropene	mg/kg											0.04 U	0.04 U	0.04 U	0.041 U	0.038 U
Trichloroethene	mg/kg	0.1	4	440	7.1	78	170	390	1800000	500	500	0.03 J	0.016 J	0.021 J	0.041 U	0.038 U
Trichlorofluoromethane (CFC-11)	mg/kg	52		560	560	92000	630000	1500000	3800000000	560	560	0.079 U	0.08 U	0.079 U	0.082 U	0.076 U
Trifluorotrichloroethane (Freon 113)	mg/kg	550	1.7	550	550	180000	880000	2100000	5100000000	550	550	0.2 U	0.2 U	0.2 U	0.21 U	0.19 U
Vinyl chloride	mg/kg	0.04	0.3	20	0.27	4.2	30	73	350000	3.8	490	0.079 U	0.08 U	0.079 U	0.082 U	0.076 U
Xylene (total)	mg/kg	5.6	0.7	150	150	46000	61000	130000	290000000	150	150	0.12 U	0.12 U	0.12 U	0.12 U	0.11 U

Notes:
⁽¹⁾ Cleanup criteria identified by MDEQ RRD Op Memo No. 1, updated 1/23/2006, pursuant to 1994 PA 451 as amended.
U - Not present at or above the associated value.
J - Estimated concentration.
UJ - Estimated reporting limit.
 Value exceeds referenced Part 201 Criteria (I.e. a, b, etc.)

TABLE 2

SUMMARY OF SOIL SAMPLES COMPARED TO MICHIGAN ACT 451, PART 201 RESIDENTIAL CRITERIA
SVE SOIL INVESTIGATION
GENERAL MOTORS CORPORATION
GRAND RAPIDS METAL PLANT
WYOMING, MICHIGAN

Sample Location	Michigan Act 451, Part 201 Residential and Commercial ⁽¹⁾										SB11-05	SB11-05	SB11-05	SB11-05	SB11-05	SB11-05	
Sample Identification	Drinking Water	Groundwater Surface Water	Groundwater Contact	Soil Volatilization to Indoor Air	Infinite Source Volatile Soil Inhalation	Finite VSIC for 5 Meter Source Thickness	Finite VSIC for 2 Meter Source Thickness	Particulate Soil Inhalation	Direct Contact	Soil Saturation Concentration Screening	SO-17360-071205-DCR-493	SO-17360-071205-DCR-494	SO-17360-071205-DCR-495	SO-17360-071205-DCR-496	SO-17360-071205-DCR-497	SO-17360-071205-DCR-498	
Sample Date	Protection	Interface Protection	Protection	Inhalation	Inhalation	Thickness	Thickness				7/12/2005	7/12/2005	7/12/2005	7/12/2005	7/12/2005	7/12/2005	
Sample Depth											4-6 ft BGS	6-8 ft BGS	8-10 ft BGS	10-12 ft BGS	12-14 ft BGS	14-16 ft BGS	
Sample Type	a	b	c	d	e	f	g	h	i	j							
Units																	
Volatile Organic Compounds																	
1,1,1-Trichloroethane	mg/kg	4	4	460	250	3800	12000	28000	67000000	460	460	0.039 U	0.04 U	0.04 U	1.9 U	0.15 U	0.039 U
1,1,2,2-Tetrachloroethane	mg/kg	0.17	1.6	94	4.3	10	10	14	54000	53	870	0.078 U	0.079 U	0.08 U	3.7 U	0.3 U	0.078 U
1,1,2-Trichloroethane	mg/kg	0.1	6.6	420	4.6	17	21	44	190000	180	920	0.039 U	0.04 U	0.04 U	1.9 U	0.15 U	0.039 U
1,1-Dichloroethane	mg/kg	18	15	890	230	2100	5900	14000	33000000	890	890	0.039 U	0.04 U	0.04 U	1.9 U	0.15 U	0.039 U
1,1-Dichloroethene	mg/kg	0.14	1.3	220	0.062	1.1	5.3	13	62000	200	570	0.039 U	0.04 U	0.04 U	1.9 U	0.15 U	0.039 U
1,2,4-Trichlorobenzene	mg/kg	4.2	1.8	1100	1100	28000	28000	28000	25000000	990	1100	0.19 U	0.2 U	0.2 U	9.3 U	0.75 U	0.2 U
1,2-Dibromo-3-chloropropane (DBCP)	mg/kg	0.01		1.2	1.2	13	13	13	13000	1.2	1.2	0.19 U	0.2 U	0.2 U	9.3 U	0.75 U	0.2 U
1,2-Dibromoethane (Ethylene Dibromide)	mg/kg	0.02	0.02	0.5	0.67	1.7	1.7	3.3	14000	0.092	890	0.19 U	0.2 U	0.2 U	9.3 U	0.75 U	0.2 U
1,2-Dichlorobenzene	mg/kg	14	0.36	210	210	39000	39000	52000	100000000	210	210	0.078 U	0.079 U	0.08 U	3.7 U	0.3 U	0.078 U
1,2-Dichloroethane	mg/kg	0.1	7.2	380	2.1	6.2	11	26	120000	91	1200	0.039 U	0.04 U	0.04 U	1.9 U	0.15 U	0.039 U
1,2-Dichloropropane	mg/kg	0.1	5.8	320	4	25	50	110	270000	140	550	0.039 U	0.04 U	0.04 U	1.9 U	0.15 U	0.039 U
1,3-Dichlorobenzene	mg/kg	0.17	1.1	51	ID	ID	ID	ID	ID	170	170	0.078 U	0.079 U	0.08 U	3.7 U	0.3 U	0.078 U
1,4-Dichlorobenzene	mg/kg	1.7	0.29	140	19	77	77	110	450000	400		0.078 U	0.079 U	0.08 U	3.7 U	0.3 U	0.078 U
2-Butanone (Methyl Ethyl Ketone)	mg/kg	260	44	27000	27000	29000	29000	35000	67000000	27000	27000	0.58 U	0.59 U	0.6 U	28 U	2.2 U	0.59 U
2-Hexanone	mg/kg	20		2500	990	1100	1100	1400	2700000	2500	2500	1.9 U	2 U	2 U	93 U	7.5 U	2 U
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	mg/kg	36	ID	2700	2700	45000	45000	67000	140000000	2700	2700	1.9 U	2 U	2 U	93 U	7.5 U	2 U
Acetone	mg/kg	15	34	110000	110000	130000	130000	190000	390000000	23000	110000	0.58 U	0.59 U	0.6 U	28 U	2.2 U	0.59 U
Benzene	mg/kg	0.1	4	220	1.6	13	34	79	380000	180	400	0.039 U	0.04 U	0.04 U	1.9 U	0.15 U	0.039 U
Bromodichloromethane	mg/kg	1.6	ID	280	1.2	9.1	9.7	19	84000	110	1500	0.078 UJ	0.079 UJ	0.08 UJ	3.7 UJ	0.3 UJ	0.078 UJ
Bromoform	mg/kg	1.6	ID	870	150	900	900	900	2800000	820	870	0.078 U	0.079 U	0.08 U	3.7 U	0.3 U	0.078 U
Bromomethane (Methyl Bromide)	mg/kg	0.2	0.7	1400	0.86	11	57	140	330000	320	2200	0.19 U	0.2 U	0.2 U	9.3 U	0.75 U	0.2 U
Carbon disulfide	mg/kg	16	ID	280	76	1300	7900	19000	47000000	280	280	0.19 U	0.2 U	0.2 U	9.3 U	0.75 U	0.2 U
Carbon tetrachloride	mg/kg	0.1	0.9	92	0.19	3.5	12	28	130000	96	390	0.039 U	0.04 U	0.04 U	1.9 U	0.15 U	0.039 U
Chlorobenzene	mg/kg	2	0.94	260	120	770	990	2100	4700000	260	260	0.039 U	0.04 U	0.04 U	1.9 U	0.15 U	0.039 U
Chloroethane	mg/kg	8.6	ID	950	950	30000	120000	280000	670000000	950	950	0.19 U	0.2 U	0.2 U	9.3 U	0.75 U	0.2 U
Chloroform (Trichloromethane)	mg/kg	1.6	3.4	1500	7.2	45	120	270	1300000	1200	1500	0.039 U	0.04 U	0.04 U	1.9 U	0.15 U	0.039 U
Chloromethane (Methyl Chloride)	mg/kg	5.2	ID	1100	2.3	40	410	1000	4900000	1100	1100	0.19 U	0.2 U	0.2 U	9.3 U	0.75 U	0.2 U
cis-1,2-Dichloroethene	mg/kg	1.4	12	640	22	180	420	990	2300000	640	640	0.039 U	0.04 U	0.04 U	1.9 U	0.15 U	0.039 U
cis-1,3-Dichloropropene	mg/kg											0.039 UJ	0.04 UJ	0.04 UJ	1.9 UJ	0.15 UJ	0.039 UJ
Cyclohexane	mg/kg											0.93 U	0.95 U	0.96 U	45 U	3.6 U	0.94 U
Dibromochloromethane	mg/kg	1.6	ID	360	3.9	24	24	33	130000	110	610	0.039 U	0.04 U	0.04 U	1.9 U	0.15 U	0.039 U
Dichlorodifluoromethane (CFC-12)	mg/kg	95	ID	1000	900	53000	550000	1400000	3300000000	1000	1000	0.078 U	0.079 U	0.08 U	3.7 U	0.3 U	0.078 U
Ethylbenzene	mg/kg	1.5	0.36	140	87	720	1000	2200	10000000	140	140	0.039 U	0.04 U	0.04 U	1.9 U	0.15 U	0.039 U
Isopropylbenzene	mg/kg	91	ID	390	390	1700	1700	2800	5800000	390	390	0.19 U	0.2 U	0.2 U	9.3 U	0.75 U	0.2 U
Methyl acetate	mg/kg											0.93 U	0.95 U	0.96 U	100	12	3.6
Methyl cyclohexane	mg/kg											0.93 U	0.95 U	0.96 U	45 U	3.6 U	0.94 U
Methyl Tert Butyl Ether	mg/kg	0.8	15	5900	5900	25000	39000	87000	200000000	1500	5900	0.19 U	0.2 U	0.2 U	9.3 U	0.75 U	0.2 U
Methylene chloride	mg/kg	0.1	19	2300	45	210	590	1400	6600000	1300	2300	0.19 U	0.2 U	0.2 U	9.3 U	0.75 U	0.2 U
Styrene	mg/kg	2.7	2.2	270	250	970	970	1400	5500000	400	520	0.039 U	0.04 U	0.04 U	1.9 U	0.15 U	0.039 U
Tetrachloroethene	mg/kg	0.1	0.9	88	11	180	480	1100	5400000	88	88	0.039 U	0.04 U	0.04 U	1.9 U	0.15 U	0.039 U
Toluene	mg/kg	16	2.8	250	250	2800	5100	12000	27000000	250	250	0.078 U	0.079 U	0.08 U	3.7 U	0.3 U	0.078 U
trans-1,2-Dichloroethene	mg/kg	2	30	1400	23	280	830	2000	4700000	1400	1400	0.039 U	0.04 U	0.04 U	1.9 U	0.15 U	0.039 U
trans-1,3-Dichloropropene	mg/kg											0.039 U	0.04 U	0.04 U	1.9 U	0.15 U	0.039 U
Trichloroethene	mg/kg	0.1	4	440	7.1	78	170	390	1800000	500	500	0.039 U	0.04 U	0.04 U	1.9 U	0.057 J	0.027 J
Trichlorofluoromethane (CFC-11)	mg/kg	52		560	560	92000	630000	1500000	3800000000	560	560	0.078 U	0.079 U	0.08 U	3.7 U	0.3 U	0.078 U
Trifluorotrichloroethane (Freon 113)	mg/kg	550	1.7	550	550	180000	880000	2100000	5100000000	550	550	0.19 U	0.2 U	0.2 U	9.3 U	0.75 U	0.2 U
Vinyl chloride	mg/kg	0.04	0.3	20	0.27	4.2	30	73	350000	3.8	490	0.078 U	0.079 U	0.08 U	3.7 U	0.3 U	0.078 U
Xylene (total)	mg/kg	5.6	0.7	150	150	46000	61000	130000	290000000	150	150	0.12 U	0.12 U	0.12 U	5.6 U	0.45 U	0.12 U

Notes:
⁽¹⁾ Cleanup criteria identified by MDEQ RRD Op Memo No. 1, updated 1/23/2006, pursuant to 1994 PA 451 as amended.
U - Not present at or above the associated value.
J - Estimated concentration.
UJ - Estimated reporting limit.
 Value exceeds referenced Part 201 Criteria (I.e. a, b, etc.)

TABLE 2

SUMMARY OF SOIL SAMPLES COMPARED TO MICHIGAN ACT 451, PART 201 RESIDENTIAL CRITERIA
SVE SOIL INVESTIGATION
GENERAL MOTORS CORPORATION
GRAND RAPIDS METAL PLANT
WYOMING, MICHIGAN

Sample Location	Michigan Act 451, Part 201 Residential and Commercial ⁽¹⁾											SB11-05	SB11-05	SB12-05	SB12-05	SB12-05	SB12-05			
Sample Identification	Drinking Water	Groundwater Surface Water	Groundwater Contact	Soil Volatilization to Indoor Air	Infinite Source Volatile Soil Inhalation	Finite VSIC for 5 Meter Source Thickness	Finite VSIC for 2 Meter Source Thickness	Particulate Soil Inhalation	Direct Contact	Soil Saturation Concentration Screening	SO-17360-071205-DCR-499	SO-17360-071205-DCR-500	SO-17360-071105-DCR-440	SO-17360-071105-DCR-441	SO-17360-071105-DCR-442	SO-17360-071105-DCR-443				
Sample Date	Protection	Interface Protection	Protection	Inhalation	Inhalation	Thickness	Thickness				7/12/2005	7/12/2005	7/11/2005	7/11/2005	7/11/2005	7/11/2005				
Sample Depth											16-18 ft BGS	18-20 ft BGS	0-2 ft BGS	2-4 ft BGS	4-6 ft BGS	6-8 ft BGS				
Sample Type	a	b	c	d	e	f	g	h	i	j										
	Units																			
Volatile Organic Compounds																				
1,1,1-Trichloroethane	mg/kg	4	4	460	250	3800	12000	28000	67000000	460	460	1 U	0.24 U	0.041 U	0.16 U	0.037 U	0.039 U			
1,1,2,2-Tetrachloroethane	mg/kg	0.17	1.6	94	4.3	10	10	14	54000	53	870	2 U	0.48 U	0.082 U	0.32 U	0.074 U	0.078 U			
1,1,2-Trichloroethane	mg/kg	0.1	6.6	420	4.6	17	21	44	190000	180	920	1 U	0.24 U	0.041 U	0.16 U	0.037 U	0.039 U			
1,1-Dichloroethane	mg/kg	18	15	890	230	2100	5900	14000	33000000	890	890	1 U	0.24 U	0.041 U	0.16 U	0.037 U	0.039 U			
1,1-Dichloroethene	mg/kg	0.14	1.3	220	0.062	1.1	5.3	13	62000	200	570	1 U	0.24 U	0.041 U	0.16 U	0.037 U	0.039 U			
1,2,4-Trichlorobenzene	mg/kg	4.2	1.8	1100	1100	28000	28000	28000	25000000	990	1100	5 U	1.2 U	0.21 U	0.8 U	0.19 U	0.2 U			
1,2-Dibromo-3-chloropropane (DBCP)	mg/kg	0.01		1.2	1.2	13	13	13	13000	1.2	1.2	5 U	1.2 U	0.21 U	0.8 U	0.19 U	0.2 U			
1,2-Dibromoethane (Ethylene Dibromide)	mg/kg	0.02	0.02	0.5	0.67	1.7	1.7	3.3	14000	0.092	890	5 U	1.2 U	0.21 U	0.8 U	0.19 U	0.2 U			
1,2-Dichlorobenzene	mg/kg	14	0.36	210	210	39000	39000	52000	100000000	210	210	2 U	0.48 U	0.082 U	0.32 U	0.074 U	0.078 U			
1,2-Dichloroethane	mg/kg	0.1	7.2	380	2.1	6.2	11	26	120000	91	1200	1 U	0.24 U	0.041 U	0.16 U	0.037 U	0.039 U			
1,2-Dichloropropane	mg/kg	0.1	5.8	320	4	25	50	110	270000	140	550	1 U	0.24 U	0.041 U	0.16 U	0.037 U	0.039 U			
1,3-Dichlorobenzene	mg/kg	0.17	1.1	51	ID	ID	ID	ID	ID	170	170	2 U	0.48 U	0.082 U	0.32 U	0.074 U	0.078 U			
1,4-Dichlorobenzene	mg/kg	1.7	0.29	140	19	77	77	110	450000	400		2 U	0.48 U	0.082 U	0.32 U	0.074 U	0.078 U			
2-Butanone (Methyl Ethyl Ketone)	mg/kg	260	44	27000	27000	29000	29000	35000	67000000	27000	27000	15 U	3.6 U	0.62 U	2.4 U	0.56 U	0.59 U			
2-Hexanone	mg/kg	20		2500	990	1100	1100	1400	2700000	2500	2500	50 U	12 U	2.1 U	8 U	1.9 U	2 U			
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	mg/kg	36	ID	2700	2700	45000	45000	67000	140000000	2700	2700	50 U	12 U	2.1 U	8 U	1.9 U	2 U			
Acetone	mg/kg	15	34	110000	110000	130000	130000	190000	390000000	23000	110000	15 U	3.6 U	0.62 U	2.4 U	0.56 U	0.59 U			
Benzene	mg/kg	0.1	4	220	1.6	13	34	79	380000	180	400	1 U	0.24 U	0.0087 J	0.073 J	0.006 J	0.039 U			
Bromodichloromethane	mg/kg	1.6	ID	280	1.2	9.1	9.7	19	84000	110	1500	2 UJ	0.48 UJ	0.082 U	0.32 UJ	0.074 U	0.078 U			
Bromoform	mg/kg	1.6	ID	870	150	900	900	900	2800000	820	870	2 U	0.48 U	0.082 U	0.32 U	0.074 U	0.078 U			
Bromomethane (Methyl Bromide)	mg/kg	0.2	0.7	1400	0.86	11	57	140	330000	320	2200	5 U	1.2 U	0.21 U	0.8 U	0.19 U	0.2 U			
Carbon disulfide	mg/kg	16	ID	280	76	1300	7900	19000	47000000	280	280	5 U	1.2 U	0.21 U	0.8 U	0.19 U	0.2 U			
Carbon tetrachloride	mg/kg	0.1	0.9	92	0.19	3.5	12	28	130000	96	390	1 U	0.24 U	0.041 U	0.16 U	0.037 U	0.039 U			
Chlorobenzene	mg/kg	2	0.94	260	120	770	990	2100	4700000	260	260	1 U	0.24 U	0.041 U	0.16 U	0.037 U	0.039 U			
Chloroethane	mg/kg	8.6	ID	950	950	30000	120000	280000	670000000	950	950	5 U	1.2 U	0.21 U	0.8 U	0.19 U	0.2 U			
Chloroform (Trichloromethane)	mg/kg	1.6	3.4	1500	7.2	45	120	270	1300000	1200	1500	1 U	0.24 U	0.041 U	0.16 U	0.037 U	0.039 U			
Chloromethane (Methyl Chloride)	mg/kg	5.2	ID	1100	2.3	40	410	1000	4900000	1100	1100	5 U	1.2 U	0.21 U	0.8 U	0.19 U	0.2 U			
cis-1,2-Dichloroethene	mg/kg	1.4	12	640	22	180	420	990	2300000	640	640	1 U	0.24 U	0.041 U	0.16 U	0.037 U	0.039 U			
cis-1,3-Dichloropropene	mg/kg											1 UJ	0.24 UJ	0.041 U	0.16 U	0.037 U	0.039 U			
Cyclohexane	mg/kg											24 U	5.8 U	0.061 J	0.3 J	0.024 J	0.94 U			
Dibromochloromethane	mg/kg	1.6	ID	360	3.9	24	24	33	130000	110	610	1 U	0.24 U	0.041 UJ	0.16 U	0.037 U	0.039 U			
Dichlorodifluoromethane (CFC-12)	mg/kg	95	ID	1000	900	53000	550000	1400000	3300000000	1000	1000	2 U	0.48 U	0.082 U	0.32 U	0.074 U	0.078 U			
Ethylbenzene	mg/kg	1.5	0.36	140	87	720	1000	2200	10000000	140	140	1 U	0.24 U	0.022 J	0.13 J	0.01 J	0.039 U			
Isopropylbenzene	mg/kg	91	ID	390	390	1700	1700	2800	5800000	390	390	5 U	1.2 U	0.025 J	0.12 J	0.0094 J	0.2 U			
Methyl acetate	mg/kg											49	25	0.99 U	3.8 U	0.89 U	0.94 U			
Methyl cyclohexane	mg/kg											24 U	5.8 U	0.22 J	0.88 J	0.067 J	0.94 U			
Methyl Tert Butyl Ether	mg/kg	0.8	15	5900	5900	25000	39000	87000	200000000	1500	5900	5 U	1.2 U	0.21 U	0.8 U	0.19 U	0.2 U			
Methylene chloride	mg/kg	0.1	19	2300	45	210	590	1400	6600000	1300	2300	5 U	1.2 U	0.21 U	0.8 U	0.19 U	0.2 U			
Styrene	mg/kg	2.7	2.2	270	250	970	970	1400	5500000	400	520	1 U	0.24 U	0.041 U	0.16 U	0.037 U	0.039 U			
Tetrachloroethene	mg/kg	0.1	0.9	88	11	180	480	1100	5400000	88	88	1 U	0.24 U	0.041 U	0.16 U	0.037 U	0.039 U			
Toluene	mg/kg	16	2.8	250	250	2800	5100	12000	27000000	250	250	2 U	0.48 U	0.076 J	0.49	0.041 J	0.078 U			
trans-1,2-Dichloroethene	mg/kg	2	30	1400	23	280	830	2000	4700000	1400	1400	1 U	0.24 U	0.041 U	0.16 U	0.037 U	0.039 U			
trans-1,3-Dichloropropene	mg/kg											1 U	0.24 U	0.041 U	0.16 U	0.037 U	0.039 U			
Trichloroethene	mg/kg	0.1	4	440	7.1	78	170	390	1800000	500	500	1 U	0.24 U	2.2 J ^a		5.5 ^{ab}		0.53 ^a		0.039 U
Trichlorofluoromethane (CFC-11)	mg/kg	52		560	560	92000	630000	1500000	3800000000	560	560	2 U	0.48 U	0.082 U	0.32 U	0.074 U	0.078 U			
Trifluorotrichloroethane (Freon 113)	mg/kg	550	1.7	550	550	180000	880000	2100000	5100000000	550	550	5 U	1.2 U	0.21 U	0.8 U	0.19 U	0.2 U			
Vinyl chloride	mg/kg	0.04	0.3	20	0.27	4.2	30	73	350000	3.8	490	2 U	0.48 U	0.082 U	0.32 U	0.074 U	0.078 U			
Xylene (total)	mg/kg	5.6	0.7	150	150	46000	61000	130000	290000000	150	150	3 U	0.73 U	0.19	0.91 ^{ab}		0.068 J	0.12 U		

Notes:
⁽¹⁾ Cleanup criteria identified by MDEQ RRD Op Memo No. 1, updated 1/23/2006, pursuant to 1994 PA 451 as amended.
U - Not present at or above the associated value.
J - Estimated concentration.
UJ - Estimated reporting limit.
 Value exceeds referenced Part 201 Criteria (I.e. a, b, etc.)

TABLE 2

SUMMARY OF SOIL SAMPLES COMPARED TO MICHIGAN ACT 451, PART 201 RESIDENTIAL CRITERIA
SVE SOIL INVESTIGATION
GENERAL MOTORS CORPORATION
GRAND RAPIDS METAL PLANT
WYOMING, MICHIGAN

Sample Location	Michigan Act 451, Part 201 Residential and Commercial ⁽¹⁾											SB12-05	SB12-05	SB12-05	SB12-05	SB12-05	SB12-05
Sample Identification	Drinking Water	Groundwater Surface Water	Groundwater Contact	Soil Volatilization to Indoor Air	Infinite Source Volatile Soil Inhalation	Finite VSIC for 5 Meter Source Thickness	Finite VSIC for 2 Meter Source Thickness	Particulate Soil Inhalation	Direct Contact	Soil Saturation Concentration Screening	SO-17360-071105-DCR-444	SO-17360-071105-DCR-445	SO-17360-071105-DCR-446	SO-17360-071105-DCR-447	SO-17360-071105-DCR-448	SO-17360-071105-DCR-449	
Sample Date	Protection	Interface Protection	Protection	Inhalation	Inhalation	Thickness	Thickness				7/11/2005	7/11/2005	7/11/2005	7/11/2005	7/11/2005	7/11/2005	
Sample Depth											8-10 ft BGS	10-12 ft BGS	12-14 ft BGS	14-16 ft BGS	16-18 ft BGS	18-20 ft BGS	
Sample Type	a	b	c	d	e	f	g	h	i	j							
Units																	
Volatile Organic Compounds																	
1,1,1-Trichloroethane	mg/kg	4	4	460	250	3800	12000	28000	67000000	460	460	0.04 U	0.039 U	0.038 U	0.04 U	0.037 U	0.038 U
1,1,2,2-Tetrachloroethane	mg/kg	0.17	1.6	94	4.3	10	10	14	54000	53	870	0.08 U	0.078 U	0.076 U	0.079 U	0.074 U	0.076 U
1,1,2-Trichloroethane	mg/kg	0.1	6.6	420	4.6	17	21	44	190000	180	920	0.04 U	0.039 U	0.038 U	0.04 U	0.037 U	0.038 U
1,1-Dichloroethane	mg/kg	18	15	890	230	2100	5900	14000	33000000	890	890	0.04 U	0.039 U	0.038 U	0.04 U	0.037 U	0.038 U
1,1-Dichloroethene	mg/kg	0.14	1.3	220	0.062	1.1	5.3	13	62000	200	570	0.04 U	0.039 U	0.038 U	0.04 U	0.037 U	0.038 U
1,2,4-Trichlorobenzene	mg/kg	4.2	1.8	1100	1100	28000	28000	28000	25000000	990	1100	0.2 U	0.2 U	0.19 U	0.2 U	0.18 U	0.19 U
1,2-Dibromo-3-chloropropane (DBCP)	mg/kg	0.01		1.2	1.2	13	13	13	13000	1.2	1.2	0.2 U	0.2 U	0.19 U	0.2 U	0.18 U	0.19 U
1,2-Dibromoethane (Ethylene Dibromide)	mg/kg	0.02	0.02	0.5	0.67	1.7	1.7	3.3	14000	0.092	890	0.2 U	0.2 U	0.19 U	0.2 U	0.18 U	0.19 U
1,2-Dichlorobenzene	mg/kg	14	0.36	210	210	39000	39000	52000	100000000	210	210	0.08 U	0.078 U	0.076 U	0.079 U	0.074 U	0.076 U
1,2-Dichloroethane	mg/kg	0.1	7.2	380	2.1	6.2	11	26	120000	91	1200	0.04 U	0.039 U	0.038 U	0.04 U	0.037 U	0.038 U
1,2-Dichloropropane	mg/kg	0.1	5.8	320	4	25	50	110	270000	140	550	0.04 U	0.039 U	0.038 U	0.04 U	0.037 U	0.038 U
1,3-Dichlorobenzene	mg/kg	0.17	1.1	51	ID	ID	ID	ID	ID	170	170	0.08 U	0.078 U	0.076 U	0.079 U	0.074 U	0.076 U
1,4-Dichlorobenzene	mg/kg	1.7	0.29	140	19	77	77	110	450000	400		0.08 U	0.078 U	0.076 U	0.079 U	0.074 U	0.076 U
2-Butanone (Methyl Ethyl Ketone)	mg/kg	260	44	27000	27000	29000	29000	35000	67000000	27000	27000	0.6 U	0.59 U	0.57 U	0.59 U	0.55 U	0.57 U
2-Hexanone	mg/kg	20		2500	990	1100	1100	1400	2700000	2500	2500	2 U	2 U	1.9 U	2 U	1.8 U	1.9 U
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	mg/kg	36	ID	2700	2700	45000	45000	67000	140000000	2700	2700	2 U	2 U	1.9 U	2 U	1.8 U	1.9 U
Acetone	mg/kg	15	34	110000	110000	130000	130000	190000	390000000	23000	110000	0.6 U	0.59 U	0.57 U	0.59 U	0.55 U	0.57 U
Benzene	mg/kg	0.1	4	220	1.6	13	34	79	380000	180	400	0.04 U	0.039 U	0.038 U	0.04 U	0.037 U	0.038 U
Bromodichloromethane	mg/kg	1.6	ID	280	1.2	9.1	9.7	19	84000	110	1500	0.08 U	0.079 U	0.076 U	0.079 UJ	0.074 UJ	0.076 UJ
Bromoform	mg/kg	1.6	ID	870	150	900	900	900	2800000	820	870	0.08 U	0.078 U	0.076 U	0.079 U	0.074 U	0.076 U
Bromomethane (Methyl Bromide)	mg/kg	0.2	0.7	1400	0.86	11	57	140	330000	320	2200	0.2 U	0.2 U	0.19 U	0.2 U	0.18 U	0.19 U
Carbon disulfide	mg/kg	16	ID	280	76	1300	7900	19000	47000000	280	280	0.2 U	0.2 U	0.19 U	0.2 U	0.18 U	0.19 U
Carbon tetrachloride	mg/kg	0.1	0.9	92	0.19	3.5	12	28	130000	96	390	0.04 U	0.039 U	0.038 U	0.04 U	0.037 U	0.038 U
Chlorobenzene	mg/kg	2	0.94	260	120	770	990	2100	4700000	260	260	0.04 U	0.039 U	0.038 U	0.04 U	0.037 U	0.038 U
Chloroethane	mg/kg	8.6	ID	950	950	30000	120000	280000	670000000	950	950	0.2 U	0.2 U	0.19 U	0.2 U	0.18 U	0.19 U
Chloroform (Trichloromethane)	mg/kg	1.6	3.4	1500	7.2	45	120	270	1300000	1200	1500	0.04 U	0.039 U	0.038 U	0.04 U	0.037 U	0.038 U
Chloromethane (Methyl Chloride)	mg/kg	5.2	ID	1100	2.3	40	410	1000	4900000	1100	1100	0.2 U	0.2 U	0.19 U	0.2 U	0.18 U	0.19 U
cis-1,2-Dichloroethene	mg/kg	1.4	12	640	22	180	420	990	2300000	640	640	0.04 U	0.039 U	0.038 U	0.04 U	0.037 U	0.038 U
cis-1,3-Dichloropropene	mg/kg											0.04 U	0.039 U	0.038 U	0.04 U	0.037 U	0.038 U
Cyclohexane	mg/kg											0.96 U	0.94 U	0.91 U	0.95 U	0.88 U	0.91 U
Dibromochloromethane	mg/kg	1.6	ID	360	3.9	24	24	33	130000	110	610	0.04 U	0.039 U	0.038 U	0.04 U	0.037 U	0.038 U
Dichlorodifluoromethane (CFC-12)	mg/kg	95	ID	1000	900	53000	550000	1400000	3300000000	1000	1000	0.08 U	0.078 U	0.076 U	0.079 U	0.074 U	0.076 U
Ethylbenzene	mg/kg	1.5	0.36	140	87	720	1000	2200	10000000	140	140	0.04 U	0.039 U	0.038 U	0.04 U	0.037 U	0.038 U
Isopropylbenzene	mg/kg	91	ID	390	390	1700	1700	2800	5800000	390	390	0.2 U	0.2 U	0.19 U	0.2 U	0.18 U	0.19 U
Methyl acetate	mg/kg											0.96 U	0.94 U	0.91 U	0.36 J	0.88 U	0.91 U
Methyl cyclohexane	mg/kg											0.96 U	0.94 U	0.91 U	0.015 J	0.88 U	0.91 U
Methyl Tert Butyl Ether	mg/kg	0.8	15	5900	5900	25000	39000	87000	200000000	1500	5900	0.2 U	0.2 U	0.19 U	0.2 U	0.18 U	0.19 U
Methylene chloride	mg/kg	0.1	19	2300	45	210	590	1400	6600000	1300	2300	0.2 U	0.2 U	0.19 U	0.2 U	0.18 U	0.19 U
Styrene	mg/kg	2.7	2.2	270	250	970	970	1400	5500000	400	520	0.04 U	0.039 U	0.038 U	0.04 U	0.037 U	0.038 U
Tetrachloroethene	mg/kg	0.1	0.9	88	11	180	480	1100	5400000	88	88	0.04 U	0.039 U	0.038 U	0.04 U	0.037 U	0.038 U
Toluene	mg/kg	16	2.8	250	250	2800	5100	12000	27000000	250	250	0.08 U	0.078 U	0.076 U	0.0098 J	0.074 U	0.076 U
trans-1,2-Dichloroethene	mg/kg	2	30	1400	23	280	830	2000	4700000	1400	1400	0.04 U	0.039 U	0.038 U	0.04 U	0.037 U	0.038 U
trans-1,3-Dichloropropene	mg/kg											0.04 U	0.039 U	0.038 U	0.04 U	0.037 U	0.038 U
Trichloroethene	mg/kg	0.1	4	440	7.1	78	170	390	1800000	500	500	0.04 U	0.039 U	0.013 J	0.14*	0.012 J	0.038 U
Trichlorofluoromethane (CFC-11)	mg/kg	52		560	560	92000	630000	1500000	3800000000	560	560	0.08 U	0.078 U	0.076 U	0.079 U	0.074 U	0.076 U
Trifluorotrichloroethane (Freon 113)	mg/kg	550	1.7	550	550	180000	880000	2100000	5100000000	550	550	0.2 U	0.2 U	0.19 U	0.2 U	0.18 U	0.19 U
Vinyl chloride	mg/kg	0.04	0.3	20	0.27	4.2	30	73	350000	3.8	490	0.08 U	0.078 U	0.076 U	0.079 U	0.074 U	0.076 U
Xylene (total)	mg/kg	5.6	0.7	150	150	46000	61000	130000	290000000	150	150	0.12 U	0.12 U	0.11 U	0.016 J	0.11 U	0.11 U

Notes:

⁽¹⁾ Cleanup criteria identified by MDEQ RRD Op Memo No. 1, updated 1/23/2006, pursuant to 1994 PA 451 as amended.

U - Not present at or above the associated value.

J - Estimated concentration.

UJ - Estimated reporting limit.

Value exceeds referenced Part 201 Criteria (I.e. a, b, etc.)

TABLE 2

SUMMARY OF SOIL SAMPLES COMPARED TO MICHIGAN ACT 451, PART 201 RESIDENTIAL CRITERIA
SVE SOIL INVESTIGATION
GENERAL MOTORS CORPORATION
GRAND RAPIDS METAL PLANT
WYOMING, MICHIGAN

Sample Location	<i>Michigan Act 451, Part 201 Residential and Commercial</i> ⁽¹⁾										<i>SB13-05</i>	<i>SB13-05</i>	<i>SB13-05</i>	<i>SB13-05</i>	<i>SB13-05</i>	<i>SB13-05</i>
Sample Identification	Drinking Water	Groundwater Surface Water	Groundwater Contact	Soil Volatilization to Indoor Air	Infinite Source Volatile Soil Inhalation	Finite VSIC for 5 Meter Source Thickness	Finite VSIC for 2 Meter Source Thickness	Particulate Soil Inhalation	Direct Contact	Soil Saturation Concentration Screening	<i>SO-17360-071105-DCR-409</i>	<i>SO-17360-071105-DCR-410</i>	<i>SO-17360-071105-DCR-411</i>	<i>SO-17360-071105-DCR-412</i>	<i>SO-17360-071105-DCR-413</i>	<i>SO-17360-071105-DCR-414</i>
Sample Date	Protection	Interface Protection	Protection	Inhalation	Inhalation	Thickness	Thickness				<i>7/11/2005</i>	<i>7/11/2005</i>	<i>7/11/2005</i>	<i>7/11/2005</i>	<i>7/11/2005</i>	<i>7/11/2005</i>
Sample Depth											<i>0-2 ft BGS</i>	<i>2-4 ft BGS</i>	<i>4-6 ft BGS</i>	<i>6-8 ft BGS</i>	<i>8-10 ft BGS</i>	<i>10-12 ft BGS</i>
Sample Type	a	b	c	d	e	f	g	h	i	j						
<i>Units</i>																
<i>Volatile Organic Compounds</i>																
1,1,1-Trichloroethane	mg/kg	4	4	460	250	3800	12000	28000	67000000	460	460	0.037 U	0.039 U	0.037 U	0.04 U	0.04 U
1,1,2,2-Tetrachloroethane	mg/kg	0.17	1.6	94	4.3	10	10	14	54000	53	870	0.074 U	0.078 U	0.074 U	0.08 U	0.08 U
1,1,2-Trichloroethane	mg/kg	0.1	6.6	420	4.6	17	21	44	190000	180	920	0.037 U	0.039 U	0.037 U	0.04 U	0.039 U
1,1-Dichloroethane	mg/kg	18	15	890	230	2100	5900	14000	33000000	890	890	0.037 U	0.039 U	0.037 U	0.04 U	0.039 U
1,1-Dichloroethene	mg/kg	0.14	1.3	220	0.062	1.1	5.3	13	62000	200	570	0.037 U	0.039 U	0.037 U	0.04 U	0.039 U
1,2,4-Trichlorobenzene	mg/kg	4.2	1.8	1100	1100	28000	28000	25000000	990	1100	0.18 U	0.2 U	0.19 U	0.2 U	0.2 U	0.19 U
1,2-Dibromo-3-chloropropane (DBCP)	mg/kg	0.01		1.2	1.2	13	13	13	13000	1.2	1.2	0.18 U	0.2 U	0.19 U	0.2 U	0.19 U
1,2-Dibromoethane (Ethylene Dibromide)	mg/kg	0.02	0.02	0.5	0.67	1.7	1.7	3.3	14000	0.092	890	0.18 U	0.2 U	0.19 U	0.2 U	0.19 U
1,2-Dichlorobenzene	mg/kg	14	0.36	210	210	39000	39000	52000	100000000	210	210	0.074 U	0.078 U	0.074 U	0.08 U	0.078 U
1,2-Dichloroethane	mg/kg	0.1	7.2	380	2.1	6.2	11	26	120000	91	1200	0.037 U	0.039 U	0.037 U	0.04 U	0.039 U
1,2-Dichloropropane	mg/kg	0.1	5.8	320	4	25	50	110	270000	140	550	0.037 U	0.039 U	0.037 U	0.04 U	0.039 U
1,3-Dichlorobenzene	mg/kg	0.17	1.1	51	ID	ID	ID	ID	ID	170	170	0.074 U	0.078 U	0.074 U	0.08 U	0.078 U
1,4-Dichlorobenzene	mg/kg	1.7	0.29	140	19	77	77	110	450000	400		0.074 U	0.078 U	0.074 U	0.08 U	0.078 U
2-Butanone (Methyl Ethyl Ketone)	mg/kg	260	44	27000	27000	29000	29000	35000	67000000	27000	27000	0.55 U	0.59 U	0.56 U	0.6 U	0.58 U
2-Hexanone	mg/kg	20		2500	990	1100	1100	1400	2700000	2500	2500	1.8 U	2 U	1.9 U	2 U	1.9 U
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	mg/kg	36	ID	2700	2700	45000	45000	67000	140000000	2700	2700	1.8 U	2 U	1.9 U	2 U	1.9 U
Acetone	mg/kg	15	34	110000	110000	130000	130000	190000	390000000	23000	110000	0.55 U	0.59 U	0.56 U	0.6 U	0.58 U
Benzene	mg/kg	0.1	4	220	1.6	13	34	79	380000	180	400	0.037 U	0.039 U	0.037 U	0.04 U	0.039 U
Bromodichloromethane	mg/kg	1.6	ID	280	1.2	9.1	9.7	19	84000	110	1500	0.074 UJ	0.078 UJ	0.074 UJ	0.08 UJ	0.078 UJ
Bromoform	mg/kg	1.6	ID	870	150	900	900	900	2800000	820	870	0.074 U	0.078 U	0.074 U	0.08 U	0.078 U
Bromomethane (Methyl Bromide)	mg/kg	0.2	0.7	1400	0.86	11	57	140	330000	320	2200	0.18 U	0.2 U	0.19 U	0.2 U	0.19 U
Carbon disulfide	mg/kg	16	ID	280	76	1300	7900	19000	47000000	280	280	0.18 U	0.2 U	0.19 U	0.2 U	0.19 U
Carbon tetrachloride	mg/kg	0.1	0.9	92	0.19	3.5	12	28	130000	96	390	0.037 U	0.039 U	0.037 U	0.04 U	0.039 U
Chlorobenzene	mg/kg	2	0.94	260	120	770	990	2100	4700000	260	260	0.037 U	0.039 U	0.037 U	0.04 U	0.039 U
Chloroethane	mg/kg	8.6	ID	950	950	30000	120000	280000	670000000	950	950	0.18 U	0.2 U	0.19 U	0.2 U	0.19 U
Chloroform (Trichloromethane)	mg/kg	1.6	3.4	1500	7.2	45	120	270	1300000	1200	1500	0.037 U	0.039 U	0.037 U	0.04 U	0.039 U
Chloromethane (Methyl Chloride)	mg/kg	5.2	ID	1100	2.3	40	410	1000	4900000	1100	1100	0.18 U	0.2 U	0.19 U	0.2 U	0.19 U
cis-1,2-Dichloroethene	mg/kg	1.4	12	640	22	180	420	990	2300000	640	640	0.037 U	0.039 U	0.037 U	0.04 U	0.039 U
cis-1,3-Dichloropropene	mg/kg											0.037 U	0.039 U	0.037 U	0.04 U	0.039 U
Cyclohexane	mg/kg											0.048 J	0.094 U	0.89 U	0.96 U	0.93 U
Dibromochloromethane	mg/kg	1.6	ID	360	3.9	24	24	33	130000	110	610	0.037 U	0.039 U	0.037 U	0.04 U	0.039 U
Dichlorodifluoromethane (CFC-12)	mg/kg	95	ID	1000	900	53000	550000	1400000	3300000000	1000	1000	0.074 U	0.078 U	0.074 U	0.08 U	0.078 U
Ethylbenzene	mg/kg	1.5	0.36	140	87	720	1000	2200	10000000	140	140	0.018 J	0.039 U	0.037 U	0.04 U	0.039 U
Isopropylbenzene	mg/kg	91	ID	390	390	1700	1700	2800	5800000	390	390	0.019 J	0.2 U	0.19 U	0.2 U	0.19 U
Methyl acetate	mg/kg											0.88 U	0.94 U	0.073 J	0.96 U	0.071 J
Methyl cyclohexane	mg/kg											0.16 J	0.94 U	0.89 U	0.96 U	0.93 U
Methyl Tert Butyl Ether	mg/kg	0.8	15	5900	5900	25000	39000	87000	200000000	1500	5900	0.18 U	0.2 U	0.19 U	0.2 U	0.19 U
Methylene chloride	mg/kg	0.1	19	2300	45	210	590	1400	6600000	1300	2300	0.18 U	0.2 U	0.19 U	0.2 U	0.19 U
Styrene	mg/kg	2.7	2.2	270	250	970	970	1400	5500000	400	520	0.037 U	0.039 U	0.037 U	0.04 U	0.039 U
Tetrachloroethene	mg/kg	0.1	0.9	88	11	180	480	1100	5400000	88	88	0.037 U	0.039 U	0.037 U	0.04 U	0.039 U
Toluene	mg/kg	16	2.8	250	250	2800	5100	12000	27000000	250	250	0.04 J	0.078 U	0.074 U	0.08 U	0.078 U
trans-1,2-Dichloroethene	mg/kg	2	30	1400	23	280	830	2000	4700000	1400	1400	0.037 U	0.039 U	0.037 U	0.04 U	0.039 U
trans-1,3-Dichloropropene	mg/kg											0.037 UJ	0.039 UJ	0.037 UJ	0.04 UJ	0.039 UJ
Trichloroethene	mg/kg	0.1	4	440	7.1	78	170	390	1800000	500	500	1.5"		0.039 U	0.04 U	0.012 J
Trichlorofluoromethane (CFC-11)	mg/kg	52		560	560	92000	630000	1500000	3800000000	560	560	0.074 U	0.078 U	0.074 U	0.08 U	0.078 U
Trifluorotrichloroethane (Freon 113)	mg/kg	550	1.7	550	550	180000	880000	2100000	5100000000	550	550	0.18 U	0.2 U	0.19 U	0.2 U	0.19 U
Vinyl chloride	mg/kg	0.04	0.3	20	0.27	4.2	30	73	350000	3.8	490	0.074 U	0.078 U	0.074 U	0.08 U	0.078 U
Xylene (total)	mg/kg	5.6	0.7	150	150	46000	61000	130000	290000000	150	150	0.16	0.12 U	0.11 U	0.12 U	0.12 U

Notes:
⁽¹⁾ Cleanup criteria identified by MDEQ RRD Op Memo No. 1, updated 1/23/2006, pursuant to 1994 PA 451 as amended.
U - Not present at or above the associated value.
J - Estimated concentration.
UJ - Estimated reporting limit.
 Value exceeds referenced Part 201 Criteria (I.e. a, b, etc.)

TABLE 2

SUMMARY OF SOIL SAMPLES COMPARED TO MICHIGAN ACT 451, PART 201 RESIDENTIAL CRITERIA
SVE SOIL INVESTIGATION
GENERAL MOTORS CORPORATION
GRAND RAPIDS METAL PLANT
WYOMING, MICHIGAN

Sample Location	Michigan Act 451, Part 201 Residential and Commercial ⁽¹⁾										SB13-05	SB13-05	SB13-05	SB13-05	SB14-05	SB14-05
Sample Identification	Drinking Water	Groundwater Surface Water	Groundwater Contact	Soil Volatilization to Indoor Air	Infinite Source Volatile Soil Inhalation	Finite VSIC for 5 Meter Source Thickness	Finite VSIC for 2 Meter Source Thickness	Particulate Soil Inhalation	Direct Contact	Soil Saturation Concentration	SO-17360-071105-DCR-415	SO-17360-071105-DCR-416	SO-17360-071105-DCR-417	SO-17360-071105-DCR-418	SO-17360-071205-DCR-460	SO-17360-071205-DCR-461
Sample Date	Protection	Interface Protection	Protection	Inhalation	Inhalation	Thickness	Thickness			Screening	7/11/2005	7/11/2005	7/11/2005	7/11/2005	7/12/2005	7/12/2005
Sample Depth	a	b	c	d	e	f	g	h	i	j	12-14 ft BGS	14-16 ft BGS	16-18 ft BGS	18-20 ft BGS	0-2 ft BGS	2-4 ft BGS
Sample Type	Units															
Volatile Organic Compounds																
1,1,1-Trichloroethane	mg/kg	4	4	460	250	3800	12000	28000	67000000	460	460	0.04 U	0.04 U	0.04 U	0.04 U	0.048 U
1,1,2,2-Tetrachloroethane	mg/kg	0.17	1.6	94	4.3	10	10	14	54000	53	870	0.08 U	0.079 U	0.079 U	0.08 U	0.095 U
1,1,2-Trichloroethane	mg/kg	0.1	6.6	420	4.6	17	21	44	190000	180	920	0.04 U	0.04 U	0.04 U	0.04 U	0.048 U
1,1-Dichloroethane	mg/kg	18	15	890	230	2100	5900	14000	33000000	890	890	0.04 U	0.04 U	0.04 U	0.04 U	0.048 U
1,1-Dichloroethene	mg/kg	0.14	1.3	220	0.062	1.1	5.3	13	62000	200	570	0.04 U	0.04 U	0.04 U	0.04 U	0.048 U
1,2,4-Trichlorobenzene	mg/kg	4.2	1.8	1100	1100	28000	28000	28000	25000000	990	1100	0.2 U	0.2 U	0.2 U	0.2 U	0.24 U
1,2-Dibromo-3-chloropropane (DBCP)	mg/kg	0.01		1.2	1.2	13	13	13	13000	1.2	1.2	0.2 U	0.2 U	0.2 U	0.2 U	0.24 U
1,2-Dibromoethane (Ethylene Dibromide)	mg/kg	0.02	0.02	0.5	0.67	1.7	1.7	3.3	14000	0.092	890	0.2 U	0.2 U	0.2 U	0.2 U	0.24 U
1,2-Dichlorobenzene	mg/kg	14	0.36	210	210	39000	39000	52000	100000000	210	210	0.08 U	0.079 U	0.079 U	0.08 U	0.095 U
1,2-Dichloroethane	mg/kg	0.1	7.2	380	2.1	6.2	11	26	120000	91	1200	0.04 U	0.04 U	0.04 U	0.04 U	0.048 U
1,2-Dichloropropane	mg/kg	0.1	5.8	320	4	25	50	110	270000	140	550	0.04 U	0.04 U	0.04 U	0.04 U	0.048 U
1,3-Dichlorobenzene	mg/kg	0.17	1.1	51	ID	ID	ID	ID	ID	170	170	0.08 U	0.079 U	0.079 U	0.08 U	0.095 U
1,4-Dichlorobenzene	mg/kg	1.7	0.29	140	19	77	77	110	450000	400		0.08 U	0.079 U	0.079 U	0.08 U	0.095 U
2-Butanone (Methyl Ethyl Ketone)	mg/kg	260	44	27000	27000	29000	29000	35000	67000000	27000	27000	0.6 U	0.59 U	0.59 U	0.6 U	0.71 U
2-Hexanone	mg/kg	20		2500	990	1100	1100	1400	2700000	2500	2500	2 U	2 U	2 U	2 U	2.4 U
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	mg/kg	36	ID	2700	2700	45000	45000	67000	140000000	2700	2700	2 U	2 U	2 U	2 U	2.4 U
Acetone	mg/kg	15	34	110000	110000	130000	130000	190000	390000000	23000	110000	0.6 U	0.59 U	0.59 U	0.6 U	0.71 U
Benzene	mg/kg	0.1	4	220	1.6	13	34	79	380000	180	400	0.04 U	0.04 U	0.04 U	0.04 U	0.048 U
Bromodichloromethane	mg/kg	1.6	ID	280	1.2	9.1	9.7	19	84000	110	1500	0.08 UJ	0.079 UJ	0.079 UJ	0.08 UJ	0.095 UJ
Bromoform	mg/kg	1.6	ID	870	150	900	900	900	2800000	820	870	0.08 U	0.079 U	0.079 U	0.08 U	0.095 U
Bromomethane (Methyl Bromide)	mg/kg	0.2	0.7	1400	0.86	11	57	140	330000	320	2200	0.2 U	0.2 U	0.2 U	0.2 U	0.24 U
Carbon disulfide	mg/kg	16	ID	280	76	1300	7900	19000	47000000	280	280	0.2 U	0.2 U	0.2 U	0.2 U	0.24 U
Carbon tetrachloride	mg/kg	0.1	0.9	92	0.19	3.5	12	28	130000	96	390	0.04 U	0.04 U	0.04 U	0.04 U	0.048 U
Chlorobenzene	mg/kg	2	0.94	260	120	770	990	2100	4700000	260	260	0.04 U	0.04 U	0.04 U	0.04 U	0.048 U
Chloroethane	mg/kg	8.6	ID	950	950	30000	120000	280000	670000000	950	950	0.2 U	0.2 U	0.2 U	0.2 U	0.24 U
Chloroform (Trichloromethane)	mg/kg	1.6	3.4	1500	7.2	45	120	270	1300000	1200	1500	0.04 U	0.04 U	0.04 U	0.04 U	0.048 U
Chloromethane (Methyl Chloride)	mg/kg	5.2	ID	1100	2.3	40	410	1000	4900000	1100	1100	0.2 U	0.2 U	0.2 U	0.2 U	0.24 U
cis-1,2-Dichloroethene	mg/kg	1.4	12	640	22	180	420	990	2300000	640	640	0.04 U	0.04 U	0.04 U	0.04 U	0.048 U
cis-1,3-Dichloropropene	mg/kg											0.04 U	0.04 U	0.04 U	0.04 U	0.048 U
Cyclohexane	mg/kg											0.96 U	0.95 U	0.013 J	0.96 U	1.1 U
Dibromochloromethane	mg/kg	1.6	ID	360	3.9	24	24	33	130000	110	610	0.04 U	0.04 U	0.04 U	0.04 U	0.048 U
Dichlorodifluoromethane (CFC-12)	mg/kg	95	ID	1000	900	53000	550000	1400000	3300000000	1000	1000	0.08 U	0.079 U	0.079 U	0.08 U	0.095 U
Ethylbenzene	mg/kg	1.5	0.36	140	87	720	1000	2200	10000000	140	140	0.04 U	0.04 U	0.04 U	0.04 U	0.048 U
Isopropylbenzene	mg/kg	91	ID	390	390	1700	1700	2800	5800000	390	390	0.2 U	0.2 U	0.2 U	0.2 U	0.24 U
Methyl acetate	mg/kg											0.38 J	0.95 U	0.44 J	0.96 U	1.1 U
Methyl cyclohexane	mg/kg											0.014 J	0.95 U	0.037 J	0.96 U	1.1 U
Methyl Tert Butyl Ether	mg/kg	0.8	15	5900	5900	25000	39000	87000	200000000	1500	5900	0.2 U	0.2 U	0.2 U	0.2 U	0.24 U
Methylene chloride	mg/kg	0.1	19	2300	45	210	590	1400	6600000	1300	2300	0.2 U	0.2 U	0.2 U	0.2 U	0.24 U
Styrene	mg/kg	2.7	2.2	270	250	970	970	1400	5500000	400	520	0.04 U	0.04 U	0.04 U	0.04 U	0.048 U
Tetrachloroethene	mg/kg	0.1	0.9	88	11	180	480	1100	5400000	88	88	0.04 U	0.04 U	0.04 U	0.04 U	0.048 U
Toluene	mg/kg	16	2.8	250	250	2800	5100	12000	27000000	250	250	0.08 U	0.079 U	0.019 J	0.08 U	0.095 U
trans-1,2-Dichloroethene	mg/kg	2	30	1400	23	280	830	2000	4700000	1400	1400	0.04 U	0.04 U	0.04 U	0.04 U	0.048 U
trans-1,3-Dichloropropene	mg/kg											0.04 UJ	0.04 UJ	0.04 UJ	0.04 UJ	0.048 U
Trichloroethene	mg/kg	0.1	4	440	7.1	78	170	390	1800000	500	500	0.29 ^a	0.04 U	0.44 ^a	0.04 U	0.82 ^a
Trichlorofluoromethane (CFC-11)	mg/kg	52		560	560	92000	630000	1500000	3800000000	560	560	0.08 U	0.079 U	0.079 U	0.08 U	0.095 U
Trifluorotrichloroethane (Freon 113)	mg/kg	550	1.7	550	550	180000	880000	2100000	5100000000	550	550	0.2 U	0.2 U	0.2 U	0.2 U	0.24 U
Vinyl chloride	mg/kg	0.04	0.3	20	0.27	4.2	30	73	350000	3.8	490	0.08 U	0.079 U	0.079 U	0.08 U	0.095 U
Xylene (total)	mg/kg	5.6	0.7	150	150	46000	61000	130000	290000000	150	150	0.015 J	0.12 U	0.036 J	0.12 U	0.14 U

Notes:
⁽¹⁾ Cleanup criteria identified by MDEQ RRD Op Memo No. 1, updated 1/23/2006, pursuant to 1994 PA 451 as amended.
U - Not present at or above the associated value.
J - Estimated concentration.
UJ - Estimated reporting limit.
 Value exceeds referenced Part 201 Criteria (I.e. a, b, etc.)

TABLE 2

SUMMARY OF SOIL SAMPLES COMPARED TO MICHIGAN ACT 451, PART 201 RESIDENTIAL CRITERIA
SVE SOIL INVESTIGATION
GENERAL MOTORS CORPORATION
GRAND RAPIDS METAL PLANT
WYOMING, MICHIGAN

Sample Location	<i>Michigan Act 451, Part 201 Residential and Commercial</i> ⁽¹⁾										<i>SB14-05</i>	<i>SB14-05</i>	<i>SB14-05</i>	<i>SB14-05</i>	<i>SB14-05</i>	<i>SB14-05</i>
Sample Identification	Drinking Water	Groundwater Surface Water	Groundwater Contact	Soil Volatilization to Indoor Air	Infinite Source Volatile Soil Inhalation	Finite VSIC for 5 Meter Source Thickness	Finite VSIC for 2 Meter Source Thickness	Particulate Soil Inhalation	Direct Contact	Soil Saturation Concentration Screening	<i>SO-17360-071205-DCR-462</i>	<i>SO-17360-071205-DCR-463</i>	<i>SO-17360-071205-DCR-464</i>	<i>SO-17360-071205-DCR-465</i>	<i>SO-17360-071205-DCR-466</i>	<i>SO-17360-071205-DCR-467</i>
Sample Date											<i>7/12/2005</i>	<i>7/12/2005</i>	<i>7/12/2005</i>	<i>7/12/2005</i>	<i>7/12/2005</i>	<i>7/12/2005</i>
Sample Depth	Protection	Interface Protection	Protection	Inhalation	Inhalation	Thickness	Thickness				<i>4-6 ft BGS</i>	<i>6-8 ft BGS</i>	<i>8-10 ft BGS</i>	<i>10-12 ft BGS</i>	<i>12-14 ft BGS</i>	<i>14-16 ft BGS</i>
Sample Type	a	b	c	d	e	f	g	h	i	j						
<i>Units</i>																
<i>Volatile Organic Compounds</i>																
1,1,1-Trichloroethane	mg/kg	4	4	460	250	3800	12000	28000	67000000	460	460	0.042 U	0.04 U	0.04 U	0.042 U	0.038 U
1,1,2,2-Tetrachloroethane	mg/kg	0.17	1.6	94	4.3	10	10	14	54000	53	870	0.084 U	0.079 U	0.079 U	0.085 U	0.076 U
1,1,2-Trichloroethane	mg/kg	0.1	6.6	420	4.6	17	21	44	190000	180	920	0.042 U	0.04 U	0.04 U	0.042 U	0.037 U
1,1-Dichloroethane	mg/kg	18	15	890	230	2100	5900	14000	33000000	890	890	0.042 U	0.04 U	0.04 U	0.042 U	0.037 U
1,1-Dichloroethene	mg/kg	0.14	1.3	220	0.062	1.1	5.3	13	62000	200	570	0.042 U	0.04 U	0.04 U	0.042 U	0.037 U
1,2,4-Trichlorobenzene	mg/kg	4.2	1.8	1100	1100	28000	28000	25000000	990	1100	0.21 U	0.2 U	0.2 U	0.2 U	0.19 U	0.19 U
1,2-Dibromo-3-chloropropane (DBCP)	mg/kg	0.01		1.2	1.2	13	13	13	13000	1.2	1.2	0.21 U	0.2 U	0.2 U	0.21 U	0.19 U
1,2-Dibromoethane (Ethylene Dibromide)	mg/kg	0.02	0.02	0.5	0.67	1.7	1.7	3.3	14000	0.092	890	0.21 U	0.2 U	0.2 U	0.21 U	0.19 U
1,2-Dichlorobenzene	mg/kg	14	0.36	210	210	39000	39000	52000	100000000	210	210	0.084 U	0.079 U	0.079 U	0.085 U	0.076 U
1,2-Dichloroethane	mg/kg	0.1	7.2	380	2.1	6.2	11	26	120000	91	1200	0.042 U	0.04 U	0.04 U	0.042 U	0.037 U
1,2-Dichloropropane	mg/kg	0.1	5.8	320	4	25	50	110	270000	140	550	0.042 U	0.04 U	0.04 U	0.038 U	0.037 U
1,3-Dichlorobenzene	mg/kg	0.17	1.1	51	ID	ID	ID	ID	ID	170	170	0.084 U	0.079 U	0.079 U	0.085 U	0.076 U
1,4-Dichlorobenzene	mg/kg	1.7	0.29	140	19	77	77	110	450000	400		0.084 U	0.079 U	0.079 U	0.085 U	0.076 U
2-Butanone (Methyl Ethyl Ketone)	mg/kg	260	44	27000	27000	29000	29000	35000	67000000	27000	27000	0.63 U	0.59 U	0.59 U	0.64 U	0.56 U
2-Hexanone	mg/kg	20		2500	990	1100	1100	1400	2700000	2500	2500	2.1 U	2 U	2 U	2.1 U	1.9 U
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	mg/kg	36	ID	2700	2700	45000	45000	67000	140000000	2700	2700	2.1 U	2 U	2 U	2.1 U	1.9 U
Acetone	mg/kg	15	34	110000	110000	130000	130000	190000	390000000	23000	110000	0.63 U	0.59 U	0.59 U	0.64 U	0.56 U
Benzene	mg/kg	0.1	4	220	1.6	13	34	79	380000	180	400	0.042 U	0.04 U	0.04 U	0.042 U	0.037 U
Bromodichloromethane	mg/kg	1.6	ID	280	1.2	9.1	9.7	19	84000	110	1500	0.084 UJ	0.079 UJ	0.079 UJ	0.085 UJ	0.076 UJ
Bromoform	mg/kg	1.6	ID	870	150	900	900	900	2800000	820	870	0.084 U	0.079 U	0.079 U	0.085 U	0.076 U
Bromomethane (Methyl Bromide)	mg/kg	0.2	0.7	1400	0.86	11	57	140	330000	320	2200	0.21 U	0.2 U	0.2 U	0.21 U	0.19 U
Carbon disulfide	mg/kg	16	ID	280	76	1300	7900	19000	47000000	280	280	0.21 U	0.2 U	0.2 U	0.21 U	0.19 U
Carbon tetrachloride	mg/kg	0.1	0.9	92	0.19	3.5	12	28	130000	96	390	0.042 U	0.04 U	0.04 U	0.038 U	0.037 U
Chlorobenzene	mg/kg	2	0.94	260	120	770	990	2100	4700000	260	260	0.042 U	0.04 U	0.04 U	0.042 U	0.038 U
Chloroethane	mg/kg	8.6	ID	950	950	30000	120000	280000	670000000	950	950	0.21 U	0.2 U	0.2 U	0.21 U	0.19 U
Chloroform (Trichloromethane)	mg/kg	1.6	3.4	1500	7.2	45	120	270	1300000	1200	1500	0.042 U	0.04 U	0.04 U	0.042 U	0.037 U
Chloromethane (Methyl Chloride)	mg/kg	5.2	ID	1100	2.3	40	410	1000	4900000	1100	1100	0.21 U	0.2 U	0.2 U	0.21 U	0.19 U
cis-1,2-Dichloroethene	mg/kg	1.4	12	640	22	180	420	990	2300000	640	640	0.042 U	0.04 U	0.04 U	0.042 U	0.037 U
cis-1,3-Dichloropropene	mg/kg											0.042 U	0.04 U	0.04 U	0.042 U	0.037 UJ
Cyclohexane	mg/kg											1 U	0.95 U	0.95 U	1 U	0.89 U
Dibromochloromethane	mg/kg	1.6	ID	360	3.9	24	24	33	130000	110	610	0.042 U	0.04 U	0.04 U	0.042 U	0.037 U
Dichlorodifluoromethane (CFC-12)	mg/kg	95	ID	1000	900	53000	550000	1400000	3300000000	1000	1000	0.084 U	0.079 U	0.079 U	0.085 U	0.076 U
Ethylbenzene	mg/kg	1.5	0.36	140	87	720	1000	2200	10000000	140	140	0.042 U	0.04 U	0.04 U	0.042 U	0.037 U
Isopropylbenzene	mg/kg	91	ID	390	390	1700	1700	2800	5800000	390	390	0.21 U	0.2 U	0.2 U	0.21 U	0.19 U
Methyl acetate	mg/kg											1 U	0.95 U	0.95 U	1 U	0.89 U
Methyl cyclohexane	mg/kg											1 U	0.95 U	0.95 U	1 U	0.89 U
Methyl Tert Butyl Ether	mg/kg	0.8	15	5900	5900	25000	39000	87000	200000000	1500	5900	0.21 U	0.2 U	0.2 U	0.21 U	0.19 U
Methylene chloride	mg/kg	0.1	19	2300	45	210	590	1400	6600000	1300	2300	0.21 U	0.2 U	0.2 U	0.21 U	0.19 U
Styrene	mg/kg	2.7	2.2	270	250	970	970	1400	5500000	400	520	0.042 U	0.04 U	0.04 U	0.042 U	0.037 U
Tetrachloroethene	mg/kg	0.1	0.9	88	11	180	480	1100	5400000	88	88	0.042 U	0.04 U	0.04 U	0.042 U	0.037 U
Toluene	mg/kg	16	2.8	250	250	2800	5100	12000	27000000	250	250	0.084 U	0.079 U	0.079 U	0.085 U	0.076 U
trans-1,2-Dichloroethene	mg/kg	2	30	1400	23	280	830	2000	4700000	1400	1400	0.042 U	0.04 U	0.04 U	0.042 U	0.037 U
trans-1,3-Dichloropropene	mg/kg											0.042 U	0.04 U	0.04 U	0.042 U	0.037 UJ
Trichloroethene	mg/kg	0.1	4	440	7.1	78	170	390	1800000	500	500	0.042 U	0.04 U	0.04 U	0.029 J	0.016 J
Trichlorofluoromethane (CFC-11)	mg/kg	52		560	560	92000	630000	1500000	3800000000	560	560	0.084 U	0.079 U	0.079 U	0.085 U	0.076 U
Trifluorotrichloroethane (Freon 113)	mg/kg	550	1.7	550	550	180000	880000	2100000	5100000000	550	550	0.21 U	0.2 U	0.2 U	0.21 U	0.19 U
Vinyl chloride	mg/kg	0.04	0.3	20	0.27	4.2	30	73	350000	3.8	490	0.084 U	0.079 U	0.079 U	0.085 U	0.076 U
Xylene (total)	mg/kg	5.6	0.7	150	150	46000	61000	130000	290000000	150	150	0.13 U	0.12 U	0.12 U	0.13 U	0.11 U

Notes:
⁽¹⁾ Cleanup criteria identified by MDEQ RRD Op Memo No. 1, updated 1/23/2006, pursuant to 1994 PA 451 as amended.
U - Not present at or above the associated value.
J - Estimated concentration.
UJ - Estimated reporting limit.
 Value exceeds referenced Part 201 Criteria (I.e. a, b, etc.)

TABLE 2

SUMMARY OF SOIL SAMPLES COMPARED TO MICHIGAN ACT 451, PART 201 RESIDENTIAL CRITERIA
SVE SOIL INVESTIGATION
GENERAL MOTORS CORPORATION
GRAND RAPIDS METAL PLANT
WYOMING, MICHIGAN

Sample Location	Michigan Act 451, Part 201 Residential and Commercial ⁽¹⁾											SB14-05	SB14-05	SB14-05	SB15-05	SB15-05	SB15-05
Sample Identification	Drinking Water	Groundwater Surface Water	Groundwater Contact	Soil Volatilization to Indoor Air	Infinite Source Volatile Soil Inhalation	Finite VSIC for 5 Meter Source Thickness	Finite VSIC for 2 Meter Source Thickness	Particulate Soil Inhalation	Direct Contact	Soil Saturation Concentration Screening	SO-17360-071205-DCR-468	SO-17360-071205-DCR-469	SO-17360-071205-DCR-470	SO-17360-120305-DCR-540	SO-17360-120305-DCR-541	SO-17360-120305-DCR-542	
Sample Date	Protection	Interface Protection	Protection	Inhalation	Inhalation	Thickness	Thickness				7/12/2005	7/12/2005	7/12/2005	12/3/2005	12/3/2005	12/3/2005	
Sample Depth											14-16 ft BGS	16-18 ft BGS	18-20 ft BGS	0-2 ft BGS	2-4 ft BGS	4-6 ft BGS	
Sample Type	a	b	c	d	e	f	g	h	i	j	Duplicate						
Units																	
Volatile Organic Compounds																	
1,1,1-Trichloroethane	mg/kg	4	4	460	250	3800	12000	28000	67000000	460	460	0.045 U	0.037 U	0.04 U	0.044 U	0.042 U	0.044 U
1,1,2,2-Tetrachloroethane	mg/kg	0.17	1.6	94	4.3	10	10	14	54000	53	870	0.09 U	0.074 U	0.08 U	0.087 U	0.084 U	0.088 U
1,1,2-Trichloroethane	mg/kg	0.1	6.6	420	4.6	17	21	44	190000	180	920	0.045 U	0.037 U	0.04 U	0.044 U	0.042 U	0.044 U
1,1-Dichloroethane	mg/kg	18	15	890	230	2100	5900	14000	33000000	890	890	0.045 U	0.037 U	0.04 U	0.044 U	0.042 U	0.044 U
1,1-Dichloroethene	mg/kg	0.14	1.3	220	0.062	1.1	5.3	13	62000	200	570	0.045 U	0.037 U	0.04 U	0.044 U	0.042 U	0.044 U
1,2,4-Trichlorobenzene	mg/kg	4.2	1.8	1100	1100	28000	28000	28000	25000000	990	1100	0.22 U	0.18 U	0.2 U	0.22 U	0.21 U	0.22 U
1,2-Dibromo-3-chloropropane (DBCP)	mg/kg	0.01		1.2	1.2	13	13	13	13000	1.2	1.2	0.22 U	0.18 U	0.2 U	0.22 U	0.21 U	0.22 U
1,2-Dibromoethane (Ethylene Dibromide)	mg/kg	0.02	0.02	0.5	0.67	1.7	1.7	3.3	14000	0.092	890	0.22 U	0.18 U	0.2 U	0.22 U	0.21 U	0.22 U
1,2-Dichlorobenzene	mg/kg	14	0.36	210	210	39000	39000	52000	100000000	210	210	0.09 U	0.074 U	0.08 U	0.087 U	0.084 U	0.088 U
1,2-Dichloroethane	mg/kg	0.1	7.2	380	2.1	6.2	11	26	120000	91	1200	0.045 U	0.037 U	0.04 U	0.044 U	0.042 U	0.044 U
1,2-Dichloropropane	mg/kg	0.1	5.8	320	4	25	50	110	270000	140	550	0.045 U	0.037 U	0.04 U	0.044 U	0.042 U	0.044 U
1,3-Dichlorobenzene	mg/kg	0.17	1.1	51	ID	ID	ID	ID	ID	170	170	0.09 U	0.074 U	0.08 U	0.087 U	0.084 U	0.088 U
1,4-Dichlorobenzene	mg/kg	1.7	0.29	140	19	77	77	110	450000	400		0.09 U	0.074 U	0.08 U	0.087 U	0.084 U	0.088 U
2-Butanone (Methyl Ethyl Ketone)	mg/kg	260	44	27000	27000	29000	29000	35000	67000000	27000	27000	0.67 U	0.55 U	0.6 U	0.65 U	0.63 U	0.66 U
2-Hexanone	mg/kg	20		2500	990	1100	1100	1400	2700000	2500	2500	2.2 U	1.8 U	2 U	2.2 U	2.1 U	2.2 U
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	mg/kg	36	ID	2700	2700	45000	45000	67000	140000000	2700	2700	2.2 U	1.8 U	2 U	2.2 U	2.1 U	2.2 U
Acetone	mg/kg	15	34	110000	110000	130000	130000	190000	390000000	23000	110000	0.67 U	0.55 U	0.6 U	0.65 UJ	0.63 UJ	0.66 UJ
Benzene	mg/kg	0.1	4	220	1.6	13	34	79	380000	180	400	0.045 U	0.037 U	0.04 U	0.044 U	0.042 U	0.044 U
Bromodichloromethane	mg/kg	1.6	ID	280	1.2	9.1	9.7	19	84000	110	1500	0.09 UJ	0.074 UJ	0.08 UJ	0.087 U	0.084 U	0.088 U
Bromoform	mg/kg	1.6	ID	870	150	900	900	900	2800000	820	870	0.09 U	0.074 U	0.08 U	0.087 U	0.084 U	0.088 U
Bromomethane (Methyl Bromide)	mg/kg	0.2	0.7	1400	0.86	11	57	140	330000	320	2200	0.22 U	0.18 U	0.2 U	0.22 U	0.21 U	0.22 U
Carbon disulfide	mg/kg	16	ID	280	76	1300	7900	19000	47000000	280	280	0.22 U	0.18 U	0.2 U	0.22 U	0.21 U	0.22 U
Carbon tetrachloride	mg/kg	0.1	0.9	92	0.19	3.5	12	28	130000	96	390	0.045 U	0.037 U	0.04 U	0.044 U	0.042 U	0.044 U
Chlorobenzene	mg/kg	2	0.94	260	120	770	990	2100	4700000	260	260	0.045 U	0.037 U	0.04 U	0.044 U	0.042 U	0.044 U
Chloroethane	mg/kg	8.6	ID	950	950	30000	120000	280000	670000000	950	950	0.22 U	0.18 U	0.2 U	0.22 U	0.21 U	0.22 U
Chloroform (Trichloromethane)	mg/kg	1.6	3.4	1500	7.2	45	120	270	1300000	1200	1500	0.045 U	0.037 U	0.04 U	0.044 U	0.042 U	0.044 U
Chloromethane (Methyl Chloride)	mg/kg	5.2	ID	1100	2.3	40	410	1000	4900000	1100	1100	0.22 U	0.18 U	0.2 U	0.22 U	0.21 U	0.22 U
cis-1,2-Dichloroethene	mg/kg	1.4	12	640	22	180	420	990	2300000	640	640	0.045 U	0.037 U	0.04 U	0.044 U	0.042 U	0.044 U
cis-1,3-Dichloropropene	mg/kg											0.045 UJ	0.037 UJ	0.04 UJ	0.044 U	0.042 U	0.044 U
Cyclohexane	mg/kg											1.1 U	0.88 U	0.96 U	1 U	1 U	1.1 U
Dibromochloromethane	mg/kg	1.6	ID	360	3.9	24	24	33	130000	110	610	0.045 U	0.037 U	0.04 U	0.044 U	0.042 U	0.044 U
Dichlorodifluoromethane (CFC-12)	mg/kg	95	ID	1000	900	53000	550000	1400000	3300000000	1000	1000	0.09 U	0.074 U	0.08 U	0.087 U	0.084 U	0.088 U
Ethylbenzene	mg/kg	1.5	0.36	140	87	720	1000	2200	10000000	140	140	0.045 U	0.037 U	0.04 U	0.044 U	0.042 U	0.044 U
Isopropylbenzene	mg/kg	91	ID	390	390	1700	1700	2800	5800000	390	390	0.22 U	0.18 U	0.2 U	0.22 U	0.21 U	0.22 U
Methyl acetate	mg/kg											1.1 U	0.88 U	0.96 U	1 U	1 U	1.1 U
Methyl cyclohexane	mg/kg											1.1 U	0.88 U	0.96 U	1 U	1 U	1.1 U
Methyl Tert Butyl Ether	mg/kg	0.8	15	5900	5900	25000	39000	87000	200000000	1500	5900	0.22 U	0.18 U	0.2 U	0.22 U	0.21 U	0.22 U
Methylene chloride	mg/kg	0.1	19	2300	45	210	590	1400	6600000	1300	2300	0.22 U	0.18 U	0.2 U	0.22 U	0.21 U	0.22 U
Styrene	mg/kg	2.7	2.2	270	250	970	970	1400	5500000	400	520	0.045 U	0.037 U	0.04 U	0.044 U	0.042 U	0.044 U
Tetrachloroethene	mg/kg	0.1	0.9	88	11	180	480	1100	5400000	88	88	0.045 U	0.037 U	0.04 U	0.044 U	0.042 U	0.044 U
Toluene	mg/kg	16	2.8	250	250	2800	5100	12000	27000000	250	250	0.09 U	0.074 U	0.08 U	0.087 U	0.084 U	0.088 U
trans-1,2-Dichloroethene	mg/kg	2	30	1400	23	280	830	2000	4700000	1400	1400	0.045 U	0.037 U	0.04 U	0.044 U	0.042 U	0.044 U
trans-1,3-Dichloropropene	mg/kg											0.045 UJ	0.037 UJ	0.04 UJ	0.044 U	0.042 U	0.044 U
Trichloroethene	mg/kg	0.1	4	440	7.1	78	170	390	1800000	500	500	0.018 J	0.12*	0.031 J	2.1*	0.04 J	0.014 J
Trichlorofluoromethane (CFC-11)	mg/kg	52		560	560	92000	630000	1500000	3800000000	560	560	0.09 U	0.074 U	0.08 U	0.087 U	0.084 U	0.088 U
Trifluorotrichloroethane (Freon 113)	mg/kg	550	1.7	550	550	180000	880000	2100000	5100000000	550	550	0.22 U	0.18 U	0.2 U	0.22 U	0.21 U	0.22 U
Vinyl chloride	mg/kg	0.04	0.3	20	0.27	4.2	30	73	350000	3.8	490	0.09 U	0.074 U	0.08 U	0.087 U	0.084 U	0.088 U
Xylene (total)	mg/kg	5.6	0.7	150	150	46000	61000	130000	290000000	150	150	0.13 U	0.11 U	0.12 U	0.13 U	0.13 U	0.13 U

Notes:
⁽¹⁾ Cleanup criteria identified by MDEQ RRD Op Memo No. 1, updated 1/23/2006, pursuant to 1994 PA 451 as amended.
U - Not present at or above the associated value.
J - Estimated concentration.
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 Value exceeds referenced Part 201 Criteria (I.e. a, b, etc.)

TABLE 2

SUMMARY OF SOIL SAMPLES COMPARED TO MICHIGAN ACT 451, PART 201 RESIDENTIAL CRITERIA
SVE SOIL INVESTIGATION
GENERAL MOTORS CORPORATION
GRAND RAPIDS METAL PLANT
WYOMING, MICHIGAN

Sample Location	<i>Michigan Act 451, Part 201 Residential and Commercial</i> ⁽¹⁾										<i>SB15-05</i>	<i>SB15-05</i>	<i>SB15-05</i>	<i>SB15-05</i>	<i>SB15-05</i>	<i>SB15-05</i>
Sample Identification	Drinking Water	Groundwater Surface Water	Groundwater Contact	Soil Volatilization to Indoor Air	Infinite Source Volatile Soil Inhalation	Finite VSIC for 5 Meter Source Thickness	Finite VSIC for 2 Meter Source Thickness	Particulate Soil Inhalation	Direct Contact	Soil Saturation Concentration Screening	<i>SO-17360-120305-DCR-543</i>	<i>SO-17360-120305-DCR-544</i>	<i>SO-17360-120305-DCR-545</i>	<i>SO-17360-120305-DCR-546</i>	<i>SO-17360-120305-DCR-547</i>	<i>SO-17360-120305-DCR-548</i>
Sample Date																
Sample Depth	Protection	Interface Protection	Protection	Inhalation	Inhalation	Thickness	Thickness									
Sample Type	a	b	c	d	e	f	g	h	i	j	<i>6-8 ft BGS</i>	<i>8-10 ft BGS</i>	<i>10-12 ft BGS</i>	<i>12-14 ft BGS</i>	<i>14-16 ft BGS</i>	<i>16-18 ft BGS</i>
<i>Units</i>																
<i>Volatile Organic Compounds</i>																
1,1,1-Trichloroethane	mg/kg	4	4	460	250	3800	12000	28000	67000000	460	460	0.042 U	0.048 U	0.14 U	0.046 U	0.042 U
1,1,2,2-Tetrachloroethane	mg/kg	0.17	1.6	94	4.3	10	10	14	54000	53	870	0.085 U	0.096 U	0.27 U	0.091 U	0.084 U
1,1,2-Trichloroethane	mg/kg	0.1	6.6	420	4.6	17	21	44	190000	180	920	0.042 U	0.048 U	0.14 U	0.046 U	0.044 U
1,1-Dichloroethane	mg/kg	18	15	890	230	2100	5900	14000	33000000	890	890	0.042 U	0.048 U	0.14 U	0.046 U	0.044 U
1,1-Dichloroethene	mg/kg	0.14	1.3	220	0.062	1.1	5.3	13	62000	200	570	0.042 U	0.048 U	0.14 U	0.046 U	0.044 U
1,2,4-Trichlorobenzene	mg/kg	4.2	1.8	1100	1100	28000	28000	28000	25000000	990	1100	0.21 U	0.24 U	0.68 U	0.23 U	0.21 U
1,2-Dibromo-3-chloropropane (DBCP)	mg/kg	0.01		1.2	1.2	13	13	13	13000	1.2	1.2	0.68 U	0.24 U	0.21 U	0.23 U	0.22 U
1,2-Dibromoethane (Ethylene Dibromide)	mg/kg	0.02	0.02	0.5	0.67	1.7	1.7	3.3	14000	0.092	890	0.21 U	0.24 U	0.68 U	0.23 U	0.22 U
1,2-Dichlorobenzene	mg/kg	14	0.36	210	210	39000	39000	52000	100000000	210	210	0.085 U	0.096 U	0.27 U	0.091 U	0.088 U
1,2-Dichloroethane	mg/kg	0.1	7.2	380	2.1	6.2	11	26	120000	91	1200	0.042 U	0.048 U	0.14 U	0.046 U	0.044 U
1,2-Dichloropropane	mg/kg	0.1	5.8	320	4	25	50	110	270000	140	550	0.042 U	0.048 U	0.14 U	0.046 U	0.044 U
1,3-Dichlorobenzene	mg/kg	0.17	1.1	51	ID	ID	ID	ID	ID	170	170	0.085 U	0.096 U	0.27 U	0.091 U	0.084 U
1,4-Dichlorobenzene	mg/kg	1.7	0.29	140	19	77	77	110	450000	400		0.085 U	0.096 U	0.27 U	0.091 U	0.088 U
2-Butanone (Methyl Ethyl Ketone)	mg/kg	260	44	27000	27000	29000	29000	35000	67000000	27000	27000	0.64 U	0.72 U	2 U	0.69 U	0.66 U
2-Hexanone	mg/kg	20		2500	990	1100	1100	1400	2700000	2500	2500	2.1 U	2.4 U	6.8 U	2.3 U	2.2 U
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	mg/kg	36	ID	2700	2700	45000	45000	67000	140000000	2700	2700	2.1 U	2.4 U	6.8 U	2.3 U	2.2 U
Acetone	mg/kg	15	34	110000	110000	130000	130000	190000	390000000	23000	110000	0.64 UJ	0.72 UJ	2 UJ	0.69 UJ	0.66 U
Benzene	mg/kg	0.1	4	220	1.6	13	34	79	380000	180	400	0.042 U	0.048 U	0.14 U	0.046 U	0.044 U
Bromodichloromethane	mg/kg	1.6	ID	280	1.2	9.1	9.7	19	84000	110	1500	0.085 U	0.096 U	0.27 U	0.091 U	0.088 U
Bromoform	mg/kg	1.6	ID	870	150	900	900	900	2800000	820	870	0.085 U	0.096 U	0.27 U	0.091 U	0.088 U
Bromomethane (Methyl Bromide)	mg/kg	0.2	0.7	1400	0.86	11	57	140	330000	320	2200	0.21 U	0.24 U	0.68 U	0.23 U	0.22 U
Carbon disulfide	mg/kg	16	ID	280	76	1300	7900	19000	47000000	280	280	0.21 U	0.24 U	0.68 U	0.23 U	0.22 U
Carbon tetrachloride	mg/kg	0.1	0.9	92	0.19	3.5	12	28	130000	96	390	0.042 U	0.048 U	0.14 U	0.046 U	0.044 U
Chlorobenzene	mg/kg	2	0.94	260	120	770	990	2100	4700000	260	260	0.042 U	0.048 U	0.14 U	0.046 U	0.044 U
Chloroethane	mg/kg	8.6	ID	950	950	30000	120000	280000	670000000	950	950	0.21 U	0.24 U	0.68 U	0.23 U	0.22 U
Chloroform (Trichloromethane)	mg/kg	1.6	3.4	1500	7.2	45	120	270	1300000	1200	1500	0.042 U	0.048 U	0.14 U	0.046 U	0.044 U
Chloromethane (Methyl Chloride)	mg/kg	5.2	ID	1100	2.3	40	410	1000	4900000	1100	1100	0.21 U	0.24 U	0.68 U	0.23 U	0.22 U
cis-1,2-Dichloroethene	mg/kg	1.4	12	640	22	180	420	990	2300000	640	640	0.042 U	0.048 U	0.14 U	0.046 U	0.044 U
cis-1,3-Dichloropropene	mg/kg											0.042 U	0.048 U	0.14 U	0.046 U	0.044 U
Cyclohexane	mg/kg											1 U	1.1 U	3.3 U	1 U	1.1 U
Dibromochloromethane	mg/kg	1.6	ID	360	3.9	24	24	33	130000	110	610	0.042 U	0.048 U	0.14 U	0.046 U	0.044 U
Dichlorodifluoromethane (CFC-12)	mg/kg	95	ID	1000	900	53000	550000	1400000	3300000000	1000	1000	0.085 U	0.096 U	0.27 U	0.091 U	0.088 U
Ethylbenzene	mg/kg	1.5	0.36	140	87	720	1000	2200	10000000	140	140	0.042 U	0.048 U	0.14 U	0.046 U	0.044 U
Isopropylbenzene	mg/kg	91	ID	390	390	1700	1700	2800	5800000	390	390	0.21 U	0.24 U	0.68 U	0.23 U	0.22 U
Methyl acetate	mg/kg											1 U	1.1 U	0.8 J	1.1 U	1.1 U
Methyl cyclohexane	mg/kg											1 U	1.1 U	0.035 J	1.1 U	1.1 U
Methyl Tert Butyl Ether	mg/kg	0.8	15	5900	5900	25000	39000	87000	200000000	1500	5900	0.21 U	0.24 U	0.68 U	0.23 U	0.22 U
Methylene chloride	mg/kg	0.1	19	2300	45	210	590	1400	6600000	1300	2300	0.21 U	0.24 U	0.68 U	0.23 U	0.22 U
Styrene	mg/kg	2.7	2.2	270	250	970	970	1400	5500000	400	520	0.042 U	0.048 U	0.14 U	0.046 U	0.044 U
Tetrachloroethene	mg/kg	0.1	0.9	88	11	180	480	1100	5400000	88	88	0.042 U	0.048 U	0.14 U	0.046 U	0.044 U
Toluene	mg/kg	16	2.8	250	250	2800	5100	12000	27000000	250	250	0.085 U	0.096 U	0.27 U	0.091 U	0.088 U
trans-1,2-Dichloroethene	mg/kg	2	30	1400	23	280	830	2000	4700000	1400	1400	0.042 U	0.048 U	0.14 U	0.046 U	0.044 U
trans-1,3-Dichloropropene	mg/kg											0.042 U	0.048 U	0.14 U	0.046 U	0.044 U
Trichloroethene	mg/kg	0.1	4	440	7.1	78	170	390	1800000	500	500	0.026 J	0.048 U	12 ⁰⁰⁰		0.059
Trichlorofluoromethane (CFC-11)	mg/kg	52		560	560	92000	630000	1500000	3800000000	560	560	0.085 U	0.096 U	0.27 U	0.091 U	0.088 U
Trifluorotrichloroethane (Freon 113)	mg/kg	550	1.7	550	550	180000	880000	2100000	5100000000	550	550	0.21 U	0.24 U	0.68 U	0.23 U	0.22 U
Vinyl chloride	mg/kg	0.04	0.3	20	0.27	4.2	30	73	350000	3.8	490	0.085 U	0.096 U	0.27 U	0.091 U	0.088 U
Xylene (total)	mg/kg	5.6	0.7	150	150	46000	61000	130000	290000000	150	150	0.13 U	0.14 U	0.41 U	0.14 U	0.13 U

Notes:
⁽¹⁾ Cleanup criteria identified by MDEQ RRD Op Memo No. 1, updated 1/23/2006, pursuant to 1994 PA 451 as amended.
U - Not present at or above the associated value.
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TABLE 2

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SVE SOIL INVESTIGATION
GENERAL MOTORS CORPORATION
GRAND RAPIDS METAL PLANT
WYOMING, MICHIGAN

Sample Location	<i>Michigan Act 451, Part 201 Residential and Commercial</i> ⁽¹⁾										<i>SB15-05</i>	<i>SB16-05</i>	<i>SB16-05</i>	<i>SB16-05</i>	<i>SB16-05</i>	<i>SB16-05</i>
Sample Identification	Drinking Water	Groundwater Surface Water	Groundwater Contact	Soil Volatilization to Indoor Air	Infinite Source Volatile Soil Inhalation	Finite VSIC for 5 Meter Source Thickness	Finite VSIC for 2 Meter Source Thickness	Particulate Soil Inhalation	Direct Contact	Soil Saturation Concentration Screening	<i>SO-17360-120305-DCR-549</i>	<i>SO-17360-120305-DCR-508</i>	<i>SO-17360-120305-DCR-509</i>	<i>SO-17360-120305-DCR-510</i>	<i>SO-17360-120305-DCR-511</i>	<i>SO-17360-120305-DCR-512</i>
Sample Date																
Sample Depth	Protection	Interface Protection	Protection	Inhalation	Inhalation	Thickness	Thickness									
Sample Type	a	b	c	d	e	f	g	h	i	j						
<i>Units</i>																
<i>Volatile Organic Compounds</i>																
1,1,1-Trichloroethane	mg/kg	4	4	460	250	3800	12000	28000	67000000	460	460	0.044 U	0.043 U	0.055 U	0.042 U	0.048 U
1,1,2,2-Tetrachloroethane	mg/kg	0.17	1.6	94	4.3	10	10	14	54000	53	870	0.088 U	0.086 U	0.11 U	0.083 U	0.096 U
1,1,2-Trichloroethane	mg/kg	0.1	6.6	420	4.6	17	21	44	190000	180	920	0.044 U	0.043 U	0.055 U	0.042 U	0.048 U
1,1-Dichloroethane	mg/kg	18	15	890	230	2100	5900	14000	33000000	890	890	0.044 U	0.043 U	0.055 U	0.042 U	0.048 U
1,1-Dichloroethene	mg/kg	0.14	1.3	220	0.062	1.1	5.3	13	62000	200	570	0.044 U	0.043 U	0.055 U	0.042 U	0.048 U
1,2,4-Trichlorobenzene	mg/kg	4.2	1.8	1100	1100	28000	28000	28000	25000000	990	1100	0.22 U	0.22 U	0.28 U	0.21 U	0.24 U
1,2-Dibromo-3-chloropropane (DBCP)	mg/kg	0.01		1.2	1.2	13	13	13	13000	1.2	1.2	0.22 U	0.22 U	0.28 U	0.21 U	0.21 U
1,2-Dibromoethane (Ethylene Dibromide)	mg/kg	0.02	0.02	0.5	0.67	1.7	1.7	3.3	14000	0.092	890	0.22 U	0.22 U	0.28 U	0.21 U	0.24 U
1,2-Dichlorobenzene	mg/kg	14	0.36	210	210	39000	39000	52000	100000000	210	210	0.088 U	0.086 U	0.11 U	0.083 U	0.096 U
1,2-Dichloroethane	mg/kg	0.1	7.2	380	2.1	6.2	11	26	120000	91	1200	0.044 U	0.043 U	0.055 U	0.042 U	0.048 U
1,2-Dichloropropane	mg/kg	0.1	5.8	320	4	25	50	110	270000	140	550	0.044 U	0.043 U	0.055 U	0.042 U	0.048 U
1,3-Dichlorobenzene	mg/kg	0.17	1.1	51	ID	ID	ID	ID	ID	170	170	0.088 U	0.086 U	0.11 U	0.083 U	0.096 U
1,4-Dichlorobenzene	mg/kg	1.7	0.29	140	19	77	77	110	450000	400		0.088 U	0.086 U	0.11 U	0.083 U	0.096 U
2-Butanone (Methyl Ethyl Ketone)	mg/kg	260	44	27000	27000	29000	29000	35000	67000000	27000	27000	0.66 U	0.65 U	0.83 U	0.63 U	0.72 U
2-Hexanone	mg/kg	20		2500	990	1100	1100	1400	2700000	2500	2500	2.2 U	2.2 U	2.8 U	2.1 U	2.4 U
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	mg/kg	36	ID	2700	2700	45000	45000	67000	140000000	2700	2700	2.2 U	2.2 U	2.8 U	2.1 U	2.4 U
Acetone	mg/kg	15	34	110000	110000	130000	130000	190000	390000000	23000	110000	0.66 U	0.65 U	0.83 U	0.63 U	0.72 U
Benzene	mg/kg	0.1	4	220	1.6	13	34	79	380000	180	400	0.044 U	0.043 U	0.055 U	0.042 U	0.048 U
Bromodichloromethane	mg/kg	1.6	ID	280	1.2	9.1	9.7	19	84000	110	1500	0.088 U	0.086 U	0.11 U	0.083 U	0.096 U
Bromoform	mg/kg	1.6	ID	870	150	900	900	900	2800000	820	870	0.088 U	0.086 U	0.11 U	0.083 U	0.096 U
Bromomethane (Methyl Bromide)	mg/kg	0.2	0.7	1400	0.86	11	57	140	330000	320	2200	0.22 U	0.22 U	0.28 U	0.21 U	0.24 U
Carbon disulfide	mg/kg	16	ID	280	76	1300	7900	19000	47000000	280	280	0.22 U	0.22 U	0.28 U	0.21 U	0.24 U
Carbon tetrachloride	mg/kg	0.1	0.9	92	0.19	3.5	12	28	130000	96	390	0.044 U	0.043 U	0.055 U	0.042 U	0.048 U
Chlorobenzene	mg/kg	2	0.94	260	120	770	990	2100	4700000	260	260	0.044 U	0.043 U	0.055 U	0.042 U	0.048 U
Chloroethane	mg/kg	8.6	ID	950	950	30000	120000	280000	670000000	950	950	0.22 U	0.22 U	0.28 U	0.21 U	0.24 U
Chloroform (Trichloromethane)	mg/kg	1.6	3.4	1500	7.2	45	120	270	1300000	1200	1500	0.044 U	0.043 U	0.055 U	0.042 U	0.048 U
Chloromethane (Methyl Chloride)	mg/kg	5.2	ID	1100	2.3	40	410	1000	4900000	1100	1100	0.22 U	0.22 U	0.28 U	0.21 U	0.24 U
cis-1,2-Dichloroethene	mg/kg	1.4	12	640	22	180	420	990	2300000	640	640	0.044 U	0.043 U	0.055 U	0.042 U	0.048 U
cis-1,3-Dichloropropene	mg/kg											0.044 U	0.043 U	0.055 U	0.042 U	0.048 U
Cyclohexane	mg/kg											1.1 U		1.3 U	1 U	1 U
Dibromochloromethane	mg/kg	1.6	ID	360	3.9	24	24	33	130000	110	610	0.044 U	0.043 U	0.055 U	0.042 U	0.048 U
Dichlorodifluoromethane (CFC-12)	mg/kg	95	ID	1000	900	53000	550000	1400000	3300000000	1000	1000	0.088 U	0.086 U	0.11 U	0.083 U	0.096 U
Ethylbenzene	mg/kg	1.5	0.36	140	87	720	1000	2200	10000000	140	140	0.044 U	0.043 U	0.055 U	0.042 U	0.048 U
Isopropylbenzene	mg/kg	91	ID	390	390	1700	1700	2800	5800000	390	390	0.22 U	0.22 U	0.28 U	0.21 U	0.24 U
Methyl acetate	mg/kg											1.1 U	1 U	1.3 U	1 U	1.1 U
Methyl cyclohexane	mg/kg											1.1 U	1 U	1.3 U	1 U	1.1 U
Methyl Tert Butyl Ether	mg/kg	0.8	15	5900	5900	25000	39000	87000	200000000	1500	5900	0.22 U	0.22 U	0.28 U	0.21 U	0.24 U
Methylene chloride	mg/kg	0.1	19	2300	45	210	590	1400	6600000	1300	2300	0.22 U	0.22 U	0.28 U	0.21 U	0.24 U
Styrene	mg/kg	2.7	2.2	270	250	970	970	1400	5500000	400	520	0.044 U	0.043 U	0.055 U	0.042 U	0.048 U
Tetrachloroethene	mg/kg	0.1	0.9	88	11	180	480	1100	5400000	88	88	0.044 U	0.043 U	0.055 U	0.042 U	0.048 U
Toluene	mg/kg	16	2.8	250	250	2800	5100	12000	27000000	250	250	0.088 U	0.086 U	0.11 U	0.083 U	0.096 U
trans-1,2-Dichloroethene	mg/kg	2	30	1400	23	280	830	2000	4700000	1400	1400	0.044 U	0.043 U	0.055 U	0.042 U	0.048 U
trans-1,3-Dichloropropene	mg/kg											0.044 U	0.043 U	0.055 U	0.042 U	0.048 U
Trichloroethene	mg/kg	0.1	4	440	7.1	78	170	390	1800000	500	500	0.017 J	1.2*		0.074	0.025 J
Trichlorofluoromethane (CFC-11)	mg/kg	52		560	560	92000	630000	1500000	3800000000	560	560	0.088 U	0.086 U	0.11 U	0.083 U	0.096 U
Trifluorotrichloroethane (Freon 113)	mg/kg	550	1.7	550	550	180000	880000	2100000	5100000000	550	550	0.22 U	0.22 U	0.28 U	0.21 U	0.24 U
Vinyl chloride	mg/kg	0.04	0.3	20	0.27	4.2	30	73	350000	3.8	490	0.088 U	0.086 U	0.11 U	0.083 U	0.096 U
Xylene (total)	mg/kg	5.6	0.7	150	150	46000	61000	130000	290000000	150	150	0.13 U	0.13 U	0.17 U	0.13 U	0.14 U

Notes:
⁽¹⁾ Cleanup criteria identified by MDEQ RRD Op Memo No. 1, updated 1/23/2006, pursuant to 1994 PA 451 as amended.
U - Not present at or above the associated value.
J - Estimated concentration.
UJ - Estimated reporting limit.
 Value exceeds referenced Part 201 Criteria (I.e. a, b, etc.)

TABLE 2

SUMMARY OF SOIL SAMPLES COMPARED TO MICHIGAN ACT 451, PART 201 RESIDENTIAL CRITERIA
SVE SOIL INVESTIGATION
GENERAL MOTORS CORPORATION
GRAND RAPIDS METAL PLANT
WYOMING, MICHIGAN

Sample Location	Michigan Act 451, Part 201 Residential and Commercial ⁽¹⁾											SB16-05	SB16-05	SB16-05	SB16-05	SB16-05	SB16-05
Sample Identification	Drinking Water	Groundwater	Groundwater	Soil	Volatilization	Infinite Source	Finite VSIC for	Finite VSIC for	Particulate	Direct	Soil Saturation	SO-17360-120305-DCR-513	SO-17360-120305-DCR-514	SO-17360-120305-DCR-515	SO-17360-120305-DCR-516	SO-17360-120305-DCR-517	SO-17360-120305-DCR-518
Sample Date	Protection	Surface Water	Contact	to Indoor Air	Inhalation	Volatile Soil	5 Meter Source	2 Meter Source	Soil Inhalation	Contact	Concentration	12/3/2005	12/3/2005	12/3/2005	12/3/2005	12/3/2005	12/3/2005
Sample Depth	a	Interface Protection	c	Inhalation	e	Inhalation	f	g	h	i	j	8-10 ft BGS	10-12 ft BGS	12-14 ft BGS	14-16 ft BGS	16-18 ft BGS	18-20 ft BGS
Sample Type	Units																
Volatile Organic Compounds																	
1,1,1-Trichloroethane	mg/kg	4	4	460	250	3800	12000	28000	67000000	460	460	0.043 U	0.045 U	0.046 U	0.047 U	0.038 U	0.044 U
1,1,2,2-Tetrachloroethane	mg/kg	0.17	1.6	94	4.3	10	10	14	54000	53	870	0.087 U	0.09 U	0.091 U	0.094 U	0.075 U	0.087 U
1,1,2-Trichloroethane	mg/kg	0.1	6.6	420	4.6	17	21	44	190000	180	920	0.043 U	0.045 U	0.046 U	0.047 U	0.038 U	0.044 U
1,1-Dichloroethane	mg/kg	18	15	890	230	2100	5900	14000	33000000	890	890	0.043 U	0.045 U	0.046 U	0.047 U	0.038 U	0.044 U
1,1-Dichloroethene	mg/kg	0.14	1.3	220	0.062	1.1	5.3	13	62000	200	570	0.043 U	0.045 U	0.046 U	0.047 U	0.038 U	0.044 U
1,2,4-Trichlorobenzene	mg/kg	4.2	1.8	1100	1100	28000	28000	28000	25000000	990	1100	0.22 U	0.22 U	0.23 U	0.24 U	0.19 U	0.22 U
1,2-Dibromo-3-chloropropane (DBCP)	mg/kg	0.01		1.2	1.2	13	13	13	13000	1.2	1.2	0.22 U	0.22 U	0.23 U	0.24 U	0.19 U	0.22 U
1,2-Dibromoethane (Ethylene Dibromide)	mg/kg	0.02	0.02	0.5	0.67	1.7	1.7	3.3	14000	0.092	890	0.22 U	0.22 U	0.23 U	0.24 U	0.19 U	0.22 U
1,2-Dichlorobenzene	mg/kg	14	0.36	210	210	39000	39000	52000	100000000	210	210	0.087 U	0.09 U	0.091 U	0.094 U	0.075 U	0.087 U
1,2-Dichloroethane	mg/kg	0.1	7.2	380	2.1	6.2	11	26	120000	91	1200	0.043 U	0.045 U	0.046 U	0.047 U	0.038 U	0.044 U
1,2-Dichloropropane	mg/kg	0.1	5.8	320	4	25	50	110	270000	140	550	0.043 U	0.045 U	0.046 U	0.047 U	0.038 U	0.044 U
1,3-Dichlorobenzene	mg/kg	0.17	1.1	51	ID	ID	ID	ID	ID	170	170	0.087 U	0.09 U	0.091 U	0.094 U	0.075 U	0.087 U
1,4-Dichlorobenzene	mg/kg	1.7	0.29	140	19	77	77	110	450000	400		0.087 U	0.09 U	0.091 U	0.094 U	0.075 U	0.087 U
2-Butanone (Methyl Ethyl Ketone)	mg/kg	260	44	27000	27000	29000	29000	35000	67000000	27000	27000	0.65 U	0.67 U	0.68 U	0.71 U	0.56 U	0.66 U
2-Hexanone	mg/kg	20		2500	990	1100	1100	1400	2700000	2500	2500	2.2 U	2.2 U	2.3 U	2.4 U	1.9 U	2.2 U
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	mg/kg	36	ID	2700	2700	45000	45000	67000	140000000	2700	2700	2.2 U	2.2 U	2.3 U	2.4 U	1.9 U	2.2 U
Acetone	mg/kg	15	34	110000	110000	130000	130000	190000	390000000	23000	110000	0.65 U	0.67 U	0.68 U	0.71 U	0.56 U	0.66 U
Benzene	mg/kg	0.1	4	220	1.6	13	34	79	380000	180	400	0.043 U	0.045 U	0.046 U	0.047 U	0.038 U	0.044 U
Bromodichloromethane	mg/kg	1.6	ID	280	1.2	9.1	9.7	19	84000	110	1500	0.087 U	0.09 U	0.091 U	0.094 U	0.075 U	0.087 U
Bromoform	mg/kg	1.6	ID	870	150	900	900	900	2800000	820	870	0.087 U	0.09 U	0.091 U	0.094 U	0.075 U	0.087 U
Bromomethane (Methyl Bromide)	mg/kg	0.2	0.7	1400	0.86	11	57	140	330000	320	2200	0.22 U	0.22 U	0.23 U	0.24 U	0.19 U	0.22 U
Carbon disulfide	mg/kg	16	ID	280	76	1300	7900	19000	47000000	280	280	0.22 U	0.22 U	0.23 U	0.24 U	0.19 U	0.22 U
Carbon tetrachloride	mg/kg	0.1	0.9	92	0.19	3.5	12	28	130000	96	390	0.043 U	0.045 U	0.046 U	0.047 U	0.038 U	0.044 U
Chlorobenzene	mg/kg	2	0.94	260	120	770	990	2100	4700000	260	260	0.043 U	0.045 U	0.046 U	0.047 U	0.038 U	0.044 U
Chloroethane	mg/kg	8.6	ID	950	950	30000	120000	280000	670000000	950	950	0.22 U	0.22 U	0.23 U	0.24 U	0.19 U	0.22 U
Chloroform (Trichloromethane)	mg/kg	1.6	3.4	1500	7.2	45	120	270	1300000	1200	1500	0.043 U	0.045 U	0.046 U	0.047 U	0.038 U	0.044 U
Chloromethane (Methyl Chloride)	mg/kg	5.2	ID	1100	2.3	40	410	1000	4900000	1100	1100	0.22 U	0.22 U	0.23 U	0.24 U	0.19 U	0.22 U
cis-1,2-Dichloroethene	mg/kg	1.4	12	640	22	180	420	990	2300000	640	640	0.043 U	0.045 U	0.046 U	0.047 U	0.038 U	0.044 U
cis-1,3-Dichloropropene	mg/kg											0.043 U	0.045 U	0.046 U	0.047 U	0.038 U	0.044 U
Cyclohexane	mg/kg											1 U	1.1 U	1.1 U	1.1 U	0.9 U	1 U
Dibromochloromethane	mg/kg	1.6	ID	360	3.9	24	24	33	130000	110	610	0.043 U	0.045 U	0.046 U	0.047 U	0.038 U	0.044 U
Dichlorodifluoromethane (CFC-12)	mg/kg	95	ID	1000	900	53000	550000	1400000	3300000000	1000	1000	0.087 U	0.09 U	0.091 U	0.094 U	0.075 U	0.087 U
Ethylbenzene	mg/kg	1.5	0.36	140	87	720	1000	2200	10000000	140	140	0.043 U	0.045 U	0.046 U	0.047 U	0.038 U	0.044 U
Isopropylbenzene	mg/kg	91	ID	390	390	1700	1700	2800	5800000	390	390	0.22 U	0.22 U	0.23 U	0.24 U	0.19 U	0.22 U
Methyl acetate	mg/kg											1 U	1.1 U	1.1 U	1.1 U	0.9 U	1 U
Methyl cyclohexane	mg/kg											1 U	1.1 U	1.1 U	1.1 U	0.9 U	1 U
Methyl Tert Butyl Ether	mg/kg	0.8	15	5900	5900	25000	39000	87000	200000000	1500	5900	0.22 U	0.22 U	0.23 U	0.24 U	0.19 U	0.22 U
Methylene chloride	mg/kg	0.1	19	2300	45	210	590	1400	6600000	1300	2300	0.22 U	0.22 U	0.23 U	0.24 U	0.19 U	0.22 U
Styrene	mg/kg	2.7	2.2	270	250	970	970	1400	5500000	400	520	0.043 U	0.045 U	0.046 U	0.047 U	0.038 U	0.044 U
Tetrachloroethene	mg/kg	0.1	0.9	88	11	180	480	1100	5400000	88	88	0.043 U	0.045 U	0.046 U	0.047 U	0.038 U	0.044 U
Toluene	mg/kg	16	2.8	250	250	2800	5100	12000	27000000	250	250	0.087 U	0.09 U	0.091 U	0.094 U	0.075 U	0.087 U
trans-1,2-Dichloroethene	mg/kg	2	30	1400	23	280	830	2000	4700000	1400	1400	0.043 U	0.045 U	0.046 U	0.047 U	0.038 U	0.044 U
trans-1,3-Dichloropropene	mg/kg											0.043 U	0.045 U	0.046 U	0.047 U	0.038 U	0.044 U
Trichloroethene	mg/kg	0.1	4	440	7.1	78	170	390	1800000	500	500	0.043 U	0.016 J	0.02 J	0.031 J	0.017 J	0.02 J
Trichlorofluoromethane (CFC-11)	mg/kg	52		560	560	92000	630000	1500000	3800000000	560	560	0.087 U	0.09 U	0.091 U	0.094 U	0.075 U	0.087 U
Trifluorotrichloroethane (Freon 113)	mg/kg	550	1.7	550	550	180000	880000	2100000	5100000000	550	550	0.22 U	0.22 U	0.23 U	0.24 U	0.19 U	0.22 U
Vinyl chloride	mg/kg	0.04	0.3	20	0.27	4.2	30	73	350000	3.8	490	0.087 U	0.09 U	0.091 U	0.094 U	0.075 U	0.087 U
Xylene (total)	mg/kg	5.6	0.7	150	150	46000	61000	130000	290000000	150	150	0.13 U	0.13 U	0.14 U	0.14 U	0.11 U	0.13 U

Notes:
⁽¹⁾ Cleanup criteria identified by MDEQ RRD Op Memo No. 1, updated 1/23/2006, pursuant to 1994 PA 451 as amended.
U - Not present at or above the associated value.
J - Estimated concentration.
UJ - Estimated reporting limit.
 Value exceeds referenced Part 201 Criteria (I.e. a, b, etc.)

TABLE 2

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SVE SOIL INVESTIGATION
GENERAL MOTORS CORPORATION
GRAND RAPIDS METAL PLANT
WYOMING, MICHIGAN

Sample Location	Michigan Act 451, Part 201 Residential and Commercial ⁽¹⁾											SB17-05	SB17-05	SB17-05	SB17-05	SB17-05	SB17-05
Sample Identification	Drinking Water	Groundwater Surface Water	Groundwater Contact	Soil Volatilization to Indoor Air	Infinite Source Volatile Soil Inhalation	Finite VSIC for 5 Meter Source Thickness	Finite VSIC for 2 Meter Source Thickness	Particulate Soil Inhalation	Direct Contact	Soil Saturation Concentration Screening	SO-17360-120305-DCR-519	SO-17360-120305-DCR-520	SO-17360-120305-DCR-521	SO-17360-120305-DCR-522	SO-17360-120305-DCR-523	SO-17360-120305-DCR-524	
Sample Date	Protection	Interface Protection	Protection	Inhalation	Inhalation	Thickness	Thickness				12/3/2005	12/3/2005	12/3/2005	12/3/2005	12/3/2005	12/3/2005	
Sample Depth	a	b	c	d	e	f	g	h	i	j	0-2 ft BGS	2-4 ft BGS	4-6 ft BGS	6-8 ft BGS	8-10 ft BGS	10-12 ft BGS	
Sample Type	Units																
Volatile Organic Compounds																	
1,1,1-Trichloroethane	mg/kg	4	4	460	250	3800	12000	28000	67000000	460	460	0.043 U	0.042 U	0.042 U	0.044 U	0.04 U	0.046 U
1,1,2,2-Tetrachloroethane	mg/kg	0.17	1.6	94	4.3	10	10	14	54000	53	870	0.087 U	0.085 U	0.085 U	0.088 U	0.08 U	0.093 U
1,1,2-Trichloroethane	mg/kg	0.1	6.6	420	4.6	17	21	44	190000	180	920	0.043 U	0.042 U	0.042 U	0.044 U	0.04 U	0.046 U
1,1-Dichloroethane	mg/kg	18	15	890	230	2100	5900	14000	33000000	890	890	0.043 U	0.042 U	0.042 U	0.044 U	0.04 U	0.046 U
1,1-Dichloroethene	mg/kg	0.14	1.3	220	0.062	1.1	5.3	13	62000	200	570	0.043 U	0.042 U	0.042 U	0.044 U	0.04 U	0.046 U
1,2,4-Trichlorobenzene	mg/kg	4.2	1.8	1100	1100	28000	28000	28000	25000000	990	1100	0.22 U	0.21 U	0.21 U	0.22 U	0.2 U	0.23 U
1,2-Dibromo-3-chloropropane (DBCP)	mg/kg	0.01		1.2	1.2	13	13	13	13000	1.2	1.2	0.22 U	0.21 U	0.21 U	0.22 U	0.2 U	0.23 U
1,2-Dibromoethane (Ethylene Dibromide)	mg/kg	0.02	0.02	0.5	0.67	1.7	1.7	3.3	14000	0.092	890	0.22 U	0.21 U	0.21 U	0.22 U	0.2 U	0.23 U
1,2-Dichlorobenzene	mg/kg	14	0.36	210	210	39000	39000	52000	100000000	210	210	0.087 U	0.085 U	0.085 U	0.088 U	0.08 U	0.093 U
1,2-Dichloroethane	mg/kg	0.1	7.2	380	2.1	6.2	11	26	120000	91	1200	0.043 U	0.042 U	0.042 U	0.044 U	0.04 U	0.046 U
1,2-Dichloropropane	mg/kg	0.1	5.8	320	4	25	50	110	270000	140	550	0.043 U	0.042 U	0.042 U	0.044 U	0.04 U	0.046 U
1,3-Dichlorobenzene	mg/kg	0.17	1.1	51	ID	ID	ID	ID	ID	170	170	0.087 U	0.085 U	0.085 U	0.088 U	0.08 U	0.093 U
1,4-Dichlorobenzene	mg/kg	1.7	0.29	140	19	77	77	110	450000	400		0.087 U	0.085 U	0.085 U	0.088 U	0.08 U	0.093 U
2-Butanone (Methyl Ethyl Ketone)	mg/kg	260	44	27000	27000	29000	29000	35000	67000000	27000	27000	0.65 U	0.64 U	0.63 U	0.66 U	0.6 U	0.7 U
2-Hexanone	mg/kg	20		2500	990	1100	1100	1400	2700000	2500	2500	2.2 U	2.1 U	2.1 U	2.2 U	2 U	2.3 U
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	mg/kg	36	ID	2700	2700	45000	45000	67000	140000000	2700	2700	2.2 U	2.1 U	2.1 U	2.2 U	2 U	2.3 U
Acetone	mg/kg	15	34	110000	110000	130000	130000	190000	390000000	23000	110000	0.65 U	0.64 U	0.63 U	0.66 U	0.6 U	0.7 U
Benzene	mg/kg	0.1	4	220	1.6	13	34	79	380000	180	400	0.043 U	0.042 U	0.042 U	0.044 U	0.04 U	0.046 U
Bromodichloromethane	mg/kg	1.6	ID	280	1.2	9.1	9.7	19	84000	110	1500	0.087 U	0.085 U	0.085 U	0.088 U	0.08 U	0.093 U
Bromoform	mg/kg	1.6	ID	870	150	900	900	900	2800000	820	870	0.087 U	0.085 U	0.085 U	0.088 U	0.08 U	0.093 U
Bromomethane (Methyl Bromide)	mg/kg	0.2	0.7	1400	0.86	11	57	140	330000	320	2200	0.22 U	0.21 U	0.21 U	0.22 U	0.2 U	0.23 U
Carbon disulfide	mg/kg	16	ID	280	76	1300	7900	19000	47000000	280	280	0.22 U	0.21 U	0.21 U	0.22 U	0.2 U	0.23 U
Carbon tetrachloride	mg/kg	0.1	0.9	92	0.19	3.5	12	28	130000	96	390	0.043 U	0.042 U	0.042 U	0.044 U	0.04 U	0.046 U
Chlorobenzene	mg/kg	2	0.94	260	120	770	990	2100	4700000	260	260	0.043 U	0.042 U	0.042 U	0.044 U	0.04 U	0.046 U
Chloroethane	mg/kg	8.6	ID	950	950	30000	120000	280000	670000000	950	950	0.22 U	0.21 U	0.21 U	0.22 U	0.2 U	0.23 U
Chloroform (Trichloromethane)	mg/kg	1.6	3.4	1500	7.2	45	120	270	1300000	1200	1500	0.043 U	0.042 U	0.042 U	0.044 U	0.04 U	0.046 U
Chloromethane (Methyl Chloride)	mg/kg	5.2	ID	1100	2.3	40	410	1000	4900000	1100	1100	0.22 U	0.21 U	0.21 U	0.22 U	0.2 U	0.23 U
cis-1,2-Dichloroethene	mg/kg	1.4	12	640	22	180	420	990	2300000	640	640	0.043 U	0.042 U	0.042 U	0.044 U	0.04 U	0.046 U
cis-1,3-Dichloropropene	mg/kg											0.043 U	0.042 U	0.042 U	0.044 U	0.04 U	0.046 U
Cyclohexane	mg/kg											1 U	1 U	1 U	1.1 U	0.96 U	1.1 U
Dibromochloromethane	mg/kg	1.6	ID	360	3.9	24	24	33	130000	110	610	0.043 U	0.042 U	0.042 U	0.044 U	0.04 U	0.046 U
Dichlorodifluoromethane (CFC-12)	mg/kg	95	ID	1000	900	53000	550000	1400000	3300000000	1000	1000	0.087 U	0.085 U	0.085 U	0.088 U	0.08 U	0.093 U
Ethylbenzene	mg/kg	1.5	0.36	140	87	720	1000	2200	10000000	140	140	0.043 U	0.042 U	0.042 U	0.044 U	0.04 U	0.046 U
Isopropylbenzene	mg/kg	91	ID	390	390	1700	1700	2800	5800000	390	390	0.22 U	0.21 U	0.21 U	0.22 U	0.2 U	0.23 U
Methyl acetate	mg/kg											1 U	1 U	1 U	1.1 U	0.96 U	1.6
Methyl cyclohexane	mg/kg											1 U	1 U	1 U	1.1 U	0.96 U	1.1 U
Methyl Tert Butyl Ether	mg/kg	0.8	15	5900	5900	25000	39000	87000	200000000	1500	5900	0.22 U	0.21 U	0.21 U	0.22 U	0.2 U	0.23 U
Methylene chloride	mg/kg	0.1	19	2300	45	210	590	1400	6600000	1300	2300	0.22 U	0.21 U	0.21 U	0.22 U	0.2 U	0.23 U
Styrene	mg/kg	2.7	2.2	270	250	970	970	1400	5500000	400	520	0.043 U	0.042 U	0.042 U	0.044 U	0.04 U	0.046 U
Tetrachloroethene	mg/kg	0.1	0.9	88	11	180	480	1100	5400000	88	88	0.043 U	0.042 U	0.042 U	0.044 U	0.04 U	0.046 U
Toluene	mg/kg	16	2.8	250	250	2800	5100	12000	27000000	250	250	0.087 U	0.085 U	0.085 U	0.088 U	0.08 U	0.093 U
trans-1,2-Dichloroethene	mg/kg	2	30	1400	23	280	830	2000	4700000	1400	1400	0.043 U	0.042 U	0.042 U	0.044 U	0.04 U	0.046 U
trans-1,3-Dichloropropene	mg/kg											0.043 U	0.042 U	0.042 U	0.044 U	0.04 U	0.046 U
Trichloroethene	mg/kg	0.1	4	440	7.1	78	170	390	1800000	500	500	0.043 U	0.039 J	0.042 U	0.044 U	0.04 U	0.099
Trichlorofluoromethane (CFC-11)	mg/kg	52		560	560	92000	630000	1500000	3800000000	560	560	0.087 U	0.085 U	0.085 U	0.088 U	0.08 U	0.093 U
Trifluorotrichloroethane (Freon 113)	mg/kg	550	1.7	550	550	180000	880000	2100000	5100000000	550	550	0.22 U	0.21 U	0.21 U	0.22 U	0.2 U	0.23 U
Vinyl chloride	mg/kg	0.04	0.3	20	0.27	4.2	30	73	350000	3.8	490	0.087 U	0.085 U	0.085 U	0.088 U	0.08 U	0.093 U
Xylene (total)	mg/kg	5.6	0.7	150	150	46000	61000	130000	290000000	150	150	0.13 U	0.13 U	0.13 U	0.13 U	0.12 U	0.14 U

Notes:
⁽¹⁾ Cleanup criteria identified by MDEQ RRD Op Memo No. 1, updated 1/23/2006, pursuant to 1994 PA 451 as amended.
U - Not present at or above the associated value.
J - Estimated concentration.
UJ - Estimated reporting limit.
 Value exceeds referenced Part 201 Criteria (I.e. a, b, etc.)

TABLE 2

SUMMARY OF SOIL SAMPLES COMPARED TO MICHIGAN ACT 451, PART 201 RESIDENTIAL CRITERIA
SVE SOIL INVESTIGATION
GENERAL MOTORS CORPORATION
GRAND RAPIDS METAL PLANT
WYOMING, MICHIGAN

Sample Location	<i>Michigan Act 451, Part 201 Residential and Commercial</i> ⁽¹⁾										<i>SB17-05</i>	<i>SB17-05</i>	<i>SB17-05</i>	<i>SB17-05</i>	<i>SB18-05</i>	<i>SB18-05</i>
Sample Identification	Drinking Water	Groundwater Surface Water	Groundwater Contact	Soil Volatilization to Indoor Air	Infinite Source Volatile Soil Inhalation	Finite VSIC for 5 Meter Source Thickness	Finite VSIC for 2 Meter Source Thickness	Particulate Soil Inhalation	Direct Contact	Soil Saturation Concentration Screening	<i>SO-17360-120305-DCR-525</i>	<i>SO-17360-120305-DCR-526</i>	<i>SO-17360-120305-DCR-527</i>	<i>SO-17360-120305-DCR-528</i>	<i>SO-17360-120305-DCR-529</i>	<i>SO-17360-120305-DCR-530</i>
Sample Date											<i>12/3/2005</i>	<i>12/3/2005</i>	<i>12/3/2005</i>	<i>12/3/2005</i>	<i>12/3/2005</i>	<i>12/3/2005</i>
Sample Depth	Protection	Interface Protection	Protection	Inhalation	Inhalation	Thickness	Thickness				<i>12-14 ft BGS</i>	<i>14-16 ft BGS</i>	<i>16-18 ft BGS</i>	<i>18-20 ft BGS</i>	<i>0-2 ft BGS</i>	<i>2-4 ft BGS</i>
Sample Type	a	b	c	d	e	f	g	h	i	j						
<i>Units</i>																
<i>Volatile Organic Compounds</i>																
1,1,1-Trichloroethane	mg/kg	4	4	460	250	3800	12000	28000	67000000	460	460	0.045 U	0.041 U	0.039 U	0.045 U	0.043 U
1,1,2,2-Tetrachloroethane	mg/kg	0.17	1.6	94	4.3	10	10	14	54000	53	870	0.09 U	0.081 U	0.077 U	0.09 U	0.086 U
1,1,2-Trichloroethane	mg/kg	0.1	6.6	420	4.6	17	21	44	190000	180	920	0.045 U	0.041 U	0.039 U	0.045 U	0.043 U
1,1-Dichloroethane	mg/kg	18	15	890	230	2100	5900	14000	33000000	890	890	0.045 U	0.041 U	0.039 U	0.045 U	0.043 U
1,1-Dichloroethene	mg/kg	0.14	1.3	220	0.062	1.1	5.3	13	62000	200	570	0.045 U	0.041 U	0.039 U	0.045 U	0.043 U
1,2,4-Trichlorobenzene	mg/kg	4.2	1.8	1100	1100	28000	28000	28000	25000000	990	1100	0.23 U	0.2 U	0.19 U	0.22 U	0.21 U
1,2-Dibromo-3-chloropropane (DBCP)	mg/kg	0.01		1.2	1.2	13	13	13	13000	1.2	1.2	0.23 U	0.2 U	0.19 U	0.22 U	0.21 U
1,2-Dibromoethane (Ethylene Dibromide)	mg/kg	0.02	0.02	0.5	0.67	1.7	1.7	3.3	14000	0.092	890	0.23 U	0.2 U	0.19 U	0.22 U	0.21 U
1,2-Dichlorobenzene	mg/kg	14	0.36	210	210	39000	39000	52000	100000000	210	210	0.09 U	0.081 U	0.077 U	0.09 U	0.086 U
1,2-Dichloroethane	mg/kg	0.1	7.2	380	2.1	6.2	11	26	120000	91	1200	0.045 U	0.041 U	0.039 U	0.045 U	0.043 U
1,2-Dichloropropane	mg/kg	0.1	5.8	320	4	25	50	110	270000	140	550	0.045 U	0.041 U	0.039 U	0.045 U	0.043 U
1,3-Dichlorobenzene	mg/kg	0.17	1.1	51	ID	ID	ID	ID	ID	170	170	0.09 U	0.081 U	0.077 U	0.09 U	0.086 U
1,4-Dichlorobenzene	mg/kg	1.7	0.29	140	19	77	77	110	450000	400		0.09 U	0.081 U	0.077 U	0.09 U	0.086 U
2-Butanone (Methyl Ethyl Ketone)	mg/kg	260	44	27000	27000	29000	29000	35000	67000000	27000	27000	0.68 U	0.61 U	0.58 U	0.67 U	0.64 U
2-Hexanone	mg/kg	20		2500	990	1100	1100	1400	2700000	2500	2500	2.3 U	2 U	1.9 U	2.2 U	2.1 U
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	mg/kg	36	ID	2700	2700	45000	45000	67000	140000000	2700	2700	2.3 U	2 U	1.9 U	2.2 U	2.1 U
Acetone	mg/kg	15	34	110000	110000	130000	130000	190000	390000000	23000	110000	0.68 U	0.61 U	0.58 U	0.67 UJ	0.64 UJ
Benzene	mg/kg	0.1	4	220	1.6	13	34	79	380000	180	400	0.045 U	0.041 U	0.039 U	0.045 U	0.043 U
Bromodichloromethane	mg/kg	1.6	ID	280	1.2	9.1	9.7	19	84000	110	1500	0.09 U	0.081 U	0.077 U	0.09 U	0.086 U
Bromoform	mg/kg	1.6	ID	870	150	900	900	900	2800000	820	870	0.09 U	0.081 U	0.077 U	0.09 U	0.086 U
Bromomethane (Methyl Bromide)	mg/kg	0.2	0.7	1400	0.86	11	57	140	330000	320	2200	0.23 U	0.2 U	0.19 U	0.22 U	0.21 U
Carbon disulfide	mg/kg	16	ID	280	76	1300	7900	19000	47000000	280	280	0.23 U	0.2 U	0.19 U	0.22 U	0.21 U
Carbon tetrachloride	mg/kg	0.1	0.9	92	0.19	3.5	12	28	130000	96	390	0.045 U	0.041 U	0.039 U	0.045 U	0.043 U
Chlorobenzene	mg/kg	2	0.94	260	120	770	990	2100	4700000	260	260	0.045 U	0.041 U	0.039 U	0.045 U	0.043 U
Chloroethane	mg/kg	8.6	ID	950	950	30000	120000	280000	670000000	950	950	0.23 U	0.2 U	0.19 U	0.22 U	0.21 U
Chloroform (Trichloromethane)	mg/kg	1.6	3.4	1500	7.2	45	120	270	1300000	1200	1500	0.045 U	0.041 U	0.039 U	0.045 U	0.043 U
Chloromethane (Methyl Chloride)	mg/kg	5.2	ID	1100	2.3	40	410	1000	4900000	1100	1100	0.23 U	0.2 U	0.19 U	0.22 U	0.21 U
cis-1,2-Dichloroethene	mg/kg	1.4	12	640	22	180	420	990	2300000	640	640	0.045 U	0.041 U	0.039 U	0.045 U	0.043 U
cis-1,3-Dichloropropene	mg/kg											0.045 U	0.041 U	0.039 U	0.045 U	0.043 U
Cyclohexane	mg/kg											1.1 U	0.98 U	0.93 U	1.1 U	1 U
Dibromochloromethane	mg/kg	1.6	ID	360	3.9	24	24	33	130000	110	610	0.045 U	0.041 U	0.039 U	0.045 U	0.043 U
Dichlorodifluoromethane (CFC-12)	mg/kg	95	ID	1000	900	53000	550000	1400000	3300000000	1000	1000	0.09 U	0.081 U	0.077 U	0.09 U	0.086 U
Ethylbenzene	mg/kg	1.5	0.36	140	87	720	1000	2200	10000000	140	140	0.045 U	0.041 U	0.039 U	0.045 U	0.043 U
Isopropylbenzene	mg/kg	91	ID	390	390	1700	1700	2800	5800000	390	390	0.23 U	0.2 U	0.19 U	0.22 U	0.21 U
Methyl acetate	mg/kg											1.1 U	0.98 U	0.93 U	1.1 U	1 U
Methyl cyclohexane	mg/kg											1.1 U	0.98 U	0.93 U	1.1 U	1 U
Methyl Tert Butyl Ether	mg/kg	0.8	15	5900	5900	25000	39000	87000	200000000	1500	5900	0.23 U	0.2 U	0.19 U	0.22 U	0.21 U
Methylene chloride	mg/kg	0.1	19	2300	45	210	590	1400	6600000	1300	2300	0.23 U	0.2 U	0.19 U	0.22 U	0.21 U
Styrene	mg/kg	2.7	2.2	270	250	970	970	1400	5500000	400	520	0.045 U	0.041 U	0.039 U	0.045 U	0.043 U
Tetrachloroethene	mg/kg	0.1	0.9	88	11	180	480	1100	5400000	88	88	0.045 U	0.041 U	0.039 U	0.045 U	0.043 U
Toluene	mg/kg	16	2.8	250	250	2800	5100	12000	27000000	250	250	0.09 U	0.081 U	0.077 U	0.09 U	0.086 U
trans-1,2-Dichloroethene	mg/kg	2	30	1400	23	280	830	2000	4700000	1400	1400	0.045 U	0.041 U	0.039 U	0.045 U	0.043 U
trans-1,3-Dichloropropene	mg/kg											0.045 U	0.041 U	0.039 U	0.045 U	0.043 U
Trichloroethene	mg/kg	0.1	4	440	7.1	78	170	390	1800000	500	500	0.045 U	0.041 U	0.039 U	0.045 U	0.038 J
Trichlorofluoromethane (CFC-11)	mg/kg	52		560	560	92000	630000	1500000	3800000000	560	560	0.09 U	0.081 U	0.077 U	0.09 U	0.086 U
Trifluorotrichloroethane (Freon 113)	mg/kg	550	1.7	550	550	180000	880000	2100000	5100000000	550	550	0.23 U	0.2 U	0.19 U	0.22 U	0.21 U
Vinyl chloride	mg/kg	0.04	0.3	20	0.27	4.2	30	73	350000	3.8	490	0.09 U	0.081 U	0.077 U	0.09 U	0.086 U
Xylene (total)	mg/kg	5.6	0.7	150	150	46000	61000	130000	290000000	150	150	0.14 U	0.12 U	0.12 U	0.13 U	0.13 U

Notes:
⁽¹⁾ Cleanup criteria identified by MDEQ RRD Op Memo No. 1, updated 1/23/2006, pursuant to 1994 PA 451 as amended.
U - Not present at or above the associated value.
J - Estimated concentration.
UJ - Estimated reporting limit.
 Value exceeds referenced Part 201 Criteria (I.e. a, b, etc.)

TABLE 2

SUMMARY OF SOIL SAMPLES COMPARED TO MICHIGAN ACT 451, PART 201 RESIDENTIAL CRITERIA
SVE SOIL INVESTIGATION
GENERAL MOTORS CORPORATION
GRAND RAPIDS METAL PLANT
WYOMING, MICHIGAN

Sample Location	Michigan Act 451, Part 201 Residential and Commercial ⁽¹⁾											SB18-05	SB18-05	SB18-05	SB18-05	SB18-05	SB18-05
Sample Identification	Drinking Water	Groundwater Surface Water	Groundwater Contact	Soil Volatilization to Indoor Air	Infinite Source Volatile Soil Inhalation	Finite VSIC for 5 Meter Source Thickness	Finite VSIC for 2 Meter Source Thickness	Particulate Soil Inhalation	Direct Contact	Soil Saturation Concentration Screening	SO-17360-120305-DCR-531	SO-17360-120305-DCR-532	SO-17360-120305-DCR-533	SO-17360-120305-DCR-534	SO-17360-120305-DCR-535	SO-17360-120305-DCR-536	
Sample Date	Protection	Interface Protection	Protection	Inhalation	Inhalation	Thickness	Thickness				12/3/2005	12/3/2005	12/3/2005	12/3/2005	12/3/2005	12/3/2005	
Sample Depth	a	b	c	d	e	f	g	h	i	j	4-6 ft BGS	6-8 ft BGS	8-10 ft BGS	10-12 ft BGS	10-12 ft BGS	12-14 ft BGS	
Sample Type	Units																
Volatile Organic Compounds																	
1,1,1-Trichloroethane	mg/kg	4	4	460	250	3800	12000	28000	67000000	460	460	0.043 U	0.042 U	0.046 U	0.041 U	0.046 U	
1,1,2,2-Tetrachloroethane	mg/kg	0.17	1.6	94	4.3	10	10	14	54000	53	870	0.086 U	0.085 U	0.092 U	0.081 U	0.084 U	
1,1,2-Trichloroethane	mg/kg	0.1	6.6	420	4.6	17	21	44	190000	180	920	0.043 U	0.042 U	0.046 U	0.041 U	0.046 U	
1,1-Dichloroethane	mg/kg	18	15	890	230	2100	5900	14000	33000000	890	890	0.043 U	0.042 U	0.046 U	0.041 U	0.046 U	
1,1-Dichloroethene	mg/kg	0.14	1.3	220	0.062	1.1	5.3	13	62000	200	570	0.043 U	0.042 U	0.046 U	0.041 U	0.046 U	
1,2,4-Trichlorobenzene	mg/kg	4.2	1.8	1100	1100	28000	28000	28000	25000000	990	1100	0.21 U	0.21 U	0.23 U	0.2 U	0.23 U	
1,2-Dibromo-3-chloropropane (DBCP)	mg/kg	0.01		1.2	1.2	13	13	13	13000	1.2	1.2	0.21 U	0.21 U	0.23 U	0.2 U	0.23 U	
1,2-Dibromoethane (Ethylene Dibromide)	mg/kg	0.02	0.02	0.5	0.67	1.7	1.7	3.3	14000	0.092	890	0.21 U	0.21 U	0.23 U	0.2 U	0.23 U	
1,2-Dichlorobenzene	mg/kg	14	0.36	210	210	39000	39000	52000	100000000	210	210	0.086 U	0.085 U	0.092 U	0.081 U	0.084 U	
1,2-Dichloroethane	mg/kg	0.1	7.2	380	2.1	6.2	11	26	120000	91	1200	0.043 U	0.042 U	0.046 U	0.041 U	0.046 U	
1,2-Dichloropropane	mg/kg	0.1	5.8	320	4	25	50	110	270000	140	550	0.043 U	0.042 U	0.046 U	0.041 U	0.046 U	
1,3-Dichlorobenzene	mg/kg	0.17	1.1	51	ID	ID	ID	ID	ID	170	170	0.086 U	0.085 U	0.092 U	0.081 U	0.084 U	
1,4-Dichlorobenzene	mg/kg	1.7	0.29	140	19	77	77	110	450000	400		0.086 U	0.085 U	0.092 U	0.081 U	0.084 U	
2-Butanone (Methyl Ethyl Ketone)	mg/kg	260	44	27000	27000	29000	29000	35000	67000000	27000	27000	0.64 U	0.63 U	0.69 U	0.61 U	0.63 U	
2-Hexanone	mg/kg	20		2500	990	1100	1100	1400	2700000	2500	2500	2.1 U	2.1 U	2.3 U	2 U	2.3 U	
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	mg/kg	36	ID	2700	2700	45000	45000	67000	140000000	2700	2700	2.1 U	2.1 U	2.3 U	2 U	2.3 U	
Acetone	mg/kg	15	34	110000	110000	130000	130000	190000	390000000	23000	110000	0.64 UJ	0.63 UJ	0.69 UJ	0.61 UJ	0.63 UJ	
Benzene	mg/kg	0.1	4	220	1.6	13	34	79	380000	180	400	0.043 U	0.042 U	0.046 U	0.041 U	0.046 U	
Bromodichloromethane	mg/kg	1.6	ID	280	1.2	9.1	9.7	19	84000	110	1500	0.086 U	0.085 U	0.092 U	0.081 U	0.084 U	
Bromoform	mg/kg	1.6	ID	870	150	900	900	900	2800000	820	870	0.086 U	0.085 U	0.092 U	0.081 U	0.084 U	
Bromomethane (Methyl Bromide)	mg/kg	0.2	0.7	1400	0.86	11	57	140	330000	320	2200	0.21 U	0.21 U	0.23 U	0.2 U	0.23 U	
Carbon disulfide	mg/kg	16	ID	280	76	1300	7900	19000	47000000	280	280	0.21 U	0.21 U	0.23 U	0.2 U	0.23 U	
Carbon tetrachloride	mg/kg	0.1	0.9	92	0.19	3.5	12	28	130000	96	390	0.043 U	0.042 U	0.046 U	0.041 U	0.046 U	
Chlorobenzene	mg/kg	2	0.94	260	120	770	990	2100	4700000	260	260	0.043 U	0.042 U	0.046 U	0.041 U	0.046 U	
Chloroethane	mg/kg	8.6	ID	950	950	30000	120000	280000	670000000	950	950	0.21 U	0.21 U	0.23 U	0.2 U	0.23 U	
Chloroform (Trichloromethane)	mg/kg	1.6	3.4	1500	7.2	45	120	270	1300000	1200	1500	0.043 U	0.042 U	0.046 U	0.041 U	0.046 U	
Chloromethane (Methyl Chloride)	mg/kg	5.2	ID	1100	2.3	40	410	1000	4900000	1100	1100	0.21 U	0.21 U	0.23 U	0.2 U	0.23 U	
cis-1,2-Dichloroethene	mg/kg	1.4	12	640	22	180	420	990	2300000	640	640	0.043 U	0.042 U	0.046 U	0.041 U	0.046 U	
cis-1,3-Dichloropropene	mg/kg											0.043 U	0.042 U	0.046 U	0.041 U	0.046 U	
Cyclohexane	mg/kg											1 U	1 U	1.1 U	0.97 U	1 U	
Dibromochloromethane	mg/kg	1.6	ID	360	3.9	24	24	33	130000	110	610	0.043 U	0.042 U	0.046 U	0.041 U	0.046 U	
Dichlorodifluoromethane (CFC-12)	mg/kg	95	ID	1000	900	53000	550000	1400000	3300000000	1000	1000	0.086 U	0.085 U	0.092 U	0.081 U	0.084 U	
Ethylbenzene	mg/kg	1.5	0.36	140	87	720	1000	2200	10000000	140	140	0.043 U	0.042 U	0.046 U	0.041 U	0.046 U	
Isopropylbenzene	mg/kg	91	ID	390	390	1700	1700	2800	5800000	390	390	0.21 U	0.21 U	0.23 U	0.2 U	0.23 U	
Methyl acetate	mg/kg											1 U	1 U	1.1 U	0.97 U	1 U	
Methyl cyclohexane	mg/kg											1 U	1 U	1.1 U	0.97 U	1 U	
Methyl Tert Butyl Ether	mg/kg	0.8	15	5900	5900	25000	39000	87000	200000000	1500	5900	0.21 U	0.21 U	0.23 U	0.2 U	0.23 U	
Methylene chloride	mg/kg	0.1	19	2300	45	210	590	1400	6600000	1300	2300	0.21 U	0.21 U	0.23 U	0.2 U	0.23 U	
Styrene	mg/kg	2.7	2.2	270	250	970	970	1400	5500000	400	520	0.043 U	0.042 U	0.046 U	0.041 U	0.046 U	
Tetrachloroethene	mg/kg	0.1	0.9	88	11	180	480	1100	5400000	88	88	0.043 U	0.042 U	0.046 U	0.041 U	0.046 U	
Toluene	mg/kg	16	2.8	250	250	2800	5100	12000	27000000	250	250	0.086 U	0.085 U	0.092 U	0.081 U	0.084 U	
trans-1,2-Dichloroethene	mg/kg	2	30	1400	23	280	830	2000	4700000	1400	1400	0.043 U	0.042 U	0.046 U	0.041 U	0.046 U	
trans-1,3-Dichloropropene	mg/kg											0.043 U	0.042 U	0.046 U	0.041 U	0.046 U	
Trichloroethene	mg/kg	0.1	4	440	7.1	78	170	390	1800000	500	500	0.043 U	0.042 U	0.046 U	0.041 U	0.046 U	
Trichlorofluoromethane (CFC-11)	mg/kg	52		560	560	92000	630000	1500000	3800000000	560	560	0.086 U	0.085 U	0.092 U	0.081 U	0.084 U	
Trifluorotrichloroethane (Freon 113)	mg/kg	550	1.7	550	550	180000	880000	2100000	5100000000	550	550	0.21 U	0.21 U	0.23 U	0.2 U	0.23 U	
Vinyl chloride	mg/kg	0.04	0.3	20	0.27	4.2	30	73	350000	3.8	490	0.086 U	0.085 U	0.092 U	0.081 U	0.084 U	
Xylene (total)	mg/kg	5.6	0.7	150	150	46000	61000	130000	290000000	150	150	0.13 U	0.13 U	0.14 U	0.12 U	0.13 U	

Notes:
⁽¹⁾ Cleanup criteria identified by MDEQ RRD Op Memo No. 1, updated 1/23/2006, pursuant to 1994 PA 451 as amended.
U - Not present at or above the associated value.
J - Estimated concentration.
UJ - Estimated reporting limit.
 Value exceeds referenced Part 201 Criteria (I.e. a, b, etc.)

TABLE 2

SUMMARY OF SOIL SAMPLES COMPARED TO MICHIGAN ACT 451, PART 201 RESIDENTIAL CRITERIA
SVE SOIL INVESTIGATION
GENERAL MOTORS CORPORATION
GRAND RAPIDS METAL PLANT
WYOMING, MICHIGAN

Sample Location	Michigan Act 451, Part 201 Residential and Commercial ⁽¹⁾											SB18-05	SB18-05	SB18-05	Trip Blank	Trip Blank
Sample Identification	Drinking Water	Groundwater	Groundwater	Soil Volatilization	Infinite Source	Finite VSIC for	Finite VSIC for	Particulate	Direct	Soil Saturation	SO-17360-120305-DCR-537	SO-17360-120305-DCR-538	SO-17360-120305-DCR-539	TB-17360-071205-DCR-501	SO-17360-120305-DCR-550	
Sample Date	Protection	Surface Water	Contact	to Indoor Air	Volatile Soil	5 Meter Source	2 Meter Source	Soil Inhalation	Contact	Concentration	12/3/2005	12/3/2005	12/3/2005	7/12/2005	12/3/2005	
Sample Depth		Interface Protection	Protection	Inhalation	Inhalation	Thickness	Thickness			Screening	14-16 ft BGS	16-18 ft BGS	18-20 ft BGS			
Sample Type	a	b	c	d	e	f	g	h	i	j						
Units																
Volatile Organic Compounds																
1,1,1-Trichloroethane	mg/kg	4	4	460	250	3800	12000	28000	67000000	460	460	0.043 U	0.042 U	0.045 U	0.04 U	0.04 U
1,1,2,2-Tetrachloroethane	mg/kg	0.17	1.6	94	4.3	10	10	14	54000	53	870	0.086 U	0.085 U	0.09 U	0.08 U	0.08 U
1,1,2-Trichloroethane	mg/kg	0.1	6.6	420	4.6	17	21	44	190000	180	920	0.043 U	0.042 U	0.045 U	0.04 U	0.04 U
1,1-Dichloroethane	mg/kg	18	15	890	230	2100	5900	14000	33000000	890	890	0.043 U	0.042 U	0.045 U	0.04 U	0.04 U
1,1-Dichloroethene	mg/kg	0.14	1.3	220	0.062	1.1	5.3	13	62000	200	570	0.043 U	0.042 U	0.045 U	0.04 U	0.04 U
1,2,4-Trichlorobenzene	mg/kg	4.2	1.8	1100	1100	28000	28000	28000	25000000	990	1100	0.21 U	0.21 U	0.22 U	0.2 U	0.2 U
1,2-Dibromo-3-chloropropane (DBCP)	mg/kg	0.01		1.2	1.2	13	13	13	13000	1.2	1.2	0.21 U	0.21 U	0.22 U	0.2 U	0.2 U
1,2-Dibromoethane (Ethylene Dibromide)	mg/kg	0.02	0.02	0.5	0.67	1.7	1.7	3.3	14000	0.092	890	0.21 U	0.21 U	0.22 U	0.2 U	0.2 U
1,2-Dichlorobenzene	mg/kg	14	0.36	210	210	39000	39000	52000	100000000	210	210	0.086 U	0.085 U	0.09 U	0.08 U	0.08 U
1,2-Dichloroethane	mg/kg	0.1	7.2	380	2.1	6.2	11	26	120000	91	1200	0.043 U	0.042 U	0.045 U	0.04 U	0.04 U
1,2-Dichloropropane	mg/kg	0.1	5.8	320	4	25	50	110	270000	140	550	0.043 U	0.042 U	0.045 U	0.04 U	0.04 U
1,3-Dichlorobenzene	mg/kg	0.17	1.1	51	ID	ID	ID	ID	ID	170	170	0.086 U	0.085 U	0.09 U	0.08 U	0.08 U
1,4-Dichlorobenzene	mg/kg	1.7	0.29	140	19	77	77	110	450000	400		0.086 U	0.085 U	0.09 U	0.08 U	0.08 U
2-Butanone (Methyl Ethyl Ketone)	mg/kg	260	44	27000	27000	29000	29000	35000	67000000	27000	27000	0.64 U	0.64 U	0.67 U	0.6 U	0.6 U
2-Hexanone	mg/kg	20		2500	990	1100	1100	1400	2700000	2500	2500	2.1 U	2.1 U	2.2 U	2 U	2 U
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	mg/kg	36	ID	2700	2700	45000	45000	67000	140000000	2700	2700	2.1 U	2.1 U	2.2 U	2 U	2 U
Acetone	mg/kg	15	34	110000	110000	130000	130000	190000	390000000	23000	110000	0.64 UJ	0.64 UJ	0.67 UJ	0.6 U	0.6 U
Benzene	mg/kg	0.1	4	220	1.6	13	34	79	380000	180	400	0.043 U	0.042 U	0.045 U	0.04 U	0.04 U
Bromodichloromethane	mg/kg	1.6	ID	280	1.2	9.1	9.7	19	84000	110	1500	0.086 U	0.085 U	0.09 U	0.08 UJ	0.08 U
Bromoform	mg/kg	1.6	ID	870	150	900	900	900	2800000	820	870	0.086 U	0.085 U	0.09 U	0.08 U	0.08 U
Bromomethane (Methyl Bromide)	mg/kg	0.2	0.7	1400	0.86	11	57	140	330000	320	2200	0.21 U	0.21 U	0.22 U	0.2 U	0.2 U
Carbon disulfide	mg/kg	16	ID	280	76	1300	7900	19000	47000000	280	280	0.21 U	0.21 U	0.22 U	0.2 U	0.2 U
Carbon tetrachloride	mg/kg	0.1	0.9	92	0.19	3.5	12	28	130000	96	390	0.043 U	0.042 U	0.045 U	0.04 U	0.04 U
Chlorobenzene	mg/kg	2	0.94	260	120	770	990	2100	4700000	260	260	0.043 U	0.042 U	0.045 U	0.04 U	0.04 U
Chloroethane	mg/kg	8.6	ID	950	950	30000	120000	280000	670000000	950	950	0.21 U	0.21 U	0.22 U	0.2 U	0.2 U
Chloroform (Trichloromethane)	mg/kg	1.6	3.4	1500	7.2	45	120	270	1300000	1200	1500	0.043 U	0.042 U	0.045 U	0.04 U	0.04 U
Chloromethane (Methyl Chloride)	mg/kg	5.2	ID	1100	2.3	40	410	1000	4900000	1100	1100	0.21 U	0.21 U	0.22 U	0.2 U	0.2 U
cis-1,2-Dichloroethene	mg/kg	1.4	12	640	22	180	420	990	2300000	640	640	0.043 U	0.042 U	0.045 U	0.04 U	0.04 U
cis-1,3-Dichloropropene	mg/kg											0.043 U	0.042 U	0.045 U	0.04 UJ	0.04 U
Cyclohexane	mg/kg											1 U	1 U	1.1 U	0.96 U	0.96 U
Dibromochloromethane	mg/kg	1.6	ID	360	3.9	24	24	33	130000	110	610	0.043 U	0.042 U	0.045 U	0.04 U	0.04 U
Dichlorodifluoromethane (CFC-12)	mg/kg	95	ID	1000	900	53000	550000	1400000	3300000000	1000	1000	0.086 U	0.085 U	0.09 U	0.08 U	0.08 U
Ethylbenzene	mg/kg	1.5	0.36	140	87	720	1000	2200	10000000	140	140	0.043 U	0.042 U	0.045 U	0.04 U	0.04 U
Isopropylbenzene	mg/kg	91	ID	390	390	1700	1700	2800	5800000	390	390	0.21 U	0.21 U	0.22 U	0.2 U	0.2 U
Methyl acetate	mg/kg											0.074 J	1 U	1.1 U	0.077 J	0.96 U
Methyl cyclohexane	mg/kg											1 U	1 U	1.1 U	0.96 U	0.96 U
Methyl Tert Butyl Ether	mg/kg	0.8	15	5900	5900	25000	39000	87000	200000000	1500	5900	0.21 U	0.21 U	0.22 U	0.2 U	0.2 U
Methylene chloride	mg/kg	0.1	19	2300	45	210	590	1400	6600000	1300	2300	0.21 U	0.21 U	0.22 U	0.2 U	0.2 U
Styrene	mg/kg	2.7	2.2	270	250	970	970	1400	5500000	400	520	0.043 U	0.042 U	0.045 U	0.04 U	0.04 U
Tetrachloroethene	mg/kg	0.1	0.9	88	11	180	480	1100	5400000	88	88	0.043 U	0.042 U	0.045 U	0.04 U	0.04 U
Toluene	mg/kg	16	2.8	250	250	2800	5100	12000	27000000	250	250	0.086 U	0.085 U	0.09 U	0.08 U	0.08 U
trans-1,2-Dichloroethene	mg/kg	2	30	1400	23	280	830	2000	4700000	1400	1400	0.043 U	0.042 U	0.045 U	0.04 U	0.04 U
trans-1,3-Dichloropropene	mg/kg											0.043 U	0.042 U	0.045 U	0.04 U	0.04 U
Trichloroethene	mg/kg	0.1	4	440	7.1	78	170	390	1800000	500	500	0.043 U	0.042 U	0.045 U	0.04 U	0.04 U
Trichlorofluoromethane (CFC-11)	mg/kg	52		560	560	92000	630000	1500000	3800000000	560	560	0.086 U	0.085 U	0.09 U	0.08 U	0.08 U
Trifluorotrichloroethane (Freon 113)	mg/kg	550	1.7	550	550	180000	880000	2100000	5100000000	550	550	0.21 U	0.21 U	0.22 U	0.2 U	0.2 U
Vinyl chloride	mg/kg	0.04	0.3	20	0.27	4.2	30	73	350000	3.8	490	0.086 U	0.085 U	0.09 U	0.08 U	0.08 U
Xylene (total)	mg/kg	5.6	0.7	150	150	46000	61000	130000	290000000	150	150	0.13 U	0.13 U	0.13 U	0.12 U	0.12 U

Notes:
⁽¹⁾ Cleanup criteria identified by MDEQ RRD Op Memo No. 1, updated 1/23/2006, pursuant to 1994 PA 451 as amended.
U - Not present at or above the associated value.
J - Estimated concentration.
UJ - Estimated reporting limit.
 - Value exceeds referenced Part 201 Criteria (I.e. a, b, etc.)

TABLE 3

SUMMARY OF SOIL SAMPLE RESULTS COMPARED TO MICHIGAN ACT 451, PART 201 INDUSTRIAL CRITERIA
GENERAL MOTORS CORPORATION
GRAND RAPIDS METAL PLANT
WYOMING, MICHIGAN

Sample Location	Michigan Act 451, Part 201 Industrial and Commercial II, III, IV ⁽¹⁾											SB1-04	SB1-04	SB1-04	SB1-04	SB1-04	SB1-04
Sample Identification	Industrial and Commercial	Groundwater Surface Water	Groundwater Contact	Soil Volatilization to Indoor Air	Infinite Source	Finite VSIC for 5 Meter Source	Finite VSIC for 2 Meter Source	Particulate Soil Inhalation	Direct Contact Industrial and Commercial II	Soil Saturation Concentration Screening	S-17360-071504-DCR-122	S-17360-071504-DCR-123	S-17360-071504-DCR-124	S-17360-071504-DCR-125	S-17360-071504-DCR-126	S-17360-071504-DCR-127	
Sample Date	Drinking Water	Interface Protection	Protection	Inhalation	Volatile Soil Inhalation	Thickness	Thickness				7/15/2004	7/15/2004	7/15/2004	7/15/2004	7/15/2004	7/15/2004	
Sample Depth											0-2 ft BGS	2-4 ft BGS	4-6 ft BGS	6-8 ft BGS	8-10 ft BGS	10-12 ft BGS	
Sample Type	a	b	c	d	e	f	g	h	i	j							
Units																	
Volatile Organic Compounds																	
1,1,1-Trichloroethane	mg/kg	4	4	460	460	4500	15000	31000	29000000	460	460	0.059 U	0.056 U	0.057 U	0.058 U	0.059 U	0.058 U
1,1,2,2-Tetrachloroethane	mg/kg	0.7	1.6	94	23	34	34	34	68000	240	870	0.12 U	0.11 U	0.11 U	0.12 U	0.12 U	0.12 U
1,1,2-Trichloroethane	mg/kg	0.1	6.6	420	24	57	57	120	250000	840	920	0.059 U	0.056 U	0.057 U	0.058 U	0.059 U	0.058 U
1,1-Dichloroethane	mg/kg	50	15	890	430	2500	6000	14000	15000000	890	890	0.059 U	0.056 U	0.057 U	0.058 U	0.059 U	0.058 U
1,1-Dichloroethene	mg/kg	0.14	1.3	220	0.33	3.7	15	37	78000	570	570	0.059 U	0.056 U	0.057 U	0.058 U	0.059 U	0.058 U
1,2,4-Trichlorobenzene	mg/kg	4.2	1.8	1100	1100	34000	34000	34000	11000000	1100	1100	0.29 U	0.28 U	0.28 U	0.29 U	0.03 J	0.29 U
1,2-Dibromo-3-chloropropane (DBCP)	mg/kg	0.01		1.2	1.2	15	15	15	5900	1.2	1.2	0.29 U	0.28 U	0.28 U	0.29 U	0.3 U	0.29 U
1,2-Dibromoethane (Ethylene Dibromide)	mg/kg	0.02	0.02	0.5	3.6	5.8	5.8	9.8	18000	0.43	890	0.29 U	0.28 U	0.28 U	0.29 U	0.3 U	0.29 U
1,2-Dichlorobenzene	mg/kg	14	0.36	210	210	46000	46000	55000	44000000	210	210	0.12 U	0.11 U	0.11 U	0.12 U	0.12 U	0.12 U
1,2-Dichloroethane	mg/kg	0.1	7.2	380	11	21	33	74	150000	420	1200	0.059 U	0.056 U	0.057 U	0.058 U	0.059 U	0.058 U
1,2-Dichloropropane	mg/kg	0.1	5.8	320	7.4	30	51	120	120000	550	550	0.059 U	0.056 U	0.057 U	0.058 U	0.059 U	0.058 U
1,3-Dichlorobenzene	mg/kg	0.48	1.1	51	ID	ID	ID	ID	ID	170	170	0.12 U	0.11 U	0.11 U	0.12 U	0.12 U	0.12 U
1,4-Dichlorobenzene	mg/kg	1.7	0.29	140	100	260	260	340	570000	1900		0.12 U	0.11 U	0.11 U	0.12 U	0.12 U	0.12 U
2-Butanone (Methyl Ethyl Ketone)	mg/kg	760	44	27000	27000	35000	35000	36000	29000000	27000	27000	0.88 U	0.84 U	0.85 U	0.87 U	0.89 U	0.87 U
2-Hexanone	mg/kg	58		2500	1800	1300	1300	1500	1200000	2500	2500	2.9 U	2.8 U	2.8 U	2.9 U	3 U	2.9 U
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	mg/kg	100	ID	2700	2700	53000	53000	70000	60000000	2700	2700	2.9 U	2.8 U	2.8 U	2.9 U	3 U	2.9 U
Acetone	mg/kg	42	34	110000	110000	160000	160000	200000	170000000	73000	110000	0.88 U	0.84 U	0.85 U	0.87 U	0.89 U	0.87 U
Benzene	mg/kg	0.1	4	220	8.4	45	99	230	470000	400	400	0.059 U	0.056 U	0.057 U	0.058 U	0.059 U	0.058 U
Bromodichloromethane	mg/kg	1.6	ID	280	6.4	31	31	57	110000	490	1500	0.12 U	0.11 U	0.11 U	0.12 U	0.12 U	0.12 U
Bromoform	mg/kg	1.6	ID	870	770	3100	3100	3100	3600000	870	870	0.12 U	0.11 U	0.11 U	0.12 U	0.12 U	0.12 U
Bromomethane (Methyl Bromide)	mg/kg	0.58	0.7	1400	1.6	13	57	140	150000	1000	2200	0.29 U	0.28 U	0.28 U	0.29 U	0.3 U	0.29 U
Carbon disulfide	mg/kg	46	ID	280	140	1600	8000	19000	21000000	280	280	0.29 U	0.28 U	0.28 U	0.29 U	0.3 U	0.29 U
Carbon tetrachloride	mg/kg	0.1	0.9	92	0.99	12	34	79	170000	390	390	0.059 U	0.056 U	0.057 U	0.058 U	0.059 U	0.058 U
Chlorobenzene	mg/kg	2	0.94	260	220	920	1100	2100	2100000	260	260	0.059 U	0.056 U	0.057 U	0.058 U	0.059 U	0.058 U
Chloroethane	mg/kg	34	ID	950	950	36000	120000	280000	290000000	950	950	0.29 U	0.28 U	0.28 U	0.29 U	0.3 U	0.29 U
Chloroform (Trichloromethane)	mg/kg	1.6	3.4	1500	38	150	340	790	1600000	1500	1500	0.059 U	0.056 U	0.057 U	0.058 U	0.059 U	0.058 U
Chloromethane (Methyl Chloride)	mg/kg	22	ID	1100	10	120	1000	2500	2600000	1100	1100	0.29 U	0.28 U	0.28 U	0.29 U	0.3 U	0.29 U
cis-1,2-Dichloroethene	mg/kg	1.4	12	640	41	210	430	1000	1000000	640	640	0.059 U	0.056 U	0.057 U	0.058 U	0.059 U	0.058 U
cis-1,3-Dichloropropene	mg/kg											0.059 U	0.056 U	0.057 U	0.058 U	0.059 U	0.058 U
Cyclohexane	mg/kg											1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U
Dibromochloromethane	mg/kg	1.6	ID	360	21	80	80	98	160000	500	610	0.059 U	0.056 U	0.057 U	0.058 U	0.059 U	0.058 U
Dichlorodifluoromethane (CFC-12)	mg/kg	270	ID	1000	1700	63000	550000	1400000	1500000000	1000	1000	0.12 U	0.11 U	0.11 U	0.12 U	0.12 U	0.12 U
Ethylbenzene	mg/kg	1.5	0.36	140	140	2400	3100	6500	13000000	140	140	0.059 U	0.056 U	0.057 U	0.058 U	0.059 U	0.058 U
Isopropylbenzene	mg/kg	260	ID	390	390	2000	2000	3000	2600000	390	390	0.29 U	0.28 U	0.28 U	0.29 U	0.3 U	0.29 U
Methyl acetate	mg/kg											1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U
Methyl cyclohexane	mg/kg											0.039 J	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U
Methyl Tert Butyl Ether	mg/kg	0.8	15	5900	5900	30000	41000	89000	88000000	5900	5900	0.29 U	0.28 U	0.28 U	0.29 U	0.3 U	0.29 U
Methylene chloride	mg/kg	0.1	19	2300	240	700	1700	4000	8300000	2300	2300	0.29 U	0.28 U	0.28 U	0.29 U	0.3 U	0.29 U
Styrene	mg/kg	2.7	2.2	270	520	3300	3300	4200	6900000	520	520	0.059 U	0.056 U	0.057 U	0.058 U	0.059 U	0.058 U
Tetrachloroethene	mg/kg	0.1	0.9	88	60	600	1400	3300	6800000	88	88	0.059 U	0.056 U	0.057 U	0.058 U	0.059 U	0.058 U
Toluene	mg/kg	16	2.8	250	250	3300	36000	36000	12000000	250	250	0.021 J	0.11 U	0.11 U	0.12 U	0.12 U	0.12 U
trans-1,2-Dichloroethene	mg/kg	2	30	1400	43	330	840	2000	2100000	1400	1400	0.059 U	0.056 U	0.057 U	0.058 U	0.059 U	0.058 U
trans-1,3-Dichloropropene	mg/kg											0.059 U	0.056 U	0.057 U	0.058 U	0.059 U	0.058 U
Trichloroethene	mg/kg	0.1	4	440	37	260	440	1100	2300000	500	500	2		0.056 U	0.057 U	0.058 U	0.059 U
Trichlorofluoromethane (CFC-11)	mg/kg	150		560	560	110000	140000000	140000000	1700000000	560	560	0.12 U	0.11 U	0.11 U	0.12 U	0.12 U	0.12 U
Trifluorotrichloroethane (Freon 113)	mg/kg	550	1.7	550	550	210000	890000	2100000	2300000000	550	550	0.29 U	0.28 U	0.28 U	0.29 U	0.3 U	0.29 U
Vinyl chloride	mg/kg	0.04	0.3	20	2.8	29	170	420	890000	34	490	0.12 U	0.11 U	0.11 U	0.12 U	0.12 U	0.12 U
Xylene (total)	mg/kg	5.6	0.7	150	150	54000	65000	130000	130000000	150	150	0.038 J	0.17 U	0.17 U	0.17 U	0.18 U	0.17 U

Notes:

⁽¹⁾ Cleanup criteria identified by MDEQ RRD Op Memo No. 1, updated 1/23/2006, pursuant to 1994 PA 451 as amended.

U - Not present at or above the associated value.

J - Estimated concentration.

UJ - Estimated reporting limit.

Value exceeds referenced Part 201 Criteria (i.e. a, b, etc.)

ID - Insufficient data to develop criterion

NLL - Hazardous substance is not likely to leach under most soil conditions

NLV - Hazardous substance is not likely to volatilize under most conditions

TABLE 3

SUMMARY OF SOIL SAMPLE RESULTS COMPARED TO MICHIGAN ACT 451, PART 201 INDUSTRIAL CRITERIA
GENERAL MOTORS CORPORATION
GRAND RAPIDS METAL PLANT
WYOMING, MICHIGAN

Sample Location	Michigan Act 451, Part 201 Industrial and Commercial II, III, IV ⁽¹⁾											SB1-04	SB1-04	SB1-04	SB1-04	SB1-04	SB2-04
Sample Identification	Industrial and Commercial	Groundwater Surface Water	Groundwater Contact	Soil Volatilization to Indoor Air	Infinite Source	Finite VSIC for 5 Meter Source	Finite VSIC for 2 Meter Source	Particulate Soil Inhalation	Direct Contact Industrial and Commercial II	Soil Saturation Concentration Screening	S-17360-071504-DCR-128	S-17360-071504-DCR-129	S-17360-071504-DCR-130	S-17360-071504-DCR-131	S-17360-071504-DCR-132	S-17360-071404-DCR-089	
Sample Date	Drinking Water	Interface Protection	Protection	Inhalation	Inhalation	Thickness	Thickness				7/15/2004	7/15/2004	7/15/2004	7/15/2004	7/15/2004	7/14/2004	
Sample Depth											12-14 ft BGS	14-16 ft BGS	16-18 ft BGS	18-20 ft BGS	20-22 ft BGS	0-2 ft BGS	
Sample Type	a	b	c	d	e	f	g	h	i	j							
Units																	
Volatile Organic Compounds																	
1,1,1-Trichloroethane	mg/kg	4	4	460	460	4500	15000	31000	29000000	460	460	0.058 U	0.057 U	0.075 U	0.052 U	0.059 U	0.43 U
1,1,2,2-Tetrachloroethane	mg/kg	0.7	1.6	94	23	34	34	34	68000	240	870	0.12 U	0.11 U	0.15 U	0.1 U	0.12 U	0.86 U
1,1,2-Trichloroethane	mg/kg	0.1	6.6	420	24	57	57	120	250000	840	920	0.058 U	0.057 U	0.075 U	0.052 U	0.059 U	0.43 U
1,1-Dichloroethane	mg/kg	50	15	890	430	2500	6000	14000	15000000	890	890	0.058 U	0.057 U	0.075 U	0.052 U	0.059 U	0.43 U
1,1-Dichloroethene	mg/kg	0.14	1.3	220	0.33	3.7	15	37	78000	570	570	0.058 U	0.057 U	0.075 U	0.052 U	0.059 U	0.43 U
1,2,4-Trichlorobenzene	mg/kg	4.2	1.8	1100	1100	34000	34000	34000	11000000	1100	1100	0.29 U	0.29 U	0.38 U	0.26 U	0.29 U	2.2 U
1,2-Dibromo-3-chloropropane (DBCP)	mg/kg	0.01		1.2	1.2	15	15	15	5900	1.2	1.2	0.29 U	0.29 U	0.38 U	0.26 U	0.29 U	2.2 U
1,2-Dibromoethane (Ethylene Dibromide)	mg/kg	0.02	0.02	0.5	3.6	5.8	5.8	9.8	18000	0.43	890	0.29 U	0.29 U	0.38 U	0.26 U	0.29 U	2.2 U
1,2-Dichlorobenzene	mg/kg	14	0.36	210	210	46000	46000	55000	44000000	210	210	0.12 U	0.11 U	0.15 U	0.1 U	0.12 U	0.86 U
1,2-Dichloroethane	mg/kg	0.1	7.2	380	11	21	33	74	150000	420	1200	0.058 U	0.057 U	0.075 U	0.052 U	0.059 U	0.43 U
1,2-Dichloropropane	mg/kg	0.1	5.8	320	7.4	30	51	120	120000	550	550	0.058 U	0.057 U	0.075 U	0.052 U	0.059 U	0.43 U
1,3-Dichlorobenzene	mg/kg	0.48	1.1	51	ID	ID	ID	ID	ID	170	170	0.12 U	0.11 U	0.15 U	0.1 U	0.12 U	0.86 U
1,4-Dichlorobenzene	mg/kg	1.7	0.29	140	100	260	260	340	570000	1900		0.12 U	0.11 U	0.15 U	0.1 U	0.12 U	0.86 U
2-Butanone (Methyl Ethyl Ketone)	mg/kg	760	44	27000	27000	35000	35000	36000	29000000	27000	27000	0.88 U	0.86 U	1.1 U	0.78 U	0.88 U	6.5 U
2-Hexanone	mg/kg	58		2500	1800	1300	1300	1500	1200000	2500	2500	2.9 U	2.9 U	3.8 U	2.6 U	2.9 U	22 U
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	mg/kg	100	ID	2700	2700	53000	53000	70000	60000000	2700	2700	2.9 U	2.9 U	3.8 U	2.6 U	2.9 U	22 U
Acetone	mg/kg	42	34	110000	110000	160000	160000	200000	170000000	73000	110000	0.88 U	0.86 U	1.1 U	0.78 U	0.88 U	6.5 U
Benzene	mg/kg	0.1	4	220	8.4	45	99	230	470000	400	400	0.058 U	0.057 U	0.075 U	0.052 U	0.059 U	0.43 U
Bromodichloromethane	mg/kg	1.6	ID	280	6.4	31	31	57	110000	490	1500	0.12 U	0.11 U	0.15 U	0.1 U	0.12 U	0.86 U
Bromoform	mg/kg	1.6	ID	870	770	3100	3100	3100	3600000	870	870	0.12 U	0.11 U	0.15 U	0.1 U	0.12 U	0.86 U
Bromomethane (Methyl Bromide)	mg/kg	0.58	0.7	1400	1.6	13	57	140	150000	1000	2200	0.29 U	0.29 U	0.38 U	0.26 U	0.29 U	2.2 U
Carbon disulfide	mg/kg	46	ID	280	140	1600	8000	19000	21000000	280	280	0.29 U	0.29 U	0.38 U	0.26 U	0.29 U	2.2 U
Carbon tetrachloride	mg/kg	0.1	0.9	92	0.99	12	34	79	170000	390	390	0.058 U	0.057 U	0.075 U	0.052 U	0.059 U	0.43 U
Chlorobenzene	mg/kg	2	0.94	260	220	920	1100	2100	2100000	260	260	0.058 U	0.057 U	0.075 U	0.052 U	0.059 U	0.43 U
Chloroethane	mg/kg	34	ID	950	950	36000	120000	280000	290000000	950	950	0.29 U	0.29 U	0.38 U	0.26 U	0.29 U	2.2 U
Chloroform (Trichloromethane)	mg/kg	1.6	3.4	1500	38	150	340	790	1600000	1500	1500	0.058 U	0.057 U	0.075 U	0.052 U	0.059 U	0.43 U
Chloromethane (Methyl Chloride)	mg/kg	22	ID	1100	10	120	1000	2500	2600000	1100	1100	0.29 U	0.29 U	0.38 U	0.26 U	0.29 U	2.2 U
cis-1,2-Dichloroethene	mg/kg	1.4	12	640	41	210	430	1000	1000000	640	640	0.058 U	0.057 U	0.075 U	0.052 U	0.059 U	0.43 U
cis-1,3-Dichloropropene	mg/kg											0.058 U	0.057 U	0.075 U	0.052 U	0.059 U	0.43 U
Cyclohexane	mg/kg											1.4 U	1.4 U	1.8 U	1.2 U	1.4 U	10 U
Dibromochloromethane	mg/kg	1.6	ID	360	21	80	80	98	160000	500	610	0.058 U	0.057 U	0.075 U	0.052 U	0.059 U	0.43 U
Dichlorodifluoromethane (CFC-12)	mg/kg	270	ID	1000	1700	63000	550000	1400000	1500000000	1000	1000	0.12 U	0.11 U	0.15 U	0.1 U	0.12 U	0.86 U
Ethylbenzene	mg/kg	1.5	0.36	140	140	2400	3100	6500	13000000	140	140	0.058 U	0.057 U	0.075 U	0.052 U	0.059 U	0.43 U
Isopropylbenzene	mg/kg	260	ID	390	390	2000	2000	3000	2600000	390	390	0.29 U	0.29 U	0.38 U	0.26 U	0.29 U	2.2 U
Methyl acetate	mg/kg											1.4 U	1.4 U	1.8 U	1.2 U	1.4 U	10 U
Methyl cyclohexane	mg/kg											1.4 U	1.4 U	1.8 U	1.2 U	1.4 U	0.2 J
Methyl Tert Butyl Ether	mg/kg	0.8	15	5900	5900	30000	41000	89000	88000000	5900	5900	0.29 U	0.29 U	0.38 U	0.26 U	0.29 U	2.2 U
Methylene chloride	mg/kg	0.1	19	2300	240	700	1700	4000	8300000	2300	2300	0.29 U	0.29 U	0.38 U	0.26 U	0.29 U	2.2 U
Styrene	mg/kg	2.7	2.2	270	520	3300	3300	4200	6900000	520	520	0.058 U	0.057 U	0.075 U	0.052 U	0.059 U	0.43 U
Tetrachloroethene	mg/kg	0.1	0.9	88	60	600	1400	3300	6800000	88	88	0.058 U	0.057 U	0.075 U	0.052 U	0.059 U	0.43 U
Toluene	mg/kg	16	2.8	250	250	3300	36000	36000	12000000	250	250	0.12 U	0.11 U	0.15 U	0.1 U	0.12 U	0.16 J
trans-1,2-Dichloroethene	mg/kg	2	30	1400	43	330	840	2000	2100000	1400	1400	0.058 U	0.057 U	0.075 U	0.052 U	0.059 U	0.43 U
trans-1,3-Dichloropropene	mg/kg											0.058 U	0.057 U	0.075 U	0.052 U	0.059 U	0.43 U
Trichloroethene	mg/kg	0.1	4	440	37	260	440	1100	2300000	500	500	0.016 J	0.014 J	0.075 U	0.052 U	0.059 U	12 ^U
Trichlorofluoromethane (CFC-11)	mg/kg	150		560	560	110000	140000000	140000000	1700000000	560	560	0.12 U	0.11 U	0.15 U	0.1 U	0.12 U	0.86 U
Trifluorotrichloroethane (Freon 113)	mg/kg	550	1.7	550	550	210000	890000	2100000	2300000000	550	550	0.29 U	0.29 U	0.38 U	0.26 U	0.29 U	2.2 U
Vinyl chloride	mg/kg	0.04	0.3	20	2.8	29	170	420	890000	34	490	0.12 U	0.11 U	0.15 U	0.1 U	0.12 U	0.86 U
Xylene (total)	mg/kg	5.6	0.7	150	150	54000	65000	130000	130000000	150	150	0.18 U	0.17 U	0.23 U	0.16 U	0.18 U	0.28 J

Notes:

⁽¹⁾ Cleanup criteria identified by MDEQ RRD Op Memo No. 1, updated 1/23/2006, pursuant to 1994 PA 451 as amended.

U - Not present at or above the associated value.

J - Estimated concentration.

UJ - Estimated reporting limit.

Value exceeds referenced Part 201 Criteria (i.e. a, b, etc.)

ID - Insufficient data to develop criterion

NLL - Hazardous substance is not likely to leach under most soil conditions

NLV - Hazardous substance is not likely to volatilize under most conditions

TABLE 3

SUMMARY OF SOIL SAMPLE RESULTS COMPARED TO MICHIGAN ACT 451, PART 201 INDUSTRIAL CRITERIA
GENERAL MOTORS CORPORATION
GRAND RAPIDS METAL PLANT
WYOMING, MICHIGAN

Sample Location	Michigan Act 451, Part 201 Industrial and Commercial II, III, IV ⁽¹⁾											SB2-04	SB2-04	SB2-04	SB2-04	SB2-04	SB2-04
Sample Identification	Industrial and Commercial	Groundwater Surface Water	Groundwater Contact	Soil Volatilization to Indoor Air	Infinite Source Volatilization	Finite VSIC for 5 Meter Source	Finite VSIC for 2 Meter Source	Particulate Soil Inhalation	Direct Contact Industrial and Commercial II	Soil Saturation Concentration Screening	S-17360-071404-DCR-090	S-17360-071404-DCR-091	S-17360-071404-DCR-092	S-17360-071404-DCR-093	S-17360-071404-DCR-094	S-17360-071404-DCR-095	
Sample Date	Drinking Water	Interface Protection	Protection	Inhalation	Inhalation	Thickness	Thickness				7/14/2004	7/14/2004	7/14/2004	7/14/2004	7/14/2004	7/14/2004	
Sample Depth											2-4 ft BGS	4-6 ft BGS	6-8 ft BGS	8-10 ft BGS	10-12 ft BGS	12-14 ft BGS	
Sample Type	a	b	c	d	e	f	g	h	i	j							
Units																	
Volatile Organic Compounds																	
1,1,1-Trichloroethane	mg/kg	4	4	460	460	4500	15000	31000	29000000	460	460	0.058 U	0.061 U	0.059 U	0.058 U	0.061 U	0.055 U
1,1,2,2-Tetrachloroethane	mg/kg	0.7	1.6	94	23	34	34	34	68000	240	870	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.11 U
1,1,2-Trichloroethane	mg/kg	0.1	6.6	420	24	57	57	120	250000	840	920	0.058 U	0.061 U	0.059 U	0.058 U	0.061 U	0.055 U
1,1-Dichloroethane	mg/kg	50	15	890	430	2500	6000	14000	15000000	890	890	0.058 U	0.061 U	0.059 U	0.058 U	0.061 U	0.055 U
1,1-Dichloroethene	mg/kg	0.14	1.3	220	0.33	3.7	15	37	78000	570	570	0.058 U	0.061 U	0.059 U	0.058 U	0.061 U	0.055 U
1,2,4-Trichlorobenzene	mg/kg	4.2	1.8	1100	1100	34000	34000	34000	11000000	1100	1100	0.29 U	0.31 U	0.29 U	0.29 U	0.31 U	0.27 U
1,2-Dibromo-3-chloropropane (DBCP)	mg/kg	0.01		1.2	1.2	15	15	15	5900	1.2	1.2	0.29 U	0.31 U	0.29 U	0.29 U	0.31 U	0.27 U
1,2-Dibromoethane (Ethylene Dibromide)	mg/kg	0.02	0.02	0.5	3.6	5.8	5.8	9.8	18000	0.43	890	0.29 U	0.31 U	0.29 U	0.29 U	0.31 U	0.27 U
1,2-Dichlorobenzene	mg/kg	14	0.36	210	210	46000	46000	55000	44000000	210	210	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.11 U
1,2-Dichloroethane	mg/kg	0.1	7.2	380	11	21	33	74	150000	420	1200	0.058 U	0.061 U	0.059 U	0.058 U	0.061 U	0.055 U
1,2-Dichloropropane	mg/kg	0.1	5.8	320	7.4	30	51	120	120000	550	550	0.058 U	0.061 U	0.059 U	0.058 U	0.061 U	0.055 U
1,3-Dichlorobenzene	mg/kg	0.48	1.1	51	ID	ID	ID	ID	ID	170	170	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.11 U
1,4-Dichlorobenzene	mg/kg	1.7	0.29	140	100	260	260	340	570000	1900		0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.11 U
2-Butanone (Methyl Ethyl Ketone)	mg/kg	760	44	27000	27000	35000	35000	36000	29000000	27000	27000	0.87 U	0.92 U	0.88 U	0.88 U	0.92 U	0.82 U
2-Hexanone	mg/kg	58		2500	1800	1300	1300	1500	1200000	2500	2500	2.9 U	3.1 U	2.9 U	2.9 U	3.1 U	2.7 U
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	mg/kg	100	ID	2700	2700	53000	53000	70000	60000000	2700	2700	2.9 U	3.1 U	2.9 U	2.9 U	3.1 U	2.7 U
Acetone	mg/kg	42	34	110000	110000	160000	160000	200000	170000000	73000	110000	0.87 U	0.92 U	0.88 U	0.88 U	0.92 U	0.82 U
Benzene	mg/kg	0.1	4	220	8.4	45	99	230	470000	400	400	0.058 U	0.061 U	0.059 U	0.058 U	0.061 U	0.055 U
Bromodichloromethane	mg/kg	1.6	ID	280	6.4	31	31	57	110000	490	1500	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.11 U
Bromoform	mg/kg	1.6	ID	870	770	3100	3100	3100	3600000	870	870	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.11 U
Bromomethane (Methyl Bromide)	mg/kg	0.58	0.7	1400	1.6	13	57	140	150000	1000	2200	0.29 U	0.31 U	0.29 U	0.29 U	0.31 U	0.27 U
Carbon disulfide	mg/kg	46	ID	280	140	1600	8000	19000	21000000	280	280	0.29 U	0.31 U	0.29 U	0.29 U	0.31 U	0.27 U
Carbon tetrachloride	mg/kg	0.1	0.9	92	0.99	12	34	79	170000	390	390	0.058 U	0.061 U	0.059 U	0.058 U	0.061 U	0.055 U
Chlorobenzene	mg/kg	2	0.94	260	220	920	1100	2100	2100000	260	260	0.058 U	0.061 U	0.059 U	0.058 U	0.061 U	0.055 U
Chloroethane	mg/kg	34	ID	950	950	36000	120000	280000	290000000	950	950	0.29 U	0.31 U	0.29 U	0.29 U	0.31 U	0.27 U
Chloroform (Trichloromethane)	mg/kg	1.6	3.4	1500	38	150	340	790	1600000	1500	1500	0.058 U	0.061 U	0.059 U	0.058 U	0.061 U	0.055 U
Chloromethane (Methyl Chloride)	mg/kg	22	ID	1100	10	120	1000	2500	2600000	1100	1100	0.29 U	0.31 U	0.29 U	0.29 U	0.31 U	0.27 U
cis-1,2-Dichloroethene	mg/kg	1.4	12	640	41	210	430	1000	1000000	640	640	0.058 U	0.061 U	0.059 U	0.058 U	0.061 U	0.055 U
cis-1,3-Dichloropropene	mg/kg											0.058 U	0.061 U	0.059 U	0.058 U	0.061 U	0.055 U
Cyclohexane	mg/kg											1.4 U	1.5 U	1.4 U	1.4 U	1.5 U	1.3 U
Dibromochloromethane	mg/kg	1.6	ID	360	21	80	80	98	160000	500	610	0.058 U	0.061 U	0.059 U	0.058 U	0.061 U	0.055 U
Dichlorodifluoromethane (CFC-12)	mg/kg	270	ID	1000	1700	63000	550000	1400000	1500000000	1000	1000	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.11 U
Ethylbenzene	mg/kg	1.5	0.36	140	140	2400	3100	6500	13000000	140	140	0.058 U	0.061 U	0.059 U	0.058 U	0.061 U	0.055 U
Isopropylbenzene	mg/kg	260	ID	390	390	2000	2000	3000	2600000	390	390	0.29 U	0.31 U	0.29 U	0.29 U	0.31 U	0.27 U
Methyl acetate	mg/kg											1.4 U	1.5 U	1.4 U	1.4 U	1.5 U	1.3 U
Methyl cyclohexane	mg/kg											1.4 U	1.5 U	1.4 U	1.4 U	1.5 U	1.3 U
Methyl Tert Butyl Ether	mg/kg	0.8	15	5900	5900	30000	41000	89000	88000000	5900	5900	0.29 U	0.31 U	0.29 U	0.29 U	0.31 U	0.27 U
Methylene chloride	mg/kg	0.1	19	2300	240	700	1700	4000	8300000	2300	2300	0.29 U	0.31 U	0.29 U	0.29 U	0.31 U	0.27 U
Styrene	mg/kg	2.7	2.2	270	520	3300	3300	4200	6900000	520	520	0.058 U	0.061 U	0.059 U	0.058 U	0.061 U	0.055 U
Tetrachloroethene	mg/kg	0.1	0.9	88	60	600	1400	3300	6800000	88	88	0.058 U	0.061 U	0.059 U	0.058 U	0.061 U	0.055 U
Toluene	mg/kg	16	2.8	250	250	3300	36000	36000	12000000	250	250	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.11 U
trans-1,2-Dichloroethene	mg/kg	2	30	1400	43	330	840	2000	2100000	1400	1400	0.058 U	0.061 U	0.059 U	0.058 U	0.061 U	0.055 U
trans-1,3-Dichloropropene	mg/kg											0.058 U	0.061 U	0.059 U	0.058 U	0.061 U	0.055 U
Trichloroethene	mg/kg	0.1	4	440	37	260	440	1100	2300000	500	500	0.058 U	0.061 U	0.059 U	0.04 J	0.022 J	0.022 J
Trichlorofluoromethane (CFC-11)	mg/kg	150		560	560	110000	140000000	140000000	1700000000	560	560	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.11 U
Trifluorotrichloroethane (Freon 113)	mg/kg	550	1.7	550	550	210000	890000	2100000	2300000000	550	550	0.29 U	0.31 U	0.29 U	0.29 U	0.31 U	0.27 U
Vinyl chloride	mg/kg	0.04	0.3	20	2.8	29	170	420	890000	34	490	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.11 U
Xylene (total)	mg/kg	5.6	0.7	150	150	54000	65000	130000	130000000	150	150	0.17 U	0.18 U	0.18 U	0.18 U	0.18 U	0.16 U

Notes:

⁽¹⁾ Cleanup criteria identified by MDEQ RRD Op Memo No. 1, updated 1/23/2006, pursuant to 1994 PA 451 as amended.

U - Not present at or above the associated value.

J - Estimated concentration.

UJ - Estimated reporting limit.

Value exceeds referenced Part 201 Criteria (i.e. a, b, etc.)

ID - Insufficient data to develop criterion

NLL - Hazardous substance is not likely to leach under most soil conditions

NLV - Hazardous substance is not likely to volatilize under most conditions

TABLE 3

SUMMARY OF SOIL SAMPLE RESULTS COMPARED TO MICHIGAN ACT 451, PART 201 INDUSTRIAL CRITERIA
GENERAL MOTORS CORPORATION
GRAND RAPIDS METAL PLANT
WYOMING, MICHIGAN

Sample Location	Michigan Act 451, Part 201 Industrial and Commercial II, III, IV ⁽¹⁾											SB2-04	SB2-04	SB2-04	SB2-04	SB3-04	SB3-04
Sample Identification	Industrial and Commercial	Groundwater Surface Water	Groundwater Contact	Soil Volatilization to Indoor Air	Infinite Source Volatile Soil Inhalation	Finite VSIC for 5 Meter Source Thickness	Finite VSIC for 2 Meter Source Thickness	Particulate Soil Inhalation	Direct Contact Industrial and Commercial II	Soil Saturation Concentration Screening	S-17360-071404-DCR-096	S-17360-071404-DCR-097	S-17360-071404-DCR-098	S-17360-071404-DCR-099	S-17360-071404-DCR-078	S-17360-071404-DCR-079	
Sample Date	Drinking Water	Interface Protection	Protection	Inhalation	Inhalation	Thickness	Thickness				7/14/2004	7/14/2004	7/14/2004	7/14/2004	7/14/2004	7/14/2004	
Sample Depth											14-16 ft BGS	16-18 ft BGS	18-20 ft BGS	20-22 ft BGS	0-2 ft BGS	2-4 ft BGS	
Sample Type	a	b	c	d	e	f	g	h	i	j							
Units																	
Volatile Organic Compounds																	
1,1,1-Trichloroethane	mg/kg	4	4	460	460	4500	15000	31000	29000000	460	460	0.057 U	0.055 U	0.059 U	0.055 U	0.11 U	0.063 U
1,1,2,2-Tetrachloroethane	mg/kg	0.7	1.6	94	23	34	34	34	68000	240	870	0.11 U	0.11 U	0.12 U	0.11 U	0.22 U	0.13 U
1,1,2-Trichloroethane	mg/kg	0.1	6.6	420	24	57	57	120	250000	840	920	0.057 U	0.055 U	0.059 U	0.055 U	0.11 U	0.063 U
1,1-Dichloroethane	mg/kg	50	15	890	430	2500	6000	14000	15000000	890	890	0.057 U	0.055 U	0.059 U	0.055 U	0.11 U	0.063 U
1,1-Dichloroethene	mg/kg	0.14	1.3	220	0.33	3.7	15	37	78000	570	570	0.057 U	0.055 U	0.059 U	0.055 U	0.11 U	0.063 U
1,2,4-Trichlorobenzene	mg/kg	4.2	1.8	1100	1100	34000	34000	34000	11000000	1100	1100	0.29 U	0.28 U	0.3 U	0.28 U	0.54 U	0.32 U
1,2-Dibromo-3-chloropropane (DBCP)	mg/kg	0.01		1.2	1.2	15	15	15	5900	1.2	1.2	0.29 U	0.28 U	0.3 U	0.28 U	0.54 U	0.32 U
1,2-Dibromoethane (Ethylene Dibromide)	mg/kg	0.02	0.02	0.5	3.6	5.8	5.8	9.8	18000	0.43	890	0.29 U	0.28 U	0.3 U	0.28 U	0.54 U	0.32 U
1,2-Dichlorobenzene	mg/kg	14	0.36	210	210	46000	46000	55000	44000000	210	210	0.11 U	0.11 U	0.12 U	0.11 U	0.22 U	0.13 U
1,2-Dichloroethane	mg/kg	0.1	7.2	380	11	21	33	74	150000	420	1200	0.057 U	0.055 U	0.059 U	0.055 U	0.11 U	0.063 U
1,2-Dichloropropane	mg/kg	0.1	5.8	320	7.4	30	51	120	120000	550	550	0.057 U	0.055 U	0.059 U	0.055 U	0.11 U	0.063 U
1,3-Dichlorobenzene	mg/kg	0.48	1.1	51	ID	ID	ID	ID	ID	170	170	0.11 U	0.11 U	0.12 U	0.11 U	0.22 U	0.13 U
1,4-Dichlorobenzene	mg/kg	1.7	0.29	140	100	260	260	340	570000	1900		0.11 U	0.11 U	0.12 U	0.11 U	0.22 U	0.13 U
2-Butanone (Methyl Ethyl Ketone)	mg/kg	760	44	27000	27000	35000	35000	36000	29000000	27000	27000	0.86 U	0.83 U	0.89 U	0.83 U	1.6 U	0.95 U
2-Hexanone	mg/kg	58		2500	1800	1300	1300	1500	1200000	2500	2500	2.9 U	2.8 U	3 U	2.8 U	5.4 U	3.2 U
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	mg/kg	100	ID	2700	2700	53000	53000	70000	60000000	2700	2700	2.9 U	2.8 U	3 U	2.8 U	5.4 U	3.2 U
Acetone	mg/kg	42	34	110000	110000	160000	160000	200000	170000000	73000	110000	0.86 U	0.83 U	0.89 U	0.83 U	1.6 U	0.95 U
Benzene	mg/kg	0.1	4	220	8.4	45	99	230	470000	400	400	0.057 U	0.055 U	0.059 U	0.055 U	0.11 U	0.063 U
Bromodichloromethane	mg/kg	1.6	ID	280	6.4	31	31	57	110000	490	1500	0.11 U	0.11 U	0.12 U	0.11 U	0.22 U	0.13 U
Bromoform	mg/kg	1.6	ID	870	770	3100	3100	3100	3600000	870	870	0.11 U	0.11 U	0.12 U	0.11 U	0.22 U	0.13 U
Bromomethane (Methyl Bromide)	mg/kg	0.58	0.7	1400	1.6	13	57	140	150000	1000	2200	0.29 U	0.28 U	0.3 U	0.28 U	0.54 U	0.32 U
Carbon disulfide	mg/kg	46	ID	280	140	1600	8000	19000	21000000	280	280	0.29 U	0.28 U	0.3 U	0.28 U	0.54 U	0.32 U
Carbon tetrachloride	mg/kg	0.1	0.9	92	0.99	12	34	79	170000	390	390	0.057 U	0.055 U	0.059 U	0.055 U	0.11 U	0.063 U
Chlorobenzene	mg/kg	2	0.94	260	220	920	1100	2100	2100000	260	260	0.057 U	0.055 U	0.059 U	0.055 U	0.11 U	0.063 U
Chloroethane	mg/kg	34	ID	950	950	36000	120000	280000	290000000	950	950	0.29 U	0.28 U	0.3 U	0.28 U	0.54 U	0.32 U
Chloroform (Trichloromethane)	mg/kg	1.6	3.4	1500	38	150	340	790	1600000	1500	1500	0.057 U	0.055 U	0.059 U	0.055 U	0.11 U	0.063 U
Chloromethane (Methyl Chloride)	mg/kg	22	ID	1100	10	120	1000	2500	2600000	1100	1100	0.29 U	0.28 U	0.3 U	0.28 U	0.54 U	0.32 U
cis-1,2-Dichloroethene	mg/kg	1.4	12	640	41	210	430	1000	1000000	640	640	0.057 U	0.055 U	0.059 U	0.055 U	0.11 U	0.063 U
cis-1,3-Dichloropropene	mg/kg											0.057 U	0.055 U	0.059 U	0.055 U	0.11 U	0.063 U
Cyclohexane	mg/kg											1.4 U	1.3 U	1.4 U	1.3 U	0.018 J	1.5 U
Dibromochloromethane	mg/kg	1.6	ID	360	21	80	80	98	160000	500	610	0.057 U	0.055 U	0.059 U	0.055 U	0.11 U	0.063 U
Dichlorodifluoromethane (CFC-12)	mg/kg	270	ID	1000	1700	63000	550000	1400000	1500000000	1000	1000	0.11 U	0.11 U	0.12 U	0.11 U	0.22 U	0.13 U
Ethylbenzene	mg/kg	1.5	0.36	140	140	2400	3100	6500	13000000	140	140	0.057 U	0.055 U	0.059 U	0.055 U	0.11 U	0.063 U
Isopropylbenzene	mg/kg	260	ID	390	390	2000	2000	3000	2600000	390	390	0.29 U	0.28 U	0.3 U	0.28 U	0.54 U	0.32 U
Methyl acetate	mg/kg											1.4 U	1.3 U	1.4 U	1.3 U	2.6 U	1.5 U
Methyl cyclohexane	mg/kg											1.4 U	1.3 U	1.4 U	1.3 U	0.1 J	1.5 U
Methyl Tert Butyl Ether	mg/kg	0.8	15	5900	5900	30000	41000	89000	88000000	5900	5900	0.29 U	0.28 U	0.3 U	0.28 U	0.54 U	0.32 U
Methylene chloride	mg/kg	0.1	19	2300	240	700	1700	4000	8300000	2300	2300	0.29 U	0.28 U	0.3 U	0.28 U	0.54 U	0.32 U
Styrene	mg/kg	2.7	2.2	270	520	3300	3300	4200	6900000	520	520	0.057 U	0.055 U	0.059 U	0.055 U	0.11 U	0.063 U
Tetrachloroethene	mg/kg	0.1	0.9	88	60	600	1400	3300	6800000	88	88	0.057 U	0.055 U	0.059 U	0.055 U	0.11 U	0.063 U
Toluene	mg/kg	16	2.8	250	250	3300	36000	36000	12000000	250	250	0.11 U	0.11 U	0.12 U	0.11 U	0.042 J	0.13 U
trans-1,2-Dichloroethene	mg/kg	2	30	1400	43	330	840	2000	2100000	1400	1400	0.057 U	0.055 U	0.059 U	0.055 U	0.11 U	0.063 U
trans-1,3-Dichloropropene	mg/kg											0.057 U	0.055 U	0.059 U	0.055 U	0.11 U	0.063 U
Trichloroethene	mg/kg	0.1	4	440	37	260	440	1100	2300000	500	500	0.087	0.063	0.027 J	0.046 J	2.8*	0.063 U
Trichlorofluoromethane (CFC-11)	mg/kg	150		560	560	110000	140000000	140000000	1700000000	560	560	0.11 U	0.11 U	0.12 U	0.11 U	0.22 U	0.13 U
Trifluorotrichloroethane (Freon 113)	mg/kg	550	1.7	550	550	210000	890000	2100000	2300000000	550	550	0.29 U	0.28 U	0.3 U	0.28 U	0.54 U	0.32 U
Vinyl chloride	mg/kg	0.04	0.3	20	2.8	29	170	420	890000	34	490	0.11 U	0.11 U	0.12 U	0.11 U	0.22 U	0.13 U
Xylene (total)	mg/kg	5.6	0.7	150	150	54000	65000	130000	130000000	150	150	0.17 U	0.17 U	0.18 U	0.17 U	0.084 J	0.19 U

Notes:

⁽¹⁾ Cleanup criteria identified by MDEQ RRD Op Memo No. 1, updated 1/23/2006, pursuant to 1994 PA 451 as amended.

U - Not present at or above the associated value.

J - Estimated concentration.

UJ - Estimated reporting limit.

Value exceeds referenced Part 201 Criteria (i.e. a, b, etc.)

ID - Insufficient data to develop criterion

NLL - Hazardous substance is not likely to leach under most soil conditions

NLV - Hazardous substance is not likely to volatilize under most conditions

TABLE 3

SUMMARY OF SOIL SAMPLE RESULTS COMPARED TO MICHIGAN ACT 451, PART 201 INDUSTRIAL CRITERIA
GENERAL MOTORS CORPORATION
GRAND RAPIDS METAL PLANT
WYOMING, MICHIGAN

Sample Location	Michigan Act 451, Part 201 Industrial and Commercial II, III, IV ⁽¹⁾											SB3-04	SB3-04	SB3-04	SB3-04	SB3-04	SB3-04
Sample Identification	Industrial and Commercial	Groundwater Surface Water	Groundwater Contact	Soil Volatilization to Indoor Air	Infinite Source	Finite VSIC for 5 Meter Source	Finite VSIC for 2 Meter Source	Particulate Soil Inhalation	Direct Contact Industrial and Commercial II	Soil Saturation Concentration Screening	S-17360-071404-DCR-080	S-17360-071404-DCR-081	S-17360-071404-DCR-082	S-17360-071404-DCR-083	S-17360-071404-DCR-084	S-17360-071404-DCR-085	
Sample Date	Drinking Water	Interface Protection	Protection	Inhalation	Inhalation	Thickness	Thickness				7/14/2004	7/14/2004	7/14/2004	7/14/2004	7/14/2004	7/14/2004	
Sample Depth											4-6 ft BGS	6-8 ft BGS	8-10 ft BGS	10-12 ft BGS	12-14 ft BGS	14-16 ft BGS	
Sample Type	a	b	c	d	e	f	g	h	i	j							
	Units																
Volatile Organic Compounds																	
1,1,1-Trichloroethane	mg/kg	4	4	460	460	4500	15000	31000	29000000	460	460	0.059 U	0.079 U	0.053 U	0.051 U	0.05 U	0.053 U
1,1,2,2-Tetrachloroethane	mg/kg	0.7	1.6	94	23	34	34	34	68000	240	870	0.12 U	0.16 U	0.11 U	0.1 U	0.1 U	0.11 U
1,1,2-Trichloroethane	mg/kg	0.1	6.6	420	24	57	57	120	250000	840	920	0.059 U	0.079 U	0.053 U	0.051 U	0.05 U	0.053 U
1,1-Dichloroethane	mg/kg	50	15	890	430	2500	6000	14000	15000000	890	890	0.059 U	0.079 U	0.053 U	0.051 U	0.05 U	0.053 U
1,1-Dichloroethene	mg/kg	0.14	1.3	220	0.33	3.7	15	37	78000	570	570	0.059 U	0.079 U	0.053 U	0.051 U	0.05 U	0.053 U
1,2,4-Trichlorobenzene	mg/kg	4.2	1.8	1100	1100	34000	34000	34000	11000000	1100	1100	0.3 U	0.4 U	0.27 U	0.26 U	0.25 U	0.26 U
1,2-Dibromo-3-chloropropane (DBCP)	mg/kg	0.01		1.2	1.2	15	15	15	5900	1.2	1.2	0.3 U	0.4 U	0.27 U	0.26 U	0.25 U	0.26 U
1,2-Dibromoethane (Ethylene Dibromide)	mg/kg	0.02	0.02	0.5	3.6	5.8	5.8	9.8	18000	0.43	890	0.3 U	0.4 U	0.27 U	0.26 U	0.25 U	0.26 U
1,2-Dichlorobenzene	mg/kg	14	0.36	210	210	46000	46000	55000	44000000	210	210	0.12 U	0.16 U	0.11 U	0.1 U	0.1 U	0.11 U
1,2-Dichloroethane	mg/kg	0.1	7.2	380	11	21	33	74	150000	420	1200	0.059 U	0.079 U	0.053 U	0.051 U	0.05 U	0.053 U
1,2-Dichloropropane	mg/kg	0.1	5.8	320	7.4	30	51	120	120000	550	550	0.059 U	0.079 U	0.053 U	0.051 U	0.05 U	0.053 U
1,3-Dichlorobenzene	mg/kg	0.48	1.1	51	ID	ID	ID	ID	ID	170	170	0.12 U	0.16 U	0.11 U	0.1 U	0.1 U	0.11 U
1,4-Dichlorobenzene	mg/kg	1.7	0.29	140	100	260	260	340	570000	1900		0.12 U	0.16 U	0.11 U	0.1 U	0.1 U	0.11 U
2-Butanone (Methyl Ethyl Ketone)	mg/kg	760	44	27000	27000	35000	35000	36000	29000000	27000	27000	0.89 U	1.2 U	0.8 U	0.77 U	0.75 U	0.79 U
2-Hexanone	mg/kg	58		2500	1800	1300	1300	1500	1200000	2500	2500	3 U	4 U	2.7 U	2.6 U	2.5 U	2.6 U
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	mg/kg	100	ID	2700	2700	53000	53000	70000	60000000	2700	2700	3 U	4 U	2.7 U	2.6 U	2.5 U	2.6 U
Acetone	mg/kg	42	34	110000	110000	160000	160000	200000	170000000	73000	110000	0.89 U	1.2 U	0.8 U	0.77 U	0.75 U	0.79 U
Benzene	mg/kg	0.1	4	220	8.4	45	99	230	470000	400	400	0.059 U	0.079 U	0.053 U	0.051 U	0.05 U	0.053 U
Bromodichloromethane	mg/kg	1.6	ID	280	6.4	31	31	57	110000	490	1500	0.12 U	0.16 U	0.11 U	0.1 U	0.1 U	0.11 U
Bromoform	mg/kg	1.6	ID	870	770	3100	3100	3100	3600000	870	870	0.12 U	0.16 U	0.11 U	0.1 U	0.1 U	0.11 U
Bromomethane (Methyl Bromide)	mg/kg	0.58	0.7	1400	1.6	13	57	140	150000	1000	2200	0.3 U	0.4 U	0.27 U	0.26 U	0.25 U	0.26 U
Carbon disulfide	mg/kg	46	ID	280	140	1600	8000	19000	21000000	280	280	0.3 U	0.4 U	0.27 U	0.26 U	0.25 U	0.26 U
Carbon tetrachloride	mg/kg	0.1	0.9	92	0.99	12	34	79	170000	390	390	0.059 U	0.079 U	0.053 U	0.051 U	0.05 U	0.053 U
Chlorobenzene	mg/kg	2	0.94	260	220	920	1100	2100	2100000	260	260	0.059 U	0.079 U	0.053 U	0.051 U	0.05 U	0.053 U
Chloroethane	mg/kg	34	ID	950	950	36000	120000	280000	290000000	950	950	0.3 U	0.4 U	0.27 U	0.26 U	0.25 U	0.26 U
Chloroform (Trichloromethane)	mg/kg	1.6	3.4	1500	38	150	340	790	1600000	1500	1500	0.059 U	0.079 U	0.053 U	0.051 U	0.05 U	0.053 U
Chloromethane (Methyl Chloride)	mg/kg	22	ID	1100	10	120	1000	2500	2600000	1100	1100	0.3 U	0.4 U	0.27 U	0.26 U	0.25 U	0.26 U
cis-1,2-Dichloroethene	mg/kg	1.4	12	640	41	210	430	1000	1000000	640	640	0.059 U	0.079 U	0.053 U	0.051 U	0.05 U	0.053 U
cis-1,3-Dichloropropene	mg/kg											0.059 U	0.079 U	0.053 U	0.051 U	0.05 U	0.053 U
Cyclohexane	mg/kg											1.4 U	1.9 U	1.3 U	1.2 U	1.2 U	1.3 U
Dibromochloromethane	mg/kg	1.6	ID	360	21	80	80	98	160000	500	610	0.059 U	0.079 U	0.053 U	0.051 U	0.05 U	0.053 U
Dichlorodifluoromethane (CFC-12)	mg/kg	270	ID	1000	1700	63000	550000	1400000	1500000000	1000	1000	0.12 U	0.16 U	0.11 U	0.1 U	0.1 U	0.11 U
Ethylbenzene	mg/kg	1.5	0.36	140	140	2400	3100	6500	13000000	140	140	0.059 U	0.079 U	0.053 U	0.051 U	0.05 U	0.053 U
Isopropylbenzene	mg/kg	260	ID	390	390	2000	2000	3000	2600000	390	390	0.3 U	0.4 U	0.27 U	0.26 U	0.25 U	0.26 U
Methyl acetate	mg/kg											1.4 U	1.9 U	1.3 U	1.2 U	1.2 U	1.3 U
Methyl cyclohexane	mg/kg											1.4 U	1.9 U	1.3 U	1.2 U	1.2 U	1.3 U
Methyl Tert Butyl Ether	mg/kg	0.8	15	5900	5900	30000	41000	89000	88000000	5900	5900	0.3 U	0.4 U	0.27 U	0.26 U	0.25 U	0.26 U
Methylene chloride	mg/kg	0.1	19	2300	240	700	1700	4000	8300000	2300	2300	0.3 U	0.4 U	0.27 U	0.26 U	0.25 U	0.26 U
Styrene	mg/kg	2.7	2.2	270	520	3300	3300	4200	6900000	520	520	0.059 U	0.079 U	0.053 U	0.051 U	0.05 U	0.053 U
Tetrachloroethene	mg/kg	0.1	0.9	88	60	600	1400	3300	6800000	88	88	0.059 U	0.079 U	0.053 U	0.051 U	0.05 U	0.053 U
Toluene	mg/kg	16	2.8	250	250	3300	36000	36000	12000000	250	250	0.12 U	0.16 U	0.11 U	0.1 U	0.1 U	0.11 U
trans-1,2-Dichloroethene	mg/kg	2	30	1400	43	330	840	2000	2100000	1400	1400	0.059 U	0.079 U	0.053 U	0.051 U	0.05 U	0.053 U
trans-1,3-Dichloropropene	mg/kg											0.059 U	0.079 U	0.053 U	0.051 U	0.05 U	0.053 U
Trichloroethene	mg/kg	0.1	4	440	37	260	440	1100	2300000	500	500	0.02 J	0.079 U	0.078	0.024 J	0.04 J	0.031 J
Trichlorofluoromethane (CFC-11)	mg/kg	150		560	560	110000	140000000	140000000	1700000000	560	560	0.12 U	0.16 U	0.11 U	0.1 U	0.1 U	0.11 U
Trifluorotrichloroethane (Freon 113)	mg/kg	550	1.7	550	550	210000	890000	2100000	2300000000	550	550	0.3 U	0.4 U	0.27 U	0.26 U	0.25 U	0.26 U
Vinyl chloride	mg/kg	0.04	0.3	20	2.8	29	170	420	890000	34	490	0.12 U	0.16 U	0.11 U	0.1 U	0.1 U	0.11 U
Xylene (total)	mg/kg	5.6	0.7	150	150	54000	65000	130000	130000000	150	150	0.18 U	0.24 U	0.16 U	0.15 U	0.15 U	0.16 U

Notes:

⁽¹⁾ Cleanup criteria identified by MDEQ RRD Op Memo No. 1, updated 1/23/2006, pursuant to 1994 PA 451 as amended.

U - Not present at or above the associated value.

J - Estimated concentration.

UJ - Estimated reporting limit.

Value exceeds referenced Part 201 Criteria (i.e. a, b, etc.)

ID - Insufficient data to develop criterion

NLL - Hazardous substance is not likely to leach under most soil conditions

NLV - Hazardous substance is not likely to volatilize under most conditions

TABLE 3

SUMMARY OF SOIL SAMPLE RESULTS COMPARED TO MICHIGAN ACT 451, PART 201 INDUSTRIAL CRITERIA
GENERAL MOTORS CORPORATION
GRAND RAPIDS METAL PLANT
WYOMING, MICHIGAN

Sample Location	Michigan Act 451, Part 201 Industrial and Commercial II, III, IV ⁽¹⁾											SB3-04	SB3-04	SB3-04	SB4-04	SB4-04	SB4-04
Sample Identification	Industrial and Commercial	Groundwater Surface Water	Groundwater Contact	Soil Volatilization to Indoor Air	Infinite Source Volatile Soil	Finite VSIC for 5 Meter Source	Finite VSIC for 2 Meter Source	Particulate Soil Inhalation	Direct Contact Industrial and Commercial II	Soil Saturation Concentration	S-17360-071404-DCR-086 7/14/2004 16-18 ft BGS	S-17360-071404-DCR-087 7/14/2004 18-20 ft BGS	S-17360-071404-DCR-088 7/14/2004 20-22 ft BGS	S-17360-071504-DCR-111 7/15/2004 0-2 ft BGS	S-17360-071504-DCR-112 7/15/2004 2-4 ft BGS	S-17360-071504-DCR-113 7/15/2004 4-6 ft BGS	
Sample Date	Drinking Water	Interface Protection	Protection	Inhalation	Inhalation	Thickness	Thickness										
Sample Depth	a	b	c	d	e	f	g	h	i	j							
Sample Type	Units																
Volatile Organic Compounds																	
1,1,1-Trichloroethane	mg/kg	4	4	460	460	4500	15000	31000	29000000	460	460	0.058 U	0.055 U	0.053 U	0.066 U	0.076 U	0.082 U
1,1,2,2-Tetrachloroethane	mg/kg	0.7	1.6	94	23	34	34	34	68000	240	870	0.12 U	0.11 U	0.11 U	0.13 U	0.15 U	0.16 U
1,1,2-Trichloroethane	mg/kg	0.1	6.6	420	24	57	57	120	250000	840	920	0.058 U	0.055 U	0.053 U	0.066 U	0.076 U	0.082 U
1,1-Dichloroethane	mg/kg	50	15	890	430	2500	6000	14000	15000000	890	890	0.058 U	0.055 U	0.053 U	0.066 U	0.076 U	0.082 U
1,1-Dichloroethene	mg/kg	0.14	1.3	220	0.33	3.7	15	37	78000	570	570	0.058 U	0.055 U	0.053 U	0.066 U	0.076 U	0.082 U
1,2,4-Trichlorobenzene	mg/kg	4.2	1.8	1100	1100	34000	34000	34000	11000000	1100	1100	0.29 U	0.27 U	0.26 U	0.33 U	0.38 U	0.41 U
1,2-Dibromo-3-chloropropane (DBCP)	mg/kg	0.01		1.2	1.2	15	15	15	5900	1.2	1.2	0.29 U	0.27 U	0.26 U	0.33 U	0.38 U	0.41 U
1,2-Dibromoethane (Ethylene Dibromide)	mg/kg	0.02	0.02	0.5	3.6	5.8	5.8	9.8	18000	0.43	890	0.29 U	0.27 U	0.26 U	0.33 U	0.38 U	0.41 U
1,2-Dichlorobenzene	mg/kg	14	0.36	210	210	46000	46000	55000	44000000	210	210	0.12 U	0.11 U	0.11 U	0.13 U	0.15 U	0.16 U
1,2-Dichloroethane	mg/kg	0.1	7.2	380	11	21	33	74	150000	420	1200	0.058 U	0.055 U	0.053 U	0.066 U	0.076 U	0.082 U
1,2-Dichloropropane	mg/kg	0.1	5.8	320	7.4	30	51	120	120000	550	550	0.058 U	0.055 U	0.053 U	0.066 U	0.076 U	0.082 U
1,3-Dichlorobenzene	mg/kg	0.48	1.1	51	ID	ID	ID	ID	ID	170	170	0.12 U	0.11 U	0.11 U	0.13 U	0.15 U	0.16 U
1,4-Dichlorobenzene	mg/kg	1.7	0.29	140	100	260	260	340	570000	1900		0.12 U	0.11 U	0.11 U	0.13 U	0.15 U	0.16 U
2-Butanone (Methyl Ethyl Ketone)	mg/kg	760	44	27000	27000	35000	35000	36000	29000000	27000	27000	0.86 U	0.82 U	0.79 U	0.99 U	1.1 U	1.2 U
2-Hexanone	mg/kg	58		2500	1800	1300	1300	1500	1200000	2500	2500	2.9 U	2.6 U	2.6 U	3.3 U	3.8 U	4.1 U
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	mg/kg	100	ID	2700	2700	53000	53000	70000	60000000	2700	2700	2.9 U	2.7 U	2.6 U	3.3 U	3.8 U	4.1 U
Acetone	mg/kg	42	34	110000	110000	160000	160000	200000	170000000	73000	110000	0.86 U	0.82 U	0.79 U	0.99 U	1.1 U	1.2 U
Benzene	mg/kg	0.1	4	220	8.4	45	99	230	470000	400	400	0.058 U	0.055 U	0.053 U	0.066 U	0.076 U	0.082 U
Bromodichloromethane	mg/kg	1.6	ID	280	6.4	31	31	57	110000	490	1500	0.12 U	0.11 U	0.11 U	0.13 U	0.15 U	0.16 U
Bromoform	mg/kg	1.6	ID	870	770	3100	3100	3100	3600000	870	870	0.12 U	0.11 U	0.11 U	0.13 U	0.15 U	0.16 U
Bromomethane (Methyl Bromide)	mg/kg	0.58	0.7	1400	1.6	13	57	140	150000	1000	2200	0.29 U	0.27 U	0.26 U	0.33 U	0.38 U	0.41 U
Carbon disulfide	mg/kg	46	ID	280	140	1600	8000	19000	21000000	280	280	0.29 U	0.27 U	0.26 U	0.33 U	0.38 U	0.41 U
Carbon tetrachloride	mg/kg	0.1	0.9	92	0.99	12	34	79	170000	390	390	0.058 U	0.055 U	0.053 U	0.066 U	0.076 U	0.082 U
Chlorobenzene	mg/kg	2	0.94	260	220	920	1100	2100	2100000	260	260	0.058 U	0.055 U	0.053 U	0.066 U	0.076 U	0.082 U
Chloroethane	mg/kg	34	ID	950	950	36000	120000	280000	290000000	950	950	0.29 U	0.27 U	0.26 U	0.33 U	0.38 U	0.41 U
Chloroform (Trichloromethane)	mg/kg	1.6	3.4	1500	38	150	340	790	1600000	1500	1500	0.058 U	0.055 U	0.053 U	0.066 U	0.076 U	0.082 U
Chloromethane (Methyl Chloride)	mg/kg	22	ID	1100	10	120	1000	2500	2600000	1100	1100	0.29 U	0.27 U	0.26 U	0.33 U	0.027 J	0.41 U
cis-1,2-Dichloroethene	mg/kg	1.4	12	640	41	210	430	1000	1000000	640	640	0.058 U	0.055 U	0.053 U	0.066 U	0.076 U	0.082 U
cis-1,3-Dichloropropene	mg/kg											0.058 U	0.055 U	0.053 U	0.066 U	0.076 U	0.082 U
Cyclohexane	mg/kg											1.4 U	1.3 U	1.3 U	1.6 U	1.8 U	2 U
Dibromochloromethane	mg/kg	1.6	ID	360	21	80	80	98	160000	500	610	0.058 U	0.055 U	0.053 U	0.066 U	0.076 U	0.082 U
Dichlorodifluoromethane (CFC-12)	mg/kg	270	ID	1000	1700	63000	550000	1400000	1500000000	1000	1000	0.12 U	0.11 U	0.11 U	0.13 U	0.15 U	0.16 U
Ethylbenzene	mg/kg	1.5	0.36	140	140	2400	3100	6500	13000000	140	140	0.058 U	0.055 U	0.053 U	0.066 U	0.076 U	0.082 U
Isopropylbenzene	mg/kg	260	ID	390	390	2000	2000	3000	2600000	390	390	0.29 U	0.27 U	0.26 U	0.33 U	0.38 U	0.41 U
Methyl acetate	mg/kg											1.4 U	1.3 U	1.3 U	1.6 U	1.8 U	2 U
Methyl cyclohexane	mg/kg											1.4 U	1.3 U	1.3 U	1.6 U	1.8 U	2 U
Methyl Tert Butyl Ether	mg/kg	0.8	15	5900	5900	30000	41000	89000	88000000	5900	5900	0.29 U	0.27 U	0.26 U	0.33 U	0.38 U	0.41 U
Methylene chloride	mg/kg	0.1	19	2300	240	700	1700	4000	8300000	2300	2300	0.29 U	0.27 U	0.26 U	0.33 U	0.38 U	0.41 U
Styrene	mg/kg	2.7	2.2	270	520	3300	3300	4200	6900000	520	520	0.058 U	0.055 U	0.053 U	0.066 U	0.076 U	0.082 U
Tetrachloroethene	mg/kg	0.1	0.9	88	60	600	1400	3300	6800000	88	88	0.058 U	0.055 U	0.053 U	0.066 U	0.076 U	0.082 U
Toluene	mg/kg	16	2.8	250	250	3300	36000	36000	12000000	250	250	0.12 U	0.11 U	0.11 U	0.13 U	0.15 U	0.16 U
trans-1,2-Dichloroethene	mg/kg	2	30	1400	43	330	840	2000	2100000	1400	1400	0.058 U	0.055 U	0.053 U	0.066 U	0.076 U	0.082 U
trans-1,3-Dichloropropene	mg/kg											0.058 U	0.055 U	0.053 U	0.066 U	0.076 U	0.082 U
Trichloroethene	mg/kg	0.1	4	440	37	260	440	1100	2300000	500	500	0.058 U	0.02 J	0.053 U	0.19	0.076 U	0.082 U
Trichlorofluoromethane (CFC-11)	mg/kg	150		560	560	110000	140000000	140000000	1700000000	560	560	0.12 U	0.11 U	0.11 U	0.13 U	0.15 U	0.16 U
Trifluorotrichloroethane (Freon 113)	mg/kg	550	1.7	550	550	210000	890000	2100000	2300000000	550	550	0.29 U	0.27 U	0.26 U	0.33 U	0.38 U	0.41 U
Vinyl chloride	mg/kg	0.04	0.3	20	2.8	29	170	420	890000	34	490	0.12 U	0.11 U	0.11 U	0.13 U	0.15 U	0.16 U
Xylene (total)	mg/kg	5.6	0.7	150	150	54000	65000	130000	130000000	150	150	0.17 U	0.16 U	0.16 U	0.2 U	0.23 U	0.25 U

Notes:

⁽¹⁾ Cleanup criteria identified by MDEQ RRD Op Memo No. 1, updated 1/23/2006, pursuant to 1994 PA 451 as amended.

U - Not present at or above the associated value.

J - Estimated concentration.

UJ - Estimated reporting limit.

Value exceeds referenced Part 201 Criteria (i.e. a, b, etc.)

ID - Insufficient data to develop criterion

NLL - Hazardous substance is not likely to leach under most soil conditions

NLV - Hazardous substance is not likely to volatilize under most conditions

TABLE 3

SUMMARY OF SOIL SAMPLE RESULTS COMPARED TO MICHIGAN ACT 451, PART 201 INDUSTRIAL CRITERIA
GENERAL MOTORS CORPORATION
GRAND RAPIDS METAL PLANT
WYOMING, MICHIGAN

Sample Location	Michigan Act 451, Part 201 Industrial and Commercial II, III, IV ⁽¹⁾											SB4-04	SB4-04	SB4-04	SB4-04	SB4-04	SB4-04
Sample Identification	Industrial and Commercial	Groundwater Surface Water	Groundwater Contact	Soil Volatilization to Indoor Air	Infinite Source	Finite VSIC for 5 Meter Source	Finite VSIC for 2 Meter Source	Particulate Soil Inhalation	Direct Contact Industrial and Commercial II	Soil Saturation Concentration Screening	S-17360-071504-DCR-114	S-17360-071504-DCR-115	S-17360-071504-DCR-116	S-17360-071504-DCR-117	S-17360-071504-DCR-118	S-17360-071504-DCR-119	
Sample Date	Drinking Water	Interface Protection	Protection	Inhalation	Inhalation	Thickness	Thickness				7/15/2004	7/15/2004	7/15/2004	7/15/2004	7/15/2004	7/15/2004	
Sample Depth											6-8 ft BGS	8-10 ft BGS	10-12 ft BGS	12-14 ft BGS	14-16 ft BGS	16-18 ft BGS	
Sample Type	a	b	c	d	e	f	g	h	i	j							
Units																	
Volatile Organic Compounds																	
1,1,1-Trichloroethane	mg/kg	4	4	460	460	4500	15000	31000	29000000	460	460	0.059 U	0.059 U	0.066 U	0.057 U	0.061 U	0.059 U
1,1,2,2-Tetrachloroethane	mg/kg	0.7	1.6	94	23	34	34	34	68000	240	870	0.12 U	0.12 U	0.13 U	0.11 U	0.12 U	0.12 U
1,1,2-Trichloroethane	mg/kg	0.1	6.6	420	24	57	57	120	250000	840	920	0.059 U	0.059 U	0.066 U	0.057 U	0.061 U	0.059 U
1,1-Dichloroethane	mg/kg	50	15	890	430	2500	6000	14000	15000000	890	890	0.059 U	0.059 U	0.066 U	0.057 U	0.061 U	0.059 U
1,1-Dichloroethene	mg/kg	0.14	1.3	220	0.33	3.7	15	37	78000	570	570	0.059 U	0.059 U	0.066 U	0.057 U	0.061 U	0.059 U
1,2,4-Trichlorobenzene	mg/kg	4.2	1.8	1100	1100	34000	34000	34000	11000000	1100	1100	0.3 U	0.29 U	0.33 U	0.28 U	0.31 U	0.29 U
1,2-Dibromo-3-chloropropane (DBCP)	mg/kg	0.01		1.2	1.2	15	15	15	5900	1.2	1.2	0.3 U	0.29 U	0.33 U	0.28 U	0.31 U	0.29 U
1,2-Dibromoethane (Ethylene Dibromide)	mg/kg	0.02	0.02	0.5	3.6	5.8	5.8	9.8	18000	0.43	890	0.3 U	0.29 U	0.33 U	0.28 U	0.31 U	0.29 U
1,2-Dichlorobenzene	mg/kg	14	0.36	210	210	46000	46000	55000	44000000	210	210	0.12 U	0.12 U	0.13 U	0.11 U	0.12 U	0.12 U
1,2-Dichloroethane	mg/kg	0.1	7.2	380	11	21	33	74	150000	420	1200	0.059 U	0.059 U	0.066 U	0.057 U	0.061 U	0.059 U
1,2-Dichloropropane	mg/kg	0.1	5.8	320	7.4	30	51	120	120000	550	550	0.059 U	0.059 U	0.066 U	0.057 U	0.061 U	0.059 U
1,3-Dichlorobenzene	mg/kg	0.48	1.1	51	ID	ID	ID	ID	ID	170	170	0.12 U	0.12 U	0.13 U	0.11 U	0.12 U	0.12 U
1,4-Dichlorobenzene	mg/kg	1.7	0.29	140	100	260	260	340	570000	1900		0.12 U	0.12 U	0.13 U	0.11 U	0.12 U	0.12 U
2-Butanone (Methyl Ethyl Ketone)	mg/kg	760	44	27000	27000	35000	35000	36000	29000000	27000	27000	0.89 U	0.88 U	0.98 U	0.85 U	0.92 U	0.88 U
2-Hexanone	mg/kg	58		2500	1800	1300	1300	1500	1200000	2500	2500	3 U	2.9 U	3.3 U	2.8 U	3.1 U	2.9 U
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	mg/kg	100	ID	2700	2700	53000	53000	70000	60000000	2700	2700	3 U	2.9 U	3.3 U	2.8 U	3.1 U	2.9 U
Acetone	mg/kg	42	34	110000	110000	160000	160000	200000	170000000	73000	110000	0.89 U	0.88 U	0.98 U	0.85 U	0.92 U	0.88 U
Benzene	mg/kg	0.1	4	220	8.4	45	99	230	470000	400	400	0.059 U	0.059 U	0.066 U	0.057 U	0.061 U	0.059 U
Bromodichloromethane	mg/kg	1.6	ID	280	6.4	31	31	57	110000	490	1500	0.12 U	0.12 U	0.13 U	0.11 U	0.12 U	0.12 U
Bromoform	mg/kg	1.6	ID	870	770	3100	3100	3100	3600000	870	870	0.12 U	0.12 U	0.13 U	0.11 U	0.12 U	0.12 U
Bromomethane (Methyl Bromide)	mg/kg	0.58	0.7	1400	1.6	13	57	140	150000	1000	2200	0.3 U	0.29 U	0.33 U	0.28 U	0.31 U	0.29 U
Carbon disulfide	mg/kg	46	ID	280	140	1600	8000	19000	21000000	280	280	0.3 U	0.29 U	0.33 U	0.28 U	0.31 U	0.29 U
Carbon tetrachloride	mg/kg	0.1	0.9	92	0.99	12	34	79	170000	390	390	0.059 U	0.059 U	0.066 U	0.057 U	0.061 U	0.059 U
Chlorobenzene	mg/kg	2	0.94	260	220	920	1100	2100	2100000	260	260	0.059 U	0.059 U	0.066 U	0.057 U	0.061 U	0.059 U
Chloroethane	mg/kg	34	ID	950	950	36000	120000	280000	290000000	950	950	0.3 U	0.29 U	0.33 U	0.28 U	0.31 U	0.29 U
Chloroform (Trichloromethane)	mg/kg	1.6	3.4	1500	38	150	340	790	1600000	1500	1500	0.059 U	0.059 U	0.066 U	0.057 U	0.061 U	0.059 U
Chloromethane (Methyl Chloride)	mg/kg	22	ID	1100	10	120	1000	2500	2600000	1100	1100	0.3 U	0.29 U	0.021 J	0.018 J	0.31 U	0.29 U
cis-1,2-Dichloroethene	mg/kg	1.4	12	640	41	210	430	1000	1000000	640	640	0.059 U	0.059 U	0.066 U	0.057 U	0.061 U	0.059 U
cis-1,3-Dichloropropene	mg/kg											0.059 U	0.059 U	0.066 U	0.057 U	0.061 U	0.059 U
Cyclohexane	mg/kg											1.4 U	1.4 U	1.6 U	1.4 U	1.5 U	1.4 U
Dibromochloromethane	mg/kg	1.6	ID	360	21	80	80	98	160000	500	610	0.059 U	0.059 U	0.066 U	0.057 U	0.061 U	0.059 U
Dichlorodifluoromethane (CFC-12)	mg/kg	270	ID	1000	1700	63000	550000	1400000	1500000000	1000	1000	0.12 U	0.12 U	0.13 U	0.11 U	0.12 U	0.12 U
Ethylbenzene	mg/kg	1.5	0.36	140	140	2400	3100	6500	13000000	140	140	0.059 U	0.059 U	0.066 U	0.057 U	0.061 U	0.059 U
Isopropylbenzene	mg/kg	260	ID	390	390	2000	2000	3000	2600000	390	390	0.3 U	0.29 U	0.33 U	0.28 U	0.31 U	0.29 U
Methyl acetate	mg/kg											1.4 U	1.4 U	1.6 U	1.4 U	1.5 U	1.4 U
Methyl cyclohexane	mg/kg											1.4 U	1.4 U	1.6 U	1.4 U	1.5 U	1.4 U
Methyl Tert Butyl Ether	mg/kg	0.8	15	5900	5900	30000	41000	89000	88000000	5900	5900	0.3 U	0.29 U	0.33 U	0.28 U	0.31 U	0.29 U
Methylene chloride	mg/kg	0.1	19	2300	240	700	1700	4000	8300000	2300	2300	0.3 U	0.29 U	0.33 U	0.28 U	0.31 U	0.29 U
Styrene	mg/kg	2.7	2.2	270	520	3300	3300	4200	6900000	520	520	0.059 U	0.059 U	0.066 U	0.057 U	0.061 U	0.059 U
Tetrachloroethene	mg/kg	0.1	0.9	88	60	600	1400	3300	6800000	88	88	0.059 U	0.059 U	0.066 U	0.057 U	0.061 U	0.059 U
Toluene	mg/kg	16	2.8	250	250	3300	36000	36000	12000000	250	250	0.12 U	0.12 U	0.13 U	0.11 U	0.12 U	0.12 U
trans-1,2-Dichloroethene	mg/kg	2	30	1400	43	330	840	2000	2100000	1400	1400	0.059 U	0.059 U	0.066 U	0.057 U	0.061 U	0.059 U
trans-1,3-Dichloropropene	mg/kg											0.059 U	0.059 U	0.066 U	0.057 U	0.061 U	0.059 U
Trichloroethene	mg/kg	0.1	4	440	37	260	440	1100	2300000	500	500	0.059 U	0.059 U	0.066 U	0.057 U	0.041 J	0.059 U
Trichlorofluoromethane (CFC-11)	mg/kg	150		560	560	110000	140000000	140000000	1700000000	560	560	0.12 U	0.12 U	0.13 U	0.11 U	0.12 U	0.12 U
Trifluorotrichloroethane (Freon 113)	mg/kg	550	1.7	550	550	210000	890000	2100000	2300000000	550	550	0.3 U	0.29 U	0.33 U	0.28 U	0.31 U	0.29 U
Vinyl chloride	mg/kg	0.04	0.3	20	2.8	29	170	420	890000	34	490	0.12 U	0.12 U	0.13 U	0.11 U	0.12 U	0.12 U
Xylene (total)	mg/kg	5.6	0.7	150	150	54000	65000	130000	130000000	150	150	0.18 U	0.18 U	0.2 U	0.17 U	0.18 U	0.18 U

Notes:

⁽¹⁾ Cleanup criteria identified by MDEQ RRD Op Memo No. 1, updated 1/23/2006, pursuant to 1994 PA 451 as amended.

U - Not present at or above the associated value.

J - Estimated concentration.

UJ - Estimated reporting limit.

Value exceeds referenced Part 201 Criteria (i.e. a, b, etc.)

ID - Insufficient data to develop criterion

NLL - Hazardous substance is not likely to leach under most soil conditions

NLV - Hazardous substance is not likely to volatilize under most conditions

TABLE 3

SUMMARY OF SOIL SAMPLE RESULTS COMPARED TO MICHIGAN ACT 451, PART 201 INDUSTRIAL CRITERIA
GENERAL MOTORS CORPORATION
GRAND RAPIDS METAL PLANT
WYOMING, MICHIGAN

Sample Location	Michigan Act 451, Part 201 Industrial and Commercial II, III, IV ⁽¹⁾											SB4-04	SB4-04	SB5-04	SB5-04	SB5-04	SB5-04	
Sample Identification	Industrial and Commercial	Groundwater Surface Water	Groundwater Contact	Soil Volatilization to Indoor Air	Infinite Source Volatile Soil Inhalation	Finite VSIC for 5 Meter Source Thickness	Finite VSIC for 2 Meter Source Thickness	Particulate Soil Inhalation	Direct Contact Industrial and Commercial II	Soil Saturation Concentration Screening	S-17360-071504-DCR-120	S-17360-071504-DCR-121	S-17360-071504-DCR-100	S-17360-071504-DCR-101	S-17360-071504-DCR-102	S-17360-071504-DCR-103		
Sample Date	Drinking Water	Interface Protection	Protection	Inhalation	Inhalation	Thickness	Thickness				7/15/2004	7/15/2004	7/15/2004	7/15/2004	7/15/2004	7/15/2004		
Sample Depth											18-20 ft BGS	20-22 ft BGS	0-2 ft BGS	2-4 ft BGS	4-6 ft BGS	6-8 ft BGS		
Sample Type	a	b	c	d	e	f	g	h	i	j								
Units																		
Volatile Organic Compounds																		
1,1,1-Trichloroethane	mg/kg	4	4	460	460	4500	15000	31000	29000000	460	460	0.053 U	0.053 U	0.2 U	0.11 U	0.066 U	0.061 U	
1,1,2,2-Tetrachloroethane	mg/kg	0.7	1.6	94	23	34	34	34	68000	240	870	0.11 U	0.11 U	0.4 U	0.23 U	0.13 U	0.12 U	
1,1,2-Trichloroethane	mg/kg	0.1	6.6	420	24	57	57	120	250000	840	920	0.053 U	0.053 U	0.2 U	0.11 U	0.066 U	0.061 U	
1,1-Dichloroethane	mg/kg	50	15	890	430	2500	6000	14000	15000000	890	890	0.053 U	0.053 U	0.2 U	0.11 U	0.066 U	0.061 U	
1,1-Dichloroethene	mg/kg	0.14	1.3	220	0.33	3.7	15	37	78000	570	570	0.053 U	0.053 U	0.2 U	0.11 U	0.066 U	0.061 U	
1,2,4-Trichlorobenzene	mg/kg	4.2	1.8	1100	1100	34000	34000	34000	11000000	1100	1100	0.27 U	0.27 U	1 U	0.57 U	0.33 U	0.3 U	
1,2-Dibromo-3-chloropropane (DBCP)	mg/kg	0.01		1.2	1.2	15	15	15	5900	1.2	1.2	0.27 U	0.27 U	1 U	0.57 U	0.33 U	0.3 U	
1,2-Dibromoethane (Ethylene Dibromide)	mg/kg	0.02	0.02	0.5	3.6	5.8	5.8	9.8	18000	0.43	890	0.27 U	0.27 U	1 U	0.57 U	0.33 U	0.3 U	
1,2-Dichlorobenzene	mg/kg	14	0.36	210	210	46000	46000	55000	44000000	210	210	0.11 U	0.11 U	0.4 U	0.23 U	0.13 U	0.12 U	
1,2-Dichloroethane	mg/kg	0.1	7.2	380	11	21	33	74	150000	420	1200	0.053 U	0.053 U	0.2 U	0.11 U	0.066 U	0.061 U	
1,2-Dichloropropane	mg/kg	0.1	5.8	320	7.4	30	51	120	120000	550	550	0.053 U	0.053 U	0.2 U	0.11 U	0.066 U	0.061 U	
1,3-Dichlorobenzene	mg/kg	0.48	1.1	51	ID	ID	ID	ID	ID	170	170	0.11 U	0.11 U	0.4 U	0.23 U	0.13 U	0.12 U	
1,4-Dichlorobenzene	mg/kg	1.7	0.29	140	100	260	260	340	570000	1900		0.11 U	0.11 U	0.4 U	0.23 U	0.13 U	0.12 U	
2-Butanone (Methyl Ethyl Ketone)	mg/kg	760	44	27000	27000	35000	35000	36000	29000000	27000	27000	0.8 U	0.8 U	3 U	1.7 U	0.99 U	0.059 J	
2-Hexanone	mg/kg	58		2500	1800	1300	1300	1500	1200000	2500	2500	2.7 U	2.7 U	10 U	5.7 U	3.3 U	3 U	
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	mg/kg	100	ID	2700	2700	53000	53000	70000	60000000	2700	2700	2.7 U	2.7 U	10 U	5.7 U	3.3 U	3 U	
Acetone	mg/kg	42	34	110000	110000	160000	160000	200000	170000000	73000	110000	0.8 U	0.8 U	3 U	1.7 U	0.99 U	0.91 U	
Benzene	mg/kg	0.1	4	220	8.4	45	99	230	470000	400	400	0.053 U	0.053 U	0.033 J	0.11 U	0.066 U	0.061 U	
Bromodichloromethane	mg/kg	1.6	ID	280	6.4	31	31	57	110000	490	1500	0.11 U	0.11 U	0.4 U	0.23 U	0.13 U	0.12 U	
Bromoform	mg/kg	1.6	ID	870	770	3100	3100	3100	3600000	870	870	0.11 U	0.11 U	0.4 U	0.23 U	0.13 U	0.12 U	
Bromomethane (Methyl Bromide)	mg/kg	0.58	0.7	1400	1.6	13	57	140	150000	1000	2200	0.27 U	0.27 U	1 U	0.57 U	0.33 U	0.3 U	
Carbon disulfide	mg/kg	46	ID	280	140	1600	8000	19000	21000000	280	280	0.27 U	0.27 U	1 U	0.57 U	0.33 U	0.3 U	
Carbon tetrachloride	mg/kg	0.1	0.9	92	0.99	12	34	79	170000	390	390	0.053 U	0.053 U	0.2 U	0.11 U	0.066 U	0.061 U	
Chlorobenzene	mg/kg	2	0.94	260	220	920	1100	2100	2100000	260	260	0.053 U	0.053 U	0.2 U	0.11 U	0.066 U	0.061 U	
Chloroethane	mg/kg	34	ID	950	950	36000	120000	280000	290000000	950	950	0.27 U	0.27 U	1 U	0.57 U	0.33 U	0.3 U	
Chloroform (Trichloromethane)	mg/kg	1.6	3.4	1500	38	150	340	790	1600000	1500	1500	0.053 U	0.053 U	0.2 U	0.11 U	0.066 U	0.061 U	
Chloromethane (Methyl Chloride)	mg/kg	22	ID	1100	10	120	1000	2500	2600000	1100	1100	0.27 U	0.023 J	1 U	0.57 U	0.33 U	0.3 U	
cis-1,2-Dichloroethene	mg/kg	1.4	12	640	41	210	430	1000	1000000	640	640	0.053 U	0.053 U	0.2 U	0.11 U	0.066 U	0.061 U	
cis-1,3-Dichloropropene	mg/kg										0.053 U	0.053 U		0.2 U	0.11 U	0.066 U	0.061 U	
Cyclohexane	mg/kg										1.3 U	1.3 U		0.031 J	2.7 U	1.6 U	1.5 U	
Dibromochloromethane	mg/kg	1.6	ID	360	21	80	80	98	160000	500	610	0.053 U	0.053 U	0.2 U	0.11 U	0.066 U	0.061 U	
Dichlorodifluoromethane (CFC-12)	mg/kg	270	ID	1000	1700	63000	550000	1400000	1500000000	1000	1000	0.11 U	0.11 U	0.4 U	0.23 U	0.13 U	0.12 U	
Ethylbenzene	mg/kg	1.5	0.36	140	140	2400	3100	6500	13000000	140	140	0.053 U	0.053 U	0.2 U	0.11 U	0.066 U	0.061 U	
Isopropylbenzene	mg/kg	260	ID	390	390	2000	2000	3000	2600000	390	390	0.27 U	0.27 U	0.025 J	0.57 U	0.33 U	0.3 U	
Methyl acetate	mg/kg										1.3 U	1.3 U		4.8 U	2.7 U	1.6 U	1.5 U	
Methyl cyclohexane	mg/kg										1.3 U	1.3 U		0.2 J	2.7 U	1.6 U	1.5 U	
Methyl Tert Butyl Ether	mg/kg	0.8	15	5900	5900	30000	41000	89000	88000000	5900	5900	0.27 U	0.27 U	1 U	0.57 U	0.33 U	0.3 U	
Methylene chloride	mg/kg	0.1	19	2300	240	700	1700	4000	8300000	2300	2300	0.27 U	0.27 U	1 U	0.57 U	0.33 U	0.3 U	
Styrene	mg/kg	2.7	2.2	270	520	3300	3300	4200	6900000	520	520	0.053 U	0.053 U	0.2 U	0.11 U	0.066 U	0.061 U	
Tetrachloroethene	mg/kg	0.1	0.9	88	60	600	1400	3300	6800000	88	88	0.053 U	0.053 U	0.2 U	0.11 U	0.066 U	0.061 U	
Toluene	mg/kg	16	2.8	250	250	3300	36000	36000	12000000	250	250	0.11 U	0.11 U	0.14 J	0.23 U	0.13 U	0.12 U	
trans-1,2-Dichloroethene	mg/kg	2	30	1400	43	330	840	2000	2100000	1400	1400	0.053 U	0.053 U	0.2 U	0.11 U	0.066 U	0.061 U	
trans-1,3-Dichloropropene	mg/kg										0.053 U	0.053 U		0.2 U	0.11 U	0.066 U	0.061 U	
Trichloroethene	mg/kg	0.1	4	440	37	260	440	1100	2300000	500	500	0.053 U	0.018 J	5.7"		0.11 U	0.066 U	0.061 U
Trichlorofluoromethane (CFC-11)	mg/kg	150		560	560	110000	140000000	140000000	1700000000	560	560	0.11 U	0.11 U	0.4 U	0.23 U	0.13 U	0.12 U	
Trifluorotrichloroethane (Freon 113)	mg/kg	550	1.7	550	550	210000	890000	2100000	2300000000	550	550	0.27 U	0.27 U	1 U	0.57 U	0.33 U	0.3 U	
Vinyl chloride	mg/kg	0.04	0.3	20	2.8	29	170	420	890000	34	490	0.11 U	0.11 U	0.4 U	0.23 U	0.13 U	0.12 U	
Xylene (total)	mg/kg	5.6	0.7	150	150	54000	65000	130000	130000000	150	150	0.16 U	0.16 U	0.2 J	0.34 U	0.2 U	0.18 U	

Notes:

⁽¹⁾ Cleanup criteria identified by MDEQ RRD Op Memo No. 1, updated 1/23/2006, pursuant to 1994 PA 451 as amended.

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TABLE 3

SUMMARY OF SOIL SAMPLE RESULTS COMPARED TO MICHIGAN ACT 451, PART 201 INDUSTRIAL CRITERIA
GENERAL MOTORS CORPORATION
GRAND RAPIDS METAL PLANT
WYOMING, MICHIGAN

Sample Location	Michigan Act 451, Part 201 Industrial and Commercial II, III, IV ⁽¹⁾											SB5-04	SB5-04	SB5-04	SB5-04	SB5-04	SB5-04
Sample Identification	Industrial and Commercial	Groundwater Surface Water	Groundwater Contact	Soil Volatilization to Indoor Air	Infinite Source Volatile Soil Inhalation	Finite VSIC for 5 Meter Source Thickness	Finite VSIC for 2 Meter Source Thickness	Particulate Soil Inhalation	Direct Contact Industrial and Commercial II	Soil Saturation Concentration Screening	S-17360-071504-DCR-104	S-17360-071504-DCR-105	S-17360-071504-DCR-106	S-17360-071504-DCR-107	S-17360-071504-DCR-108	S-17360-071504-DCR-109	
Sample Date	Drinking Water	Interface Protection	Protection	Inhalation	Inhalation	Thickness	Thickness				7/15/2004	7/15/2004	7/15/2004	7/15/2004	7/15/2004	7/15/2004	
Sample Depth	a	b	c	d	e	f	g	h	i	j	8-10 ft BGS	10-12 ft BGS	12-14 ft BGS	14-16 ft BGS	16-18 ft BGS	18-20 ft BGS	
Sample Type	Units																
Volatile Organic Compounds																	
1,1,1-Trichloroethane	mg/kg	4	4	460	460	4500	15000	31000	29000000	460	460	0.06 U	0.056 U	0.05 U	0.056 U	0.055 U	0.062 U
1,1,2,2-Tetrachloroethane	mg/kg	0.7	1.6	94	23	34	34	34	68000	240	870	0.12 U	0.11 U	0.099 U	0.11 U	0.11 U	0.12 U
1,1,2-Trichloroethane	mg/kg	0.1	6.6	420	24	57	57	120	250000	840	920	0.06 U	0.056 U	0.05 U	0.056 U	0.055 U	0.062 U
1,1-Dichloroethane	mg/kg	50	15	890	430	2500	6000	14000	15000000	890	890	0.06 U	0.056 U	0.05 U	0.056 U	0.055 U	0.062 U
1,1-Dichloroethene	mg/kg	0.14	1.3	220	0.33	3.7	15	37	78000	570	570	0.06 U	0.056 U	0.05 U	0.056 U	0.055 U	0.062 U
1,2,4-Trichlorobenzene	mg/kg	4.2	1.8	1100	1100	34000	34000	34000	11000000	1100	1100	0.3 U	0.28 U	0.25 U	0.28 U	0.27 U	0.31 U
1,2-Dibromo-3-chloropropane (DBCP)	mg/kg	0.01		1.2	1.2	15	15	15	5900	1.2	1.2	0.3 U	0.28 U	0.25 U	0.28 U	0.27 U	0.31 U
1,2-Dibromoethane (Ethylene Dibromide)	mg/kg	0.02	0.02	0.5	3.6	5.8	5.8	9.8	18000	0.43	890	0.3 U	0.28 U	0.25 U	0.28 U	0.27 U	0.31 U
1,2-Dichlorobenzene	mg/kg	14	0.36	210	210	46000	46000	55000	44000000	210	210	0.12 U	0.11 U	0.099 U	0.11 U	0.11 U	0.12 U
1,2-Dichloroethane	mg/kg	0.1	7.2	380	11	21	33	74	150000	420	1200	0.06 U	0.056 U	0.05 U	0.056 U	0.055 U	0.062 U
1,2-Dichloropropane	mg/kg	0.1	5.8	320	7.4	30	51	120	120000	550	550	0.06 U	0.056 U	0.05 U	0.056 U	0.055 U	0.062 U
1,3-Dichlorobenzene	mg/kg	0.48	1.1	51	ID	ID	ID	ID	ID	170	170	0.12 U	0.11 U	0.099 U	0.11 U	0.11 U	0.12 U
1,4-Dichlorobenzene	mg/kg	1.7	0.29	140	100	260	260	340	570000	1900		0.12 U	0.11 U	0.099 U	0.11 U	0.11 U	0.12 U
2-Butanone (Methyl Ethyl Ketone)	mg/kg	760	44	27000	27000	35000	35000	36000	29000000	27000	27000	0.9 U	0.83 U	0.75 U	0.84 U	0.82 U	0.93 U
2-Hexanone	mg/kg	58		2500	1800	1300	1300	1500	1200000	2500	2500	3 U	2.8 U	2.5 U	2.8 U	2.7 U	3.1 U
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	mg/kg	100	ID	2700	2700	53000	53000	70000	60000000	2700	2700	3 U	2.8 U	2.5 U	2.8 U	2.7 U	3.1 U
Acetone	mg/kg	42	34	110000	110000	160000	160000	200000	170000000	73000	110000	0.9 U	0.83 U	0.75 U	0.84 U	0.82 U	0.93 U
Benzene	mg/kg	0.1	4	220	8.4	45	99	230	470000	400	400	0.06 U	0.056 U	0.05 U	0.056 U	0.055 U	0.062 U
Bromodichloromethane	mg/kg	1.6	ID	280	6.4	31	31	57	110000	490	1500	0.12 U	0.11 U	0.099 U	0.11 U	0.11 U	0.12 U
Bromoform	mg/kg	1.6	ID	870	770	3100	3100	3100	3600000	870	870	0.12 U	0.11 U	0.099 U	0.11 U	0.11 U	0.12 U
Bromomethane (Methyl Bromide)	mg/kg	0.58	0.7	1400	1.6	13	57	140	150000	1000	2200	0.3 U	0.28 U	0.25 U	0.28 U	0.27 U	0.31 U
Carbon disulfide	mg/kg	46	ID	280	140	1600	8000	19000	21000000	280	280	0.3 U	0.28 U	0.25 U	0.28 U	0.27 U	0.31 U
Carbon tetrachloride	mg/kg	0.1	0.9	92	0.99	12	34	79	170000	390	390	0.06 U	0.056 U	0.05 U	0.056 U	0.055 U	0.062 U
Chlorobenzene	mg/kg	2	0.94	260	220	920	1100	2100	2100000	260	260	0.06 U	0.056 U	0.05 U	0.056 U	0.055 U	0.062 U
Chloroethane	mg/kg	34	ID	950	950	36000	120000	280000	290000000	950	950	0.3 U	0.28 U	0.25 U	0.28 U	0.27 U	0.31 U
Chloroform (Trichloromethane)	mg/kg	1.6	3.4	1500	38	150	340	790	1600000	1500	1500	0.06 U	0.056 U	0.05 U	0.056 U	0.055 U	0.062 U
Chloromethane (Methyl Chloride)	mg/kg	22	ID	1100	10	120	1000	2500	2600000	1100	1100	0.3 U	0.28 U	0.25 U	0.28 U	0.27 U	0.31 U
cis-1,2-Dichloroethene	mg/kg	1.4	12	640	41	210	430	1000	1000000	640	640	0.06 U	0.056 U	0.05 U	0.056 U	0.055 U	0.062 U
cis-1,3-Dichloropropene	mg/kg											0.06 U	0.056 U	0.05 U	0.056 U	0.055 U	0.062 U
Cyclohexane	mg/kg											1.4 U	1.3 U	1.2 U	1.3 U	1.3 U	1.5 U
Dibromochloromethane	mg/kg	1.6	ID	360	21	80	80	98	160000	500	610	0.06 U	0.056 U	0.05 U	0.056 U	0.055 U	0.062 U
Dichlorodifluoromethane (CFC-12)	mg/kg	270	ID	1000	1700	63000	550000	1400000	1500000000	1000	1000	0.12 U	0.11 U	0.099 U	0.11 U	0.11 U	0.12 U
Ethylbenzene	mg/kg	1.5	0.36	140	140	2400	3100	6500	13000000	140	140	0.06 U	0.056 U	0.05 U	0.056 U	0.055 U	0.062 U
Isopropylbenzene	mg/kg	260	ID	390	390	2000	2000	3000	2600000	390	390	0.3 U	0.28 U	0.25 U	0.28 U	0.27 U	0.31 U
Methyl acetate	mg/kg											1.4 U	1.3 U	1.2 U	1.3 U	1.3 U	1.5 U
Methyl cyclohexane	mg/kg											1.4 U	1.3 U	1.2 U	1.3 U	1.3 U	1.5 U
Methyl Tert Butyl Ether	mg/kg	0.8	15	5900	5900	30000	41000	89000	88000000	5900	5900	0.3 U	0.28 U	0.25 U	0.28 U	0.27 U	0.31 U
Methylene chloride	mg/kg	0.1	19	2300	240	700	1700	4000	8300000	2300	2300	0.3 U	0.28 U	0.25 U	0.28 U	0.27 U	0.31 U
Styrene	mg/kg	2.7	2.2	270	520	3300	3300	4200	6900000	520	520	0.06 U	0.056 U	0.05 U	0.056 U	0.055 U	0.062 U
Tetrachloroethene	mg/kg	0.1	0.9	88	60	600	1400	3300	6800000	88	88	0.06 U	0.056 U	0.05 U	0.056 U	0.055 U	0.062 U
Toluene	mg/kg	16	2.8	250	250	3300	36000	36000	12000000	250	250	0.12 U	0.11 U	0.099 U	0.11 U	0.11 U	0.12 U
trans-1,2-Dichloroethene	mg/kg	2	30	1400	43	330	840	2000	2100000	1400	1400	0.06 U	0.056 U	0.05 U	0.056 U	0.055 U	0.062 U
trans-1,3-Dichloropropene	mg/kg											0.06 U	0.056 U	0.05 U	0.056 U	0.055 U	0.062 U
Trichloroethene	mg/kg	0.1	4	440	37	260	440	1100	2300000	500	500	0.06 U	0.025 J	0.05 U	0.02 J	0.025 J	0.062 U
Trichlorofluoromethane (CFC-11)	mg/kg	150		560	560	110000	140000000	140000000	1700000000	560	560	0.12 U	0.11 U	0.099 U	0.11 U	0.11 U	0.12 U
Trifluorotrichloroethane (Freon 113)	mg/kg	550	1.7	550	550	210000	890000	2100000	2300000000	550	550	0.3 U	0.28 U	0.25 U	0.28 U	0.27 U	0.31 U
Vinyl chloride	mg/kg	0.04	0.3	20	2.8	29	170	420	890000	34	490	0.12 U	0.11 U	0.099 U	0.11 U	0.11 U	0.12 U
Xylene (total)	mg/kg	5.6	0.7	150	150	54000	65000	130000	130000000	150	150	0.18 U	0.17 U	0.15 U	0.17 U	0.16 U	0.19 U

Notes:

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NLV - Hazardous substance is not likely to volatilize under most conditions

TABLE 3

SUMMARY OF SOIL SAMPLE RESULTS COMPARED TO MICHIGAN ACT 451, PART 201 INDUSTRIAL CRITERIA
GENERAL MOTORS CORPORATION
GRAND RAPIDS METAL PLANT
WYOMING, MICHIGAN

Sample Location	Michigan Act 451, Part 201 Industrial and Commercial II, III, IV. ⁽¹⁾											SB5-04	SB6-05	SB6-05	SB6-05	SB6-05
Sample Identification	Industrial and Commercial	Groundwater Surface Water	Groundwater Contact	Soil Volatilization to Indoor Air	Infinite Source Volatile Soil Inhalation	Finite VSIC for 5 Meter Source Thickness	Finite VSIC for 2 Meter Source Thickness	Particulate Soil Inhalation	Direct Contact Industrial and Commercial II	Soil Saturation Concentration Screening	S-17360-071504-DCR-110	SO-17360-071105-DCR-419	SO-17360-071105-DCR-420	SO-17360-071105-DCR-421	SO-17360-071105-DCR-422	
Sample Date	Drinking Water	Interface Protection	Protection	Inhalation	Inhalation	Thickness	Thickness	Soil Inhalation	Industrial and Commercial II	Concentration	7/15/2004	7/11/2005	7/11/2005	7/11/2005	7/11/2005	
Sample Depth											20-22 ft BGS	0-2 ft BGS	2-4 ft BGS	4-6 ft BGS	6-8 ft BGS	
Sample Type	a	b	c	d	e	f	g	h	i	j						
Units																
Volatile Organic Compounds																
1,1,1-Trichloroethane	mg/kg	4	4	460	460	4500	15000	31000	29000000	460	460	0.071 U	0.04 U	0.04 U	0.038 U	
1,1,2,2-Tetrachloroethane	mg/kg	0.7	1.6	94	23	34	34	34	68000	240	870	0.14 U	0.08 U	0.081 U	0.076 U	
1,1,2-Trichloroethane	mg/kg	0.1	6.6	420	24	57	57	120	250000	840	920	0.071 U	0.04 U	0.04 U	0.038 U	
1,1-Dichloroethane	mg/kg	50	15	890	430	2500	6000	14000	15000000	890	890	0.071 U	0.04 U	0.04 U	0.038 U	
1,1-Dichloroethene	mg/kg	0.14	1.3	220	0.33	3.7	15	37	78000	570	570	0.071 U	0.04 U	0.04 U	0.038 U	
1,2,4-Trichlorobenzene	mg/kg	4.2	1.8	1100	1100	34000	34000	34000	11000000	1100	1100	0.35 U	0.2 U	0.2 U	0.19 U	
1,2-Dibromo-3-chloropropane (DBCP)	mg/kg	0.01		1.2	1.2	15	15	15	5900	1.2	1.2	0.35 U	0.2 U	0.2 U	0.19 U	
1,2-Dibromoethane (Ethylene Dibromide)	mg/kg	0.02	0.02	0.5	3.6	5.8	5.8	9.8	18000	0.43	890	0.35 U	0.2 U	0.2 U	0.19 U	
1,2-Dichlorobenzene	mg/kg	14	0.36	210	210	46000	46000	55000	44000000	210	210	0.14 U	0.08 U	0.081 U	0.076 U	
1,2-Dichloroethane	mg/kg	0.1	7.2	380	11	21	33	74	150000	420	1200	0.071 U	0.04 U	0.04 U	0.038 U	
1,2-Dichloropropane	mg/kg	0.1	5.8	320	7.4	30	51	120	120000	550	550	0.071 U	0.04 U	0.04 U	0.038 U	
1,3-Dichlorobenzene	mg/kg	0.48	1.1	51	ID	ID	ID	ID	ID	170	170	0.14 U	0.08 U	0.081 U	0.076 U	
1,4-Dichlorobenzene	mg/kg	1.7	0.29	140	100	260	260	340	570000	1900		0.14 U	0.08 U	0.081 U	0.076 U	
2-Butanone (Methyl Ethyl Ketone)	mg/kg	760	44	27000	27000	35000	35000	36000	29000000	27000	27000	1.1 U	0.6 U	0.61 U	0.57 U	
2-Hexanone	mg/kg	58		2500	1800	1300	1300	1500	1200000	2500	2500	3.5 U	2 U	2 U	1.9 U	
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	mg/kg	100	ID	2700	2700	53000	53000	70000	60000000	2700	2700	3.5 U	2 U	2 U	1.9 U	
Acetone	mg/kg	42	34	110000	110000	160000	160000	200000	170000000	73000	110000	1.1 U	0.6 U	0.61 U	0.57 U	
Benzene	mg/kg	0.1	4	220	8.4	45	99	230	470000	400	400	0.071 U	0.04 U	0.04 U	0.038 U	
Bromodichloromethane	mg/kg	1.6	ID	280	6.4	31	31	57	110000	490	1500	0.14 U	0.08 UJ	0.081 UJ	0.076 UJ	
Bromoform	mg/kg	1.6	ID	870	770	3100	3100	3100	3600000	870	870	0.14 U	0.08 U	0.081 U	0.076 U	
Bromomethane (Methyl Bromide)	mg/kg	0.58	0.7	1400	1.6	13	57	140	150000	1000	2200	0.35 U	0.2 U	0.2 U	0.19 U	
Carbon disulfide	mg/kg	46	ID	280	140	1600	8000	19000	21000000	280	280	0.35 U	0.2 U	0.2 U	0.19 U	
Carbon tetrachloride	mg/kg	0.1	0.9	92	0.99	12	34	79	170000	390	390	0.071 U	0.04 U	0.04 U	0.038 U	
Chlorobenzene	mg/kg	2	0.94	260	220	920	1100	2100	2100000	260	260	0.071 U	0.04 U	0.04 U	0.038 U	
Chloroethane	mg/kg	34	ID	950	950	36000	120000	280000	290000000	950	950	0.35 U	0.2 U	0.2 U	0.19 U	
Chloroform (Trichloromethane)	mg/kg	1.6	3.4	1500	38	150	340	790	1600000	1500	1500	0.071 U	0.04 U	0.04 U	0.038 U	
Chloromethane (Methyl Chloride)	mg/kg	22	ID	1100	10	120	1000	2500	2600000	1100	1100	0.35 U	0.2 U	0.2 U	0.19 U	
cis-1,2-Dichloroethene	mg/kg	1.4	12	640	41	210	430	1000	1000000	640	640	0.071 U	0.04 U	0.04 U	0.038 U	
cis-1,3-Dichloropropene	mg/kg										0.071 U	0.04 U	0.04 U	0.038 U	0.038 U	
Cyclohexane	mg/kg										1.7 U	0.96 U	0.97 U	0.91 U	0.91 U	
Dibromochloromethane	mg/kg	1.6	ID	360	21	80	80	98	160000	500	610	0.071 U	0.04 U	0.038 U	0.038 U	
Dichlorodifluoromethane (CFC-12)	mg/kg	270	ID	1000	1700	63000	550000	1400000	1500000000	1000	1000	0.14 U	0.08 U	0.081 U	0.076 U	
Ethylbenzene	mg/kg	1.5	0.36	140	140	2400	3100	6500	13000000	140	140	0.071 U	0.04 U	0.04 U	0.038 U	
Isopropylbenzene	mg/kg	260	ID	390	390	2000	2000	3000	2600000	390	390	0.35 U	0.2 U	0.2 U	0.19 U	
Methyl acetate	mg/kg										1.7 U	0.053 J	0.97 U	0.91 U	0.91 U	
Methyl cyclohexane	mg/kg										1.7 U	0.96 U	0.97 U	0.91 U	0.91 U	
Methyl Tert Butyl Ether	mg/kg	0.8	15	5900	5900	30000	41000	89000	88000000	5900	5900	0.35 U	0.2 U	0.2 U	0.19 U	
Methylene chloride	mg/kg	0.1	19	2300	240	700	1700	4000	8300000	2300	2300	0.35 U	0.2 U	0.2 U	0.19 U	
Styrene	mg/kg	2.7	2.2	270	520	3300	3300	4200	6900000	520	520	0.071 U	0.04 U	0.038 U	0.038 U	
Tetrachloroethene	mg/kg	0.1	0.9	88	60	600	1400	3300	6800000	88	88	0.071 U	0.04 U	0.04 U	0.038 U	
Toluene	mg/kg	16	2.8	250	250	3300	36000	36000	12000000	250	250	0.14 U	0.08 U	0.081 U	0.076 U	
trans-1,2-Dichloroethene	mg/kg	2	30	1400	43	330	840	2000	2100000	1400	1400	0.071 U	0.04 U	0.04 U	0.038 U	
trans-1,3-Dichloropropene	mg/kg										0.071 U	0.04 UJ	0.04 UJ	0.038 UJ	0.038 UJ	
Trichloroethene	mg/kg	0.1	4	440	37	260	440	1100	2300000	500	500	0.071 U	0.015 J	0.04 U	0.038 U	
Trichlorofluoromethane (CFC-11)	mg/kg	150		560	560	110000	140000000	140000000	1700000000	560	560	0.14 U	0.08 U	0.081 U	0.076 U	
Trifluorotrichloroethane (Freon 113)	mg/kg	550	1.7	550	550	210000	890000	2100000	2300000000	550	550	0.35 U	0.2 U	0.2 U	0.19 U	
Vinyl chloride	mg/kg	0.04	0.3	20	2.8	29	170	420	890000	34	490	0.14 U	0.08 U	0.081 U	0.076 U	
Xylene (total)	mg/kg	5.6	0.7	150	150	54000	65000	130000	130000000	150	150	0.21 U	0.12 U	0.12 U	0.11 U	

Notes:
⁽¹⁾ Cleanup criteria identified by MDEQ RRD Op Memo No. 1, updated 1/23/2006, pursuant to 1994 PA 451 as amended.
U - Not present at or above the associated value.
J - Estimated concentration.
UJ - Estimated reporting limit.
 Value exceeds referenced Part 201 Criteria (i.e. a, b, etc.)
ID - Insufficient data to develop criterion
NLL - Hazardous substance is not likely to leach under most soil conditions
NLV - Hazardous substance is not likely to volatilize under most conditions

TABLE 3

SUMMARY OF SOIL SAMPLE RESULTS COMPARED TO MICHIGAN ACT 451, PART 201 INDUSTRIAL CRITERIA
GENERAL MOTORS CORPORATION
GRAND RAPIDS METAL PLANT
WYOMING, MICHIGAN

Sample Location	<i>Michigan Act 451, Part 201 Industrial and Commercial II, III, IV ⁽¹⁾</i>										<i>SB6-05</i>	<i>SB6-05</i>	<i>SB6-05</i>	<i>SB6-05</i>	<i>SB6-05</i>
Sample Identification	Industrial and	Groundwater	Groundwater	Soil Volatilization	Infinite Source	Finite VSIC for	Finite VSIC for	Particulate	Direct Contact	Soil Saturation	<i>SO-17360-071105-DCR-423</i>	<i>SO-17360-071105-DCR-424</i>	<i>SO-17360-071105-DCR-425</i>	<i>SO-17360-071105-DCR-426</i>	<i>SO-17360-071105-DCR-427</i>
Sample Date	Commercial	Surface Water	Contact	to Indoor Air	Volatile Soil	5 Meter Source	2 Meter Source	Soil Inhalation	Industrial and	Concentration	<i>7/11/2005</i>	<i>7/11/2005</i>	<i>7/11/2005</i>	<i>7/11/2005</i>	<i>7/11/2005</i>
Sample Depth	Drinking Water	Interface Protection	Protection	Inhalation	Inhalation	Thickness	Thickness		Commercial II	Screening	<i>8-10 ft BGS</i>	<i>10-12 ft BGS</i>	<i>12-14 ft BGS</i>	<i>14-16 ft BGS</i>	<i>16-18 ft BGS</i>
Sample Type	a	b	c	d	e	f	g	h	i	j					
<i>Units</i>															
<i>Volatile Organic Compounds</i>															
1,1,1-Trichloroethane	mg/kg	4	4	460	460	4500	15000	31000	29000000	460	460	0.038 U	0.048 U	0.038 U	0.053 U
1,1,2,2-Tetrachloroethane	mg/kg	0.7	1.6	94	23	34	34	34	68000	240	870	0.075 U	0.096 U	0.076 U	0.11 U
1,1,2-Trichloroethane	mg/kg	0.1	6.6	420	24	57	57	120	250000	840	920	0.038 U	0.048 U	0.038 U	0.053 U
1,1-Dichloroethane	mg/kg	50	15	890	430	2500	6000	14000	15000000	890	890	0.038 U	0.048 U	0.038 U	0.053 U
1,1-Dichloroethene	mg/kg	0.14	1.3	220	0.33	3.7	15	37	78000	570	570	0.038 U	0.048 U	0.038 U	0.053 U
1,2,4-Trichlorobenzene	mg/kg	4.2	1.8	1100	1100	34000	34000	34000	11000000	1100	1100	0.19 U	0.24 U	0.19 U	0.26 U
1,2-Dibromo-3-chloropropane (DBCP)	mg/kg	0.01		1.2	1.2	15	15	15	5900	1.2	1.2	0.19 U	0.24 U	0.19 U	0.26 U
1,2-Dibromoethane (Ethylene Dibromide)	mg/kg	0.02	0.02	0.5	3.6	5.8	5.8	9.8	18000	0.43	890	0.19 U	0.24 U	0.19 U	0.26 U
1,2-Dichlorobenzene	mg/kg	14	0.36	210	210	46000	46000	55000	44000000	210	210	0.075 U	0.096 U	0.076 U	0.11 U
1,2-Dichloroethane	mg/kg	0.1	7.2	380	11	21	33	74	150000	420	1200	0.038 U	0.048 U	0.038 U	0.053 U
1,2-Dichloropropane	mg/kg	0.1	5.8	320	7.4	30	51	120	120000	550	550	0.038 U	0.048 U	0.038 U	0.053 U
1,3-Dichlorobenzene	mg/kg	0.48	1.1	51	ID	ID	ID	ID	ID	170	170	0.075 U	0.096 U	0.076 U	0.11 U
1,4-Dichlorobenzene	mg/kg	1.7	0.29	140	100	260	260	340	570000	1900		0.075 U	0.096 U	0.076 U	0.11 U
2-Butanone (Methyl Ethyl Ketone)	mg/kg	760	44	27000	27000	35000	35000	36000	29000000	27000	27000	0.56 U	0.72 U	0.57 U	0.79 U
2-Hexanone	mg/kg	58		2500	1800	1300	1300	1500	1200000	2500	2500	1.9 U	2.4 U	1.9 U	2.6 U
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	mg/kg	100	ID	2700	2700	53000	53000	70000	60000000	2700	2700	1.9 U	2.4 U	1.9 U	2.6 U
Acetone	mg/kg	42	34	110000	110000	160000	160000	200000	170000000	73000	110000	0.56 U	0.72 U	0.57 U	0.79 U
Benzene	mg/kg	0.1	4	220	8.4	45	99	230	470000	400	400	0.038 U	0.048 U	0.038 U	0.053 U
Bromodichloromethane	mg/kg	1.6	ID	280	6.4	31	31	57	110000	490	1500	0.075 UJ	0.096 UJ	0.076 UJ	0.11 UJ
Bromoform	mg/kg	1.6	ID	870	770	3100	3100	3100	3600000	870	870	0.075 U	0.096 U	0.076 U	0.11 U
Bromomethane (Methyl Bromide)	mg/kg	0.58	0.7	1400	1.6	13	57	140	150000	1000	2200	0.19 U	0.24 U	0.19 U	0.26 U
Carbon disulfide	mg/kg	46	ID	280	140	1600	8000	19000	21000000	280	280	0.19 U	0.24 U	0.19 U	0.26 U
Carbon tetrachloride	mg/kg	0.1	0.9	92	0.99	12	34	79	170000	390	390	0.038 U	0.048 U	0.038 U	0.053 U
Chlorobenzene	mg/kg	2	0.94	260	220	920	1100	2100	2100000	260	260	0.038 U	0.048 U	0.038 U	0.053 U
Chloroethane	mg/kg	34	ID	950	950	36000	120000	280000	290000000	950	950	0.19 U	0.24 U	0.19 U	0.26 U
Chloroform (Trichloromethane)	mg/kg	1.6	3.4	1500	38	150	340	790	1600000	1500	1500	0.038 U	0.048 U	0.038 U	0.053 U
Chloromethane (Methyl Chloride)	mg/kg	22	ID	1100	10	120	1000	2500	2600000	1100	1100	0.19 U	0.24 U	0.19 U	0.26 U
cis-1,2-Dichloroethene	mg/kg	1.4	12	640	41	210	430	1000000	640	640		0.038 U	0.048 U	0.038 U	0.053 U
cis-1,3-Dichloropropene	mg/kg											0.038 U	0.048 U	0.038 U	0.053 U
Cyclohexane	mg/kg											0.9 U	1.2 U	0.91 U	1.3 U
Dibromochloromethane	mg/kg	1.6	ID	360	21	80	80	98	160000	500	610	0.038 U	0.048 U	0.038 U	0.053 U
Dichlorodifluoromethane (CFC-12)	mg/kg	270	ID	1000	1700	63000	550000	1400000	1500000000	1000	1000	0.075 U	0.096 U	0.076 U	0.11 U
Ethylbenzene	mg/kg	1.5	0.36	140	140	2400	3100	6500	13000000	140	140	0.038 U	0.048 U	0.038 U	0.053 U
Isopropylbenzene	mg/kg	260	ID	390	390	2000	2000	3000	2600000	390	390	0.19 U	0.24 U	0.19 U	0.26 U
Methyl acetate	mg/kg											0.9 U	1.2 U	0.91 U	1.3 U
Methyl cyclohexane	mg/kg											0.9 U	1.2 U	0.91 U	1.3 U
Methyl Tert Butyl Ether	mg/kg	0.8	15	5900	5900	30000	41000	89000	88000000	5900	5900	0.19 U	0.24 U	0.19 U	0.26 U
Methylene chloride	mg/kg	0.1	19	2300	240	700	1700	4000	8300000	2300	2300	0.19 U	0.24 U	0.19 U	0.26 U
Styrene	mg/kg	2.7	2.2	270	520	3300	3300	4200	6900000	520	520	0.038 U	0.048 U	0.038 U	0.053 U
Tetrachloroethene	mg/kg	0.1	0.9	88	60	600	1400	3300	6800000	88	88	0.038 U	0.048 U	0.038 U	0.053 U
Toluene	mg/kg	16	2.8	250	250	3300	36000	36000	12000000	250	250	0.075 U	0.096 U	0.076 U	0.11 U
trans-1,2-Dichloroethene	mg/kg	2	30	1400	43	330	840	2000	2100000	1400	1400	0.038 U	0.048 U	0.038 U	0.053 U
trans-1,3-Dichloropropene	mg/kg											0.038 UJ	0.048 UJ	0.038 UJ	0.053 UJ
Trichloroethene	mg/kg	0.1	4	440	37	260	440	1100	2300000	500	500	0.038 U	0.048 U	0.038 U	0.053 U
Trichlorofluoromethane (CFC-11)	mg/kg	150		560	560	110000	14000000	140000000	1700000000	560	560	0.075 U	0.096 U	0.076 U	0.11 U
Trifluorotrichloroethane (Freon 113)	mg/kg	550	1.7	550	550	210000	890000	2100000	2300000000	550	550	0.19 U	0.24 U	0.19 U	0.26 U
Vinyl chloride	mg/kg	0.04	0.3	20	2.8	29	170	420	890000	34	490	0.075 U	0.096 U	0.076 U	0.11 U
Xylene (total)	mg/kg	5.6	0.7	150	150	54000	65000	130000	130000000	150	150	0.11 U	0.14 U	0.11 U	0.16 U

Notes:
⁽¹⁾ Cleanup criteria identified by MDEQ RRD Op Memo No. 1, updated 1/23/2006, pursuant to 1994 PA 451 as amended.
U - Not present at or above the associated value.
J - Estimated concentration.
UJ - Estimated reporting limit.
 Value exceeds referenced Part 201 Criteria (i.e. a, b, etc.)
ID - Insufficient data to develop criterion
NLL - Hazardous substance is not likely to leach under most soil conditions
NLV - Hazardous substance is not likely to volatilize under most conditions

TABLE 3

SUMMARY OF SOIL SAMPLE RESULTS COMPARED TO MICHIGAN ACT 451, PART 201 INDUSTRIAL CRITERIA
GENERAL MOTORS CORPORATION
GRAND RAPIDS METAL PLANT
WYOMING, MICHIGAN

Sample Location	Michigan Act 451, Part 201 Industrial and Commercial II, III, IV ⁽¹⁾											SB6-05	SB6-05	SB7-05	SB7-05	SB7-05
Sample Identification	Industrial and Commercial	Groundwater Surface Water	Groundwater Contact Protection	Soil Volatilization to Indoor Air Inhalation	Infinite Source Volatile Soil Inhalation	Finite VSIC for 5 Meter Source Thickness	Finite VSIC for 2 Meter Source Thickness	Particulate Soil Inhalation	Direct Contact Industrial and Commercial II	Soil Saturation Concentration Screening	SO-17360-071105-DCR-428	SO-17360-071105-DCR-429	SO-17360-071105-DCR-450	SO-17360-071105-DCR-451	SO-17360-071105-DCR-452	
Sample Date	Drinking Water	Interface Protection									7/11/2005	7/11/2005	7/11/2005	7/11/2005	7/11/2005	
Sample Depth											18-20 ft BGS	8-10 ft BGS	0-2 ft BGS	2-4 ft BGS	4-6 ft BGS	
Sample Type	a	b	c	d	e	f	g	h	i	j			Duplicate			
Units																
Volatile Organic Compounds																
1,1,1-Trichloroethane	mg/kg	4	4	460	460	4500	15000	31000	29000000	460	460	0.042 U	0.04 U	0.04 U	0.074 U	0.039 U
1,1,2,2-Tetrachloroethane	mg/kg	0.7	1.6	94	23	34	34	34	68000	240	870	0.084 U	0.079 U	0.08 U	0.15 U	0.078 U
1,1,2-Trichloroethane	mg/kg	0.1	6.6	420	24	57	57	120	250000	840	920	0.042 U	0.04 U	0.04 U	0.074 U	0.039 U
1,1-Dichloroethane	mg/kg	50	15	890	430	2500	6000	14000	15000000	890	890	0.042 U	0.04 U	0.04 U	0.074 U	0.039 U
1,1-Dichloroethene	mg/kg	0.14	1.3	220	0.33	3.7	15	37	78000	570	570	0.042 U	0.04 U	0.04 U	0.074 U	0.039 U
1,2,4-Trichlorobenzene	mg/kg	4.2	1.8	1100	1100	34000	34000	34000	11000000	1100	1100	0.21 U	0.2 U	0.2 U	0.37 U	0.19 U
1,2-Dibromo-3-chloropropane (DBCP)	mg/kg	0.01		1.2	1.2	15	15	15	5900	1.2	1.2	0.21 U	0.2 U	0.2 U	0.37 U	0.19 U
1,2-Dibromoethane (Ethylene Dibromide)	mg/kg	0.02	0.02	0.5	3.6	5.8	5.8	9.8	18000	0.43	890	0.21 U	0.2 U	0.2 U	0.37 U	0.19 U
1,2-Dichlorobenzene	mg/kg	14	0.36	210	210	46000	46000	55000	44000000	210	210	0.084 U	0.079 U	0.08 U	0.15 U	0.078 U
1,2-Dichloroethane	mg/kg	0.1	7.2	380	11	21	33	74	150000	420	1200	0.042 U	0.04 U	0.04 U	0.074 U	0.039 U
1,2-Dichloropropane	mg/kg	0.1	5.8	320	7.4	30	51	120	120000	550	550	0.042 U	0.04 U	0.04 U	0.074 U	0.039 U
1,3-Dichlorobenzene	mg/kg	0.48	1.1	51	ID	ID	ID	ID	ID	170	170	0.084 U	0.079 U	0.08 U	0.15 U	0.078 U
1,4-Dichlorobenzene	mg/kg	1.7	0.29	140	100	260	260	340	570000	1900		0.084 U	0.079 U	0.08 U	0.15 U	0.078 U
2-Butanone (Methyl Ethyl Ketone)	mg/kg	760	44	27000	27000	35000	35000	36000	29000000	27000	27000	0.63 U	0.59 U	0.6 U	1.1 U	0.58 U
2-Hexanone	mg/kg	58		2500	1800	1300	1300	1500	1200000	2500	2500	2.1 U	2 U	2 U	3.7 U	1.9 U
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	mg/kg	100	ID	2700	2700	53000	53000	70000	60000000	2700	2700	2.1 U	2 U	2 U	3.7 U	1.9 U
Acetone	mg/kg	42	34	110000	110000	160000	160000	200000	170000000	73000	110000	0.63 U	0.59 U	0.6 U	1.1 U	0.58 U
Benzene	mg/kg	0.1	4	220	8.4	45	99	230	470000	400	400	0.042 U	0.04 U	0.04 U	0.074 U	0.039 U
Bromodichloromethane	mg/kg	1.6	ID	280	6.4	31	31	57	110000	490	1500	0.084 U	0.079 U	0.08 UJ	0.15 UJ	0.078 UJ
Bromoform	mg/kg	1.6	ID	870	770	3100	3100	3100	3600000	870	870	0.084 U	0.079 U	0.08 U	0.15 U	0.078 U
Bromomethane (Methyl Bromide)	mg/kg	0.58	0.7	1400	1.6	13	57	140	150000	1000	2200	0.21 U	0.2 U	0.2 U	0.37 U	0.19 U
Carbon disulfide	mg/kg	46	ID	280	140	1600	8000	19000	21000000	280	280	0.21 U	0.2 U	0.2 U	0.37 U	0.19 U
Carbon tetrachloride	mg/kg	0.1	0.9	92	0.99	12	34	79	170000	390	390	0.042 U	0.04 U	0.04 U	0.074 U	0.039 U
Chlorobenzene	mg/kg	2	0.94	260	220	920	1100	2100	2100000	260	260	0.042 U	0.04 U	0.04 U	0.074 U	0.039 U
Chloroethane	mg/kg	34	ID	950	950	36000	120000	280000	290000000	950	950	0.21 U	0.2 U	0.2 U	0.37 U	0.19 U
Chloroform (Trichloromethane)	mg/kg	1.6	3.4	1500	38	150	340	790	1600000	1500	1500	0.042 U	0.04 U	0.04 U	0.074 U	0.039 U
Chloromethane (Methyl Chloride)	mg/kg	22	ID	1100	10	120	1000	2500	2600000	1100	1100	0.21 U	0.2 U	0.2 U	0.37 U	0.19 U
cis-1,2-Dichloroethene	mg/kg	1.4	12	640	41	210	430	1000	1000000	640	640	0.042 U	0.04 U	0.04 U	0.074 U	0.039 U
cis-1,3-Dichloropropene	mg/kg											0.042 U	0.04 U	0.04 U	0.074 U	0.039 U
Cyclohexane	mg/kg											1 U	0.95 U	0.008 J	1.8 U	0.93 U
Dibromochloromethane	mg/kg	1.6	ID	360	21	80	80	98	160000	500	610	0.042 U	0.04 U	0.04 U	0.074 U	0.039 U
Dichlorodifluoromethane (CFC-12)	mg/kg	270	ID	1000	1700	63000	550000	1400000	1500000000	1000	1000	0.084 U	0.079 U	0.08 U	0.15 U	0.078 U
Ethylbenzene	mg/kg	1.5	0.36	140	140	2400	3100	6500	13000000	140	140	0.042 U	0.04 U	0.04 U	0.074 U	0.039 U
Isopropylbenzene	mg/kg	260	ID	390	390	2000	2000	3000	2600000	390	390	0.21 U	0.2 U	0.2 U	0.37 U	0.19 U
Methyl acetate	mg/kg											1 U	0.95 U	0.96 U	1.8 U	0.93 U
Methyl cyclohexane	mg/kg											1 U	0.95 U	0.026 J	0.032 J	0.93 U
Methyl Tert Butyl Ether	mg/kg	0.8	15	5900	5900	30000	41000	89000	88000000	5900	5900	0.21 U	0.2 U	0.2 U	0.37 U	0.19 U
Methylene chloride	mg/kg	0.1	19	2300	240	700	1700	4000	8300000	2300	2300	0.21 U	0.2 U	0.2 U	0.37 U	0.19 U
Styrene	mg/kg	2.7	2.2	270	520	3300	3300	4200	6900000	520	520	0.042 U	0.04 U	0.04 U	0.074 U	0.039 U
Tetrachloroethene	mg/kg	0.1	0.9	88	60	600	1400	3300	6800000	88	88	0.042 U	0.04 U	0.04 U	0.074 U	0.039 U
Toluene	mg/kg	16	2.8	250	250	3300	36000	36000	12000000	250	250	0.084 U	0.079 U	0.08 U	0.15 U	0.078 U
trans-1,2-Dichloroethene	mg/kg	2	30	1400	43	330	840	2000	2100000	1400	1400	0.042 U	0.04 U	0.04 U	0.074 U	0.039 U
trans-1,3-Dichloropropene	mg/kg											0.042 U	0.04 U	0.04 U	0.074 U	0.039 U
Trichloroethene	mg/kg	0.1	4	440	37	260	440	1100	2300000	500	500	0.042 U	0.04 U	1.6"		0.016 J
Trichlorofluoromethane (CFC-11)	mg/kg	150		560	560	110000	140000000	140000000	1700000000	560	560	0.084 U	0.079 U	0.08 U	0.15 U	0.078 U
Trifluorotrichloroethane (Freon 113)	mg/kg	550	1.7	550	550	210000	890000	2100000	2300000000	550	550	0.21 U	0.2 U	0.2 U	0.37 U	0.19 U
Vinyl chloride	mg/kg	0.04	0.3	20	2.8	29	170	420	890000	34	490	0.084 U	0.079 U	0.08 U	0.15 U	0.078 U
Xylene (total)	mg/kg	5.6	0.7	150	150	54000	65000	130000	130000000	150	150	0.13 U	0.12 U	0.016 J	0.22 U	0.12 U

Notes:
⁽¹⁾ Cleanup criteria identified by MDEQ RRD Op Memo No. 1, updated 1/23/2006, pursuant to 1994 PA 451 as amended.
U - Not present at or above the associated value.
J - Estimated concentration.
UJ - Estimated reporting limit.
☐ Value exceeds referenced Part 201 Criteria (i.e. a, b, etc.)
ID - Insufficient data to develop criterion
NLL - Hazardous substance is not likely to leach under most soil conditions
NLV - Hazardous substance is not likely to volatilize under most conditions

TABLE 3

SUMMARY OF SOIL SAMPLE RESULTS COMPARED TO MICHIGAN ACT 451, PART 201 INDUSTRIAL CRITERIA
GENERAL MOTORS CORPORATION
GRAND RAPIDS METAL PLANT
WYOMING, MICHIGAN

Sample Location	Michigan Act 451, Part 201 Industrial and Commercial II, III, IV ⁽¹⁾										SB7-05	SB7-05	SB7-05	SB7-05	SB7-05	
Sample Identification	Industrial and Commercial	Groundwater Surface Water	Groundwater Contact	Soil Volatilization to Indoor Air	Infinite Source Inhalation	Finite VSIC for 5 Meter Source Thickness	Finite VSIC for 2 Meter Source Thickness	Particulate Soil Inhalation	Direct Contact Industrial and Commercial II	Soil Saturation Concentration Screening	SO-17360-071105-DCR-453	SO-17360-071105-DCR-454	SO-17360-071105-DCR-455	SO-17360-071105-DCR-456	SO-17360-071105-DCR-457	
Sample Date	Drinking Water	Interface Protection	Protection	Inhalation	Inhalation	Thickness	Thickness				7/11/2005	7/11/2005	7/11/2005	7/11/2005	7/11/2005	
Sample Depth											6-8 ft BGS	8-10 ft BGS	10-12 ft BGS	12-14 ft BGS	14-16 ft BGS	
Sample Type	a	b	c	d	e	f	g	h	i	j						
Units																
Volatile Organic Compounds																
1,1,1-Trichloroethane	mg/kg	4	4	460	460	4500	15000	31000	29000000	460	460	0.037 U	0.039 U	0.041 U	0.038 U	0.044 U
1,1,2,2-Tetrachloroethane	mg/kg	0.7	1.6	94	23	34	34	34	68000	240	870	0.074 U	0.078 U	0.082 U	0.077 U	0.089 U
1,1,2-Trichloroethane	mg/kg	0.1	6.6	420	24	57	57	120	250000	840	920	0.037 U	0.039 U	0.041 U	0.038 U	0.044 U
1,1-Dichloroethane	mg/kg	50	15	890	430	2500	6000	14000	15000000	890	890	0.037 U	0.039 U	0.041 U	0.038 U	0.044 U
1,1-Dichloroethene	mg/kg	0.14	1.3	220	0.33	3.7	15	37	78000	570	570	0.037 U	0.039 U	0.041 U	0.038 U	0.044 U
1,2,4-Trichlorobenzene	mg/kg	4.2	1.8	1100	1100	34000	34000	34000	11000000	1100	1100	0.18 U	0.19 U	0.2 U	0.19 U	0.22 U
1,2-Dibromo-3-chloropropane (DBCP)	mg/kg	0.01		1.2	1.2	15	15	15	5900	1.2	1.2	0.18 U	0.19 U	0.2 U	0.19 U	0.22 U
1,2-Dibromoethane (Ethylene Dibromide)	mg/kg	0.02	0.02	0.5	3.6	5.8	5.8	9.8	18000	0.43	890	0.18 U	0.19 U	0.2 U	0.19 U	0.22 U
1,2-Dichlorobenzene	mg/kg	14	0.36	210	210	46000	46000	55000	44000000	210	210	0.074 U	0.078 U	0.082 U	0.077 U	0.089 U
1,2-Dichloroethane	mg/kg	0.1	7.2	380	11	21	33	74	150000	420	1200	0.037 U	0.039 U	0.041 U	0.038 U	0.044 U
1,2-Dichloropropane	mg/kg	0.1	5.8	320	7.4	30	51	120	120000	550	550	0.037 U	0.039 U	0.041 U	0.038 U	0.044 U
1,3-Dichlorobenzene	mg/kg	0.48	1.1	51	ID	ID	ID	ID	ID	170	170	0.074 U	0.078 U	0.082 U	0.077 U	0.089 U
1,4-Dichlorobenzene	mg/kg	1.7	0.29	140	100	260	260	340	570000	1900		0.074 U	0.078 U	0.082 U	0.077 U	0.089 U
2-Butanone (Methyl Ethyl Ketone)	mg/kg	760	44	27000	27000	35000	35000	36000	29000000	27000	27000	0.55 U	0.58 U	0.61 U	0.58 U	0.67 U
2-Hexanone	mg/kg	58		2500	1800	1300	1300	1500	1200000	2500	2500	1.8 U	1.9 U	2 U	1.9 U	2.2 U
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	mg/kg	100	ID	2700	2700	53000	53000	70000	60000000	2700	2700	1.8 U	1.9 U	2 U	1.9 U	2.2 U
Acetone	mg/kg	42	34	110000	110000	160000	160000	200000	170000000	73000	110000	0.55 U	0.58 U	0.61 U	0.58 U	0.67 U
Benzene	mg/kg	0.1	4	220	8.4	45	99	230	470000	400	400	0.037 U	0.039 U	0.041 U	0.038 U	0.044 U
Bromodichloromethane	mg/kg	1.6	ID	280	6.4	31	31	57	110000	490	1500	0.074 UJ	0.078 UJ	0.082 UJ	0.077 UJ	0.089 UJ
Bromoform	mg/kg	1.6	ID	870	770	3100	3100	3100	3600000	870	870	0.074 U	0.078 U	0.082 U	0.077 U	0.089 U
Bromomethane (Methyl Bromide)	mg/kg	0.58	0.7	1400	1.6	13	57	140	150000	1000	2200	0.18 U	0.19 U	0.2 U	0.19 U	0.22 U
Carbon disulfide	mg/kg	46	ID	280	140	1600	8000	19000	21000000	280	280	0.18 U	0.19 U	0.2 U	0.19 U	0.22 U
Carbon tetrachloride	mg/kg	0.1	0.9	92	0.99	12	34	79	170000	390	390	0.037 U	0.039 U	0.041 U	0.038 U	0.044 U
Chlorobenzene	mg/kg	2	0.94	260	220	920	1100	2100	2100000	260	260	0.037 U	0.039 U	0.041 U	0.038 U	0.044 U
Chloroethane	mg/kg	34	ID	950	950	36000	120000	280000	290000000	950	950	0.18 U	0.19 U	0.2 U	0.19 U	0.22 U
Chloroform (Trichloromethane)	mg/kg	1.6	3.4	1500	38	150	340	790	1600000	1500	1500	0.037 U	0.039 U	0.041 U	0.038 U	0.044 U
Chloromethane (Methyl Chloride)	mg/kg	22	ID	1100	10	120	1000	2500	2600000	1100	1100	0.18 U	0.19 U	0.2 U	0.19 U	0.22 U
cis-1,2-Dichloroethene	mg/kg	1.4	12	640	41	210	430	1000	1000000	640	640	0.037 U	0.039 U	0.041 U	0.038 U	0.044 U
cis-1,3-Dichloropropene	mg/kg											0.037 U	0.039 U	0.041 U	0.038 U	0.044 U
Cyclohexane	mg/kg											0.88 U	0.93 U	0.98 U	0.92 U	1.1 U
Dibromochloromethane	mg/kg	1.6	ID	360	21	80	80	98	160000	500	610	0.037 U	0.039 U	0.041 U	0.038 U	0.044 U
Dichlorodifluoromethane (CFC-12)	mg/kg	270	ID	1000	1700	63000	550000	1400000	1500000000	1000	1000	0.074 U	0.078 U	0.082 U	0.077 U	0.089 U
Ethylbenzene	mg/kg	1.5	0.36	140	140	2400	3100	6500	13000000	140	140	0.037 U	0.039 U	0.041 U	0.038 U	0.044 U
Isopropylbenzene	mg/kg	260	ID	390	390	2000	2000	3000	2600000	390	390	0.18 U	0.19 U	0.2 U	0.19 U	0.22 U
Methyl acetate	mg/kg											0.88 U	0.93 U	0.98 U	0.92 U	0.19 J
Methyl cyclohexane	mg/kg											0.88 U	0.93 U	0.98 U	0.92 U	1.1 U
Methyl Tert Butyl Ether	mg/kg	0.8	15	5900	5900	30000	41000	89000	88000000	5900	5900	0.18 U	0.19 U	0.2 U	0.19 U	0.22 U
Methylene chloride	mg/kg	0.1	19	2300	240	700	1700	4000	8300000	2300	2300	0.18 U	0.19 U	0.2 U	0.19 U	0.22 U
Styrene	mg/kg	2.7	2.2	270	520	3300	3300	4200	6900000	520	520	0.037 U	0.039 U	0.041 U	0.038 U	0.044 U
Tetrachloroethene	mg/kg	0.1	0.9	88	60	600	1400	3300	6800000	88	88	0.037 U	0.039 U	0.041 U	0.038 U	0.044 U
Toluene	mg/kg	16	2.8	250	250	3300	36000	36000	12000000	250	250	0.074 U	0.078 U	0.082 U	0.077 U	0.089 U
trans-1,2-Dichloroethene	mg/kg	2	30	1400	43	330	840	2000	2100000	1400	1400	0.037 U	0.039 U	0.041 U	0.038 U	0.044 U
trans-1,3-Dichloropropene	mg/kg											0.037 U	0.039 U	0.041 U	0.038 U	0.044 U
Trichloroethene	mg/kg	0.1	4	440	37	260	440	1100	2300000	500	500	0.037 U	0.039 U	0.041 U	0.038 U	0.29
Trichlorofluoromethane (CFC-11)	mg/kg	150		560	560	110000	140000000	140000000	1700000000	560	560	0.074 U	0.078 U	0.082 U	0.077 U	0.089 U
Trifluorotrichloroethane (Freon 113)	mg/kg	550	1.7	550	550	210000	890000	2100000	2300000000	550	550	0.18 U	0.19 U	0.2 U	0.19 U	0.22 U
Vinyl chloride	mg/kg	0.04	0.3	20	2.8	29	170	420	890000	34	490	0.074 U	0.078 U	0.082 U	0.077 U	0.089 U
Xylene (total)	mg/kg	5.6	0.7	150	150	54000	65000	130000	130000000	150	150	0.11 U	0.12 U	0.12 U	0.12 U	0.13 U

Notes:
⁽¹⁾ Cleanup criteria identified by MDEQ RRD Op Memo No. 1, updated 1/23/2006, pursuant to 1994 PA 451 as amended.
U - Not present at or above the associated value.
J - Estimated concentration.
UJ - Estimated reporting limit.

Value exceeds referenced Part 201 Criteria (i.e. a, b, etc.)

ID - Insufficient data to develop criterion

NLL - Hazardous substance is not likely to leach under most soil conditions

NLV - Hazardous substance is not likely to volatilize under most conditions

TABLE 3

SUMMARY OF SOIL SAMPLE RESULTS COMPARED TO MICHIGAN ACT 451, PART 201 INDUSTRIAL CRITERIA
GENERAL MOTORS CORPORATION
GRAND RAPIDS METAL PLANT
WYOMING, MICHIGAN

Sample Location	<i>Michigan Act 451, Part 201 Industrial and Commercial II, III, IV ⁽¹⁾</i>										<i>SB7-05</i>	<i>SB7-05</i>	<i>SB8-05</i>	<i>SB8-05</i>	<i>SB8-05</i>
Sample Identification	Industrial and	Groundwater	Groundwater	Soil Volatilization	Infinite Source	Finite VSIC for	Finite VSIC for	Particulate	Direct Contact	Soil Saturation	<i>SO-17360-071105-DCR-458</i>	<i>SO-17360-071105-DCR-459</i>	<i>SO-17360-071205-DCR-471</i>	<i>SO-17360-071205-DCR-472</i>	<i>SO-17360-071205-DCR-473</i>
Sample Date	Commercial	Surface Water	Contact	to Indoor Air	Volatile Soil	5 Meter Source	2 Meter Source	Soil Inhalation	Industrial and	Concentration	<i>7/11/2005</i>	<i>7/11/2005</i>	<i>7/12/2005</i>	<i>7/12/2005</i>	<i>7/12/2005</i>
Sample Depth	Drinking Water	Interface Protection	Protection	Inhalation	Inhalation	Thickness	Thickness		Commercial II	Screening	<i>16-18 ft BGS</i>	<i>18-20 ft BGS</i>	<i>0-2 ft BGS</i>	<i>2-4 ft BGS</i>	<i>4-6 ft BGS</i>
Sample Type	a	b	c	d	e	f	g	h	i	j					
<i>Units</i>															
<i>Volatile Organic Compounds</i>															
1,1,1-Trichloroethane	mg/kg	4	4	460	460	4500	15000	31000	29000000	460	460	0.052 U	0.04 U	1.3 U	0.04 U
1,1,2,2-Tetrachloroethane	mg/kg	0.7	1.6	94	23	34	34	34	68000	240	870	0.1 U	0.081 U	2.7 U	0.08 U
1,1,2-Trichloroethane	mg/kg	0.1	6.6	420	24	57	57	120	250000	840	920	0.052 U	0.04 U	1.3 U	0.04 U
1,1-Dichloroethane	mg/kg	50	15	890	430	2500	6000	14000	15000000	890	890	0.052 U	0.04 U	1.3 U	0.04 U
1,1-Dichloroethene	mg/kg	0.14	1.3	220	0.33	3.7	15	37	78000	570	570	0.052 U	0.04 U	1.3 U	0.04 U
1,2,4-Trichlorobenzene	mg/kg	4.2	1.8	1100	1100	34000	34000	34000	11000000	1100	1100	0.26 U	0.2 U	6.7 U	0.2 U
1,2-Dibromo-3-chloropropane (DBCP)	mg/kg	0.01		1.2	1.2	15	15	15	5900	1.2	1.2	0.26 U	0.2 U	6.7 U	0.2 U
1,2-Dibromoethane (Ethylene Dibromide)	mg/kg	0.02	0.02	0.5	3.6	5.8	5.8	9.8	18000	0.43	890	0.26 U	0.2 U	6.7 U	0.2 U
1,2-Dichlorobenzene	mg/kg	14	0.36	210	210	46000	46000	55000	44000000	210	210	0.1 U	0.081 U	2.7 U	0.08 U
1,2-Dichloroethane	mg/kg	0.1	7.2	380	11	21	33	74	150000	420	1200	0.052 U	0.04 U	1.3 U	0.04 U
1,2-Dichloropropane	mg/kg	0.1	5.8	320	7.4	30	51	120	120000	550	550	0.052 U	0.04 U	1.3 U	0.04 U
1,3-Dichlorobenzene	mg/kg	0.48	1.1	51	ID	ID	ID	ID	ID	170	170	0.1 U	0.081 U	2.7 U	0.08 U
1,4-Dichlorobenzene	mg/kg	1.7	0.29	140	100	260	260	340	570000	1900		0.1 U	0.081 U	2.7 U	0.08 U
2-Butanone (Methyl Ethyl Ketone)	mg/kg	760	44	27000	27000	35000	35000	36000	29000000	27000	27000	0.78 U	0.61 U	20 U	0.6 U
2-Hexanone	mg/kg	58		2500	1800	1300	1300	1500	1200000	2500	2500	2.6 U	2 U	67 U	2 U
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	mg/kg	100	ID	2700	2700	53000	53000	70000	60000000	2700	2700	2.6 U	2 U	67 U	2 U
Acetone	mg/kg	42	34	110000	110000	160000	160000	200000	170000000	73000	110000	0.78 U	0.61 U	20 U	0.6 U
Benzene	mg/kg	0.1	4	220	8.4	45	99	230	470000	400	400	0.052 U	0.04 U	1.3 U	0.04 U
Bromodichloromethane	mg/kg	1.6	ID	280	6.4	31	31	57	110000	490	1500	0.1 UJ	0.081 UJ	2.7 UJ	0.08 UJ
Bromoform	mg/kg	1.6	ID	870	770	3100	3100	3100	3600000	870	870	0.1 U	0.081 U	2.7 U	0.08 U
Bromomethane (Methyl Bromide)	mg/kg	0.58	0.7	1400	1.6	13	57	140	150000	1000	2200	0.26 U	0.2 U	6.7 U	0.2 U
Carbon disulfide	mg/kg	46	ID	280	140	1600	8000	19000	21000000	280	280	0.26 U	0.2 U	6.7 U	0.2 U
Carbon tetrachloride	mg/kg	0.1	0.9	92	0.99	12	34	79	170000	390	390	0.052 U	0.04 U	1.3 U	0.04 U
Chlorobenzene	mg/kg	2	0.94	260	220	920	1100	2100	2100000	260	260	0.052 U	0.04 U	1.3 U	0.04 U
Chloroethane	mg/kg	34	ID	950	950	36000	120000	280000	290000000	950	950	0.26 U	0.2 U	6.7 U	0.2 U
Chloroform (Trichloromethane)	mg/kg	1.6	3.4	1500	38	150	340	790	1600000	1500	1500	0.052 U	0.04 U	1.3 U	0.04 U
Chloromethane (Methyl Chloride)	mg/kg	22	ID	1100	10	120	1000	2500	2600000	1100	1100	0.26 U	0.2 U	6.7 U	0.2 U
cis-1,2-Dichloroethene	mg/kg	1.4	12	640	41	210	430	1000	1000000	640	640	0.052 U	0.04 U	1.3 U	0.04 U
cis-1,3-Dichloropropene	mg/kg											0.052 U	0.04 U	1.3 UJ	0.04 UJ
Cyclohexane	mg/kg											1.2 U	0.97 U	32 U	0.96 U
Dibromochloromethane	mg/kg	1.6	ID	360	21	80	80	98	160000	500	610	0.052 U	0.04 U	1.3 U	0.04 U
Dichlorodifluoromethane (CFC-12)	mg/kg	270	ID	1000	1700	63000	550000	1400000	1500000000	1000	1000	0.1 U	0.081 U	2.7 U	0.08 U
Ethylbenzene	mg/kg	1.5	0.36	140	140	2400	3100	6500	13000000	140	140	0.052 U	0.04 U	1.3 U	0.04 U
Isopropylbenzene	mg/kg	260	ID	390	390	2000	2000	3000	2600000	390	390	0.26 U	0.2 U	6.7 U	0.2 U
Methyl acetate	mg/kg											0.14 J	0.97 U	32 U	0.96 U
Methyl cyclohexane	mg/kg											1.2 U	0.97 U	0.57 J	0.96 U
Methyl Tert Butyl Ether	mg/kg	0.8	15	5900	5900	30000	41000	89000	88000000	5900	5900	0.26 U	0.2 U	6.7 U	0.2 U
Methylene chloride	mg/kg	0.1	19	2300	240	700	1700	4000	8300000	2300	2300	0.26 U	0.2 U	6.7 U	0.2 U
Styrene	mg/kg	2.7	2.2	270	520	3300	3300	4200	6900000	520	520	0.052 U	0.04 U	1.3 U	0.04 U
Tetrachloroethene	mg/kg	0.1	0.9	88	60	600	1400	3300	6800000	88	88	0.052 U	0.04 U	1.3 U	0.04 U
Toluene	mg/kg	16	2.8	250	250	3300	36000	36000	12000000	250	250	0.1 U	0.081 U	2.7 U	0.08 U
trans-1,2-Dichloroethene	mg/kg	2	30	1400	43	330	840	2000	2100000	1400	1400	0.052 U	0.04 U	1.3 U	0.04 U
trans-1,3-Dichloropropene	mg/kg											0.052 U	0.04 U	1.3 UJ	0.04 UJ
Trichloroethene	mg/kg	0.1	4	440	37	260	440	1100	2300000	500	500	0.38	0.045	46	1.5
Trichlorofluoromethane (CFC-11)	mg/kg	150		560	560	110000	140000000	140000000	1700000000	560	560	0.1 U	0.081 U	2.7 U	0.08 U
Trifluorotrichloroethane (Freon 113)	mg/kg	550	1.7	550	550	210000	890000	2100000	2300000000	550	550	0.26 U	0.2 U	6.7 U	0.2 U
Vinyl chloride	mg/kg	0.04	0.3	20	2.8	29	170	420	890000	34	490	0.1 U	0.081 U	2.7 U	0.08 U
Xylene (total)	mg/kg	5.6	0.7	150	150	54000	65000	130000	130000000	150	150	0.16 U	0.12 U	4 U	0.12 U

Notes:
(1) Cleanup criteria identified by MDEQ RRD Op Memo No. 1, updated 1/23/2006, pursuant to 1994 PA 451 as amended.
U - Not present at or above the associated value.
J - Estimated concentration.
UJ - Estimated reporting limit.
☐ Value exceeds referenced Part 201 Criteria (i.e. a, b, etc.)
ID - Insufficient data to develop criterion
NLL - Hazardous substance is not likely to leach under most soil conditions
NLV - Hazardous substance is not likely to volatilize under most conditions

TABLE 3

SUMMARY OF SOIL SAMPLE RESULTS COMPARED TO MICHIGAN ACT 451, PART 201 INDUSTRIAL CRITERIA
GENERAL MOTORS CORPORATION
GRAND RAPIDS METAL PLANT
WYOMING, MICHIGAN

Sample Location	Michigan Act 451, Part 201 Industrial and Commercial II, III, IV ⁽¹⁾										SB8-05	SB8-05	SB8-05	SB8-05	SB8-05		
Sample Identification	Industrial and Commercial	Groundwater Surface Water	Groundwater Contact	Soil Volatilization to Indoor Air	Infinite Source	Finite VSIC for 5 Meter Source	Finite VSIC for 2 Meter Source	Particulate Soil Inhalation	Direct Contact Industrial and Commercial II	Soil Saturation Concentration	SO-17360-071205-DCR-474	SO-17360-071205-DCR-475	SO-17360-071205-DCR-476	SO-17360-071205-DCR-477	SO-17360-071205-DCR-478		
Sample Date	Drinking Water	Interface Protection	Protection	Inhalation	Inhalation	Thickness	Thickness				7/12/2005	7/12/2005	7/12/2005	7/12/2005	7/12/2005		
Sample Depth											6-8 ft BGS	8-10 ft BGS	10-12 ft BGS	12-14 ft BGS	14-16 ft BGS		
Sample Type	a	b	c	d	e	f	g	h	i	j							
Units																	
Volatile Organic Compounds																	
1,1,1-Trichloroethane	mg/kg	4	4	460	460	4500	15000	31000	29000000	460	460	0.039 U	0.04 U	0.15 U	0.046 U	0.04 U	
1,1,2,2-Tetrachloroethane	mg/kg	0.7	1.6	94	23	34	34	34	68000	240	870	0.078 U	0.08 U	0.3 U	0.092 U	0.08 U	
1,1,2-Trichloroethane	mg/kg	0.1	6.6	420	24	57	57	120	250000	840	920	0.039 U	0.04 U	0.15 U	0.046 U	0.04 U	
1,1-Dichloroethane	mg/kg	50	15	890	430	2500	6000	14000	15000000	890	890	0.039 U	0.04 U	0.15 U	0.046 U	0.04 U	
1,1-Dichloroethene	mg/kg	0.14	1.3	220	0.33	3.7	15	37	78000	570	570	0.039 U	0.04 U	0.15 U	0.046 U	0.04 U	
1,2,4-Trichlorobenzene	mg/kg	4.2	1.8	1100	1100	34000	34000	34000	11000000	1100	1100	0.19 U	0.2 U	0.75 U	0.23 U	0.2 U	
1,2-Dibromo-3-chloropropane (DBCP)	mg/kg	0.01		1.2	1.2	15	15	15	5900	1.2	1.2	0.19 U	0.2 U	0.75 U	0.23 U	0.2 U	
1,2-Dibromoethane (Ethylene Dibromide)	mg/kg	0.02	0.02	0.5	3.6	5.8	5.8	9.8	18000	0.43	890	0.19 U	0.2 U	0.75 U	0.23 U	0.2 U	
1,2-Dichlorobenzene	mg/kg	14	0.36	210	210	46000	46000	55000	44000000	210	210	0.078 U	0.08 U	0.3 U	0.092 U	0.08 U	
1,2-Dichloroethane	mg/kg	0.1	7.2	380	11	21	33	74	150000	420	1200	0.039 U	0.04 U	0.15 U	0.046 U	0.04 U	
1,2-Dichloropropane	mg/kg	0.1	5.8	320	7.4	30	51	120	120000	550	550	0.039 U	0.04 U	0.15 U	0.046 U	0.04 U	
1,3-Dichlorobenzene	mg/kg	0.48	1.1	51	ID	ID	ID	ID	ID	170	170	0.078 U	0.08 U	0.3 U	0.092 U	0.08 U	
1,4-Dichlorobenzene	mg/kg	1.7	0.29	140	100	260	260	340	570000	1900		0.078 U	0.08 U	0.3 U	0.092 U	0.08 U	
2-Butanone (Methyl Ethyl Ketone)	mg/kg	760	44	27000	27000	35000	35000	36000	29000000	27000	27000	0.58 U	0.6 U	2.2 U	0.69 U	0.6 U	
2-Hexanone	mg/kg	58		2500	1800	1300	1300	1500	1200000	2500	2500	1.9 U	2 U	7.5 U	2.3 U	2 U	
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	mg/kg	100	ID	2700	2700	53000	53000	70000	60000000	2700	2700	1.9 U	2 U	7.5 U	2.3 U	2 U	
Acetone	mg/kg	42	34	110000	110000	160000	160000	200000	170000000	73000	110000	0.58 U	0.6 U	2.2 U	0.69 UJ	0.6 U	
Benzene	mg/kg	0.1	4	220	8.4	45	99	230	470000	400	400	0.039 U	0.04 U	0.15 U	0.046 U	0.04 U	
Bromodichloromethane	mg/kg	1.6	ID	280	6.4	31	31	57	110000	490	1500	0.078 UJ	0.08 UJ	0.3 UJ	0.092 UJ	0.08 UJ	
Bromoform	mg/kg	1.6	ID	870	770	3100	3100	3100	3600000	870	870	0.078 U	0.08 U	0.3 U	0.092 U	0.08 U	
Bromomethane (Methyl Bromide)	mg/kg	0.58	0.7	1400	1.6	13	57	140	150000	1000	2200	0.19 U	0.2 U	0.75 U	0.23 U	0.2 U	
Carbon disulfide	mg/kg	46	ID	280	140	1600	8000	19000	21000000	280	280	0.19 U	0.2 U	0.75 U	0.23 U	0.2 U	
Carbon tetrachloride	mg/kg	0.1	0.9	92	0.99	12	34	79	170000	390	390	0.039 U	0.04 U	0.15 U	0.046 U	0.04 U	
Chlorobenzene	mg/kg	2	0.94	260	220	920	1100	2100	2100000	260	260	0.039 U	0.04 U	0.15 U	0.046 U	0.04 U	
Chloroethane	mg/kg	34	ID	950	950	36000	120000	280000	290000000	950	950	0.19 U	0.2 U	0.75 U	0.23 U	0.2 U	
Chloroform (Trichloromethane)	mg/kg	1.6	3.4	1500	38	150	340	790	1600000	1500	1500	0.039 U	0.04 U	0.15 U	0.046 U	0.04 U	
Chloromethane (Methyl Chloride)	mg/kg	22	ID	1100	10	120	1000	2500	2600000	1100	1100	0.19 U	0.2 U	0.75 U	0.23 U	0.2 U	
cis-1,2-Dichloroethene	mg/kg	1.4	12	640	41	210	430	1000	1000000	640	640	0.039 U	0.04 U	0.15 U	0.046 U	0.04 U	
cis-1,3-Dichloropropene	mg/kg											0.039 UJ	0.04 UJ	0.15 UJ	0.046 UJ	0.04 UJ	
Cyclohexane	mg/kg											0.93 U	0.96 U	3.6 U	1.1 U	0.96 U	
Dibromochloromethane	mg/kg	1.6	ID	360	21	80	80	98	160000	500	610	0.039 U	0.04 U	0.15 U	0.046 U	0.04 U	
Dichlorodifluoromethane (CFC-12)	mg/kg	270	ID	1000	1700	63000	550000	1400000	1500000000	1000	1000	0.078 U	0.08 U	0.3 U	0.092 U	0.08 U	
Ethylbenzene	mg/kg	1.5	0.36	140	140	2400	3100	6500	13000000	140	140	0.039 U	0.04 U	0.15 U	0.046 U	0.04 U	
Isopropylbenzene	mg/kg	260	ID	390	390	2000	2000	3000	2600000	390	390	0.19 U	0.2 U	0.75 U	0.23 U	0.2 U	
Methyl acetate	mg/kg											0.93 U	0.96 U	4 J	1.1 U	0.96 U	
Methyl cyclohexane	mg/kg											0.93 U	0.96 U	3.6 U	1.1 U	0.96 U	
Methyl Tert Butyl Ether	mg/kg	0.8	15	5900	5900	30000	41000	89000	88000000	5900	5900	0.19 U	0.2 U	0.75 U	0.23 U	0.2 U	
Methylene chloride	mg/kg	0.1	19	2300	240	700	1700	4000	8300000	2300	2300	0.19 U	0.2 U	0.75 U	0.23 U	0.2 U	
Styrene	mg/kg	2.7	2.2	270	520	3300	3300	4200	6900000	520	520	0.039 U	0.04 U	0.15 U	0.046 U	0.04 U	
Tetrachloroethene	mg/kg	0.1	0.9	88	60	600	1400	3300	6800000	88	88	0.039 U	0.04 U	0.15 U	0.046 U	0.04 U	
Toluene	mg/kg	16	2.8	250	250	3300	36000	36000	12000000	250	250	0.078 U	0.08 U	0.3 U	0.092 U	0.08 U	
trans-1,2-Dichloroethene	mg/kg	2	30	1400	43	330	840	2000	2100000	1400	1400	0.039 U	0.04 U	0.15 U	0.046 U	0.04 U	
trans-1,3-Dichloropropene	mg/kg											0.039 UJ	0.04 UJ	0.15 UJ	0.046 UJ	0.04 UJ	
Trichloroethene	mg/kg	0.1	4	440	37	260	440	1100	2300000	500	500	0.016 J	0.012 J	5.9 nd		0.1 J	0.049
Trichlorofluoromethane (CFC-11)	mg/kg	150		560	560	110000	140000000	140000000	1700000000	560	560	0.078 U	0.08 U	0.3 U	0.092 U	0.08 U	
Trifluorotrichloroethane (Freon 113)	mg/kg	550	1.7	550	550	210000	890000	2100000	2300000000	550	550	0.19 U	0.2 U	0.75 U	0.23 U	0.2 U	
Vinyl chloride	mg/kg	0.04	0.3	20	2.8	29	170	420	890000	34	490	0.078 U	0.08 U	0.3 U	0.092 U	0.08 U	
Xylene (total)	mg/kg	5.6	0.7	150	150	54000	65000	130000	130000000	150	150	0.12 U	0.12 U	0.45 U	0.14 U	0.12 U	

Notes:
⁽¹⁾ Cleanup criteria identified by MDEQ RRD Op Memo No. 1, updated 1/23/2006, pursuant to 1994 PA 451 as amended.
U - Not present at or above the associated value.
J - Estimated concentration.
UJ - Estimated reporting limit.
 Value exceeds referenced Part 201 Criteria (i.e. a, b, etc.)
ID - Insufficient data to develop criterion
NLL - Hazardous substance is not likely to leach under most soil conditions
NLV - Hazardous substance is not likely to volatilize under most conditions

TABLE 3

SUMMARY OF SOIL SAMPLE RESULTS COMPARED TO MICHIGAN ACT 451, PART 201 INDUSTRIAL CRITERIA
GENERAL MOTORS CORPORATION
GRAND RAPIDS METAL PLANT
WYOMING, MICHIGAN

Sample Location	<i>Michigan Act 451, Part 201 Industrial and Commercial II, III, IV ⁽¹⁾</i>										<i>SB8-05</i>	<i>SB8-05</i>	<i>SB9-05</i>	<i>SB9-05</i>	<i>SB9-05</i>
Sample Identification	Industrial and	Groundwater	Groundwater	Soil Volatilization	Infinite Source	Finite VSIC for	Finite VSIC for	Particulate	Direct Contact	Soil Saturation	<i>SO-17360-071205-DCR-479</i>	<i>SO-17360-071205-DCR-480</i>	<i>SO-17360-071105-DCR-430</i>	<i>SO-17360-071105-DCR-431</i>	<i>SO-17360-071105-DCR-432</i>
Sample Date	Commercial	Surface Water	Contact	to Indoor Air	Volatile Soil	5 Meter Source	2 Meter Source	Soil Inhalation	Industrial and	Concentration	<i>7/12/2005</i>	<i>7/12/2005</i>	<i>7/11/2005</i>	<i>7/11/2005</i>	<i>7/11/2005</i>
Sample Depth	Drinking Water	Interface Protection	Protection	Inhalation	Inhalation	Thickness	Thickness		Commercial II	Screening	<i>16-18 ft BGS</i>	<i>18-20 ft BGS</i>	<i>0-2 ft BGS</i>	<i>2-4 ft BGS</i>	<i>4-6 ft BGS</i>
Sample Type	a	b	c	d	e	f	g	h	i	j					
<i>Units</i>															
<i>Volatile Organic Compounds</i>															
1,1,1-Trichloroethane	mg/kg	4	4	460	460	4500	15000	31000	29000000	460	460	0.048 U	0.037 U	0.038 U	0.04 U
1,1,2,2-Tetrachloroethane	mg/kg	0.7	1.6	94	23	34	34	34	68000	240	870	0.095 U	0.074 U	0.076 U	0.08 U
1,1,2-Trichloroethane	mg/kg	0.1	6.6	420	24	57	57	120	250000	840	920	0.048 U	0.037 U	0.038 U	0.04 U
1,1-Dichloroethane	mg/kg	50	15	890	430	2500	6000	14000	15000000	890	890	0.048 U	0.037 U	0.038 U	0.04 U
1,1-Dichloroethene	mg/kg	0.14	1.3	220	0.33	3.7	15	37	78000	570	570	0.048 U	0.037 U	0.038 U	0.04 U
1,2,4-Trichlorobenzene	mg/kg	4.2	1.8	1100	1100	34000	34000	34000	11000000	1100	1100	0.24 U	0.18 U	0.19 U	0.2 U
1,2-Dibromo-3-chloropropane (DBCP)	mg/kg	0.01		1.2	1.2	15	15	15	5900	1.2	1.2	0.24 U	0.18 U	0.19 U	0.2 U
1,2-Dibromoethane (Ethylene Dibromide)	mg/kg	0.02	0.02	0.5	3.6	5.8	5.8	9.8	18000	0.43	890	0.24 U	0.18 U	0.19 U	0.2 U
1,2-Dichlorobenzene	mg/kg	14	0.36	210	210	46000	46000	55000	44000000	210	210	0.095 U	0.074 U	0.076 U	0.08 U
1,2-Dichloroethane	mg/kg	0.1	7.2	380	11	21	33	74	150000	420	1200	0.048 U	0.037 U	0.038 U	0.04 U
1,2-Dichloropropane	mg/kg	0.1	5.8	320	7.4	30	51	120	120000	550	550	0.048 U	0.037 U	0.038 U	0.04 U
1,3-Dichlorobenzene	mg/kg	0.48	1.1	51	ID	ID	ID	ID	ID	170	170	0.095 U	0.074 U	0.076 U	0.08 U
1,4-Dichlorobenzene	mg/kg	1.7	0.29	140	100	260	260	340	570000	1900		0.095 U	0.074 U	0.076 U	0.08 U
2-Butanone (Methyl Ethyl Ketone)	mg/kg	760	44	27000	27000	35000	35000	36000	29000000	27000	27000	0.71 U	0.55 U	0.57 U	0.6 U
2-Hexanone	mg/kg	58		2500	1800	1300	1300	1500	1200000	2500	2500	2.4 U	1.8 U	1.9 U	2.1 U
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	mg/kg	100	ID	2700	2700	53000	53000	70000	60000000	2700	2700	2.4 U	1.8 U	1.9 U	2.1 U
Acetone	mg/kg	42	34	110000	110000	160000	160000	200000	170000000	73000	110000	0.71 U	0.55 U	0.57 U	0.6 U
Benzene	mg/kg	0.1	4	220	8.4	45	99	230	470000	400	400	0.048 U	0.037 U	0.038 U	0.04 U
Bromodichloromethane	mg/kg	1.6	ID	280	6.4	31	31	57	110000	490	1500	0.095 UJ	0.074 UJ	0.076 U	0.08 U
Bromoform	mg/kg	1.6	ID	870	770	3100	3100	3100	3600000	870	870	0.095 U	0.074 U	0.076 U	0.08 U
Bromomethane (Methyl Bromide)	mg/kg	0.58	0.7	1400	1.6	13	57	140	150000	1000	2200	0.24 U	0.18 U	0.19 U	0.2 U
Carbon disulfide	mg/kg	46	ID	280	140	1600	8000	19000	21000000	280	280	0.24 U	0.18 U	0.19 U	0.2 U
Carbon tetrachloride	mg/kg	0.1	0.9	92	0.99	12	34	79	170000	390	390	0.048 U	0.037 U	0.038 U	0.04 U
Chlorobenzene	mg/kg	2	0.94	260	220	920	1100	2100	2100000	260	260	0.048 U	0.037 U	0.038 U	0.04 U
Chloroethane	mg/kg	34	ID	950	950	36000	120000	280000	290000000	950	950	0.24 U	0.18 U	0.19 U	0.2 U
Chloroform (Trichloromethane)	mg/kg	1.6	3.4	1500	38	150	340	790	1600000	1500	1500	0.048 U	0.037 U	0.038 U	0.04 U
Chloromethane (Methyl Chloride)	mg/kg	22	ID	1100	10	120	1000	2500	2600000	1100	1100	0.24 U	0.18 U	0.19 U	0.2 U
cis-1,2-Dichloroethene	mg/kg	1.4	12	640	41	210	430	1000	1000000	640	640	0.048 U	0.037 U	0.038 U	0.04 U
cis-1,3-Dichloropropene	mg/kg											0.048 UJ	0.037 UJ	0.038 U	0.04 U
Cyclohexane	mg/kg											1.1 U	0.88 U	0.91 U	1 U
Dibromochloromethane	mg/kg	1.6	ID	360	21	80	80	98	160000	500	610	0.048 U	0.037 U	0.038 U	0.04 U
Dichlorodifluoromethane (CFC-12)	mg/kg	270	ID	1000	1700	63000	550000	1400000	1500000000	1000	1000	0.095 U	0.074 U	0.076 U	0.08 U
Ethylbenzene	mg/kg	1.5	0.36	140	140	2400	3100	6500	13000000	140	140	0.048 U	0.037 U	0.038 U	0.04 U
Isopropylbenzene	mg/kg	260	ID	390	390	2000	2000	3000	2600000	390	390	0.24 U	0.18 U	0.19 U	0.2 U
Methyl acetate	mg/kg											1.1 U	0.88 U	0.91 U	1 U
Methyl cyclohexane	mg/kg											1.1 U	0.88 U	0.91 U	1 U
Methyl Tert Butyl Ether	mg/kg	0.8	15	5900	5900	30000	41000	89000	88000000	5900	5900	0.24 U	0.18 U	0.19 U	0.2 U
Methylene chloride	mg/kg	0.1	19	2300	240	700	1700	4000	8300000	2300	2300	0.24 U	0.18 U	0.19 U	0.2 U
Styrene	mg/kg	2.7	2.2	270	520	3300	3300	4200	6900000	520	520	0.048 U	0.037 U	0.038 U	0.04 U
Tetrachloroethene	mg/kg	0.1	0.9	88	60	600	1400	3300	6800000	88	88	0.048 U	0.037 U	0.038 U	0.04 U
Toluene	mg/kg	16	2.8	250	250	3300	36000	36000	12000000	250	250	0.095 U	0.074 U	0.076 U	0.08 U
trans-1,2-Dichloroethene	mg/kg	2	30	1400	43	330	840	2000	2100000	1400	1400	0.048 U	0.037 U	0.038 U	0.04 U
trans-1,3-Dichloropropene	mg/kg											0.048 UJ	0.037 UJ	0.038 U	0.04 U
Trichloroethene	mg/kg	0.1	4	440	37	260	440	1100	2300000	500	500	0.17	0.063	0.099	0.04 U
Trichlorofluoromethane (CFC-11)	mg/kg	150		560	560	110000	14000000	14000000	1700000000	560	560	0.095 U	0.074 U	0.076 U	0.08 U
Trifluorotrichloroethane (Freon 113)	mg/kg	550	1.7	550	550	210000	890000	2100000	2300000000	550	550	0.24 U	0.18 U	0.19 U	0.2 U
Vinyl chloride	mg/kg	0.04	0.3	20	2.8	29	170	420	890000	34	490	0.095 U	0.074 U	0.076 U	0.08 U
Xylene (total)	mg/kg	5.6	0.7	150	150	54000	65000	130000	130000000	150	150	0.14 U	0.11 U	0.11 U	0.12 U

Notes:
(1) Cleanup criteria identified by MDEQ RRD Op Memo No. 1, updated 1/23/2006, pursuant to 1994 PA 451 as amended.
U - Not present at or above the associated value.
J - Estimated concentration.
UJ - Estimated reporting limit.
☐ Value exceeds referenced Part 201 Criteria (i.e. a, b, etc.)
ID - Insufficient data to develop criterion
NLL - Hazardous substance is not likely to leach under most soil conditions
NLV - Hazardous substance is not likely to volatilize under most conditions

TABLE 3

SUMMARY OF SOIL SAMPLE RESULTS COMPARED TO MICHIGAN ACT 451, PART 201 INDUSTRIAL CRITERIA
GENERAL MOTORS CORPORATION
GRAND RAPIDS METAL PLANT
WYOMING, MICHIGAN

Sample Location	Michigan Act 451, Part 201 Industrial and Commercial II, III, IV ⁽¹⁾										SB9-05	SB9-05	SB9-05	SB9-05	SB9-05	
Sample Identification	Industrial and Commercial	Groundwater Surface Water	Groundwater Contact	Soil Volatilization to Indoor Air	Infinite Source Volatile Soil Inhalation	Finite VSIC for 5 Meter Source Thickness	Finite VSIC for 2 Meter Source Thickness	Particulate Soil Inhalation	Direct Contact Industrial and Commercial II	Soil Saturation Concentration Screening	SO-17360-071105-DCR-433	SO-17360-071105-DCR-434	SO-17360-071105-DCR-435	SO-17360-071105-DCR-436	SO-17360-071105-DCR-437	
Sample Date	Drinking Water	Interface Protection	Protection	Inhalation	Inhalation	Thickness	Thickness				7/11/2005	7/11/2005	7/11/2005	7/11/2005	7/11/2005	
Sample Depth											6-8 ft BGS	8-10 ft BGS	10-12 ft BGS	12-14 ft BGS	14-16 ft BGS	
Sample Type	a	b	c	d	e	f	g	h	i	j						
Units																
Volatile Organic Compounds																
1,1,1-Trichloroethane	mg/kg	4	4	460	460	4500	15000	31000	29000000	460	460	0.039 U	0.038 U	0.039 U	0.038 U	0.037 U
1,1,2,2-Tetrachloroethane	mg/kg	0.7	1.6	94	23	34	34	34	68000	240	870	0.078 U	0.077 U	0.078 U	0.077 U	0.074 U
1,1,2-Trichloroethane	mg/kg	0.1	6.6	420	24	57	57	120	250000	840	920	0.039 U	0.038 U	0.039 U	0.038 U	0.037 U
1,1-Dichloroethane	mg/kg	50	15	890	430	2500	6000	14000	15000000	890	890	0.039 U	0.038 U	0.039 U	0.038 U	0.037 U
1,1-Dichloroethene	mg/kg	0.14	1.3	220	0.33	3.7	15	37	78000	570	570	0.039 U	0.038 U	0.039 U	0.038 U	0.037 U
1,2,4-Trichlorobenzene	mg/kg	4.2	1.8	1100	1100	34000	34000	34000	11000000	1100	1100	0.2 U	0.19 U	0.2 U	0.19 U	0.18 U
1,2-Dibromo-3-chloropropane (DBCP)	mg/kg	0.01		1.2	1.2	15	15	15	5900	1.2	1.2	0.2 U	0.19 U	0.2 U	0.19 U	0.18 U
1,2-Dibromoethane (Ethylene Dibromide)	mg/kg	0.02	0.02	0.5	3.6	5.8	5.8	9.8	18000	0.43	890	0.2 U	0.19 U	0.2 U	0.19 U	0.18 U
1,2-Dichlorobenzene	mg/kg	14	0.36	210	210	46000	46000	55000	44000000	210	210	0.078 U	0.077 U	0.078 U	0.077 U	0.074 U
1,2-Dichloroethane	mg/kg	0.1	7.2	380	11	21	33	74	150000	420	1200	0.039 U	0.038 U	0.039 U	0.038 U	0.037 U
1,2-Dichloropropane	mg/kg	0.1	5.8	320	7.4	30	51	120	120000	550	550	0.039 U	0.038 U	0.039 U	0.038 U	0.037 U
1,3-Dichlorobenzene	mg/kg	0.48	1.1	51	ID	ID	ID	ID	ID	170	170	0.078 U	0.077 U	0.078 U	0.077 U	0.074 U
1,4-Dichlorobenzene	mg/kg	1.7	0.29	140	100	260	260	340	570000	1900		0.078 U	0.077 U	0.078 U	0.077 U	0.074 U
2-Butanone (Methyl Ethyl Ketone)	mg/kg	760	44	27000	27000	35000	35000	36000	29000000	27000	27000	0.59 U	0.58 U	0.59 U	0.58 U	0.55 U
2-Hexanone	mg/kg	58		2500	1800	1300	1300	1500	1200000	2500	2500	2 U	1.9 U	2 U	1.9 U	1.8 U
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	mg/kg	100	ID	2700	2700	53000	53000	70000	60000000	2700	2700	2 U	1.9 U	2 U	1.9 U	1.8 U
Acetone	mg/kg	42	34	110000	110000	160000	160000	200000	170000000	73000	110000	0.59 U	0.58 U	0.59 U	0.58 U	0.55 U
Benzene	mg/kg	0.1	4	220	8.4	45	99	230	470000	400	400	0.039 U	0.038 U	0.039 U	0.038 U	0.037 U
Bromodichloromethane	mg/kg	1.6	ID	280	6.4	31	31	57	110000	490	1500	0.078 U	0.077 U	0.078 U	0.077 U	0.074 U
Bromoform	mg/kg	1.6	ID	870	770	3100	3100	3100	3600000	870	870	0.078 U	0.077 U	0.078 U	0.077 U	0.074 U
Bromomethane (Methyl Bromide)	mg/kg	0.58	0.7	1400	1.6	13	57	140	150000	1000	2200	0.2 U	0.19 U	0.2 U	0.19 U	0.18 U
Carbon disulfide	mg/kg	46	ID	280	140	1600	8000	19000	21000000	280	280	0.2 U	0.19 U	0.2 U	0.19 U	0.18 U
Carbon tetrachloride	mg/kg	0.1	0.9	92	0.99	12	34	79	170000	390	390	0.039 U	0.038 U	0.039 U	0.038 U	0.037 U
Chlorobenzene	mg/kg	2	0.94	260	220	920	1100	2100	2100000	260	260	0.039 U	0.038 U	0.039 U	0.038 U	0.037 U
Chloroethane	mg/kg	34	ID	950	950	36000	120000	280000	290000000	950	950	0.2 U	0.19 U	0.2 U	0.19 U	0.18 U
Chloroform (Trichloromethane)	mg/kg	1.6	3.4	1500	38	150	340	790	1600000	1500	1500	0.039 U	0.038 U	0.039 U	0.038 U	0.037 U
Chloromethane (Methyl Chloride)	mg/kg	22	ID	1100	10	120	1000	2500	2600000	1100	1100	0.2 U	0.19 U	0.2 U	0.19 U	0.18 U
cis-1,2-Dichloroethene	mg/kg	1.4	12	640	41	210	430	1000	1000000	640	640	0.039 U	0.038 U	0.039 U	0.038 U	0.037 U
cis-1,3-Dichloropropene	mg/kg											0.039 U	0.038 U	0.039 U	0.038 U	0.037 U
Cyclohexane	mg/kg											0.94 U	0.92 U	0.94 U	0.92 U	0.88 U
Dibromochloromethane	mg/kg	1.6	ID	360	21	80	80	98	160000	500	610	0.039 U	0.038 U	0.039 U	0.038 U	0.037 U
Dichlorodifluoromethane (CFC-12)	mg/kg	270	ID	1000	1700	63000	550000	1400000	1500000000	1000	1000	0.078 U	0.077 U	0.078 U	0.077 U	0.074 U
Ethylbenzene	mg/kg	1.5	0.36	140	140	2400	3100	6500	13000000	140	140	0.039 U	0.038 U	0.039 U	0.038 U	0.037 U
Isopropylbenzene	mg/kg	260	ID	390	390	2000	2000	3000	2600000	390	390	0.2 U	0.19 U	0.2 U	0.19 U	0.18 U
Methyl acetate	mg/kg											0.94 U	0.92 U	0.94 U	0.92 U	0.88 U
Methyl cyclohexane	mg/kg											0.94 U	0.92 U	0.94 U	0.92 U	0.88 U
Methyl Tert Butyl Ether	mg/kg	0.8	15	5900	5900	30000	41000	89000	88000000	5900	5900	0.2 U	0.19 U	0.2 U	0.19 U	0.18 U
Methylene chloride	mg/kg	0.1	19	2300	240	700	1700	4000	8300000	2300	2300	0.2 U	0.19 U	0.2 U	0.19 U	0.18 U
Styrene	mg/kg	2.7	2.2	270	520	3300	3300	4200	6900000	520	520	0.039 U	0.038 U	0.039 U	0.038 U	0.037 U
Tetrachloroethene	mg/kg	0.1	0.9	88	60	600	1400	3300	6800000	88	88	0.039 U	0.038 U	0.039 U	0.038 U	0.037 U
Toluene	mg/kg	16	2.8	250	250	3300	36000	36000	12000000	250	250	0.078 U	0.077 U	0.078 U	0.077 U	0.074 U
trans-1,2-Dichloroethene	mg/kg	2	30	1400	43	330	840	2000	2100000	1400	1400	0.039 U	0.038 U	0.039 U	0.038 U	0.037 U
trans-1,3-Dichloropropene	mg/kg											0.039 U	0.038 U	0.039 U	0.038 U	0.037 U
Trichloroethene	mg/kg	0.1	4	440	37	260	440	1100	2300000	500	500	0.039 U	0.038 U	0.039 U	0.038 U	0.037 U
Trichlorofluoromethane (CFC-11)	mg/kg	150		560	560	110000	14000000	140000000	1700000000	560	560	0.078 U	0.077 U	0.078 U	0.077 U	0.074 U
Trifluorotrichloroethane (Freon 113)	mg/kg	550	1.7	550	550	210000	890000	2100000	2300000000	550	550	0.2 U	0.19 U	0.2 U	0.19 U	0.18 U
Vinyl chloride	mg/kg	0.04	0.3	20	2.8	29	170	420	890000	34	490	0.078 U	0.077 U	0.078 U	0.077 U	0.074 U
Xylene (total)	mg/kg	5.6	0.7	150	150	54000	65000	130000	130000000	150	150	0.12 U	0.12 U	0.12 U	0.12 U	0.11 U

Notes:
⁽¹⁾ Cleanup criteria identified by MDEQ RRD Op Memo No. 1, updated 1/23/2006, pursuant to 1994 PA 451 as amended.
U - Not present at or above the associated value.
J - Estimated concentration.
UJ - Estimated reporting limit.
 Value exceeds referenced Part 201 Criteria (i.e. a, b, etc.)
ID - Insufficient data to develop criterion
NLL - Hazardous substance is not likely to leach under most soil conditions
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TABLE 3

SUMMARY OF SOIL SAMPLE RESULTS COMPARED TO MICHIGAN ACT 451, PART 201 INDUSTRIAL CRITERIA
GENERAL MOTORS CORPORATION
GRAND RAPIDS METAL PLANT
WYOMING, MICHIGAN

Sample Location	Michigan Act 451, Part 201 Industrial and Commercial II, III, IV ⁽¹⁾										SB9-05	SB9-05	SB10-05	SB10-05	SB10-05	
Sample Identification	Industrial and	Groundwater	Groundwater	Soil Volatilization	Infinite Source	Finite VSIC for	Finite VSIC for	Particulate	Direct Contact	Soil Saturation	SO-17360-071105-DCR-438	SO-17360-071105-DCR-439	SO-17360-071205-DCR-481	SO-17360-071205-DCR-482	SO-17360-071205-DCR-483	
Sample Date	Commercial	Surface Water	Contact	to Indoor Air	Volatile Soil	5 Meter Source	2 Meter Source	Soil Inhalation	Industrial and	Concentration	7/11/2005	7/11/2005	7/12/2005	7/12/2005	7/12/2005	
Sample Depth	Drinking Water	Interface Protection	Protection	Inhalation	Inhalation	Thickness	Thickness		Commercial II	Screening	16-18 ft BGS	18-20 ft BGS	0-2 ft BGS	2-4 ft BGS	4-6 ft BGS	
Sample Type	a	b	c	d	e	f	g	h	i	j						
	Units															
Volatile Organic Compounds																
1,1,1-Trichloroethane	mg/kg	4	4	460	460	4500	15000	31000	29000000	460	460	0.038 U	0.038 U	0.037 U	0.038 U	0.041 U
1,1,2,2-Tetrachloroethane	mg/kg	0.7	1.6	94	23	34	34	34	68000	240	870	0.075 U	0.076 U	0.074 U	0.075 U	0.082 U
1,1,2-Trichloroethane	mg/kg	0.1	6.6	420	24	57	57	120	250000	840	920	0.038 U	0.038 U	0.037 U	0.038 U	0.041 U
1,1-Dichloroethane	mg/kg	50	15	890	430	2500	6000	14000	15000000	890	890	0.038 U	0.038 U	0.037 U	0.038 U	0.041 U
1,1-Dichloroethene	mg/kg	0.14	1.3	220	0.33	3.7	15	37	78000	570	570	0.038 U	0.038 U	0.037 U	0.038 U	0.041 U
1,2,4-Trichlorobenzene	mg/kg	4.2	1.8	1100	1100	34000	34000	34000	11000000	1100	1100	0.19 U	0.19 U	0.18 U	0.19 U	0.21 U
1,2-Dibromo-3-chloropropane (DBCP)	mg/kg	0.01		1.2	1.2	15	15	15	5900	1.2	1.2	0.19 U	0.19 U	0.18 U	0.19 U	0.21 U
1,2-Dibromoethane (Ethylene Dibromide)	mg/kg	0.02	0.02	0.5	3.6	5.8	5.8	9.8	18000	0.43	890	0.19 U	0.19 U	0.18 U	0.19 U	0.21 U
1,2-Dichlorobenzene	mg/kg	14	0.36	210	210	46000	46000	55000	44000000	210	210	0.075 U	0.076 U	0.074 U	0.075 U	0.082 U
1,2-Dichloroethane	mg/kg	0.1	7.2	380	11	21	33	74	150000	420	1200	0.038 U	0.038 U	0.037 U	0.038 U	0.041 U
1,2-Dichloropropane	mg/kg	0.1	5.8	320	7.4	30	51	120	120000	550	550	0.038 U	0.038 U	0.037 U	0.038 U	0.041 U
1,3-Dichlorobenzene	mg/kg	0.48	1.1	51	ID	ID	ID	ID	ID	170	170	0.075 U	0.076 U	0.074 U	0.075 U	0.082 U
1,4-Dichlorobenzene	mg/kg	1.7	0.29	140	100	260	260	340	570000	1900		0.075 U	0.076 U	0.074 U	0.075 U	0.082 U
2-Butanone (Methyl Ethyl Ketone)	mg/kg	760	44	27000	27000	35000	35000	36000	29000000	27000	27000	0.56 U	0.57 U	0.55 U	0.56 U	0.62 U
2-Hexanone	mg/kg	58		2500	1800	1300	1300	1500	1200000	2500	2500	1.9 U	1.9 U	1.8 U	1.9 U	2.1 U
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	mg/kg	100	ID	2700	2700	53000	53000	70000	60000000	2700	2700	1.9 U	1.9 U	1.8 U	1.9 U	2.1 U
Acetone	mg/kg	42	34	110000	110000	160000	160000	200000	170000000	73000	110000	0.56 U	0.57 U	0.55 U	0.56 U	0.62 U
Benzene	mg/kg	0.1	4	220	8.4	45	99	230	470000	400	400	0.038 U	0.038 U	0.037 U	0.038 U	0.041 U
Bromodichloromethane	mg/kg	1.6	ID	280	6.4	31	31	57	110000	490	1500	0.075 U	0.076 U	0.074 UJ	0.075 UJ	0.082 UJ
Bromoform	mg/kg	1.6	ID	870	770	3100	3100	3100	3600000	870	870	0.075 U	0.076 U	0.074 U	0.075 U	0.082 U
Bromomethane (Methyl Bromide)	mg/kg	0.58	0.7	1400	1.6	13	57	140	150000	1000	2200	0.19 U	0.19 U	0.18 U	0.19 U	0.21 U
Carbon disulfide	mg/kg	46	ID	280	140	1600	8000	19000	21000000	280	280	0.19 U	0.19 U	0.18 U	0.19 U	0.21 U
Carbon tetrachloride	mg/kg	0.1	0.9	92	0.99	12	34	79	170000	390	390	0.038 U	0.038 U	0.037 U	0.038 U	0.041 U
Chlorobenzene	mg/kg	2	0.94	260	220	920	1100	2100	2100000	260	260	0.038 U	0.038 U	0.037 U	0.038 U	0.041 U
Chloroethane	mg/kg	34	ID	950	950	36000	120000	280000	290000000	950	950	0.19 U	0.19 U	0.18 U	0.19 U	0.21 U
Chloroform (Trichloromethane)	mg/kg	1.6	3.4	1500	38	150	340	790	1600000	1500	1500	0.038 U	0.038 U	0.037 U	0.038 U	0.041 U
Chloromethane (Methyl Chloride)	mg/kg	22	ID	1100	10	120	1000	2500	2600000	1100	1100	0.19 U	0.19 U	0.19 U	0.19 U	0.21 U
cis-1,2-Dichloroethene	mg/kg	1.4	12	640	41	210	430	1000	1000000	640	640	0.038 U	0.038 U	0.037 U	0.038 U	0.041 U
cis-1,3-Dichloropropene	mg/kg											0.038 U	0.038 U	0.037 UJ	0.038 UJ	0.041 UJ
Cyclohexane	mg/kg											0.9 U	0.91 U	0.01 J	0.9 U	0.99 U
Dibromochloromethane	mg/kg	1.6	ID	360	21	80	80	98	160000	500	610	0.038 U	0.038 U	0.037 U	0.038 U	0.041 U
Dichlorodifluoromethane (CFC-12)	mg/kg	270	ID	1000	1700	63000	550000	1400000	1500000000	1000	1000	0.075 U	0.076 U	0.074 U	0.075 U	0.082 U
Ethylbenzene	mg/kg	1.5	0.36	140	140	2400	3100	6500	13000000	140	140	0.038 U	0.038 U	0.037 U	0.038 U	0.041 U
Isopropylbenzene	mg/kg	260	ID	390	390	2000	2000	3000	2600000	390	390	0.19 U	0.19 U	0.18 U	0.19 U	0.21 U
Methyl acetate	mg/kg											0.1 J	0.91 U	0.076 J	0.9 U	0.99 U
Methyl cyclohexane	mg/kg											0.9 U	0.91 U	0.031 J	0.9 U	0.99 U
Methyl Tert Butyl Ether	mg/kg	0.8	15	5900	5900	30000	41000	89000	88000000	5900	5900	0.19 U	0.19 U	0.18 U	0.19 U	0.21 U
Methylene chloride	mg/kg	0.1	19	2300	240	700	1700	4000	8300000	2300	2300	0.19 U	0.19 U	0.18 U	0.19 U	0.21 U
Styrene	mg/kg	2.7	2.2	270	520	3300	3300	4200	6900000	520	520	0.038 U	0.038 U	0.037 U	0.038 U	0.041 U
Tetrachloroethene	mg/kg	0.1	0.9	88	60	600	1400	3300	6800000	88	88	0.038 U	0.038 U	0.037 U	0.038 U	0.041 U
Toluene	mg/kg	16	2.8	250	250	3300	36000	36000	12000000	250	250	0.075 U	0.076 U	0.012 J	0.075 U	0.082 U
trans-1,2-Dichloroethene	mg/kg	2	30	1400	43	330	840	2000	2100000	1400	1400	0.038 U	0.038 U	0.037 U	0.038 U	0.041 U
trans-1,3-Dichloropropene	mg/kg											0.038 U	0.038 U	0.037 UJ	0.038 UJ	0.041 UJ
Trichloroethene	mg/kg	0.1	4	440	37	260	440	1100	2300000	500	500	0.038 U	0.038 U	0.54*		0.041 U
Trichlorofluoromethane (CFC-11)	mg/kg	150		560	560	110000	140000000	140000000	1700000000	560	560	0.075 U	0.076 U	0.074 U	0.075 U	0.082 U
Trifluorotrichloroethane (Freon 113)	mg/kg	550	1.7	550	550	210000	890000	2100000	2300000000	550	550	0.19 U	0.19 U	0.18 U	0.19 U	0.21 U
Vinyl chloride	mg/kg	0.04	0.3	20	2.8	29	170	420	890000	34	490	0.075 U	0.076 U	0.074 U	0.075 U	0.082 U
Xylene (total)	mg/kg	5.6	0.7	150	150	54000	65000	130000	130000000	150	150	0.11 U	0.11 U	0.027 J	0.11 U	0.12 U

Notes:
(1) Cleanup criteria identified by MDEQ RRD Op Memo No. 1, updated 1/23/2006, pursuant to 1994 PA 451 as amended.
U - Not present at or above the associated value.
J - Estimated concentration.
UJ - Estimated reporting limit.
☐ - Value exceeds referenced Part 201 Criteria (i.e. a, b, etc.)
ID - Insufficient data to develop criterion
NLL - Hazardous substance is not likely to leach under most soil conditions
NLV - Hazardous substance is not likely to volatilize under most conditions

TABLE 3

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GENERAL MOTORS CORPORATION
GRAND RAPIDS METAL PLANT
WYOMING, MICHIGAN

Sample Location	<i>Michigan Act 451, Part 201 Industrial and Commercial II, III, IV ⁽¹⁾</i>										<i>SB10-05</i>	<i>SB10-05</i>	<i>SB10-05</i>	<i>SB10-05</i>	<i>SB10-05</i>
Sample Identification	Industrial and	Groundwater	Groundwater	Soil Volatilization	Infinite Source	Finite VSIC for	Finite VSIC for	Particulate	Direct Contact	Soil Saturation	<i>SO-17360-071205-DCR-484</i>	<i>SO-17360-071205-DCR-485</i>	<i>SO-17360-071205-DCR-486</i>	<i>SO-17360-071205-DCR-487</i>	<i>SO-17360-071205-DCR-488</i>
Sample Date	Commercial	Surface Water	Contact	to Indoor Air	Volatile Soil	5 Meter Source	2 Meter Source	Soil Inhalation	Industrial and	Concentration	<i>7/12/2005</i>	<i>7/12/2005</i>	<i>7/12/2005</i>	<i>7/12/2005</i>	<i>7/12/2005</i>
Sample Depth	Drinking Water	Interface Protection	Protection	Inhalation	Inhalation	Thickness	Thickness		Commercial II	Screening	<i>6-8 ft BGS</i>	<i>8-10 ft BGS</i>	<i>10-12 ft BGS</i>	<i>12-14 ft BGS</i>	<i>14-16 ft BGS</i>
Sample Type	a	b	c	d	e	f	g	h	i	j					
<i>Units</i>															
<i>Volatile Organic Compounds</i>															
1,1,1-Trichloroethane	mg/kg	4	4	460	460	4500	15000	31000	29000000	460	460	0.038 U	0.038 U	0.041 U	0.04 U
1,1,2,2-Tetrachloroethane	mg/kg	0.7	1.6	94	23	34	34	34	68000	240	870	0.076 U	0.076 U	0.082 U	0.08 U
1,1,2-Trichloroethane	mg/kg	0.1	6.6	420	24	57	57	120	250000	840	920	0.038 U	0.038 U	0.041 U	0.04 U
1,1-Dichloroethane	mg/kg	50	15	890	430	2500	6000	14000	15000000	890	890	0.038 U	0.038 U	0.041 U	0.04 U
1,1-Dichloroethene	mg/kg	0.14	1.3	220	0.33	3.7	15	37	78000	570	570	0.038 U	0.038 U	0.041 U	0.04 U
1,2,4-Trichlorobenzene	mg/kg	4.2	1.8	1100	1100	34000	34000	34000	11000000	1100	1100	0.19 U	0.19 U	0.2 U	0.2 U
1,2-Dibromo-3-chloropropane (DBCP)	mg/kg	0.01		1.2	1.2	15	15	15	5900	1.2	1.2	0.19 U	0.19 U	0.2 U	0.2 U
1,2-Dibromoethane (Ethylene Dibromide)	mg/kg	0.02	0.02	0.5	3.6	5.8	5.8	9.8	18000	0.43	890	0.19 U	0.19 U	0.2 U	0.2 U
1,2-Dichlorobenzene	mg/kg	14	0.36	210	210	46000	46000	55000	44000000	210	210	0.076 U	0.076 U	0.082 U	0.08 U
1,2-Dichloroethane	mg/kg	0.1	7.2	380	11	21	33	74	150000	420	1200	0.038 U	0.038 U	0.041 U	0.04 U
1,2-Dichloropropane	mg/kg	0.1	5.8	320	7.4	30	51	120	120000	550	550	0.038 U	0.038 U	0.041 U	0.04 U
1,3-Dichlorobenzene	mg/kg	0.48	1.1	51	ID	ID	ID	ID	ID	170	170	0.076 U	0.076 U	0.082 U	0.08 U
1,4-Dichlorobenzene	mg/kg	1.7	0.29	140	100	260	260	340	570000	1900		0.076 U	0.076 U	0.082 U	0.08 U
2-Butanone (Methyl Ethyl Ketone)	mg/kg	760	44	27000	27000	35000	35000	36000	29000000	27000	27000	0.57 U	0.57 U	0.61 U	0.6 U
2-Hexanone	mg/kg	58		2500	1800	1300	1300	1500	1200000	2500	2500	1.9 U	1.9 U	2 U	2 U
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	mg/kg	100	ID	2700	2700	53000	53000	70000	60000000	2700	2700	1.9 U	1.9 U	2 U	2 U
Acetone	mg/kg	42	34	110000	110000	160000	160000	200000	170000000	73000	110000	0.57 U	0.57 U	0.61 U	0.6 U
Benzene	mg/kg	0.1	4	220	8.4	45	99	230	470000	400	400	0.038 U	0.038 U	0.041 U	0.04 U
Bromodichloromethane	mg/kg	1.6	ID	280	6.4	31	31	57	110000	490	1500	0.076 UJ	0.076 UJ	0.082 UJ	0.08 UJ
Bromoform	mg/kg	1.6	ID	870	770	3100	3100	3100	3600000	870	870	0.076 U	0.076 U	0.082 U	0.08 U
Bromomethane (Methyl Bromide)	mg/kg	0.58	0.7	1400	1.6	13	57	140	150000	1000	2200	0.19 U	0.19 U	0.2 U	0.2 U
Carbon disulfide	mg/kg	46	ID	280	140	1600	8000	19000	21000000	280	280	0.19 U	0.19 U	0.2 U	0.2 U
Carbon tetrachloride	mg/kg	0.1	0.9	92	0.99	12	34	79	170000	390	390	0.038 U	0.038 U	0.041 U	0.04 U
Chlorobenzene	mg/kg	2	0.94	260	220	920	1100	2100	2100000	260	260	0.038 U	0.038 U	0.041 U	0.04 U
Chloroethane	mg/kg	34	ID	950	950	36000	120000	280000	290000000	950	950	0.19 U	0.19 U	0.2 U	0.2 U
Chloroform (Trichloromethane)	mg/kg	1.6	3.4	1500	38	150	340	790	1600000	1500	1500	0.038 U	0.038 U	0.041 U	0.04 U
Chloromethane (Methyl Chloride)	mg/kg	22	ID	1100	10	120	1000	2500	2600000	1100	1100	0.19 U	0.19 U	0.2 U	0.2 U
cis-1,2-Dichloroethene	mg/kg	1.4	12	640	41	210	430	1000	1000000	640	640	0.038 U	0.038 U	0.041 U	0.04 U
cis-1,3-Dichloropropene	mg/kg											0.038 UJ	0.038 UJ	0.041 UJ	0.04 UJ
Cyclohexane	mg/kg											0.91 U	0.91 U	0.98 U	0.96 U
Dibromochloromethane	mg/kg	1.6	ID	360	21	80	80	98	160000	500	610	0.038 U	0.038 U	0.041 U	0.04 U
Dichlorodifluoromethane (CFC-12)	mg/kg	270	ID	1000	1700	63000	550000	1400000	1500000000	1000	1000	0.076 U	0.076 U	0.082 U	0.08 U
Ethylbenzene	mg/kg	1.5	0.36	140	140	2400	3100	6500	13000000	140	140	0.038 U	0.038 U	0.041 U	0.04 U
Isopropylbenzene	mg/kg	260	ID	390	390	2000	2000	3000	2600000	390	390	0.19 U	0.19 U	0.2 U	0.2 U
Methyl acetate	mg/kg											0.91 U	0.91 U	0.98 U	0.96 U
Methyl cyclohexane	mg/kg											0.91 U	0.91 U	0.98 U	0.96 U
Methyl Tert Butyl Ether	mg/kg	0.8	15	5900	5900	30000	41000	89000	88000000	5900	5900	0.19 U	0.19 U	0.2 U	0.2 U
Methylene chloride	mg/kg	0.1	19	2300	240	700	1700	4000	8300000	2300	2300	0.19 U	0.19 U	0.2 U	0.2 U
Styrene	mg/kg	2.7	2.2	270	520	3300	3300	4200	6900000	520	520	0.038 U	0.038 U	0.041 U	0.04 U
Tetrachloroethene	mg/kg	0.1	0.9	88	60	600	1400	3300	6800000	88	88	0.038 U	0.038 U	0.041 U	0.04 U
Toluene	mg/kg	16	2.8	250	250	3300	36000	36000	12000000	250	250	0.076 U	0.076 U	0.082 U	0.08 U
trans-1,2-Dichloroethene	mg/kg	2	30	1400	43	330	840	2000	2100000	1400	1400	0.038 U	0.038 U	0.041 U	0.04 U
trans-1,3-Dichloropropene	mg/kg											0.038 UJ	0.038 UJ	0.041 UJ	0.04 U
Trichloroethene	mg/kg	0.1	4	440	37	260	440	1100	2300000	500	500	0.038 U	0.038 U	0.029 J	0.03 J
Trichlorofluoromethane (CFC-11)	mg/kg	150		560	560	110000	14000000	14000000	1700000000	560	560	0.076 U	0.076 U	0.082 U	0.08 U
Trifluorotrichloroethane (Freon 113)	mg/kg	550	1.7	550	550	210000	890000	2100000	2300000000	550	550	0.19 U	0.19 U	0.2 U	0.2 U
Vinyl chloride	mg/kg	0.04	0.3	20	2.8	29	170	420	890000	34	490	0.076 U	0.076 U	0.082 U	0.08 U
Xylene (total)	mg/kg	5.6	0.7	150	150	54000	65000	130000	130000000	150	150	0.11 U	0.11 U	0.12 U	0.12 U

Notes:
⁽¹⁾ Cleanup criteria identified by MDEQ RRD Op Memo No. 1, updated 1/23/2006, pursuant to 1994 PA 451 as amended.
U - Not present at or above the associated value.
J - Estimated concentration.
UJ - Estimated reporting limit.

Value exceeds referenced Part 201 Criteria (i.e. a, b, etc.)

ID - Insufficient data to develop criterion

NLL - Hazardous substance is not likely to leach under most soil conditions

NLV - Hazardous substance is not likely to volatilize under most conditions

TABLE 3

SUMMARY OF SOIL SAMPLE RESULTS COMPARED TO MICHIGAN ACT 451, PART 201 INDUSTRIAL CRITERIA
GENERAL MOTORS CORPORATION
GRAND RAPIDS METAL PLANT
WYOMING, MICHIGAN

Sample Location	Michigan Act 451, Part 201 Industrial and Commercial II, III, IV ⁽¹⁾										SB10-05	SB10-05	SB11-05	SB11-05	SB11-05	
Sample Identification	Industrial and Commercial	Groundwater Surface Water	Groundwater Contact	Soil Volatilization to Indoor Air	Infinite Source Volatile Soil Inhalation	Finite VSIC for 5 Meter Source Thickness	Finite VSIC for 2 Meter Source Thickness	Particulate Soil Inhalation	Direct Contact Industrial and Commercial II	Soil Saturation Concentration Screening	SO-17360-071205-DCR-489 7/12/2005 16-18 ft BGS	SO-17360-071205-DCR-490 7/12/2005 18-20 ft BGS	SO-17360-071205-DCR-491 7/12/2005 0-2 ft BGS	SO-17360-071205-DCR-492 7/12/2005 2-4 ft BGS	SO-17360-071205-DCR-493 7/12/2005 4-6 ft BGS	
Sample Date	Drinking Water	Interface Protection	Protection	Inhalation	Inhalation	Thickness	Thickness	Soil Inhalation	Industrial and Commercial II	Concentration Screening						
Sample Depth	a	b	c	d	e	f	g	h	i	j						
Sample Type	Units															
Volatile Organic Compounds																
1,1,1-Trichloroethane	mg/kg	4	4	460	460	4500	15000	31000	29000000	460	460	0.04 U	0.041 U	0.04 U	0.038 U	0.039 U
1,1,2,2-Tetrachloroethane	mg/kg	0.7	1.6	94	23	34	34	34	68000	240	870	0.079 U	0.082 U	0.08 U	0.076 U	0.078 U
1,1,2-Trichloroethane	mg/kg	0.1	6.6	420	24	57	57	120	250000	840	920	0.04 U	0.041 U	0.04 U	0.038 U	0.039 U
1,1-Dichloroethane	mg/kg	50	15	890	430	2500	6000	14000	15000000	890	890	0.04 U	0.041 U	0.04 U	0.038 U	0.039 U
1,1-Dichloroethene	mg/kg	0.14	1.3	220	0.33	3.7	15	37	78000	570	570	0.04 U	0.041 U	0.04 U	0.038 U	0.039 U
1,2,4-Trichlorobenzene	mg/kg	4.2	1.8	1100	1100	34000	34000	34000	11000000	1100	1100	0.2 U	0.21 U	0.2 U	0.19 U	0.19 U
1,2-Dibromo-3-chloropropane (DBCP)	mg/kg	0.01		1.2	1.2	15	15	15	5900	1.2	1.2	0.2 U	0.21 U	0.2 U	0.19 U	0.19 U
1,2-Dibromoethane (Ethylene Dibromide)	mg/kg	0.02	0.02	0.5	3.6	5.8	5.8	9.8	18000	0.43	890	0.2 U	0.21 U	0.2 U	0.19 U	0.19 U
1,2-Dichlorobenzene	mg/kg	14	0.36	210	210	46000	46000	55000	44000000	210	210	0.079 U	0.082 U	0.08 U	0.076 U	0.078 U
1,2-Dichloroethane	mg/kg	0.1	7.2	380	11	21	33	74	150000	420	1200	0.04 U	0.041 U	0.04 U	0.038 U	0.039 U
1,2-Dichloropropane	mg/kg	0.1	5.8	320	7.4	30	51	120	120000	550	550	0.04 U	0.041 U	0.04 U	0.038 U	0.039 U
1,3-Dichlorobenzene	mg/kg	0.48	1.1	51	ID	ID	ID	ID	ID	170	170	0.079 U	0.082 U	0.08 U	0.076 U	0.078 U
1,4-Dichlorobenzene	mg/kg	1.7	0.29	140	100	260	260	340	570000	1900		0.079 U	0.082 U	0.08 U	0.076 U	0.078 U
2-Butanone (Methyl Ethyl Ketone)	mg/kg	760	44	27000	27000	35000	35000	36000	29000000	27000	27000	0.59 U	0.62 U	0.6 U	0.57 U	0.58 U
2-Hexanone	mg/kg	58		2500	1800	1300	1300	1500	1200000	2500	2500	2 U	2.1 U	1.9 U	1.9 U	1.9 U
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	mg/kg	100	ID	2700	2700	53000	53000	70000	60000000	2700	2700	2 U	2.1 U	2 U	1.9 U	1.9 U
Acetone	mg/kg	42	34	110000	110000	160000	160000	200000	170000000	73000	110000	0.59 U	0.62 U	0.6 U	0.57 U	0.58 U
Benzene	mg/kg	0.1	4	220	8.4	45	99	230	470000	400	400	0.04 U	0.041 U	0.04 U	0.038 U	0.039 U
Bromodichloromethane	mg/kg	1.6	ID	280	6.4	31	31	57	110000	490	1500	0.079 UJ	0.082 UJ	0.08 UJ	0.076 UJ	0.078 UJ
Bromoform	mg/kg	1.6	ID	870	770	3100	3100	3100	3600000	870	870	0.079 U	0.082 U	0.08 U	0.076 U	0.078 U
Bromomethane (Methyl Bromide)	mg/kg	0.58	0.7	1400	1.6	13	57	140	150000	1000	2200	0.2 U	0.21 U	0.2 U	0.19 U	0.19 U
Carbon disulfide	mg/kg	46	ID	280	140	1600	8000	19000	21000000	280	280	0.2 U	0.21 U	0.2 U	0.19 U	0.19 U
Carbon tetrachloride	mg/kg	0.1	0.9	92	0.99	12	34	79	170000	390	390	0.04 U	0.041 U	0.04 U	0.038 U	0.039 U
Chlorobenzene	mg/kg	2	0.94	260	220	920	1100	2100	2100000	260	260	0.04 U	0.041 U	0.04 U	0.038 U	0.039 U
Chloroethane	mg/kg	34	ID	950	950	36000	120000	280000	290000000	950	950	0.2 U	0.21 U	0.2 U	0.19 U	0.19 U
Chloroform (Trichloromethane)	mg/kg	1.6	3.4	1500	38	150	340	790	1600000	1500	1500	0.04 U	0.041 U	0.04 U	0.038 U	0.039 U
Chloromethane (Methyl Chloride)	mg/kg	22	ID	1100	10	120	1000	2500	2600000	1100	1100	0.2 U	0.21 U	0.2 U	0.19 U	0.19 U
cis-1,2-Dichloroethene	mg/kg	1.4	12	640	41	210	430	1000	1000000	640	640	0.04 U	0.041 U	0.04 U	0.038 U	0.039 U
cis-1,3-Dichloropropene	mg/kg											0.04 UJ	0.041 UJ	0.04 UJ	0.038 UJ	0.039 UJ
Cyclohexane	mg/kg											0.95 U	0.99 U	0.96 U	0.91 U	0.93 U
Dibromochloromethane	mg/kg	1.6	ID	360	21	80	80	98	160000	500	610	0.04 U	0.041 U	0.04 U	0.038 U	0.039 U
Dichlorodifluoromethane (CFC-12)	mg/kg	270	ID	1000	1700	63000	550000	1400000	1500000000	1000	1000	0.079 U	0.082 U	0.08 U	0.076 U	0.078 U
Ethylbenzene	mg/kg	1.5	0.36	140	140	2400	3100	6500	13000000	140	140	0.04 U	0.041 U	0.04 U	0.038 U	0.039 U
Isopropylbenzene	mg/kg	260	ID	390	390	2000	2000	3000	2600000	390	390	0.2 U	0.21 U	0.2 U	0.19 U	0.19 U
Methyl acetate	mg/kg											0.95 U	0.99 U	0.96 U	0.91 U	0.93 U
Methyl cyclohexane	mg/kg											0.95 U	0.99 U	0.0063 J	0.91 U	0.93 U
Methyl Tert Butyl Ether	mg/kg	0.8	15	5900	5900	30000	41000	89000	88000000	5900	5900	0.2 U	0.21 U	0.2 U	0.19 U	0.19 U
Methylene chloride	mg/kg	0.1	19	2300	240	700	1700	4000	8300000	2300	2300	0.2 U	0.21 U	0.2 U	0.19 U	0.19 U
Styrene	mg/kg	2.7	2.2	270	520	3300	3300	4200	6900000	520	520	0.04 U	0.041 U	0.04 U	0.038 U	0.039 U
Tetrachloroethene	mg/kg	0.1	0.9	88	60	600	1400	3300	6800000	88	88	0.04 U	0.041 U	0.04 U	0.038 U	0.039 U
Toluene	mg/kg	16	2.8	250	250	3300	36000	36000	12000000	250	250	0.079 U	0.082 U	0.08 U	0.076 U	0.078 U
trans-1,2-Dichloroethene	mg/kg	2	30	1400	43	330	840	2000	2100000	1400	1400	0.04 U	0.041 U	0.04 U	0.038 U	0.039 U
trans-1,3-Dichloropropene	mg/kg											0.04 U	0.041 U	0.04 U	0.038 U	0.039 U
Trichloroethene	mg/kg	0.1	4	440	37	260	440	1100	2300000	500	500	0.021 J	0.041 U	0.076	0.038 U	0.039 U
Trichlorofluoromethane (CFC-11)	mg/kg	150		560	560	110000	14000000	14000000	1700000000	560	560	0.079 U	0.082 U	0.08 U	0.076 U	0.078 U
Trifluorotrichloroethane (Freon 113)	mg/kg	550	1.7	550	550	210000	890000	2100000	2300000000	550	550	0.2 U	0.21 U	0.2 U	0.19 U	0.19 U
Vinyl chloride	mg/kg	0.04	0.3	20	2.8	29	170	420	890000	34	490	0.079 U	0.082 U	0.08 U	0.076 U	0.078 U
Xylene (total)	mg/kg	5.6	0.7	150	150	54000	65000	130000	130000000	150	150	0.12 U	0.12 U	0.12 U	0.11 U	0.12 U

Notes:
⁽¹⁾ Cleanup criteria identified by MDEQ RRD Op Memo No. 1, updated 1/23/2006, pursuant to 1994 PA 451 as amended.
U - Not present at or above the associated value.
J - Estimated concentration.
UJ - Estimated reporting limit.
 Value exceeds referenced Part 201 Criteria (i.e. a, b, etc.)
ID - Insufficient data to develop criterion
NLL - Hazardous substance is not likely to leach under most soil conditions
NLV - Hazardous substance is not likely to volatilize under most conditions

TABLE 3

SUMMARY OF SOIL SAMPLE RESULTS COMPARED TO MICHIGAN ACT 451, PART 201 INDUSTRIAL CRITERIA
GENERAL MOTORS CORPORATION
GRAND RAPIDS METAL PLANT
WYOMING, MICHIGAN

Sample Location	<i>Michigan Act 451, Part 201 Industrial and Commercial II, III, IV ⁽¹⁾</i>										<i>SB11-05</i> <i>SO-17360-071205-DCR-494</i>	<i>SB11-05</i> <i>SO-17360-071205-DCR-495</i>	<i>SB11-05</i> <i>SO-17360-071205-DCR-496</i>	<i>SB11-05</i> <i>SO-17360-071205-DCR-497</i>	<i>SB11-05</i> <i>SO-17360-071205-DCR-498</i>
Sample Identification	Industrial and	Groundwater	Groundwater	Soil Volatilization	Infinite Source	Finite VSIC for	Finite VSIC for	Particulate	Direct Contact	Soil Saturation					
Sample Date	Commercial	Surface Water	Contact	to Indoor Air	Volatile Soil	5 Meter Source	2 Meter Source	Soil Inhalation	Industrial and	Concentration					
Sample Depth	Drinking Water	Interface Protection	Protection	Inhalation	Inhalation	Thickness	Thickness		Commercial II	Screening					
Sample Type	a	b	c	d	e	f	g	h	i	j	<i>7/12/2005</i> <i>6-8 ft BGS</i>	<i>7/12/2005</i> <i>8-10 ft BGS</i>	<i>7/12/2005</i> <i>10-12 ft BGS</i>	<i>7/12/2005</i> <i>12-14 ft BGS</i>	<i>7/12/2005</i> <i>14-16 ft BGS</i>
<i>Units</i>															
<i>Volatile Organic Compounds</i>															
1,1,1-Trichloroethane	mg/kg	4	4	460	460	4500	15000	31000	29000000	460	460	0.04 U	0.04 U	1.9 U	0.039 U
1,1,2,2-Tetrachloroethane	mg/kg	0.7	1.6	94	23	34	34	34	68000	240	870	0.079 U	0.08 U	3.7 U	0.078 U
1,1,2-Trichloroethane	mg/kg	0.1	6.6	420	24	57	57	120	250000	840	920	0.04 U	0.04 U	1.9 U	0.039 U
1,1-Dichloroethane	mg/kg	50	15	890	430	2500	6000	14000	15000000	890	890	0.04 U	0.04 U	1.9 U	0.039 U
1,1-Dichloroethene	mg/kg	0.14	1.3	220	0.33	3.7	15	37	78000	570	570	0.04 U	0.04 U	1.9 U	0.039 U
1,2,4-Trichlorobenzene	mg/kg	4.2	1.8	1100	1100	34000	34000	34000	11000000	1100	1100	0.2 U	0.2 U	9.3 U	0.2 U
1,2-Dibromo-3-chloropropane (DBCP)	mg/kg	0.01		1.2	1.2	15	15	15	5900	1.2	1.2	0.2 U	0.2 U	9.3 U	0.2 U
1,2-Dibromoethane (Ethylene Dibromide)	mg/kg	0.02	0.02	0.5	3.6	5.8	5.8	9.8	18000	0.43	890	0.2 U	0.2 U	9.3 U	0.2 U
1,2-Dichlorobenzene	mg/kg	14	0.36	210	210	46000	46000	55000	44000000	210	210	0.079 U	0.08 U	3.7 U	0.078 U
1,2-Dichloroethane	mg/kg	0.1	7.2	380	11	21	33	74	150000	420	1200	0.04 U	0.04 U	1.9 U	0.039 U
1,2-Dichloropropane	mg/kg	0.1	5.8	320	7.4	30	51	120	120000	550	550	0.04 U	0.04 U	1.9 U	0.039 U
1,3-Dichlorobenzene	mg/kg	0.48	1.1	51	ID	ID	ID	ID	ID	170	170	0.079 U	0.08 U	3.7 U	0.078 U
1,4-Dichlorobenzene	mg/kg	1.7	0.29	140	100	260	260	340	570000	1900		0.079 U	0.08 U	3.7 U	0.078 U
2-Butanone (Methyl Ethyl Ketone)	mg/kg	760	44	27000	27000	35000	35000	36000	29000000	27000	27000	0.59 U	0.6 U	28 U	0.59 U
2-Hexanone	mg/kg	58		2500	1800	1300	1300	1500	1200000	2500	2500	2 U	2 U	7.5 U	2 U
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	mg/kg	100	ID	2700	2700	53000	53000	70000	60000000	2700	2700	2 U	2 U	93 U	2 U
Acetone	mg/kg	42	34	110000	110000	160000	160000	200000	170000000	73000	110000	0.59 U	0.6 U	28 U	0.59 U
Benzene	mg/kg	0.1	4	220	8.4	45	99	230	470000	400	400	0.04 U	0.04 U	1.9 U	0.039 U
Bromodichloromethane	mg/kg	1.6	ID	280	6.4	31	31	57	110000	490	1500	0.079 UJ	0.08 UJ	3.7 UJ	0.078 UJ
Bromoform	mg/kg	1.6	ID	870	770	3100	3100	3100	3600000	870	870	0.079 U	0.08 U	3.7 U	0.078 U
Bromomethane (Methyl Bromide)	mg/kg	0.58	0.7	1400	1.6	13	57	140	150000	1000	2200	0.2 U	0.2 U	9.3 U	0.2 U
Carbon disulfide	mg/kg	46	ID	280	140	1600	8000	19000	21000000	280	280	0.2 U	0.2 U	9.3 U	0.2 U
Carbon tetrachloride	mg/kg	0.1	0.9	92	0.99	12	34	79	170000	390	390	0.04 U	0.04 U	1.9 U	0.039 U
Chlorobenzene	mg/kg	2	0.94	260	220	920	1100	2100	2100000	260	260	0.04 U	0.04 U	1.9 U	0.039 U
Chloroethane	mg/kg	34	ID	950	950	36000	120000	280000	290000000	950	950	0.2 U	0.2 U	9.3 U	0.2 U
Chloroform (Trichloromethane)	mg/kg	1.6	3.4	1500	38	150	340	790	1600000	1500	1500	0.04 U	0.04 U	1.9 U	0.039 U
Chloromethane (Methyl Chloride)	mg/kg	22	ID	1100	10	120	1000	2500	2600000	1100	1100	0.2 U	0.2 U	9.3 U	0.2 U
cis-1,2-Dichloroethene	mg/kg	1.4	12	640	41	210	430	1000	1000000	640	640	0.04 U	0.04 U	1.9 U	0.039 U
cis-1,3-Dichloropropene	mg/kg											0.04 UJ	0.04 UJ	1.9 UJ	0.039 UJ
Cyclohexane	mg/kg											0.95 U	0.96 U	45 U	0.94 U
Dibromochloromethane	mg/kg	1.6	ID	360	21	80	80	98	160000	500	610	0.04 U	0.04 U	1.9 U	0.039 U
Dichlorodifluoromethane (CFC-12)	mg/kg	270	ID	1000	1700	63000	550000	1400000	1500000000	1000	1000	0.079 U	0.08 U	3.7 U	0.078 U
Ethylbenzene	mg/kg	1.5	0.36	140	140	2400	3100	6500	13000000	140	140	0.04 U	0.04 U	1.9 U	0.039 U
Isopropylbenzene	mg/kg	260	ID	390	390	2000	2000	3000	2600000	390	390	0.2 U	0.2 U	9.3 U	0.2 U
Methyl acetate	mg/kg											0.95 U	0.96 U	100	3.6
Methyl cyclohexane	mg/kg											0.95 U	0.96 U	45 U	0.94 U
Methyl Tert Butyl Ether	mg/kg	0.8	15	5900	5900	30000	41000	89000	88000000	5900	5900	0.2 U	0.2 U	9.3 U	0.2 U
Methylene chloride	mg/kg	0.1	19	2300	240	700	1700	4000	8300000	2300	2300	0.2 U	0.2 U	9.3 U	0.2 U
Styrene	mg/kg	2.7	2.2	270	520	3300	3300	4200	6900000	520	520	0.04 U	0.04 U	1.9 U	0.039 U
Tetrachloroethene	mg/kg	0.1	0.9	88	60	600	1400	3300	6800000	88	88	0.04 U	0.04 U	1.9 U	0.039 U
Toluene	mg/kg	16	2.8	250	250	3300	36000	36000	12000000	250	250	0.079 U	0.08 U	3.7 U	0.078 U
trans-1,2-Dichloroethene	mg/kg	2	30	1400	43	330	840	2000	2100000	1400	1400	0.04 U	0.04 U	1.9 U	0.039 U
trans-1,3-Dichloropropene	mg/kg											0.04 U	0.04 U	1.9 U	0.039 U
Trichloroethene	mg/kg	0.1	4	440	37	260	440	1100	2300000	500	500	0.04 U	0.04 U	1.9 U	0.027 J
Trichlorofluoromethane (CFC-11)	mg/kg	150		560	560	110000	14000000	14000000	1700000000	560	560	0.079 U	0.08 U	3.7 U	0.078 U
Trifluorotrichloroethane (Freon 113)	mg/kg	550	1.7	550	550	210000	890000	2100000	2300000000	550	550	0.2 U	0.2 U	9.3 U	0.2 U
Vinyl chloride	mg/kg	0.04	0.3	20	2.8	29	170	420	890000	34	490	0.079 U	0.08 U	3.7 U	0.078 U
Xylene (total)	mg/kg	5.6	0.7	150	150	54000	65000	130000	130000000	150	150	0.12 U	0.12 U	5.6 U	0.12 U

Notes:
(1) Cleanup criteria identified by MDEQ RRD Op Memo No. 1, updated 1/23/2006, pursuant to 1994 PA 451 as amended.
U - Not present at or above the associated value.
J - Estimated concentration.
UJ - Estimated reporting limit.
☐ Value exceeds referenced Part 201 Criteria (i.e. a, b, etc.)
ID - Insufficient data to develop criterion
NLL - Hazardous substance is not likely to leach under most soil conditions
NLV - Hazardous substance is not likely to volatilize under most conditions

TABLE 3

SUMMARY OF SOIL SAMPLE RESULTS COMPARED TO MICHIGAN ACT 451, PART 201 INDUSTRIAL CRITERIA
GENERAL MOTORS CORPORATION
GRAND RAPIDS METAL PLANT
WYOMING, MICHIGAN

Sample Location	<i>Michigan Act 451, Part 201 Industrial and Commercial II, III, IV ⁽¹⁾</i>										<i>SB11-05</i> <i>SO-17360-071205-DCR-499</i> <i>7/12/2005</i> <i>16-18 ft BGS</i>	<i>SB11-05</i> <i>SO-17360-071205-DCR-500</i> <i>7/12/2005</i> <i>18-20 ft BGS</i>	<i>SB12-05</i> <i>SO-17360-071105-DCR-440</i> <i>7/11/2005</i> <i>0-2 ft BGS</i>	<i>SB12-05</i> <i>SO-17360-071105-DCR-441</i> <i>7/11/2005</i> <i>2-4 ft BGS</i>	<i>SB12-05</i> <i>SO-17360-071105-DCR-442</i> <i>7/11/2005</i> <i>4-6 ft BGS</i>
Sample Identification	Industrial and	Groundwater	Groundwater	Soil Volatilization	Infinite Source	Finite VSIC for	Finite VSIC for	Particulate	Direct Contact	Soil Saturation					
Sample Date	Commercial	Surface Water	Contact	to Indoor Air	Volatile Soil	5 Meter Source	2 Meter Source	Soil Inhalation	Industrial and	Concentration					
Sample Depth	Drinking Water	Interface Protection	Protection	Inhalation	Inhalation	Thickness	Thickness		Commercial II	Screening					
Sample Type	a	b	c	d	e	f	g	h	i	j					
<i>Units</i>															
<i>Volatile Organic Compounds</i>															
1,1,1-Trichloroethane	mg/kg	4	4	460	460	4500	15000	31000	29000000	460	460	1 U	0.24 U	0.041 U	0.16 U
1,1,2,2-Tetrachloroethane	mg/kg	0.7	1.6	94	23	34	34	34	68000	240	870	2 U	0.48 U	0.082 U	0.32 U
1,1,2-Trichloroethane	mg/kg	0.1	6.6	420	24	57	57	120	250000	840	920	1 U	0.24 U	0.041 U	0.16 U
1,1-Dichloroethane	mg/kg	50	15	890	430	2500	6000	14000	15000000	890	890	1 U	0.24 U	0.041 U	0.16 U
1,1-Dichloroethene	mg/kg	0.14	1.3	220	0.33	3.7	15	37	78000	570	570	1 U	0.24 U	0.041 U	0.16 U
1,2,4-Trichlorobenzene	mg/kg	4.2	1.8	1100	1100	34000	34000	34000	11000000	1100	1100	5 U	1.2 U	0.21 U	0.8 U
1,2-Dibromo-3-chloropropane (DBCP)	mg/kg	0.01		1.2	1.2	15	15	15	5900	1.2	1.2	5 U	1.2 U	0.21 U	0.8 U
1,2-Dibromoethane (Ethylene Dibromide)	mg/kg	0.02	0.02	0.5	3.6	5.8	5.8	9.8	18000	0.43	890	5 U	1.2 U	0.21 U	0.8 U
1,2-Dichlorobenzene	mg/kg	14	0.36	210	210	46000	46000	55000	44000000	210	210	2 U	0.48 U	0.082 U	0.32 U
1,2-Dichloroethane	mg/kg	0.1	7.2	380	11	21	33	74	150000	420	1200	1 U	0.24 U	0.041 U	0.16 U
1,2-Dichloropropane	mg/kg	0.1	5.8	320	7.4	30	51	120	120000	550	550	1 U	0.24 U	0.041 U	0.16 U
1,3-Dichlorobenzene	mg/kg	0.48	1.1	51	ID	ID	ID	ID	ID	170	170	2 U	0.48 U	0.082 U	0.32 U
1,4-Dichlorobenzene	mg/kg	1.7	0.29	140	100	260	260	340	570000	1900		2 U	0.48 U	0.082 U	0.32 U
2-Butanone (Methyl Ethyl Ketone)	mg/kg	760	44	27000	27000	35000	35000	36000	29000000	27000	27000	15 U	3.6 U	0.62 U	2.4 U
2-Hexanone	mg/kg	58		2500	1800	1300	1300	1500	1200000	2500		50 U	12 U	2.1 U	8 U
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	mg/kg	100	ID	2700	2700	53000	53000	70000	60000000	2700	2700	50 U	12 U	2.1 U	8 U
Acetone	mg/kg	42	34	110000	110000	160000	160000	200000	170000000	73000	110000	15 U	3.6 U	0.62 U	2.4 U
Benzene	mg/kg	0.1		220	8.4	45	99	230	470000	400	400	1 U	0.24 U	0.0087 J	0.073 J
Bromodichloromethane	mg/kg	1.6	ID	280	6.4	31	31	57	110000	490	1500	2 UJ	0.48 UJ	0.082 U	0.32 UJ
Bromoform	mg/kg	1.6	ID	870	770	3100	3100	3100	3600000	870	870	2 U	0.48 U	0.082 U	0.32 U
Bromomethane (Methyl Bromide)	mg/kg	0.58	0.7	1400	1.6	13	57	140	150000	1000	2200	5 U	1.2 U	0.21 U	0.8 U
Carbon disulfide	mg/kg	46	ID	280	140	1600	8000	19000	21000000	280	280	5 U	1.2 U	0.21 U	0.8 U
Carbon tetrachloride	mg/kg	0.1	0.9	92	0.99	12	34	79	170000	390	390	1 U	0.24 U	0.041 U	0.16 U
Chlorobenzene	mg/kg	2	0.94	260	220	920	1100	2100	2100000	260	260	1 U	0.24 U	0.041 U	0.16 U
Chloroethane	mg/kg	34	ID	950	950	36000	120000	280000	290000000	950	950	5 U	1.2 U	0.21 U	0.8 U
Chloroform (Trichloromethane)	mg/kg	1.6	3.4	1500	38	150	340	790	1600000	1500	1500	1 U	0.24 U	0.041 U	0.16 U
Chloromethane (Methyl Chloride)	mg/kg	22	ID	1100	10	120	1000	2500	2600000	1100	1100	5 U	1.2 U	0.21 U	0.8 U
cis-1,2-Dichloroethene	mg/kg	1.4	12	640	41	210	430	1000	1000000	640	640	1 U	0.24 U	0.041 U	0.16 U
cis-1,3-Dichloropropene	mg/kg											1 UJ	0.24 UJ	0.041 U	0.16 U
Cyclohexane	mg/kg											24 U	5.8 U	0.061 J	0.3 J
Dibromochloromethane	mg/kg	1.6	ID	360	21	80	80	98	160000	500	610	1 U	0.24 U	0.041 UJ	0.16 U
Dichlorodifluoromethane (CFC-12)	mg/kg	270	ID	1000	1700	63000	550000	1400000	1500000000	1000	1000	2 U	0.48 U	0.082 U	0.32 U
Ethylbenzene	mg/kg	1.5	0.36	140	140	2400	3100	6500	13000000	140	140	1 U	0.24 U	0.022 J	0.13 J
Isopropylbenzene	mg/kg	260	ID	390	390	2000	2000	3000	2600000	390	390	5 U	1.2 U	0.025 J	0.12 J
Methyl acetate	mg/kg											49	25	0.99 U	3.8 U
Methyl cyclohexane	mg/kg											24 U	5.8 U	0.22 J	0.88 J
Methyl Tert Butyl Ether	mg/kg	0.8	15	5900	5900	30000	41000	89000	88000000	5900	5900	5 U	1.2 U	0.21 U	0.8 U
Methylene chloride	mg/kg	0.1	19	2300	240	700	1700	4000	8300000	2300	2300	5 U	1.2 U	0.21 U	0.8 U
Styrene	mg/kg	2.7	2.2	270	520	3300	3300	4200	6900000	520	520	1 U	0.24 U	0.041 U	0.16 U
Tetrachloroethene	mg/kg	0.1	0.9	88	60	600	1400	3300	6800000	88	88	1 U	0.24 U	0.041 U	0.16 U
Toluene	mg/kg	16	2.8	250	250	3300	36000	36000	12000000	250	250	2 U	0.48 U	0.076 J	0.49
trans-1,2-Dichloroethene	mg/kg	2	30	1400	43	330	840	2000	2100000	1400	1400	1 U	0.24 U	0.041 U	0.16 U
trans-1,3-Dichloropropene	mg/kg											1 U	0.24 U	0.041 U	0.16 U
Trichloroethene	mg/kg	0.1	4	440	37	260	440	1100	2300000	500	500	1 U	0.24 U		
Trichlorofluoromethane (CFC-11)	mg/kg	150		560	560	110000	140000000	140000000	1700000000	560	560	2 U	0.48 U	0.082 U	0.32 U
Trifluorotrichloroethane (Freon 113)	mg/kg	550	1.7	550	550	210000	890000	2100000	2300000000	550	550	5 U	1.2 U	0.21 U	0.8 U
Vinyl chloride	mg/kg	0.04	0.3	20	2.8	29	170	420	890000	34	490	2 U	0.48 U	0.082 U	0.32 U
Xylene (total)	mg/kg	5.6	0.7	150	150	54000	65000	130000	130000000	150	150	3 U	0.73 U	0.19	

Notes:
(1) Cleanup criteria identified by MDEQ RRD Op Memo No. 1, updated 1/23/2006, pursuant to 1994 PA 451 as amended.
U - Not present at or above the associated value.
J - Estimated concentration.
UJ - Estimated reporting limit.
☐ Value exceeds referenced Part 201 Criteria (i.e. a, b, etc.)
ID - Insufficient data to develop criterion
NLL - Hazardous substance is not likely to leach under most soil conditions
NLV - Hazardous substance is not likely to volatilize under most conditions

TABLE 3

SUMMARY OF SOIL SAMPLE RESULTS COMPARED TO MICHIGAN ACT 451, PART 201 INDUSTRIAL CRITERIA
GENERAL MOTORS CORPORATION
GRAND RAPIDS METAL PLANT
WYOMING, MICHIGAN

Sample Location	Michigan Act 451, Part 201 Industrial and Commercial II, III, IV ⁽¹⁾										SB12-05	SB12-05	SB12-05	SB12-05	SB12-05	
Sample Identification	Industrial and Commercial	Groundwater Surface Water	Groundwater Contact	Soil Volatilization to Indoor Air	Infinite Source Inhalation	Finite VSIC for 5 Meter Source Thickness	Finite VSIC for 2 Meter Source Thickness	Particulate Soil Inhalation	Direct Contact Industrial and Commercial II	Soil Saturation Concentration Screening	SO-17360-071105-DCR-443	SO-17360-071105-DCR-444	SO-17360-071105-DCR-445	SO-17360-071105-DCR-446	SO-17360-071105-DCR-447	
Sample Date	Drinking Water	Interface Protection	Protection	Inhalation	Inhalation	Thickness	Thickness				7/11/2005	7/11/2005	7/11/2005	7/11/2005	7/11/2005	
Sample Depth											6-8 ft BGS	8-10 ft BGS	10-12 ft BGS	12-14 ft BGS	14-16 ft BGS	
Sample Type	a	b	c	d	e	f	g	h	i	j						
Units																
Volatile Organic Compounds																
1,1,1-Trichloroethane	mg/kg	4	4	460	460	4500	15000	31000	29000000	460	460	0.039 U	0.04 U	0.039 U	0.038 U	0.04 U
1,1,2,2-Tetrachloroethane	mg/kg	0.7	1.6	94	23	34	34	34	68000	240	870	0.078 U	0.08 U	0.078 U	0.076 U	0.079 U
1,1,2-Trichloroethane	mg/kg	0.1	6.6	420	24	57	57	120	250000	840	920	0.039 U	0.04 U	0.039 U	0.038 U	0.04 U
1,1-Dichloroethane	mg/kg	50	15	890	430	2500	6000	14000	15000000	890	890	0.039 U	0.04 U	0.039 U	0.038 U	0.04 U
1,1-Dichloroethene	mg/kg	0.14	1.3	220	0.33	3.7	15	37	78000	570	570	0.039 U	0.04 U	0.039 U	0.038 U	0.04 U
1,2,4-Trichlorobenzene	mg/kg	4.2	1.8	1100	1100	34000	34000	34000	11000000	1100	1100	0.2 U	0.2 U	0.2 U	0.19 U	0.2 U
1,2-Dibromo-3-chloropropane (DBCP)	mg/kg	0.01		1.2	1.2	15	15	15	5900	1.2	1.2	0.2 U	0.2 U	0.2 U	0.19 U	0.2 U
1,2-Dibromoethane (Ethylene Dibromide)	mg/kg	0.02	0.02	0.5	3.6	5.8	5.8	9.8	18000	0.43	890	0.2 U	0.2 U	0.2 U	0.19 U	0.2 U
1,2-Dichlorobenzene	mg/kg	14	0.36	210	210	46000	46000	55000	44000000	210	210	0.078 U	0.08 U	0.078 U	0.076 U	0.079 U
1,2-Dichloroethane	mg/kg	0.1	7.2	380	11	21	33	74	150000	420	1200	0.039 U	0.04 U	0.039 U	0.038 U	0.04 U
1,2-Dichloropropane	mg/kg	0.1	5.8	320	7.4	30	51	120	120000	550	550	0.039 U	0.04 U	0.039 U	0.038 U	0.04 U
1,3-Dichlorobenzene	mg/kg	0.48	1.1	51	ID	ID	ID	ID	ID	170	170	0.078 U	0.08 U	0.078 U	0.076 U	0.079 U
1,4-Dichlorobenzene	mg/kg	1.7	0.29	140	100	260	260	340	570000	1900		0.078 U	0.08 U	0.078 U	0.076 U	0.079 U
2-Butanone (Methyl Ethyl Ketone)	mg/kg	760	44	27000	27000	35000	35000	36000	29000000	27000	27000	0.59 U	0.6 U	0.59 U	0.57 U	0.59 U
2-Hexanone	mg/kg	58		2500	1800	1300	1300	1500	1200000	2500	2500	2 U	2 U	2 U	1.9 U	2 U
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	mg/kg	100	ID	2700	2700	53000	53000	70000	60000000	2700	2700	2 U	2 U	2 U	1.9 U	2 U
Acetone	mg/kg	42	34	110000	110000	160000	160000	200000	170000000	73000	110000	0.59 U	0.6 U	0.59 U	0.57 U	0.59 U
Benzene	mg/kg	0.1	4	220	8.4	45	99	230	470000	400	400	0.039 U	0.04 U	0.039 U	0.038 U	0.04 U
Bromodichloromethane	mg/kg	1.6	ID	280	6.4	31	31	57	110000	490	1500	0.078 U	0.08 U	0.078 U	0.076 U	0.079 U
Bromoform	mg/kg	1.6	ID	870	770	3100	3100	3100	3600000	870	870	0.078 U	0.08 U	0.078 U	0.076 U	0.079 U
Bromomethane (Methyl Bromide)	mg/kg	0.58	0.7	1400	1.6	13	57	140	150000	1000	2200	0.2 U	0.2 U	0.2 U	0.19 U	0.2 U
Carbon disulfide	mg/kg	46	ID	280	140	1600	8000	19000	21000000	280	280	0.2 U	0.2 U	0.2 U	0.19 U	0.2 U
Carbon tetrachloride	mg/kg	0.1	0.9	92	0.99	12	34	79	170000	390	390	0.039 U	0.04 U	0.039 U	0.038 U	0.04 U
Chlorobenzene	mg/kg	2	0.94	260	220	920	1100	2100	2100000	260	260	0.039 U	0.04 U	0.039 U	0.038 U	0.04 U
Chloroethane	mg/kg	34	ID	950	950	36000	120000	280000	290000000	950	950	0.2 U	0.2 U	0.2 U	0.19 U	0.2 U
Chloroform (Trichloromethane)	mg/kg	1.6	3.4	1500	38	150	340	790	1600000	1500	1500	0.039 U	0.04 U	0.039 U	0.038 U	0.04 U
Chloromethane (Methyl Chloride)	mg/kg	22	ID	1100	10	120	1000	2500	2600000	1100	1100	0.2 U	0.2 U	0.2 U	0.19 U	0.2 U
cis-1,2-Dichloroethene	mg/kg	1.4	12	640	41	210	430	1000	1000000	640	640	0.039 U	0.04 U	0.039 U	0.038 U	0.04 U
cis-1,3-Dichloropropene	mg/kg											0.039 U	0.04 U	0.039 U	0.038 U	0.04 U
Cyclohexane	mg/kg											0.94 U	0.96 U	0.94 U	0.91 U	0.95 U
Dibromochloromethane	mg/kg	1.6	ID	360	21	80	80	98	160000	500	610	0.039 U	0.04 U	0.039 U	0.038 U	0.04 U
Dichlorodifluoromethane (CFC-12)	mg/kg	270	ID	1000	1700	63000	550000	1400000	1500000000	1000	1000	0.078 U	0.08 U	0.078 U	0.076 U	0.079 U
Ethylbenzene	mg/kg	1.5	0.36	140	140	2400	3100	6500	13000000	140	140	0.039 U	0.04 U	0.039 U	0.038 U	0.04 U
Isopropylbenzene	mg/kg	260	ID	390	390	2000	2000	3000	2600000	390	390	0.2 U	0.2 U	0.2 U	0.19 U	0.2 U
Methyl acetate	mg/kg											0.94 U	0.96 U	0.94 U	0.91 U	0.36 J
Methyl cyclohexane	mg/kg											0.94 U	0.96 U	0.94 U	0.91 U	0.015 J
Methyl Tert Butyl Ether	mg/kg	0.8	15	5900	5900	30000	41000	89000	88000000	5900	5900	0.2 U	0.2 U	0.2 U	0.19 U	0.2 U
Methylene chloride	mg/kg	0.1	19	2300	240	700	1700	4000	8300000	2300	2300	0.2 U	0.2 U	0.2 U	0.19 U	0.2 U
Styrene	mg/kg	2.7	2.2	270	520	3300	3300	4200	6900000	520	520	0.039 U	0.04 U	0.039 U	0.038 U	0.04 U
Tetrachloroethene	mg/kg	0.1	0.9	88	60	600	1400	3300	6800000	88	88	0.039 U	0.04 U	0.039 U	0.038 U	0.04 U
Toluene	mg/kg	16	2.8	250	250	3300	36000	36000	12000000	250	250	0.078 U	0.08 U	0.078 U	0.076 U	0.0098 J
trans-1,2-Dichloroethene	mg/kg	2	30	1400	43	330	840	2000	2100000	1400	1400	0.039 U	0.04 U	0.039 U	0.038 U	0.04 U
trans-1,3-Dichloropropene	mg/kg											0.039 U	0.04 U	0.039 U	0.038 U	0.04 U
Trichloroethene	mg/kg	0.1	4	440	37	260	440	1100	2300000	500	500	0.039 U	0.04 U	0.039 U	0.013 J	0.14*
Trichlorofluoromethane (CFC-11)	mg/kg	150		560	560	110000	14000000	140000000	1700000000	560	560	0.078 U	0.08 U	0.078 U	0.076 U	0.079 U
Trifluorotrichloroethane (Freon 113)	mg/kg	550	1.7	550	550	210000	890000	2100000	2300000000	550	550	0.2 U	0.2 U	0.2 U	0.19 U	0.2 U
Vinyl chloride	mg/kg	0.04	0.3	20	2.8	29	170	420	890000	34	490	0.078 U	0.08 U	0.078 U	0.076 U	0.079 U
Xylene (total)	mg/kg	5.6	0.7	150	150	54000	65000	130000	130000000	150	150	0.12 U	0.12 U	0.12 U	0.11 U	0.016 J

Notes:
⁽¹⁾ Cleanup criteria identified by MDEQ RRD Op Memo No. 1, updated 1/23/2006, pursuant to 1994 PA 451 as amended.
U - Not present at or above the associated value.
J - Estimated concentration.
UJ - Estimated reporting limit.
☐ Value exceeds referenced Part 201 Criteria (i.e. a, b, etc.)
ID - Insufficient data to develop criterion
NLL - Hazardous substance is not likely to leach under most soil conditions
NLV - Hazardous substance is not likely to volatilize under most conditions

TABLE 3

SUMMARY OF SOIL SAMPLE RESULTS COMPARED TO MICHIGAN ACT 451, PART 201 INDUSTRIAL CRITERIA
GENERAL MOTORS CORPORATION
GRAND RAPIDS METAL PLANT
WYOMING, MICHIGAN

Sample Location	<i>Michigan Act 451, Part 201 Industrial and Commercial II, III, IV ⁽¹⁾</i>										<i>SB12-05</i>	<i>SB12-05</i>	<i>SB13-05</i>	<i>SB13-05</i>	<i>SB13-05</i>
Sample Identification	Industrial and	Groundwater	Groundwater	Soil Volatilization	Infinite Source	Finite VSIC for	Finite VSIC for	Particulate	Direct Contact	Soil Saturation	<i>SO-17360-071105-DCR-448</i>	<i>SO-17360-071105-DCR-449</i>	<i>SO-17360-071105-DCR-409</i>	<i>SO-17360-071105-DCR-410</i>	<i>SO-17360-071105-DCR-411</i>
Sample Date	Commercial	Surface Water	Contact	to Indoor Air	Volatile Soil	5 Meter Source	2 Meter Source	Soil Inhalation	Industrial and	Concentration	<i>7/11/2005</i>	<i>7/11/2005</i>	<i>7/11/2005</i>	<i>7/11/2005</i>	<i>7/11/2005</i>
Sample Depth	Drinking Water	Interface Protection	Protection	Inhalation	Inhalation	Thickness	Thickness		Commercial II	Screening	<i>16-18 ft BGS</i>	<i>18-20 ft BGS</i>	<i>0-2 ft BGS</i>	<i>2-4 ft BGS</i>	<i>4-6 ft BGS</i>
Sample Type	a	b	c	d	e	f	g	h	i	j					
<i>Units</i>															
<i>Volatile Organic Compounds</i>															
1,1,1-Trichloroethane	mg/kg	4	4	460	460	4500	15000	31000	29000000	460	460	0.037 U	0.038 U	0.037 U	0.039 U
1,1,2,2-Tetrachloroethane	mg/kg	0.7	1.6	94	23	34	34	34	68000	240	870	0.074 U	0.076 U	0.074 U	0.074 U
1,1,2-Trichloroethane	mg/kg	0.1	6.6	420	24	57	57	120	250000	840	920	0.037 U	0.038 U	0.037 U	0.039 U
1,1-Dichloroethane	mg/kg	50	15	890	430	2500	6000	14000	15000000	890	890	0.037 U	0.038 U	0.037 U	0.039 U
1,1-Dichloroethene	mg/kg	0.14	1.3	220	0.33	3.7	15	37	78000	570	570	0.037 U	0.038 U	0.037 U	0.039 U
1,2,4-Trichlorobenzene	mg/kg	4.2	1.8	1100	1100	34000	34000	34000	11000000	1100	1100	0.18 U	0.19 U	0.18 U	0.19 U
1,2-Dibromo-3-chloropropane (DBCP)	mg/kg	0.01		1.2	1.2	15	15	15	5900	1.2	1.2	0.18 U	0.19 U	0.18 U	0.19 U
1,2-Dibromoethane (Ethylene Dibromide)	mg/kg	0.02	0.02	0.5	3.6	5.8	5.8	9.8	18000	0.43	890	0.18 U	0.19 U	0.18 U	0.19 U
1,2-Dichlorobenzene	mg/kg	14	0.36	210	210	46000	46000	55000	44000000	210	210	0.074 U	0.076 U	0.074 U	0.078 U
1,2-Dichloroethane	mg/kg	0.1	7.2	380	11	21	33	74	150000	420	1200	0.037 U	0.038 U	0.037 U	0.039 U
1,2-Dichloropropane	mg/kg	0.1	5.8	320	7.4	30	51	120	120000	550	550	0.037 U	0.038 U	0.037 U	0.039 U
1,3-Dichlorobenzene	mg/kg	0.48	1.1	51	ID	ID	ID	ID	ID	170	170	0.074 U	0.076 U	0.074 U	0.078 U
1,4-Dichlorobenzene	mg/kg	1.7	0.29	140	100	260	260	340	570000	1900		0.074 U	0.076 U	0.074 U	0.078 U
2-Butanone (Methyl Ethyl Ketone)	mg/kg	760	44	27000	27000	35000	35000	36000	29000000	27000	27000	0.55 U	0.57 U	0.55 U	0.59 U
2-Hexanone	mg/kg	58		2500	1800	1300	1300	1500	1200000	2500	2500	1.8 U	1.9 U	1.8 U	1.9 U
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	mg/kg	100	ID	2700	2700	53000	53000	70000	60000000	2700	2700	1.8 U	1.9 U	1.8 U	1.9 U
Acetone	mg/kg	42	34	110000	110000	160000	160000	200000	170000000	73000	110000	0.55 U	0.57 U	0.55 U	0.59 U
Benzene	mg/kg	0.1	4	220	8.4	45	99	230	470000	400	400	0.037 U	0.038 U	0.037 U	0.039 U
Bromodichloromethane	mg/kg	1.6	ID	280	6.4	31	31	57	110000	490	1500	0.074 UJ	0.076 UJ	0.074 UJ	0.078 UJ
Bromoform	mg/kg	1.6	ID	870	770	3100	3100	3100	3600000	870	870	0.074 U	0.076 U	0.074 U	0.078 U
Bromomethane (Methyl Bromide)	mg/kg	0.58	0.7	1400	1.6	13	57	140	150000	1000	2200	0.18 U	0.19 U	0.18 U	0.2 U
Carbon disulfide	mg/kg	46	ID	280	140	1600	8000	19000	21000000	280	280	0.18 U	0.19 U	0.18 U	0.2 U
Carbon tetrachloride	mg/kg	0.1	0.9	92	0.99	12	34	79	170000	390	390	0.037 U	0.038 U	0.037 U	0.039 U
Chlorobenzene	mg/kg	2	0.94	260	220	920	1100	2100	2100000	260	260	0.037 U	0.038 U	0.037 U	0.039 U
Chloroethane	mg/kg	34	ID	950	950	36000	120000	280000	290000000	950	950	0.18 U	0.19 U	0.18 U	0.2 U
Chloroform (Trichloromethane)	mg/kg	1.6	3.4	1500	38	150	340	790	1600000	1500	1500	0.037 U	0.038 U	0.037 U	0.039 U
Chloromethane (Methyl Chloride)	mg/kg	22	ID	1100	10	120	1000	2500	2600000	1100	1100	0.18 U	0.19 U	0.18 U	0.2 U
cis-1,2-Dichloroethene	mg/kg	1.4	12	640	41	210	430	1000	1000000	640	640	0.037 U	0.038 U	0.037 U	0.039 U
cis-1,3-Dichloropropene	mg/kg											0.037 U	0.038 U	0.037 U	0.039 U
Cyclohexane	mg/kg											0.88 U	0.91 U	0.88 U	0.94 U
Dibromochloromethane	mg/kg	1.6	ID	360	21	80	80	98	160000	500	610	0.037 U	0.038 U	0.037 U	0.039 U
Dichlorodifluoromethane (CFC-12)	mg/kg	270	ID	1000	1700	63000	550000	1400000	1500000000	1000	1000	0.074 U	0.076 U	0.074 U	0.078 U
Ethylbenzene	mg/kg	1.5	0.36	140	140	2400	3100	6500	13000000	140	140	0.037 U	0.038 U	0.018 J	0.039 U
Isopropylbenzene	mg/kg	260	ID	390	390	2000	2000	3000	2600000	390	390	0.18 U	0.19 U	0.019 J	0.19 U
Methyl acetate	mg/kg											0.88 U	0.91 U	0.88 U	0.94 U
Methyl cyclohexane	mg/kg											0.88 U	0.91 U	0.16 J	0.94 U
Methyl Tert Butyl Ether	mg/kg	0.8	15	5900	5900	30000	41000	89000	88000000	5900	5900	0.18 U	0.19 U	0.18 U	0.2 U
Methylene chloride	mg/kg	0.1	19	2300	240	700	1700	4000	8300000	2300	2300	0.18 U	0.19 U	0.18 U	0.19 U
Styrene	mg/kg	2.7	2.2	270	520	3300	3300	4200	6900000	520	520	0.037 U	0.038 U	0.037 U	0.039 U
Tetrachloroethene	mg/kg	0.1	0.9	88	60	600	1400	3300	6800000	88	88	0.037 U	0.038 U	0.037 U	0.039 U
Toluene	mg/kg	16	2.8	250	250	3300	36000	36000	12000000	250	250	0.074 U	0.076 U	0.04 J	0.078 U
trans-1,2-Dichloroethene	mg/kg	2	30	1400	43	330	840	2000	2100000	1400	1400	0.037 U	0.038 U	0.037 U	0.039 U
trans-1,3-Dichloropropene	mg/kg											0.037 U	0.038 U	0.037 UJ	0.039 UJ
Trichloroethene	mg/kg	0.1	4	440	37	260	440	1100	2300000	500	500	0.012 J	0.038 U	1.5	
Trichlorofluoromethane (CFC-11)	mg/kg	150		560	560	110000	140000000	140000000	1700000000	560	560	0.074 U	0.076 U	0.074 U	0.078 U
Trifluorotrichloroethane (Freon 113)	mg/kg	550	1.7	550	550	210000	890000	2100000	2300000000	550	550	0.18 U	0.19 U	0.18 U	0.19 U
Vinyl chloride	mg/kg	0.04	0.3	20	2.8	29	170	420	890000	34	490	0.074 U	0.076 U	0.074 U	0.078 U
Xylene (total)	mg/kg	5.6	0.7	150	150	54000	65000	130000	130000000	150	150	0.11 U	0.11 U	0.16	0.12 U

Notes:
⁽¹⁾ Cleanup criteria identified by MDEQ RRD Op Memo No. 1, updated 1/23/2006, pursuant to 1994 PA 451 as amended.
U - Not present at or above the associated value.
J - Estimated concentration.
UJ - Estimated reporting limit.
 Value exceeds referenced Part 201 Criteria (i.e. a, b, etc.)
ID - Insufficient data to develop criterion
NLL - Hazardous substance is not likely to leach under most soil conditions
NLV - Hazardous substance is not likely to volatilize under most conditions

TABLE 3

SUMMARY OF SOIL SAMPLE RESULTS COMPARED TO MICHIGAN ACT 451, PART 201 INDUSTRIAL CRITERIA
GENERAL MOTORS CORPORATION
GRAND RAPIDS METAL PLANT
WYOMING, MICHIGAN

Sample Location	<i>Michigan Act 451, Part 201 Industrial and Commercial II, III, IV ⁽¹⁾</i>										<i>SB13-05</i>	<i>SB13-05</i>	<i>SB13-05</i>	<i>SB13-05</i>	<i>SB13-05</i>
Sample Identification	Industrial and	Groundwater	Groundwater	Soil Volatilization	Infinite Source	Finite VSIC for	Finite VSIC for	Particulate	Direct Contact	Soil Saturation	<i>SO-17360-071105-DCR-412</i>	<i>SO-17360-071105-DCR-413</i>	<i>SO-17360-071105-DCR-414</i>	<i>SO-17360-071105-DCR-415</i>	<i>SO-17360-071105-DCR-416</i>
Sample Date	Commercial	Surface Water	Contact	to Indoor Air	Volatile Soil	5 Meter Source	2 Meter Source	Soil Inhalation	Industrial and	Concentration	<i>7/11/2005</i>	<i>7/11/2005</i>	<i>7/11/2005</i>	<i>7/11/2005</i>	<i>7/11/2005</i>
Sample Depth	Drinking Water	Interface Protection	Protection	Inhalation	Inhalation	Thickness	Thickness		Commercial II	Screening	<i>6-8 ft BGS</i>	<i>8-10 ft BGS</i>	<i>10-12 ft BGS</i>	<i>12-14 ft BGS</i>	<i>14-16 ft BGS</i>
Sample Type	a	b	c	d	e	f	g	h	i	j					
<i>Units</i>															
<i>Volatile Organic Compounds</i>															
1,1,1-Trichloroethane	mg/kg	4	4	460	460	4500	15000	31000	29000000	460	460	0.04 U	0.04 U	0.039 U	0.04 U
1,1,2,2-Tetrachloroethane	mg/kg	0.7	1.6	94	23	34	34	34	68000	240	870	0.08 U	0.08 U	0.078 U	0.079 U
1,1,2-Trichloroethane	mg/kg	0.1	6.6	420	24	57	57	120	250000	840	920	0.04 U	0.04 U	0.039 U	0.04 U
1,1-Dichloroethane	mg/kg	50	15	890	430	2500	6000	14000	15000000	890	890	0.04 U	0.04 U	0.039 U	0.04 U
1,1-Dichloroethene	mg/kg	0.14	1.3	220	0.33	3.7	15	37	78000	570	570	0.04 U	0.04 U	0.039 U	0.04 U
1,2,4-Trichlorobenzene	mg/kg	4.2	1.8	1100	1100	34000	34000	34000	11000000	1100	1100	0.2 U	0.2 U	0.19 U	0.2 U
1,2-Dibromo-3-chloropropane (DBCP)	mg/kg	0.01		1.2	1.2	15	15	15	5900	1.2	1.2	0.2 U	0.2 U	0.19 U	0.2 U
1,2-Dibromoethane (Ethylene Dibromide)	mg/kg	0.02	0.02	0.5	3.6	5.8	5.8	9.8	18000	0.43	890	0.2 U	0.2 U	0.19 U	0.2 U
1,2-Dichlorobenzene	mg/kg	14	0.36	210	210	46000	46000	55000	44000000	210	210	0.08 U	0.08 U	0.078 U	0.079 U
1,2-Dichloroethane	mg/kg	0.1	7.2	380	11	21	33	74	150000	420	1200	0.04 U	0.04 U	0.039 U	0.04 U
1,2-Dichloropropane	mg/kg	0.1	5.8	320	7.4	30	51	120	120000	550	550	0.04 U	0.04 U	0.039 U	0.04 U
1,3-Dichlorobenzene	mg/kg	0.48	1.1	51	ID	ID	ID	ID	ID	170	170	0.08 U	0.08 U	0.078 U	0.079 U
1,4-Dichlorobenzene	mg/kg	1.7	0.29	140	100	260	260	340	570000	1900		0.08 U	0.08 U	0.078 U	0.079 U
2-Butanone (Methyl Ethyl Ketone)	mg/kg	760	44	27000	27000	35000	35000	36000	29000000	27000	27000	0.6 U	0.6 U	0.58 U	0.59 U
2-Hexanone	mg/kg	58		2500	1800	1300	1300	1500	1200000	2500		2 U	2 U	1.9 U	2 U
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	mg/kg	100	ID	2700	2700	53000	53000	70000	60000000	2700	2700	2 U	2 U	1.9 U	2 U
Acetone	mg/kg	42	34	110000	110000	160000	160000	200000	170000000	73000	110000	0.6 U	0.6 U	0.58 U	0.59 U
Benzene	mg/kg	0.1	4	220	8.4	45	99	230	470000	400	400	0.04 U	0.04 U	0.039 U	0.04 U
Bromodichloromethane	mg/kg	1.6	ID	280	6.4	31	31	57	110000	490	1500	0.08 UJ	0.08 UJ	0.078 UJ	0.079 UJ
Bromoform	mg/kg	1.6	ID	870	770	3100	3100	3100	3600000	870	870	0.08 U	0.08 U	0.078 U	0.079 U
Bromomethane (Methyl Bromide)	mg/kg	0.58	0.7	1400	1.6	13	57	140	150000	1000	2200	0.2 U	0.2 U	0.19 U	0.2 U
Carbon disulfide	mg/kg	46	ID	280	140	1600	8000	19000	21000000	280	280	0.2 U	0.2 U	0.19 U	0.2 U
Carbon tetrachloride	mg/kg	0.1	0.9	92	0.99	12	34	79	170000	390	390	0.04 U	0.04 U	0.039 U	0.04 U
Chlorobenzene	mg/kg	2	0.94	260	220	920	1100	2100	2100000	260	260	0.04 U	0.04 U	0.039 U	0.04 U
Chloroethane	mg/kg	34	ID	950	950	36000	120000	280000	290000000	950	950	0.2 U	0.2 U	0.19 U	0.2 U
Chloroform (Trichloromethane)	mg/kg	1.6	3.4	1500	38	150	340	790	1600000	1500	1500	0.04 U	0.04 U	0.039 U	0.04 U
Chloromethane (Methyl Chloride)	mg/kg	22	ID	1100	10	120	1000	2500	2600000	1100	1100	0.2 U	0.2 U	0.19 U	0.2 U
cis-1,2-Dichloroethene	mg/kg	1.4	12	640	41	210	430	1000	1000000	640	640	0.04 U	0.04 U	0.039 U	0.04 U
cis-1,3-Dichloropropene	mg/kg											0.04 U	0.04 U	0.039 U	0.04 U
Cyclohexane	mg/kg											0.96 U	0.96 U	0.93 U	0.95 U
Dibromochloromethane	mg/kg	1.6	ID	360	21	80	80	98	160000	500	610	0.04 U	0.04 U	0.039 U	0.04 U
Dichlorodifluoromethane (CFC-12)	mg/kg	270	ID	1000	1700	63000	550000	1400000	1500000000	1000	1000	0.08 U	0.08 U	0.078 U	0.079 U
Ethylbenzene	mg/kg	1.5	0.36	140	140	2400	3100	6500	13000000	140	140	0.04 U	0.04 U	0.039 U	0.04 U
Isopropylbenzene	mg/kg	260	ID	390	390	2000	2000	3000	2600000	390	390	0.2 U	0.2 U	0.19 U	0.2 U
Methyl acetate	mg/kg											0.96 U	0.96 U	0.071 J	0.95 U
Methyl cyclohexane	mg/kg											0.96 U	0.96 U	0.93 U	0.95 U
Methyl Tert Butyl Ether	mg/kg	0.8	15	5900	5900	30000	41000	89000	88000000	5900	5900	0.2 U	0.2 U	0.19 U	0.2 U
Methylene chloride	mg/kg	0.1	19	2300	240	700	1700	4000	8300000	2300	2300	0.2 U	0.2 U	0.19 U	0.2 U
Styrene	mg/kg	2.7	2.2	270	520	3300	3300	4200	6900000	520	520	0.04 U	0.04 U	0.039 U	0.04 U
Tetrachloroethene	mg/kg	0.1	0.9	88	60	600	1400	3300	6800000	88	88	0.04 U	0.04 U	0.039 U	0.04 U
Toluene	mg/kg	16	2.8	250	250	3300	36000	36000	12000000	250	250	0.08 U	0.08 U	0.078 U	0.079 U
trans-1,2-Dichloroethene	mg/kg	2	30	1400	43	330	840	2000	2100000	1400	1400	0.04 U	0.04 U	0.039 U	0.04 U
trans-1,3-Dichloropropene	mg/kg											0.04 UJ	0.04 UJ	0.039 UJ	0.04 UJ
Trichloroethene	mg/kg	0.1	4	440	37	260	440	1100	2300000	500	500	0.04 U	0.04 U	0.012 J	0.04 U
Trichlorofluoromethane (CFC-11)	mg/kg	150		560	560	110000	14000000	14000000	1700000000	560	560	0.08 U	0.08 U	0.078 U	0.079 U
Trifluorotrichloroethane (Freon 113)	mg/kg	550	1.7	550	550	210000	890000	2100000	2300000000	550	550	0.2 U	0.2 U	0.19 U	0.2 U
Vinyl chloride	mg/kg	0.04	0.3	20	2.8	29	170	420	890000	34	490	0.08 U	0.08 U	0.078 U	0.079 U
Xylene (total)	mg/kg	5.6	0.7	150	150	54000	65000	130000	130000000	150	150	0.12 U	0.12 U	0.12 U	0.12 U

Notes:
⁽¹⁾ Cleanup criteria identified by MDEQ RRD Op Memo No. 1, updated 1/23/2006, pursuant to 1994 PA 451 as amended.
U - Not present at or above the associated value.
J - Estimated concentration.
UJ - Estimated reporting limit.

Value exceeds referenced Part 201 Criteria (i.e. a, b, etc.)

ID - Insufficient data to develop criterion
NLL - Hazardous substance is not likely to leach under most soil conditions
NLV - Hazardous substance is not likely to volatilize under most conditions

TABLE 3

SUMMARY OF SOIL SAMPLE RESULTS COMPARED TO MICHIGAN ACT 451, PART 201 INDUSTRIAL CRITERIA
GENERAL MOTORS CORPORATION
GRAND RAPIDS METAL PLANT
WYOMING, MICHIGAN

Sample Location	Michigan Act 451, Part 201 Industrial and Commercial II, III, IV ⁽¹⁾										SB13-05	SB13-05	SB14-05	SB14-05	SB14-05	
Sample Identification	Industrial and Commercial	Groundwater Surface Water	Groundwater Contact Protection	Soil Volatilization to Indoor Air Inhalation	Infinite Source Volatile Soil Inhalation	Finite VSIC for 5 Meter Source Thickness	Finite VSIC for 2 Meter Source Thickness	Particulate Soil Inhalation	Direct Contact Industrial and Commercial II	Soil Saturation Concentration Screening	SO-17360-071105-DCR-417	SO-17360-071105-DCR-418	SO-17360-071205-DCR-460	SO-17360-071205-DCR-461	SO-17360-071205-DCR-462	
Sample Date	Drinking Water	Interface Protection									7/11/2005	7/11/2005	7/12/2005	7/12/2005	7/12/2005	
Sample Depth											16-18 ft BGS	18-20 ft BGS	0-2 ft BGS	2-4 ft BGS	4-6 ft BGS	
Sample Type	a	b	c	d	e	f	g	h	i	j						
	Units															
Volatile Organic Compounds																
1,1,1-Trichloroethane	mg/kg	4	4	460	460	4500	15000	31000	29000000	460	460	0.04 U	0.04 U	0.04 U	0.048 U	0.042 U
1,1,2,2-Tetrachloroethane	mg/kg	0.7	1.6	94	23	34	34	34	68000	240	870	0.079 U	0.08 U	0.08 U	0.095 U	0.084 U
1,1,2-Trichloroethane	mg/kg	0.1	6.6	420	24	57	57	120	250000	840	920	0.04 U	0.04 U	0.04 U	0.048 U	0.042 U
1,1-Dichloroethane	mg/kg	50	15	890	430	2500	6000	14000	15000000	890	890	0.04 U	0.04 U	0.04 U	0.048 U	0.042 U
1,1-Dichloroethene	mg/kg	0.14	1.3	220	0.33	3.7	15	37	78000	570	570	0.04 U	0.04 U	0.04 U	0.048 U	0.042 U
1,2,4-Trichlorobenzene	mg/kg	4.2	1.8	1100	1100	34000	34000	34000	11000000	1100	1100	0.2 U	0.2 U	0.2 U	0.24 U	0.21 U
1,2-Dibromo-3-chloropropane (DBCP)	mg/kg	0.01		1.2	1.2	15	15	15	5900	1.2	1.2	0.2 U	0.2 U	0.2 U	0.24 U	0.21 U
1,2-Dibromoethane (Ethylene Dibromide)	mg/kg	0.02	0.02	0.5	3.6	5.8	5.8	9.8	18000	0.43	890	0.2 U	0.2 U	0.2 U	0.24 U	0.21 U
1,2-Dichlorobenzene	mg/kg	14	0.36	210	210	46000	46000	55000	44000000	210	210	0.079 U	0.08 U	0.08 U	0.095 U	0.084 U
1,2-Dichloroethane	mg/kg	0.1	7.2	380	11	21	33	74	150000	420	1200	0.04 U	0.04 U	0.04 U	0.048 U	0.042 U
1,2-Dichloropropane	mg/kg	0.1	5.8	320	7.4	30	51	120	120000	550	550	0.04 U	0.04 U	0.04 U	0.048 U	0.042 U
1,3-Dichlorobenzene	mg/kg	0.48	1.1	51	ID	ID	ID	ID	ID	170	170	0.079 U	0.08 U	0.08 U	0.095 U	0.084 U
1,4-Dichlorobenzene	mg/kg	1.7	0.29	140	100	260	260	340	570000	1900		0.079 U	0.08 U	0.08 U	0.095 U	0.084 U
2-Butanone (Methyl Ethyl Ketone)	mg/kg	760	44	27000	27000	35000	35000	36000	29000000	27000	27000	0.59 U	0.6 U	0.6 U	0.71 U	0.63 U
2-Hexanone	mg/kg	58		2500	1800	1300	1300	1500	1200000	2500	2500	2 U	2 U	2 U	2.4 U	2.1 U
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	mg/kg	100	ID	2700	2700	53000	53000	70000	60000000	2700	2700	2 U	2 U	2 U	2.4 U	2.1 U
Acetone	mg/kg	42	34	110000	110000	160000	160000	200000	170000000	73000	110000	0.59 U	0.6 U	0.6 U	0.71 U	0.63 U
Benzene	mg/kg	0.1	4	220	8.4	45	99	230	470000	400	400	0.04 U	0.04 U	0.04 U	0.048 U	0.042 U
Bromodichloromethane	mg/kg	1.6	ID	280	6.4	31	31	57	110000	490	1500	0.079 UJ	0.08 UJ	0.08 UJ	0.095 UJ	0.084 UJ
Bromoform	mg/kg	1.6	ID	870	770	3100	3100	3100	3600000	870	870	0.079 U	0.08 U	0.08 U	0.095 U	0.084 U
Bromomethane (Methyl Bromide)	mg/kg	0.58	0.7	1400	1.6	13	57	140	150000	1000	2200	0.2 U	0.2 U	0.2 U	0.24 U	0.21 U
Carbon disulfide	mg/kg	46	ID	280	140	1600	8000	19000	21000000	280	280	0.2 U	0.2 U	0.2 U	0.24 U	0.21 U
Carbon tetrachloride	mg/kg	0.1	0.9	92	0.99	12	34	79	170000	390	390	0.04 U	0.04 U	0.04 U	0.048 U	0.042 U
Chlorobenzene	mg/kg	2	0.94	260	220	920	1100	2100	2100000	260	260	0.04 U	0.04 U	0.04 U	0.048 U	0.042 U
Chloroethane	mg/kg	34	ID	950	950	36000	120000	280000	290000000	950	950	0.2 U	0.2 U	0.2 U	0.24 U	0.21 U
Chloroform (Trichloromethane)	mg/kg	1.6	3.4	1500	38	150	340	790	1600000	1500	1500	0.04 U	0.04 U	0.04 U	0.048 U	0.042 U
Chloromethane (Methyl Chloride)	mg/kg	22	ID	1100	10	120	1000	2500	2600000	1100	1100	0.2 U	0.2 U	0.2 U	0.24 U	0.21 U
cis-1,2-Dichloroethene	mg/kg	1.4	12	640	41	210	430	1000	1000000	640	640	0.04 U	0.04 U	0.04 U	0.048 U	0.042 U
cis-1,3-Dichloropropene	mg/kg											0.04 U	0.04 U	0.04 U	0.048 U	0.042 U
Cyclohexane	mg/kg											0.013 J	0.96 U	0.0079 J	1.1 U	1 U
Dibromochloromethane	mg/kg	1.6	ID	360	21	80	80	98	160000	500	610	0.04 U	0.04 U	0.04 U	0.048 U	0.042 U
Dichlorodifluoromethane (CFC-12)	mg/kg	270	ID	1000	1700	63000	550000	1400000	1500000000	1000	1000	0.079 U	0.08 U	0.08 U	0.095 U	0.084 U
Ethylbenzene	mg/kg	1.5	0.36	140	140	2400	3100	6500	13000000	140	140	0.04 U	0.04 U	0.04 U	0.048 U	0.042 U
Isopropylbenzene	mg/kg	260	ID	390	390	2000	2000	3000	2600000	390	390	0.2 U	0.2 U	0.2 U	0.24 U	0.21 U
Methyl acetate	mg/kg											0.44 J	0.96 U	0.96 U	1.1 U	1 U
Methyl cyclohexane	mg/kg											0.037 J	0.96 U	0.024 J	1.1 U	1 U
Methyl Tert Butyl Ether	mg/kg	0.8	15	5900	5900	30000	41000	89000	88000000	5900	5900	0.2 U	0.2 U	0.2 U	0.24 U	0.21 U
Methylene chloride	mg/kg	0.1	19	2300	240	700	1700	4000	8300000	2300	2300	0.2 U	0.2 U	0.2 U	0.24 U	0.21 U
Styrene	mg/kg	2.7	2.2	270	520	3300	3300	4200	6900000	520	520	0.04 U	0.04 U	0.04 U	0.048 U	0.042 U
Tetrachloroethene	mg/kg	0.1	0.9	88	60	600	1400	3300	6800000	88	88	0.04 U	0.04 U	0.04 U	0.048 U	0.042 U
Toluene	mg/kg	16	2.8	250	250	3300	36000	36000	12000000	250	250	0.019 J	0.08 U	0.08 U	0.095 U	0.084 U
trans-1,2-Dichloroethene	mg/kg	2	30	1400	43	330	840	2000	2100000	1400	1400	0.04 U	0.04 U	0.04 U	0.048 U	0.042 U
trans-1,3-Dichloropropene	mg/kg											0.04 UJ	0.04 UJ	0.04 U	0.048 U	0.042 U
Trichloroethene	mg/kg	0.1	4	440	37	260	440	1100	2300000	500	500	0.44*	0.04 U	0.82*	0.048 U	0.042 U
Trichlorofluoromethane (CFC-11)	mg/kg	150		560	560	110000	140000000	140000000	1700000000	560	560	0.079 U	0.08 U	0.08 U	0.095 U	0.084 U
Trifluorotrichloroethane (Freon 113)	mg/kg	550	1.7	550	550	210000	890000	2100000	2300000000	550	550	0.2 U	0.2 U	0.2 U	0.24 U	0.21 U
Vinyl chloride	mg/kg	0.04	0.3	20	2.8	29	170	420	890000	34	490	0.079 U	0.08 U	0.08 U	0.095 U	0.084 U
Xylene (total)	mg/kg	5.6	0.7	150	150	54000	65000	130000	130000000	150	150	0.036 J	0.12 U	0.021 J	0.14 U	0.13 U

Notes:
(1) Cleanup criteria identified by MDEQ RRD Op Memo No. 1, updated 1/23/2006, pursuant to 1994 PA 451 as amended.
U - Not present at or above the associated value.
J - Estimated concentration.
UJ - Estimated reporting limit.
☐ Value exceeds referenced Part 201 Criteria (i.e. a, b, etc.)
ID - Insufficient data to develop criterion
NLL - Hazardous substance is not likely to leach under most soil conditions
NLV - Hazardous substance is not likely to volatilize under most conditions

TABLE 3

SUMMARY OF SOIL SAMPLE RESULTS COMPARED TO MICHIGAN ACT 451, PART 201 INDUSTRIAL CRITERIA
GENERAL MOTORS CORPORATION
GRAND RAPIDS METAL PLANT
WYOMING, MICHIGAN

Sample Location	Michigan Act 451, Part 201 Industrial and Commercial II, III, IV ⁽¹⁾										SB14-05	SB14-05	SB14-05	SB14-05	SB14-05	
Sample Identification	Industrial and Commercial	Groundwater Surface Water	Groundwater Contact	Soil Volatilization to Indoor Air	Infinite Source Volatile Soil Inhalation	Finite VSIC for 5 Meter Source Thickness	Finite VSIC for 2 Meter Source Thickness	Particulate Soil Inhalation	Direct Contact Industrial and Commercial II	Soil Saturation Concentration Screening	SO-17360-071205-DCR-463	SO-17360-071205-DCR-464	SO-17360-071205-DCR-465	SO-17360-071205-DCR-466	SO-17360-071205-DCR-467	
Sample Date	Drinking Water	Interface Protection	Protection	Inhalation	Inhalation	Thickness	Thickness				7/12/2005	7/12/2005	7/12/2005	7/12/2005	7/12/2005	
Sample Depth											6-8 ft BGS	8-10 ft BGS	10-12 ft BGS	12-14 ft BGS	14-16 ft BGS	
Sample Type	a	b	c	d	e	f	g	h	i	j						
Units																
Volatile Organic Compounds																
1,1,1-Trichloroethane	mg/kg	4	4	460	460	4500	15000	31000	29000000	460	460	0.04 U	0.04 U	0.042 U	0.038 U	0.037 U
1,1,2,2-Tetrachloroethane	mg/kg	0.7	1.6	94	23	34	34	34	68000	240	870	0.079 U	0.079 U	0.085 U	0.076 U	0.074 U
1,1,2-Trichloroethane	mg/kg	0.1	6.6	420	24	57	57	120	250000	840	920	0.04 U	0.04 U	0.042 U	0.038 U	0.037 U
1,1-Dichloroethane	mg/kg	50	15	890	430	2500	6000	14000	15000000	890	890	0.04 U	0.04 U	0.042 U	0.038 U	0.037 U
1,1-Dichloroethene	mg/kg	0.14	1.3	220	0.33	3.7	15	37	78000	570	570	0.04 U	0.04 U	0.042 U	0.038 U	0.037 U
1,2,4-Trichlorobenzene	mg/kg	4.2	1.8	1100	1100	34000	34000	34000	11000000	1100	1100	0.2 U	0.2 U	0.21 U	0.19 U	0.19 U
1,2-Dibromo-3-chloropropane (DBCP)	mg/kg	0.01		1.2	1.2	15	15	15	5900	1.2	1.2	0.2 U	0.2 U	0.21 U	0.19 U	0.19 U
1,2-Dibromoethane (Ethylene Dibromide)	mg/kg	0.02	0.02	0.5	3.6	5.8	5.8	9.8	18000	0.43	890	0.2 U	0.2 U	0.21 U	0.19 U	0.19 U
1,2-Dichlorobenzene	mg/kg	14	0.36	210	210	46000	46000	55000	44000000	210	210	0.079 U	0.079 U	0.085 U	0.076 U	0.074 U
1,2-Dichloroethane	mg/kg	0.1	7.2	380	11	21	33	74	150000	420	1200	0.04 U	0.04 U	0.042 U	0.038 U	0.037 U
1,2-Dichloropropane	mg/kg	0.1	5.8	320	7.4	30	51	120	120000	550	550	0.04 U	0.04 U	0.042 U	0.038 U	0.037 U
1,3-Dichlorobenzene	mg/kg	0.48	1.1	51	ID	ID	ID	ID	ID	170	170	0.079 U	0.079 U	0.085 U	0.076 U	0.074 U
1,4-Dichlorobenzene	mg/kg	1.7	0.29	140	100	260	260	340	570000	1900		0.079 U	0.079 U	0.085 U	0.076 U	0.074 U
2-Butanone (Methyl Ethyl Ketone)	mg/kg	760	44	27000	27000	35000	35000	36000	29000000	27000	27000	0.59 U	0.59 U	0.64 U	0.57 U	0.56 U
2-Hexanone	mg/kg	58		2500	1800	1300	1300	1500	1200000	2500	2500	2 U	2 U	2.1 U	1.9 U	1.9 U
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	mg/kg	100	ID	2700	2700	53000	53000	70000	60000000	2700	2700	2 U	2 U	2.1 U	1.9 U	1.9 U
Acetone	mg/kg	42	34	110000	110000	160000	160000	200000	170000000	73000	110000	0.59 U	0.59 U	0.64 U	0.57 U	0.56 U
Benzene	mg/kg	0.1	4	220	8.4	45	99	230	470000	400	400	0.04 U	0.04 U	0.042 U	0.038 U	0.037 U
Bromodichloromethane	mg/kg	1.6	ID	280	6.4	31	31	57	110000	490	1500	0.079 UJ	0.079 UJ	0.085 UJ	0.076 UJ	0.074 UJ
Bromoform	mg/kg	1.6	ID	870	770	3100	3100	3100	3600000	870	870	0.079 U	0.079 U	0.085 U	0.076 U	0.074 U
Bromomethane (Methyl Bromide)	mg/kg	0.58	0.7	1400	1.6	13	57	140	150000	1000	2200	0.2 U	0.2 U	0.21 U	0.19 U	0.19 U
Carbon disulfide	mg/kg	46	ID	280	140	1600	8000	19000	21000000	280	280	0.2 U	0.2 U	0.21 U	0.19 U	0.19 U
Carbon tetrachloride	mg/kg	0.1	0.9	92	0.99	12	34	79	170000	390	390	0.04 U	0.04 U	0.042 U	0.038 U	0.037 U
Chlorobenzene	mg/kg	2	0.94	260	220	920	1100	2100	2100000	260	260	0.04 U	0.04 U	0.042 U	0.038 U	0.037 U
Chloroethane	mg/kg	34	ID	950	950	36000	120000	280000	290000000	950	950	0.2 U	0.2 U	0.21 U	0.19 U	0.19 U
Chloroform (Trichloromethane)	mg/kg	1.6	3.4	1500	38	150	340	790	1600000	1500	1500	0.04 U	0.04 U	0.042 U	0.038 U	0.037 U
Chloromethane (Methyl Chloride)	mg/kg	22	ID	1100	10	120	1000	2500	2600000	1100	1100	0.2 U	0.2 U	0.21 U	0.19 U	0.19 U
cis-1,2-Dichloroethene	mg/kg	1.4	12	640	41	210	430	1000	1000000	640	640	0.04 U	0.04 U	0.042 U	0.038 U	0.037 U
cis-1,3-Dichloropropene	mg/kg											0.04 U	0.04 U	0.042 U	0.038 U	0.037 UJ
Cyclohexane	mg/kg											0.95 U	0.95 U	1 U	0.91 U	0.89 U
Dibromochloromethane	mg/kg	1.6	ID	360	21	80	80	98	160000	500	610	0.04 U	0.04 U	0.042 U	0.038 U	0.037 U
Dichlorodifluoromethane (CFC-12)	mg/kg	270	ID	1000	1700	63000	550000	1400000	1500000000	1000	1000	0.079 U	0.079 U	0.085 U	0.076 U	0.074 U
Ethylbenzene	mg/kg	1.5	0.36	140	140	2400	3100	6500	13000000	140	140	0.04 U	0.04 U	0.042 U	0.038 U	0.037 U
Isopropylbenzene	mg/kg	260	ID	390	390	2000	2000	3000	2600000	390	390	0.2 U	0.2 U	0.21 U	0.19 U	0.19 U
Methyl acetate	mg/kg											0.95 U	0.95 U	1 U	0.91 U	0.89 U
Methyl cyclohexane	mg/kg											0.95 U	0.95 U	1 U	0.91 U	0.89 U
Methyl Tert Butyl Ether	mg/kg	0.8	15	5900	5900	30000	41000	89000	88000000	5900	5900	0.2 U	0.2 U	0.21 U	0.19 U	0.19 U
Methylene chloride	mg/kg	0.1	19	2300	240	700	1700	4000	8300000	2300	2300	0.2 U	0.2 U	0.21 U	0.19 U	0.19 U
Styrene	mg/kg	2.7	2.2	270	520	3300	3300	4200	6900000	520	520	0.04 U	0.04 U	0.042 U	0.038 U	0.037 U
Tetrachloroethene	mg/kg	0.1	0.9	88	60	600	1400	3300	6800000	88	88	0.04 U	0.04 U	0.042 U	0.038 U	0.037 U
Toluene	mg/kg	16	2.8	250	250	3300	36000	36000	12000000	250	250	0.079 U	0.079 U	0.085 U	0.076 U	0.074 U
trans-1,2-Dichloroethene	mg/kg	2	30	1400	43	330	840	2000	2100000	1400	1400	0.04 U	0.04 U	0.042 U	0.038 U	0.037 U
trans-1,3-Dichloropropene	mg/kg											0.04 U	0.04 U	0.042 U	0.038 U	0.037 UJ
Trichloroethene	mg/kg	0.1	4	440	37	260	440	1100	2300000	500	500	0.04 U	0.04 U	0.029 J	0.016 J	0.019 J
Trichlorofluoromethane (CFC-11)	mg/kg	150		560	560	110000	140000000	140000000	1700000000	560	560	0.079 U	0.079 U	0.085 U	0.076 U	0.074 U
Trifluorotrichloroethane (Freon 113)	mg/kg	550	1.7	550	550	210000	890000	2100000	2300000000	550	550	0.2 U	0.2 U	0.21 U	0.19 U	0.19 U
Vinyl chloride	mg/kg	0.04	0.3	20	2.8	29	170	420	890000	34	490	0.079 U	0.079 U	0.085 U	0.076 U	0.074 U
Xylene (total)	mg/kg	5.6	0.7	150	150	54000	65000	130000	130000000	150	150	0.12 U	0.12 U	0.13 U	0.11 U	0.11 U

Notes:
⁽¹⁾ Cleanup criteria identified by MDEQ RRD Op Memo No. 1, updated 1/23/2006, pursuant to 1994 PA 451 as amended.
U - Not present at or above the associated value.
J - Estimated concentration.
UJ - Estimated reporting limit.
 Value exceeds referenced Part 201 Criteria (i.e. a, b, etc.)
ID - Insufficient data to develop criterion
NLL - Hazardous substance is not likely to leach under most soil conditions
NLV - Hazardous substance is not likely to volatilize under most conditions

TABLE 3

SUMMARY OF SOIL SAMPLE RESULTS COMPARED TO MICHIGAN ACT 451, PART 201 INDUSTRIAL CRITERIA
GENERAL MOTORS CORPORATION
GRAND RAPIDS METAL PLANT
WYOMING, MICHIGAN

Sample Location	<i>Michigan Act 451, Part 201 Industrial and Commercial II, III, IV ⁽¹⁾</i>										<i>SB14-05</i>	<i>SB14-05</i>	<i>SB14-05</i>	<i>SB15-05</i>	<i>SB15-05</i>
Sample Identification	Industrial and	Groundwater	Groundwater	Soil Volatilization	Infinite Source	Finite VSIC for	Finite VSIC for	Particulate	Direct Contact	Soil Saturation	<i>SO-17360-071205-DCR-468</i>	<i>SO-17360-071205-DCR-469</i>	<i>SO-17360-071205-DCR-470</i>	<i>SO-17360-120305-DCR-540</i>	<i>SO-17360-120305-DCR-541</i>
Sample Date	Commercial	Surface Water	Contact	to Indoor Air	Volatile Soil	5 Meter Source	2 Meter Source	Soil Inhalation	Industrial and	Concentration	<i>7/12/2005</i>	<i>7/12/2005</i>	<i>7/12/2005</i>	<i>12/3/2005</i>	<i>12/3/2005</i>
Sample Depth	Drinking Water	Interface Protection	Protection	Inhalation	Inhalation	Thickness	Thickness		Commercial II	Screening	<i>14-16 ft BGS</i>	<i>16-18 ft BGS</i>	<i>18-20 ft BGS</i>	<i>0-2 ft BGS</i>	<i>2-4 ft BGS</i>
Sample Type	a	b	c	d	e	f	g	h	i	j	<i>Duplicate</i>				
<i>Units</i>															
<i>Volatile Organic Compounds</i>															
1,1,1-Trichloroethane	mg/kg	4	4	460	460	4500	15000	31000	29000000	460	460	0.045 U	0.037 U	0.04 U	0.044 U
1,1,2,2-Tetrachloroethane	mg/kg	0.7	1.6	94	23	34	34	34	68000	240	870	0.09 U	0.074 U	0.08 U	0.084 U
1,1,2-Trichloroethane	mg/kg	0.1	6.6	420	24	57	57	120	250000	840	920	0.045 U	0.037 U	0.04 U	0.042 U
1,1-Dichloroethane	mg/kg	50	15	890	430	2500	6000	14000	15000000	890	890	0.045 U	0.037 U	0.04 U	0.044 U
1,1-Dichloroethene	mg/kg	0.14	1.3	220	0.33	3.7	15	37	78000	570	570	0.045 U	0.037 U	0.04 U	0.044 U
1,2,4-Trichlorobenzene	mg/kg	4.2	1.8	1100	1100	34000	34000	34000	11000000	1100	1100	0.22 U	0.18 U	0.2 U	0.21 U
1,2-Dibromo-3-chloropropane (DBCP)	mg/kg	0.01		1.2	1.2	15	15	15	5900	1.2	1.2	0.22 U	0.18 U	0.2 U	0.21 U
1,2-Dibromoethane (Ethylene Dibromide)	mg/kg	0.02	0.02	0.5	3.6	5.8	5.8	9.8	18000	0.43	890	0.22 U	0.18 U	0.2 U	0.21 U
1,2-Dichlorobenzene	mg/kg	14	0.36	210	210	46000	46000	55000	44000000	210	210	0.09 U	0.074 U	0.08 U	0.084 U
1,2-Dichloroethane	mg/kg	0.1	7.2	380	11	21	33	74	150000	420	1200	0.045 U	0.037 U	0.04 U	0.042 U
1,2-Dichloropropane	mg/kg	0.1	5.8	320	7.4	30	51	120	120000	550	550	0.045 U	0.037 U	0.04 U	0.042 U
1,3-Dichlorobenzene	mg/kg	0.48	1.1	51	ID	ID	ID	ID	ID	170	170	0.09 U	0.074 U	0.08 U	0.084 U
1,4-Dichlorobenzene	mg/kg	1.7	0.29	140	100	260	260	340	570000	1900		0.09 U	0.074 U	0.08 U	0.084 U
2-Butanone (Methyl Ethyl Ketone)	mg/kg	760	44	27000	27000	35000	35000	36000	29000000	27000	27000	0.67 U	0.55 U	0.6 U	0.63 U
2-Hexanone	mg/kg	58		2500	1800	1300	1300	1500	1200000	2500	2500	2.2 U	1.8 U	2 U	2.1 U
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	mg/kg	100	ID	2700	2700	53000	53000	70000	60000000	2700	2700	2.2 U	1.8 U	2 U	2.1 U
Acetone	mg/kg	42	34	110000	110000	160000	160000	200000	170000000	73000	110000	0.67 U	0.55 U	0.6 U	0.63 UJ
Benzene	mg/kg	0.1	4	220	8.4	45	99	230	470000	400	400	0.045 U	0.037 U	0.04 U	0.042 U
Bromodichloromethane	mg/kg	1.6	ID	280	6.4	31	31	57	110000	490	1500	0.09 UJ	0.074 UJ	0.08 UJ	0.084 U
Bromoform	mg/kg	1.6	ID	870	770	3100	3100	3100	3600000	870	870	0.09 U	0.074 U	0.08 U	0.087 U
Bromomethane (Methyl Bromide)	mg/kg	0.58	0.7	1400	1.6	13	57	140	150000	1000	2200	0.22 U	0.18 U	0.2 U	0.21 U
Carbon disulfide	mg/kg	46	ID	280	140	1600	8000	19000	21000000	280	280	0.22 U	0.18 U	0.2 U	0.21 U
Carbon tetrachloride	mg/kg	0.1	0.9	92	0.99	12	34	79	170000	390	390	0.045 U	0.037 U	0.04 U	0.042 U
Chlorobenzene	mg/kg	2	0.94	260	220	920	1100	2100	2100000	260	260	0.045 U	0.037 U	0.04 U	0.044 U
Chloroethane	mg/kg	34	ID	950	950	36000	120000	280000	290000000	950	950	0.22 U	0.18 U	0.2 U	0.21 U
Chloroform (Trichloromethane)	mg/kg	1.6	3.4	1500	38	150	340	790	1600000	1500	1500	0.045 U	0.037 U	0.04 U	0.042 U
Chloromethane (Methyl Chloride)	mg/kg	22	ID	1100	10	120	1000	2500	2600000	1100	1100	0.22 U	0.18 U	0.2 U	0.21 U
cis-1,2-Dichloroethene	mg/kg	1.4	12	640	41	210	430	1000	1000000	640	640	0.045 U	0.037 U	0.04 U	0.042 U
cis-1,3-Dichloropropene	mg/kg											0.045 UJ	0.037 UJ	0.04 UJ	0.042 U
Cyclohexane	mg/kg											1.1 U	0.88 U	0.96 U	1 U
Dibromochloromethane	mg/kg	1.6	ID	360	21	80	80	98	160000	500	610	0.045 U	0.037 U	0.04 U	0.044 U
Dichlorodifluoromethane (CFC-12)	mg/kg	270	ID	1000	1700	63000	550000	1400000	1500000000	1000	1000	0.09 U	0.074 U	0.08 U	0.084 U
Ethylbenzene	mg/kg	1.5	0.36	140	140	2400	3100	6500	13000000	140	140	0.045 U	0.037 U	0.04 U	0.042 U
Isopropylbenzene	mg/kg	260	ID	390	390	2000	2000	3000	2600000	390	390	0.22 U	0.18 U	0.2 U	0.21 U
Methyl acetate	mg/kg											1.1 U	0.88 U	0.96 U	1 U
Methyl cyclohexane	mg/kg											1.1 U	0.88 U	0.96 U	1 U
Methyl Tert Butyl Ether	mg/kg	0.8	15	5900	5900	30000	41000	89000	88000000	5900	5900	0.22 U	0.18 U	0.2 U	0.21 U
Methylene chloride	mg/kg	0.1	19	2300	240	700	1700	4000	8300000	2300	2300	0.22 U	0.18 U	0.2 U	0.21 U
Styrene	mg/kg	2.7	2.2	270	520	3300	3300	4200	6900000	520	520	0.045 U	0.037 U	0.04 U	0.044 U
Tetrachloroethene	mg/kg	0.1	0.9	88	60	600	1400	3300	6800000	88	88	0.045 U	0.037 U	0.04 U	0.042 U
Toluene	mg/kg	16	2.8	250	250	3300	36000	36000	12000000	250	250	0.09 U	0.074 U	0.08 U	0.084 U
trans-1,2-Dichloroethene	mg/kg	2	30	1400	43	330	840	2000	2100000	1400	1400	0.045 U	0.037 U	0.04 U	0.042 U
trans-1,3-Dichloropropene	mg/kg											0.045 UJ	0.037 UJ	0.04 UJ	0.042 U
Trichloroethene	mg/kg	0.1	4	440	37	260	440	1100	2300000	500	500	0.018 J	0.12 [*]	0.031 J	0.04 J
Trichlorofluoromethane (CFC-11)	mg/kg	150		560	560	110000	140000000	140000000	1700000000	560	560	0.09 U	0.074 U	0.08 U	0.084 U
Trifluorotrichloroethane (Freon 113)	mg/kg	550	1.7	550	550	210000	890000	2100000	2300000000	550	550	0.22 U	0.18 U	0.2 U	0.21 U
Vinyl chloride	mg/kg	0.04	0.3	20	2.8	29	170	420	890000	34	490	0.09 U	0.074 U	0.08 U	0.087 U
Xylene (total)	mg/kg	5.6	0.7	150	150	54000	65000	130000	130000000	150	150	0.13 U	0.11 U	0.12 U	0.13 U

Notes:
⁽¹⁾ Cleanup criteria identified by MDEQ RRD Op Memo No. 1, updated 1/23/2006, pursuant to 1994 PA 451 as amended.
U - Not present at or above the associated value.
J - Estimated concentration.
UJ - Estimated reporting limit.
 Value exceeds referenced Part 201 Criteria (i.e. a, b, etc.)
ID - Insufficient data to develop criterion
NLL - Hazardous substance is not likely to leach under most soil conditions
NLV - Hazardous substance is not likely to volatilize under most conditions

TABLE 3

SUMMARY OF SOIL SAMPLE RESULTS COMPARED TO MICHIGAN ACT 451, PART 201 INDUSTRIAL CRITERIA
GENERAL MOTORS CORPORATION
GRAND RAPIDS METAL PLANT
WYOMING, MICHIGAN

Sample Location	Michigan Act 451, Part 201 Industrial and Commercial II, III, IV ⁽¹⁾											SB15-05	SB15-05	SB15-05	SB15-05	SB15-05
Sample Identification	Industrial and Commercial	Groundwater Surface Water	Groundwater Contact Protection	Soil Volatilization to Indoor Air Inhalation	Infinite Source Volatile Soil Inhalation	Finite VSIC for 5 Meter Source Thickness	Finite VSIC for 2 Meter Source Thickness	Particulate Soil Inhalation	Direct Contact Industrial and Commercial II	Soil Saturation Concentration Screening	SO-17360-120305-DCR-542	SO-17360-120305-DCR-543	SO-17360-120305-DCR-544	SO-17360-120305-DCR-545	SO-17360-120305-DCR-546	
Sample Date	Drinking Water	Interface Protection									12/3/2005	12/3/2005	12/3/2005	12/3/2005	12/3/2005	
Sample Depth											4-6 ft BGS	6-8 ft BGS	8-10 ft BGS	10-12 ft BGS	12-14 ft BGS	
Sample Type	a	b	c	d	e	f	g	h	i	j						
	Units															
Volatile Organic Compounds																
1,1,1-Trichloroethane	mg/kg	4	4	460	460	4500	15000	31000	29000000	460	460	0.044 U	0.042 U	0.048 U	0.14 U	0.046 U
1,1,2,2-Tetrachloroethane	mg/kg	0.7	1.6	94	23	34	34	34	68000	240	870	0.088 U	0.085 U	0.096 U	0.27 U	0.091 U
1,1,2-Trichloroethane	mg/kg	0.1	6.6	420	24	57	57	120	250000	840	920	0.044 U	0.042 U	0.048 U	0.14 U	0.046 U
1,1-Dichloroethane	mg/kg	50	15	890	430	2500	6000	14000	15000000	890	890	0.044 U	0.042 U	0.048 U	0.14 U	0.046 U
1,1-Dichloroethene	mg/kg	0.14	1.3	220	0.33	3.7	15	37	78000	570	570	0.044 U	0.042 U	0.048 U	0.14 U	0.046 U
1,2,4-Trichlorobenzene	mg/kg	4.2	1.8	1100	1100	34000	34000	34000	11000000	1100	1100	0.22 U	0.21 U	0.24 U	0.68 U	0.23 U
1,2-Dibromo-3-chloropropane (DBCP)	mg/kg	0.01		1.2	1.2	15	15	15	5900	1.2	1.2	0.22 U	0.21 U	0.24 U	0.68 U	0.23 U
1,2-Dibromoethane (Ethylene Dibromide)	mg/kg	0.02	0.02	0.5	3.6	5.8	5.8	9.8	18000	0.43	890	0.22 U	0.21 U	0.24 U	0.68 U	0.23 U
1,2-Dichlorobenzene	mg/kg	14	0.36	210	210	46000	46000	55000	44000000	210	210	0.088 U	0.085 U	0.096 U	0.27 U	0.091 U
1,2-Dichloroethane	mg/kg	0.1	7.2	380	11	21	33	74	150000	420	1200	0.044 U	0.042 U	0.048 U	0.14 U	0.046 U
1,2-Dichloropropane	mg/kg	0.1	5.8	320	7.4	30	51	120	120000	550	550	0.044 U	0.042 U	0.048 U	0.14 U	0.046 U
1,3-Dichlorobenzene	mg/kg	0.48	1.1	51	ID	ID	ID	ID	ID	170	170	0.088 U	0.085 U	0.096 U	0.27 U	0.091 U
1,4-Dichlorobenzene	mg/kg	1.7	0.29	140	100	260	260	340	570000	1900		0.088 U	0.085 U	0.096 U	0.27 U	0.091 U
2-Butanone (Methyl Ethyl Ketone)	mg/kg	760	44	27000	27000	35000	35000	36000	29000000	27000	27000	0.66 U	0.64 U	0.72 U	2 U	0.69 U
2-Hexanone	mg/kg	58		2500	1800	1300	1300	1500	1200000	2500	2500	2.2 U	2.1 U	2.4 U	6.8 U	2.3 U
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	mg/kg	100	ID	2700	2700	53000	53000	70000	60000000	2700	2700	2.2 U	2.1 U	2.4 U	6.8 U	2.3 U
Acetone	mg/kg	42	34	110000	110000	160000	160000	200000	170000000	73000	110000	0.66 UJ	0.64 UJ	0.72 UJ	2 UJ	0.69 UJ
Benzene	mg/kg	0.1	4	220	8.4	45	99	230	470000	400	400	0.044 U	0.042 U	0.048 U	0.14 U	0.046 U
Bromodichloromethane	mg/kg	1.6	ID	280	6.4	31	31	57	110000	490	1500	0.088 U	0.085 U	0.096 U	0.27 U	0.091 U
Bromoform	mg/kg	1.6	ID	870	770	3100	3100	3100	3600000	870	870	0.088 U	0.085 U	0.096 U	0.27 U	0.091 U
Bromomethane (Methyl Bromide)	mg/kg	0.58	0.7	1400	1.6	13	57	140	150000	1000	2200	0.22 U	0.21 U	0.24 U	0.68 U	0.23 U
Carbon disulfide	mg/kg	46	ID	280	140	1600	8000	19000	21000000	280	280	0.22 U	0.21 U	0.24 U	0.68 U	0.23 U
Carbon tetrachloride	mg/kg	0.1	0.9	92	0.99	12	34	79	170000	390	390	0.044 U	0.042 U	0.048 U	0.14 U	0.046 U
Chlorobenzene	mg/kg	2	0.94	260	220	920	1100	2100	2100000	260	260	0.044 U	0.042 U	0.048 U	0.14 U	0.046 U
Chloroethane	mg/kg	34	ID	950	950	36000	120000	280000	290000000	950	950	0.22 U	0.21 U	0.24 U	0.68 U	0.23 U
Chloroform (Trichloromethane)	mg/kg	1.6	3.4	1500	38	150	340	790	1600000	1500	1500	0.044 U	0.042 U	0.048 U	0.14 U	0.046 U
Chloromethane (Methyl Chloride)	mg/kg	22	ID	1100	10	120	1000	2500	2600000	1100	1100	0.22 U	0.21 U	0.24 U	0.68 U	0.23 U
cis-1,2-Dichloroethene	mg/kg	1.4	12	640	41	210	430	1000	1000000	640	640	0.044 U	0.042 U	0.048 U	0.14 U	0.046 U
cis-1,3-Dichloropropene	mg/kg											0.044 U	0.042 U	0.048 U	0.14 U	0.046 U
Cyclohexane	mg/kg											1.1 U	1 U	1.1 U	3.3 U	1.1 U
Dibromochloromethane	mg/kg	1.6	ID	360	21	80	80	98	160000	500	610	0.044 U	0.042 U	0.048 U	0.14 U	0.046 U
Dichlorodifluoromethane (CFC-12)	mg/kg	270	ID	1000	1700	63000	550000	1400000	1500000000	1000	1000	0.088 U	0.085 U	0.096 U	0.27 U	0.091 U
Ethylbenzene	mg/kg	1.5	0.36	140	140	2400	3100	6500	13000000	140	140	0.044 U	0.042 U	0.048 U	0.14 U	0.046 U
Isopropylbenzene	mg/kg	260	ID	390	390	2000	2000	3000	2600000	390	390	0.22 U	0.21 U	0.24 U	0.68 U	0.23 U
Methyl acetate	mg/kg											1.1 U	1 U	1.1 U	0.8 J	1.1 U
Methyl cyclohexane	mg/kg											1.1 U	1 U	1.1 U	0.035 J	1.1 U
Methyl Tert Butyl Ether	mg/kg	0.8	15	5900	5900	30000	41000	89000	88000000	5900	5900	0.22 U	0.21 U	0.24 U	0.68 U	0.23 U
Methylene chloride	mg/kg	0.1	19	2300	240	700	1700	4000	8300000	2300	2300	0.22 U	0.21 U	0.24 U	0.68 U	0.23 U
Styrene	mg/kg	2.7	2.2	270	520	3300	3300	4200	6900000	520	520	0.044 U	0.042 U	0.048 U	0.14 U	0.046 U
Tetrachloroethene	mg/kg	0.1	0.9	88	60	600	1400	3300	6800000	88	88	0.044 U	0.042 U	0.048 U	0.14 U	0.046 U
Toluene	mg/kg	16	2.8	250	250	3300	36000	36000	12000000	250	250	0.088 U	0.085 U	0.096 U	0.27 U	0.091 U
trans-1,2-Dichloroethene	mg/kg	2	30	1400	43	330	840	2000	2100000	1400	1400	0.044 U	0.042 U	0.048 U	0.14 U	0.046 U
trans-1,3-Dichloropropene	mg/kg											0.044 U	0.042 U	0.048 U	0.14 U	0.046 U
Trichloroethene	mg/kg	0.1	4	440	37	260	440	1100	2300000	500	500	0.014 J	0.026 J	0.048 U	12 ^{ppm}	
Trichlorofluoromethane (CFC-11)	mg/kg	150		560	560	110000	140000000	140000000	1700000000	560	560	0.088 U	0.085 U	0.096 U	0.27 U	0.091 U
Trifluorotrichloroethane (Freon 113)	mg/kg	550	1.7	550	550	210000	890000	2100000	2300000000	550	550	0.22 U	0.21 U	0.24 U	0.68 U	0.23 U
Vinyl chloride	mg/kg	0.04	0.3	20	2.8	29	170	420	890000	34	490	0.088 U	0.085 U	0.096 U	0.27 U	0.091 U
Xylene (total)	mg/kg	5.6	0.7	150	150	54000	65000	130000	130000000	150	150	0.13 U	0.13 U	0.14 U	0.41 U	0.14 U

Notes:
⁽¹⁾ Cleanup criteria identified by MDEQ RRD Op Memo No. 1, updated 1/23/2006, pursuant to 1994 PA 451 as amended.
U - Not present at or above the associated value.
J - Estimated concentration.
UJ - Estimated reporting limit.
 Value exceeds referenced Part 201 Criteria (i.e. a, b, etc.)
ID - Insufficient data to develop criterion
NLL - Hazardous substance is not likely to leach under most soil conditions
NLV - Hazardous substance is not likely to volatilize under most conditions

TABLE 3

SUMMARY OF SOIL SAMPLE RESULTS COMPARED TO MICHIGAN ACT 451, PART 201 INDUSTRIAL CRITERIA
GENERAL MOTORS CORPORATION
GRAND RAPIDS METAL PLANT
WYOMING, MICHIGAN

Sample Location	<i>Michigan Act 451, Part 201 Industrial and Commercial II, III, IV ⁽¹⁾</i>										<i>SB15-05</i>	<i>SB15-05</i>	<i>SB15-05</i>	<i>SB16-05</i>	<i>SB16-05</i>
Sample Identification	Industrial and	Groundwater	Groundwater	Soil Volatilization	Infinite Source	Finite VSIC for	Finite VSIC for	Particulate	Direct Contact	Soil Saturation	<i>SO-17360-120305-DCR-547</i>	<i>SO-17360-120305-DCR-548</i>	<i>SO-17360-120305-DCR-549</i>	<i>SO-17360-120305-DCR-508</i>	<i>SO-17360-120305-DCR-509</i>
Sample Date	Commercial	Surface Water	Contact	to Indoor Air	Volatile Soil	5 Meter Source	2 Meter Source	Soil Inhalation	Industrial and	Concentration	<i>12/3/2005</i>	<i>12/3/2005</i>	<i>12/3/2005</i>	<i>12/3/2005</i>	<i>12/3/2005</i>
Sample Depth	Drinking Water	Interface Protection	Protection	Inhalation	Inhalation	Thickness	Thickness		Commercial II	Screening	<i>14-16 ft BGS</i>	<i>16-18 ft BGS</i>	<i>18-20 ft BGS</i>	<i>0-2 ft BGS</i>	<i>0-2 ft BGS</i>
Sample Type	a	b	c	d	e	f	g	h	i	j					<i>Duplicate</i>
<i>Units</i>															
<i>Volatile Organic Compounds</i>															
1,1,1-Trichloroethane	mg/kg	4	4	460	460	4500	15000	31000	29000000	460	460	0.042 U	0.044 U	0.044 U	0.055 U
1,1,2,2-Tetrachloroethane	mg/kg	0.7	1.6	94	23	34	34	34	68000	240	870	0.084 U	0.088 U	0.088 U	0.11 U
1,1,2-Trichloroethane	mg/kg	0.1	6.6	420	24	57	57	120	250000	840	920	0.042 U	0.044 U	0.043 U	0.055 U
1,1-Dichloroethane	mg/kg	50	15	890	430	2500	6000	14000	15000000	890	890	0.042 U	0.044 U	0.044 U	0.055 U
1,1-Dichloroethene	mg/kg	0.14	1.3	220	0.33	3.7	15	37	78000	570	570	0.042 U	0.044 U	0.044 U	0.055 U
1,2,4-Trichlorobenzene	mg/kg	4.2	1.8	1100	1100	34000	34000	34000	11000000	1100	1100	0.21 U	0.22 U	0.22 U	0.28 U
1,2-Dibromo-3-chloropropane (DBCP)	mg/kg	0.01		1.2	1.2	15	15	15	5900	1.2	1.2	0.21 U	0.22 U	0.22 U	0.28 U
1,2-Dibromoethane (Ethylene Dibromide)	mg/kg	0.02	0.02	0.5	3.6	5.8	5.8	9.8	18000	0.43	890	0.21 U	0.22 U	0.22 U	0.28 U
1,2-Dichlorobenzene	mg/kg	14	0.36	210	210	46000	46000	55000	44000000	210	210	0.084 U	0.088 U	0.088 U	0.11 U
1,2-Dichloroethane	mg/kg	0.1	7.2	380	11	21	33	74	150000	420	1200	0.042 U	0.044 U	0.044 U	0.055 U
1,2-Dichloropropane	mg/kg	0.1	5.8	320	7.4	30	51	120	120000	550	550	0.042 U	0.044 U	0.043 U	0.055 U
1,3-Dichlorobenzene	mg/kg	0.48	1.1	51	ID	ID	ID	ID	ID	170	170	0.084 U	0.088 U	0.088 U	0.11 U
1,4-Dichlorobenzene	mg/kg	1.7	0.29	140	100	260	260	340	570000	1900		0.084 U	0.088 U	0.088 U	0.11 U
2-Butanone (Methyl Ethyl Ketone)	mg/kg	760	44	27000	27000	35000	35000	36000	29000000	27000	27000	0.63 U	0.66 U	0.66 U	0.83 U
2-Hexanone	mg/kg	58		2500	1800	1300	1300	1500	1200000	2500	2500	2.1 U	2.2 U	2.2 U	2.8 U
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	mg/kg	100	ID	2700	2700	53000	53000	70000	60000000	2700	2700	2.1 U	2.2 U	2.2 U	2.8 U
Acetone	mg/kg	42	34	110000	110000	160000	160000	200000	170000000	73000	110000	0.63 UJ	0.66 U	0.66 U	0.83 U
Benzene	mg/kg	0.1	4	220	8.4	45	99	230	470000	400	400	0.042 U	0.044 U	0.044 U	0.055 U
Bromodichloromethane	mg/kg	1.6	ID	280	6.4	31	31	57	110000	490	1500	0.084 U	0.088 U	0.088 U	0.11 U
Bromoform	mg/kg	1.6	ID	870	770	3100	3100	3100	3600000	870	870	0.084 U	0.088 U	0.088 U	0.11 U
Bromomethane (Methyl Bromide)	mg/kg	0.58	0.7	1400	1.6	13	57	140	150000	1000	2200	0.21 U	0.22 U	0.22 U	0.28 U
Carbon disulfide	mg/kg	46	ID	280	140	1600	8000	19000	21000000	280	280	0.21 U	0.22 U	0.22 U	0.28 U
Carbon tetrachloride	mg/kg	0.1	0.9	92	0.99	12	34	79	170000	390	390	0.042 U	0.044 U	0.044 U	0.055 U
Chlorobenzene	mg/kg	2	0.94	260	220	920	1100	2100	2100000	260	260	0.042 U	0.044 U	0.044 U	0.055 U
Chloroethane	mg/kg	34	ID	950	950	36000	120000	280000	290000000	950	950	0.21 U	0.22 U	0.22 U	0.28 U
Chloroform (Trichloromethane)	mg/kg	1.6	3.4	1500	38	150	340	790	1600000	1500	1500	0.042 U	0.044 U	0.044 U	0.055 U
Chloromethane (Methyl Chloride)	mg/kg	22	ID	1100	10	120	1000	2500	2600000	1100	1100	0.21 U	0.22 U	0.22 U	0.28 U
cis-1,2-Dichloroethene	mg/kg	1.4	12	640	41	210	430	1000	1000000	640	640	0.042 U	0.044 U	0.044 U	0.055 U
cis-1,3-Dichloropropene	mg/kg											0.042 U	0.044 U	0.044 U	0.055 U
Cyclohexane	mg/kg											1 U	1.1 U	1.1 U	1.3 U
Dibromochloromethane	mg/kg	1.6	ID	360	21	80	80	98	160000	500	610	0.042 U	0.044 U	0.044 U	0.055 U
Dichlorodifluoromethane (CFC-12)	mg/kg	270	ID	1000	1700	63000	550000	1400000	1500000000	1000	1000	0.084 U	0.088 U	0.088 U	0.11 U
Ethylbenzene	mg/kg	1.5	0.36	140	140	2400	3100	6500	13000000	140	140	0.042 U	0.044 U	0.044 U	0.055 U
Isopropylbenzene	mg/kg	260	ID	390	390	2000	2000	3000	2600000	390	390	0.21 U	0.22 U	0.22 U	0.28 U
Methyl acetate	mg/kg											1 U	1.1 U	1.1 U	1.3 U
Methyl cyclohexane	mg/kg											1 U	1.1 U	1.1 U	1.3 U
Methyl Tert Butyl Ether	mg/kg	0.8	15	5900	5900	30000	41000	89000	88000000	5900	5900	0.21 U	0.22 U	0.22 U	0.28 U
Methylene chloride	mg/kg	0.1	19	2300	240	700	1700	4000	8300000	2300	2300	0.21 U	0.22 U	0.22 U	0.28 U
Styrene	mg/kg	2.7	2.2	270	520	3300	3300	4200	6900000	520	520	0.042 U	0.044 U	0.044 U	0.055 U
Tetrachloroethene	mg/kg	0.1	0.9	88	60	600	1400	3300	6800000	88	88	0.042 U	0.044 U	0.044 U	0.055 U
Toluene	mg/kg	16	2.8	250	250	3300	36000	36000	12000000	250	250	0.084 U	0.088 U	0.088 U	0.11 U
trans-1,2-Dichloroethene	mg/kg	2	30	1400	43	330	840	2000	2100000	1400	1400	0.042 U	0.044 U	0.044 U	0.055 U
trans-1,3-Dichloropropene	mg/kg											0.042 U	0.044 U	0.044 U	0.055 U
Trichloroethene	mg/kg	0.1	4	440	37	260	440	1100	2300000	500	500	0.059	0.059	0.017 J	
Trichlorofluoromethane (CFC-11)	mg/kg	150		560	560	110000	14000000	140000000	1700000000	560	560	0.084 U	0.088 U	0.088 U	0.11 U
Trifluorotrichloroethane (Freon 113)	mg/kg	550	1.7	550	550	210000	890000	2100000	2300000000	550	550	0.21 U	0.22 U	0.22 U	0.28 U
Vinyl chloride	mg/kg	0.04	0.3	20	2.8	29	170	420	890000	34	490	0.084 U	0.088 U	0.088 U	0.11 U
Xylene (total)	mg/kg	5.6	0.7	150	150	54000	65000	130000	130000000	150	150	0.13 U	0.13 U	0.13 U	0.17 U

Notes:
⁽¹⁾ Cleanup criteria identified by MDEQ RRD Op Memo No. 1, updated 1/23/2006, pursuant to 1994 PA 451 as amended.
U - Not present at or above the associated value.
J - Estimated concentration.
UJ - Estimated reporting limit.

Value exceeds referenced Part 201 Criteria (i.e. a, b, etc.)

ID - Insufficient data to develop criterion

NLL - Hazardous substance is not likely to leach under most soil conditions

NLV - Hazardous substance is not likely to volatilize under most conditions

TABLE 3

SUMMARY OF SOIL SAMPLE RESULTS COMPARED TO MICHIGAN ACT 451, PART 201 INDUSTRIAL CRITERIA
GENERAL MOTORS CORPORATION
GRAND RAPIDS METAL PLANT
WYOMING, MICHIGAN

Sample Location	<i>Michigan Act 451, Part 201 Industrial and Commercial II, III, IV ⁽¹⁾</i>										<i>SB16-05</i>	<i>SB16-05</i>	<i>SB16-05</i>	<i>SB16-05</i>	<i>SB16-05</i>
Sample Identification	Industrial and	Groundwater	Groundwater	Soil Volatilization	Infinite Source	Finite VSIC for	Finite VSIC for	Particulate	Direct Contact	Soil Saturation	<i>SO-17360-120305-DCR-510</i>	<i>SO-17360-120305-DCR-511</i>	<i>SO-17360-120305-DCR-512</i>	<i>SO-17360-120305-DCR-513</i>	<i>SO-17360-120305-DCR-514</i>
Sample Date	Commercial	Surface Water	Contact	to Indoor Air	Volatile Soil	5 Meter Source	2 Meter Source	Soil Inhalation	Industrial and	Concentration	<i>12/3/2005</i>	<i>12/3/2005</i>	<i>12/3/2005</i>	<i>12/3/2005</i>	<i>12/3/2005</i>
Sample Depth	Drinking Water	Interface Protection	Protection	Inhalation	Inhalation	Thickness	Thickness		Commercial II	Screening	<i>2-4 ft BGS</i>	<i>4-6 ft BGS</i>	<i>6-8 ft BGS</i>	<i>8-10 ft BGS</i>	<i>10-12 ft BGS</i>
Sample Type	a	b	c	d	e	f	g	h	i	j					
<i>Units</i>															
<i>Volatile Organic Compounds</i>															
1,1,1-Trichloroethane	mg/kg	4	4	460	460	4500	15000	31000	29000000	460	460	0.042 U	0.048 U	0.042 U	0.045 U
1,1,2,2-Tetrachloroethane	mg/kg	0.7	1.6	94	23	34	34	34	68000	240	870	0.083 U	0.096 U	0.084 U	0.09 U
1,1,2-Trichloroethane	mg/kg	0.1	6.6	420	24	57	57	120	250000	840	920	0.042 U	0.048 U	0.043 U	0.045 U
1,1-Dichloroethane	mg/kg	50	15	890	430	2500	6000	14000	15000000	890	890	0.042 U	0.048 U	0.042 U	0.045 U
1,1-Dichloroethene	mg/kg	0.14	1.3	220	0.33	3.7	15	37	78000	570	570	0.042 U	0.048 U	0.042 U	0.045 U
1,2,4-Trichlorobenzene	mg/kg	4.2	1.8	1100	1100	34000	34000	34000	11000000	1100	1100	0.21 U	0.24 U	0.21 U	0.22 U
1,2-Dibromo-3-chloropropane (DBCP)	mg/kg	0.01		1.2	1.2	15	15	15	5900	1.2	1.2	0.21 U	0.24 U	0.21 U	0.22 U
1,2-Dibromoethane (Ethylene Dibromide)	mg/kg	0.02	0.02	0.5	3.6	5.8	5.8	9.8	18000	0.43	890	0.21 U	0.24 U	0.21 U	0.22 U
1,2-Dichlorobenzene	mg/kg	14	0.36	210	210	46000	46000	55000	44000000	210	210	0.083 U	0.096 U	0.084 U	0.09 U
1,2-Dichloroethane	mg/kg	0.1	7.2	380	11	21	33	74	150000	420	1200	0.042 U	0.048 U	0.042 U	0.045 U
1,2-Dichloropropane	mg/kg	0.1	5.8	320	7.4	30	51	120	120000	550	550	0.042 U	0.048 U	0.042 U	0.045 U
1,3-Dichlorobenzene	mg/kg	0.48	1.1	51	ID	ID	ID	ID	ID	170	170	0.083 U	0.096 U	0.084 U	0.09 U
1,4-Dichlorobenzene	mg/kg	1.7	0.29	140	100	260	260	340	570000	1900		0.083 U	0.096 U	0.084 U	0.09 U
2-Butanone (Methyl Ethyl Ketone)	mg/kg	760	44	27000	27000	35000	35000	36000	29000000	27000	27000	0.63 U	0.72 U	0.63 U	0.67 U
2-Hexanone	mg/kg	58		2500	1800	1300	1300	1500	1200000	2500	2500	2.1 U	2.4 U	2.2 U	
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	mg/kg	100	ID	2700	2700	53000	53000	70000	60000000	2700	2700	2.1 U	2.4 U	2.1 U	2.2 U
Acetone	mg/kg	42	34	110000	110000	160000	160000	200000	170000000	73000	110000	0.63 U	0.72 U	0.63 U	0.67 U
Benzene	mg/kg	0.1	4	220	8.4	45	99	230	470000	400	400	0.042 U	0.048 U	0.042 U	0.045 U
Bromodichloromethane	mg/kg	1.6	ID	280	6.4	31	31	57	110000	490	1500	0.083 U	0.096 U	0.084 U	0.09 U
Bromoform	mg/kg	1.6	ID	870	770	3100	3100	3100	3600000	870	870	0.083 U	0.096 U	0.084 U	0.087 U
Bromomethane (Methyl Bromide)	mg/kg	0.58	0.7	1400	1.6	13	57	140	150000	1000	2200	0.21 U	0.24 U	0.21 U	0.22 U
Carbon disulfide	mg/kg	46	ID	280	140	1600	8000	19000	21000000	280	280	0.21 U	0.24 U	0.21 U	0.22 U
Carbon tetrachloride	mg/kg	0.1	0.9	92	0.99	12	34	79	170000	390	390	0.042 U	0.048 U	0.042 U	0.045 U
Chlorobenzene	mg/kg	2	0.94	260	220	920	1100	2100	2100000	260	260	0.042 U	0.048 U	0.042 U	0.043 U
Chloroethane	mg/kg	34	ID	950	950	36000	120000	280000	290000000	950	950	0.21 U	0.24 U	0.21 U	0.22 U
Chloroform (Trichloromethane)	mg/kg	1.6	3.4	1500	38	150	340	790	1600000	1500	1500	0.042 U	0.048 U	0.042 U	0.045 U
Chloromethane (Methyl Chloride)	mg/kg	22	ID	1100	10	120	1000	2500	2600000	1100	1100	0.21 U	0.24 U	0.21 U	0.22 U
cis-1,2-Dichloroethene	mg/kg	1.4	12	640	41	210	430	1000000	640	640		0.042 U	0.048 U	0.042 U	0.045 U
cis-1,3-Dichloropropene	mg/kg										0.042 U	0.048 U	0.042 U	0.043 U	0.045 U
Cyclohexane	mg/kg										1 U	1.1 U	1 U	1 U	1.1 U
Dibromochloromethane	mg/kg	1.6	ID	360	21	80	80	98	160000	500	610	0.042 U	0.048 U	0.042 U	0.043 U
Dichlorodifluoromethane (CFC-12)	mg/kg	270	ID	1000	1700	63000	550000	1400000	1500000000	1000	1000	0.083 U	0.096 U	0.084 U	0.087 U
Ethylbenzene	mg/kg	1.5	0.36	140	140	2400	3100	6500	13000000	140	140	0.042 U	0.048 U	0.042 U	0.043 U
Isopropylbenzene	mg/kg	260	ID	390	390	2000	2000	3000	2600000	390	390	0.21 U	0.24 U	0.21 U	0.22 U
Methyl acetate	mg/kg										1 U	1.1 U	0.08 J	1 U	1.1 U
Methyl cyclohexane	mg/kg										1 U	1.1 U	1 U	1 U	1.1 U
Methyl Tert Butyl Ether	mg/kg	0.8	15	5900	5900	30000	41000	89000	88000000	5900	5900	0.21 U	0.24 U	0.21 U	0.22 U
Methylene chloride	mg/kg	0.1	19	2300	240	700	1700	4000	8300000	2300	2300	0.21 U	0.24 U	0.21 U	0.22 U
Styrene	mg/kg	2.7	2.2	270	520	3300	3300	4200	6900000	520	520	0.042 U	0.048 U	0.042 U	0.043 U
Tetrachloroethene	mg/kg	0.1	0.9	88	60	600	1400	3300	6800000	88	88	0.042 U	0.048 U	0.042 U	0.043 U
Toluene	mg/kg	16	2.8	250	250	3300	36000	36000	12000000	250	250	0.083 U	0.096 U	0.084 U	0.087 U
trans-1,2-Dichloroethene	mg/kg	2	30	1400	43	330	840	2000	2100000	1400	1400	0.042 U	0.048 U	0.042 U	0.043 U
trans-1,3-Dichloropropene	mg/kg										0.042 U	0.048 U	0.042 U	0.043 U	0.045 U
Trichloroethene	mg/kg	0.1	4	440	37	260	440	1100	2300000	500	500	0.074	0.025 J	0.16	
Trichlorofluoromethane (CFC-11)	mg/kg	150		560	560	110000	140000000	140000000	1700000000	560	560	0.083 U	0.096 U	0.084 U	0.087 U
Trifluorotrichloroethane (Freon 113)	mg/kg	550	1.7	550	550	210000	890000	2100000	2300000000	550	550	0.21 U	0.24 U	0.21 U	0.22 U
Vinyl chloride	mg/kg	0.04	0.3	20	2.8	29	170	420	890000	34	490	0.083 U	0.096 U	0.084 U	0.087 U
Xylene (total)	mg/kg	5.6	0.7	150	150	54000	65000	130000	130000000	150	150	0.13 U	0.14 U	0.13 U	0.13 U

Notes:
(1) Cleanup criteria identified by MDEQ RRD Op Memo No. 1, updated 1/23/2006, pursuant to 1994 PA 451 as amended.
U - Not present at or above the associated value.
J - Estimated concentration.
UJ - Estimated reporting limit.
☐ - Value exceeds referenced Part 201 Criteria (i.e. a, b, etc.)
ID - Insufficient data to develop criterion
NLL - Hazardous substance is not likely to leach under most soil conditions
NLV - Hazardous substance is not likely to volatilize under most conditions

TABLE 3

SUMMARY OF SOIL SAMPLE RESULTS COMPARED TO MICHIGAN ACT 451, PART 201 INDUSTRIAL CRITERIA
GENERAL MOTORS CORPORATION
GRAND RAPIDS METAL PLANT
WYOMING, MICHIGAN

Sample Location	Michigan Act 451, Part 201 Industrial and Commercial II, III, IV ⁽¹⁾											SB16-05	SB16-05	SB16-05	SB16-05	SB17-05
Sample Identification	Industrial and Commercial	Groundwater Surface Water	Groundwater Contact Protection	Soil Volatilization to Indoor Air Inhalation	Infinite Source Volatile Soil Inhalation	Finite VSIC for 5 Meter Source Thickness	Finite VSIC for 2 Meter Source Thickness	Particulate Soil Inhalation	Direct Contact Industrial and Commercial II	Soil Saturation Concentration Screening	SO-17360-120305-DCR-515	SO-17360-120305-DCR-516	SO-17360-120305-DCR-517	SO-17360-120305-DCR-518	SO-17360-120305-DCR-519	
Sample Date	Drinking Water	Interface Protection									12/3/2005	12/3/2005	12/3/2005	12/3/2005	12/3/2005	
Sample Depth											12-14 ft BGS	14-16 ft BGS	16-18 ft BGS	18-20 ft BGS	0-2 ft BGS	
Sample Type	a	b	c	d	e	f	g	h	i	j						
	Units															
Volatile Organic Compounds																
1,1,1-Trichloroethane	mg/kg	4	4	460	460	4500	15000	31000	29000000	460	460	0.046 U	0.047 U	0.038 U	0.044 U	0.043 U
1,1,2,2-Tetrachloroethane	mg/kg	0.7	1.6	94	23	34	34	34	68000	240	870	0.091 U	0.094 U	0.075 U	0.087 U	0.087 U
1,1,2-Trichloroethane	mg/kg	0.1	6.6	420	24	57	57	120	250000	840	920	0.046 U	0.047 U	0.038 U	0.044 U	0.043 U
1,1-Dichloroethane	mg/kg	50	15	890	430	2500	6000	14000	15000000	890	890	0.046 U	0.047 U	0.038 U	0.044 U	0.043 U
1,1-Dichloroethene	mg/kg	0.14	1.3	220	0.33	3.7	15	37	78000	570	570	0.046 U	0.047 U	0.038 U	0.044 U	0.043 U
1,2,4-Trichlorobenzene	mg/kg	4.2	1.8	1100	1100	34000	34000	34000	11000000	1100	1100	0.23 U	0.24 U	0.19 U	0.22 U	0.22 U
1,2-Dibromo-3-chloropropane (DBCP)	mg/kg	0.01		1.2	1.2	15	15	15	5900	1.2	1.2	0.23 U	0.24 U	0.19 U	0.22 U	0.22 U
1,2-Dibromoethane (Ethylene Dibromide)	mg/kg	0.02	0.02	0.5	3.6	5.8	5.8	9.8	18000	0.43	890	0.23 U	0.24 U	0.19 U	0.22 U	0.22 U
1,2-Dichlorobenzene	mg/kg	14	0.36	210	210	46000	46000	55000	44000000	210	210	0.091 U	0.094 U	0.075 U	0.087 U	0.087 U
1,2-Dichloroethane	mg/kg	0.1	7.2	380	11	21	33	74	150000	420	1200	0.046 U	0.047 U	0.038 U	0.044 U	0.043 U
1,2-Dichloropropane	mg/kg	0.1	5.8	320	7.4	30	51	120	120000	550	550	0.046 U	0.047 U	0.038 U	0.044 U	0.043 U
1,3-Dichlorobenzene	mg/kg	0.48	1.1	51	ID	ID	ID	ID	ID	170	170	0.091 U	0.094 U	0.075 U	0.087 U	0.087 U
1,4-Dichlorobenzene	mg/kg	1.7	0.29	140	100	260	260	340	570000	1900		0.091 U	0.094 U	0.075 U	0.087 U	0.087 U
2-Butanone (Methyl Ethyl Ketone)	mg/kg	760	44	27000	27000	35000	35000	36000	29000000	27000	27000	0.68 U	0.71 U	0.56 U	0.66 U	0.65 U
2-Hexanone	mg/kg	58		2500	1800	1300	1300	1500	1200000	2500	2500	2.3 U	2.4 U	1.9 U	2.2 U	2.2 U
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	mg/kg	100	ID	2700	2700	53000	53000	70000	60000000	2700	2700	2.3 U	2.4 U	1.9 U	2.2 U	2.2 U
Acetone	mg/kg	42	34	110000	110000	160000	160000	200000	170000000	73000	110000	0.68 U	0.71 U	0.56 U	0.66 U	0.65 U
Benzene	mg/kg	0.1	4	220	8.4	45	99	230	470000	400	400	0.046 U	0.047 U	0.038 U	0.044 U	0.043 U
Bromodichloromethane	mg/kg	1.6	ID	280	6.4	31	31	57	110000	490	1500	0.091 U	0.094 U	0.075 U	0.087 U	0.087 U
Bromoform	mg/kg	1.6	ID	870	770	3100	3100	3100	3600000	870	870	0.091 U	0.094 U	0.075 U	0.087 U	0.087 U
Bromomethane (Methyl Bromide)	mg/kg	0.58	0.7	1400	1.6	13	57	140	150000	1000	2200	0.23 U	0.24 U	0.19 U	0.22 U	0.22 U
Carbon disulfide	mg/kg	46	ID	280	140	1600	8000	19000	21000000	280	280	0.23 U	0.24 U	0.19 U	0.22 U	0.22 U
Carbon tetrachloride	mg/kg	0.1	0.9	92	0.99	12	34	79	170000	390	390	0.046 U	0.047 U	0.038 U	0.044 U	0.043 U
Chlorobenzene	mg/kg	2	0.94	260	220	920	1100	2100	2100000	260	260	0.046 U	0.047 U	0.038 U	0.044 U	0.043 U
Chloroethane	mg/kg	34	ID	950	950	36000	120000	280000	290000000	950	950	0.23 U	0.24 U	0.19 U	0.22 U	0.22 U
Chloroform (Trichloromethane)	mg/kg	1.6	3.4	1500	38	150	340	790	1600000	1500	1500	0.046 U	0.047 U	0.038 U	0.044 U	0.043 U
Chloromethane (Methyl Chloride)	mg/kg	22	ID	1100	10	120	1000	2500	2600000	1100	1100	0.23 U	0.24 U	0.19 U	0.22 U	0.22 U
cis-1,2-Dichloroethene	mg/kg	1.4	12	640	41	210	430	1000	1000000	640	640	0.046 U	0.047 U	0.038 U	0.044 U	0.043 U
cis-1,3-Dichloropropene	mg/kg											0.046 U	0.047 U	0.038 U	0.044 U	0.043 U
Cyclohexane	mg/kg											1.1 U	1.1 U	0.9 U	1 U	1 U
Dibromochloromethane	mg/kg	1.6	ID	360	21	80	80	98	160000	500	610	0.046 U	0.047 U	0.038 U	0.044 U	0.043 U
Dichlorodifluoromethane (CFC-12)	mg/kg	270	ID	1000	1700	63000	550000	1400000	1500000000	1000	1000	0.091 U	0.094 U	0.075 U	0.087 U	0.087 U
Ethylbenzene	mg/kg	1.5	0.36	140	140	2400	3100	6500	13000000	140	140	0.046 U	0.047 U	0.038 U	0.044 U	0.043 U
Isopropylbenzene	mg/kg	260	ID	390	390	2000	2000	3000	2600000	390	390	0.23 U	0.24 U	0.19 U	0.22 U	0.22 U
Methyl acetate	mg/kg											1.1 U	1.1 U	0.9 U	1 U	1 U
Methyl cyclohexane	mg/kg											1.1 U	1.1 U	0.9 U	1 U	1 U
Methyl Tert Butyl Ether	mg/kg	0.8	15	5900	5900	30000	41000	89000	88000000	5900	5900	0.23 U	0.24 U	0.19 U	0.22 U	0.22 U
Methylene chloride	mg/kg	0.1	19	2300	240	700	1700	4000	8300000	2300	2300	0.23 U	0.24 U	0.19 U	0.22 U	0.22 U
Styrene	mg/kg	2.7	2.2	270	520	3300	3300	4200	6900000	520	520	0.046 U	0.047 U	0.038 U	0.044 U	0.043 U
Tetrachloroethene	mg/kg	0.1	0.9	88	60	600	1400	3300	6800000	88	88	0.046 U	0.047 U	0.038 U	0.044 U	0.043 U
Toluene	mg/kg	16	2.8	250	250	3300	36000	36000	12000000	250	250	0.091 U	0.094 U	0.075 U	0.087 U	0.087 U
trans-1,2-Dichloroethene	mg/kg	2	30	1400	43	330	840	2000	2100000	1400	1400	0.046 U	0.047 U	0.038 U	0.044 U	0.043 U
trans-1,3-Dichloropropene	mg/kg											0.046 U	0.047 U	0.038 U	0.044 U	0.043 U
Trichloroethene	mg/kg	0.1	4	440	37	260	440	1100	2300000	500	500	0.02 J	0.031 J	0.017 J	0.02 J	0.043 U
Trichlorofluoromethane (CFC-11)	mg/kg	150		560	560	110000	140000000	140000000	1700000000	560	560	0.091 U	0.094 U	0.075 U	0.087 U	0.087 U
Trifluorotrichloroethane (Freon 113)	mg/kg	550	1.7	550	550	210000	890000	2100000	2300000000	550	550	0.23 U	0.24 U	0.19 U	0.22 U	0.22 U
Vinyl chloride	mg/kg	0.04	0.3	20	2.8	29	170	420	890000	34	490	0.091 U	0.094 U	0.075 U	0.087 U	0.087 U
Xylene (total)	mg/kg	5.6	0.7	150	150	54000	65000	130000	130000000	150	150	0.14 U	0.14 U	0.11 U	0.13 U	0.13 U

Notes:
(1) Cleanup criteria identified by MDEQ RRD Op Memo No. 1, updated 1/23/2006, pursuant to 1994 PA 451 as amended.
U - Not present at or above the associated value.
J - Estimated concentration.
UJ - Estimated reporting limit.

Value exceeds referenced Part 201 Criteria (i.e. a, b, etc.)

ID - Insufficient data to develop criterion

NLL - Hazardous substance is not likely to leach under most soil conditions

NLV - Hazardous substance is not likely to volatilize under most conditions

TABLE 3

SUMMARY OF SOIL SAMPLE RESULTS COMPARED TO MICHIGAN ACT 451, PART 201 INDUSTRIAL CRITERIA
GENERAL MOTORS CORPORATION
GRAND RAPIDS METAL PLANT
WYOMING, MICHIGAN

Sample Location	<i>Michigan Act 451, Part 201 Industrial and Commercial II, III, IV ⁽¹⁾</i>										<i>SB17-05</i> <i>SO-17360-120305-DCR-520</i> <i>12/3/2005</i> <i>2-4 ft BGS</i>	<i>SB17-05</i> <i>SO-17360-120305-DCR-521</i> <i>12/3/2005</i> <i>4-6 ft BGS</i>	<i>SB17-05</i> <i>SO-17360-120305-DCR-522</i> <i>12/3/2005</i> <i>6-8 ft BGS</i>	<i>SB17-05</i> <i>SO-17360-120305-DCR-523</i> <i>12/3/2005</i> <i>8-10 ft BGS</i>	<i>SB17-05</i> <i>SO-17360-120305-DCR-524</i> <i>12/3/2005</i> <i>10-12 ft BGS</i>
Sample Identification	Industrial and	Groundwater	Groundwater	Soil Volatilization	Infinite Source	Finite VSIC for	Finite VSIC for	Particulate	Direct Contact	Soil Saturation					
Sample Date	Commercial	Surface Water	Contact	to Indoor Air	Volatile Soil	5 Meter Source	2 Meter Source	Soil Inhalation	Industrial and	Concentration					
Sample Depth	Drinking Water	Interface Protection	Protection	Inhalation	Inhalation	Thickness	Thickness		Commercial II	Screening					
Sample Type	a	b	c	d	e	f	g	h	i	j					
<i>Units</i>															
<i>Volatile Organic Compounds</i>															
1,1,1-Trichloroethane	mg/kg	4	4	460	460	4500	15000	31000	29000000	460	460	0.042 U	0.042 U	0.044 U	0.04 U
1,1,2,2-Tetrachloroethane	mg/kg	0.7	1.6	94	23	34	34	34	68000	240	870	0.085 U	0.085 U	0.088 U	0.08 U
1,1,2-Trichloroethane	mg/kg	0.1	6.6	420	24	57	57	120	250000	840	920	0.042 U	0.042 U	0.044 U	0.04 U
1,1-Dichloroethane	mg/kg	50	15	890	430	2500	6000	14000	15000000	890	890	0.042 U	0.042 U	0.044 U	0.04 U
1,1-Dichloroethene	mg/kg	0.14	1.3	220	0.33	3.7	15	37	78000	570	570	0.042 U	0.042 U	0.044 U	0.04 U
1,2,4-Trichlorobenzene	mg/kg	4.2	1.8	1100	1100	34000	34000	34000	11000000	1100	1100	0.21 U	0.21 U	0.22 U	0.2 U
1,2-Dibromo-3-chloropropane (DBCP)	mg/kg	0.01		1.2	1.2	15	15	15	5900	1.2	1.2	0.21 U	0.21 U	0.22 U	0.2 U
1,2-Dibromoethane (Ethylene Dibromide)	mg/kg	0.02	0.02	0.5	3.6	5.8	5.8	9.8	18000	0.43	890	0.21 U	0.21 U	0.22 U	0.2 U
1,2-Dichlorobenzene	mg/kg	14	0.36	210	210	46000	46000	55000	44000000	210	210	0.085 U	0.085 U	0.088 U	0.08 U
1,2-Dichloroethane	mg/kg	0.1	7.2	380	11	21	33	74	150000	420	1200	0.042 U	0.042 U	0.044 U	0.04 U
1,2-Dichloropropane	mg/kg	0.1	5.8	320	7.4	30	51	120	120000	550	550	0.042 U	0.042 U	0.044 U	0.04 U
1,3-Dichlorobenzene	mg/kg	0.48	1.1	51	ID	ID	ID	ID	ID	170	170	0.085 U	0.085 U	0.088 U	0.08 U
1,4-Dichlorobenzene	mg/kg	1.7	0.29	140	100	260	260	340	570000	1900		0.085 U	0.085 U	0.088 U	0.08 U
2-Butanone (Methyl Ethyl Ketone)	mg/kg	760	44	27000	27000	35000	35000	36000	29000000	27000	27000	0.64 U	0.63 U	0.66 U	0.6 U
2-Hexanone	mg/kg	58		2500	1800	1300	1300	1500	1200000	2500	2500	2.1 U	2.1 U	2 U	2.3 U
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	mg/kg	100	ID	2700	2700	53000	53000	70000	60000000	2700	2700	2.1 U	2.1 U	2.2 U	2 U
Acetone	mg/kg	42	34	110000	110000	160000	160000	200000	170000000	73000	110000	0.64 U	0.63 U	0.66 U	0.7 U
Benzene	mg/kg	0.1	4	220	8.4	45	99	230	470000	400	400	0.042 U	0.042 U	0.044 U	0.04 U
Bromodichloromethane	mg/kg	1.6	ID	280	6.4	31	31	57	110000	490	1500	0.085 U	0.085 U	0.088 U	0.08 U
Bromoform	mg/kg	1.6	ID	870	770	3100	3100	3100	3600000	870	870	0.085 U	0.085 U	0.088 U	0.08 U
Bromomethane (Methyl Bromide)	mg/kg	0.58	0.7	1400	1.6	13	57	140	150000	1000	2200	0.21 U	0.21 U	0.22 U	0.2 U
Carbon disulfide	mg/kg	46	ID	280	140	1600	8000	19000	21000000	280	280	0.21 U	0.21 U	0.22 U	0.2 U
Carbon tetrachloride	mg/kg	0.1	0.9	92	0.99	12	34	79	170000	390	390	0.042 U	0.042 U	0.044 U	0.04 U
Chlorobenzene	mg/kg	2	0.94	260	220	920	1100	2100	2100000	260	260	0.042 U	0.042 U	0.044 U	0.04 U
Chloroethane	mg/kg	34	ID	950	950	36000	120000	280000	290000000	950	950	0.21 U	0.21 U	0.22 U	0.2 U
Chloroform (Trichloromethane)	mg/kg	1.6	3.4	1500	38	150	340	790	1600000	1500	1500	0.042 U	0.042 U	0.044 U	0.04 U
Chloromethane (Methyl Chloride)	mg/kg	22	ID	1100	10	120	1000	2500	2600000	1100	1100	0.21 U	0.21 U	0.22 U	0.2 U
cis-1,2-Dichloroethene	mg/kg	1.4	12	640	41	210	430	1000	1000000	640	640	0.042 U	0.042 U	0.044 U	0.04 U
cis-1,3-Dichloropropene	mg/kg											0.042 U	0.042 U	0.044 U	0.04 U
Cyclohexane	mg/kg											1 U	1 U	1.1 U	1.1 U
Dibromochloromethane	mg/kg	1.6	ID	360	21	80	80	98	160000	500	610	0.042 U	0.042 U	0.044 U	0.04 U
Dichlorodifluoromethane (CFC-12)	mg/kg	270	ID	1000	1700	63000	550000	1400000	1500000000	1000	1000	0.085 U	0.085 U	0.088 U	0.08 U
Ethylbenzene	mg/kg	1.5	0.36	140	140	2400	3100	6500	13000000	140	140	0.042 U	0.042 U	0.044 U	0.04 U
Isopropylbenzene	mg/kg	260	ID	390	390	2000	2000	3000	2600000	390	390	0.21 U	0.21 U	0.22 U	0.2 U
Methyl acetate	mg/kg											1 U	1 U	1.1 U	0.96 U
Methyl cyclohexane	mg/kg											1 U	1 U	1.1 U	0.96 U
Methyl Tert Butyl Ether	mg/kg	0.8	15	5900	5900	30000	41000	89000	88000000	5900	5900	0.21 U	0.21 U	0.22 U	0.2 U
Methylene chloride	mg/kg	0.1	19	2300	240	700	1700	4000	8300000	2300	2300	0.21 U	0.21 U	0.22 U	0.2 U
Styrene	mg/kg	2.7	2.2	270	520	3300	3300	4200	6900000	520	520	0.042 U	0.042 U	0.044 U	0.04 U
Tetrachloroethene	mg/kg	0.1	0.9	88	60	600	1400	3300	6800000	88	88	0.042 U	0.042 U	0.044 U	0.04 U
Toluene	mg/kg	16	2.8	250	250	3300	36000	36000	12000000	250	250	0.085 U	0.085 U	0.088 U	0.08 U
trans-1,2-Dichloroethene	mg/kg	2	30	1400	43	330	840	2000	2100000	1400	1400	0.042 U	0.042 U	0.044 U	0.04 U
trans-1,3-Dichloropropene	mg/kg											0.042 U	0.042 U	0.044 U	0.04 U
Trichloroethene	mg/kg	0.1	4	440	37	260	440	1100	2300000	500	500	0.039 J	0.042 U	0.044 U	0.04 U
Trichlorofluoromethane (CFC-11)	mg/kg	150		560	560	110000	14000000	140000000	1700000000	560	560	0.085 U	0.085 U	0.088 U	0.08 U
Trifluorotrichloroethane (Freon 113)	mg/kg	550	1.7	550	550	210000	890000	2100000	2300000000	550	550	0.21 U	0.21 U	0.22 U	0.2 U
Vinyl chloride	mg/kg	0.04	0.3	20	2.8	29	170	420	890000	34	490	0.085 U	0.085 U	0.088 U	0.08 U
Xylene (total)	mg/kg	5.6	0.7	150	150	54000	65000	130000	130000000	150	150	0.13 U	0.13 U	0.13 U	0.12 U

Notes:
⁽¹⁾ Cleanup criteria identified by MDEQ RRD Op Memo No. 1, updated 1/23/2006, pursuant to 1994 PA 451 as amended.
U - Not present at or above the associated value.
J - Estimated concentration.
UJ - Estimated reporting limit.

Value exceeds referenced Part 201 Criteria (i.e. a, b, etc.)

ID - Insufficient data to develop criterion

NLL - Hazardous substance is not likely to leach under most soil conditions

NLV - Hazardous substance is not likely to volatilize under most conditions

TABLE 3

SUMMARY OF SOIL SAMPLE RESULTS COMPARED TO MICHIGAN ACT 451, PART 201 INDUSTRIAL CRITERIA
GENERAL MOTORS CORPORATION
GRAND RAPIDS METAL PLANT
WYOMING, MICHIGAN

Sample Location	Michigan Act 451, Part 201 Industrial and Commercial II, III, IV ⁽¹⁾											SB17-05	SB17-05	SB17-05	SB17-05	SB18-05
Sample Identification	Industrial and Commercial	Groundwater Surface Water	Groundwater Contact	Soil Volatilization to Indoor Air	Infinite Source	Finite VSIC for 5 Meter Source	Finite VSIC for 2 Meter Source	Particulate Soil Inhalation	Direct Contact Industrial and Commercial II	Soil Saturation Concentration	SO-17360-120305-DCR-525	SO-17360-120305-DCR-526	SO-17360-120305-DCR-527	SO-17360-120305-DCR-528	SO-17360-120305-DCR-529	
Sample Date	Drinking Water	Interface Protection	Protection	Inhalation	Inhalation	Thickness	Thickness				12/3/2005	12/3/2005	12/3/2005	12/3/2005	12/3/2005	
Sample Depth											12-14 ft BGS	14-16 ft BGS	16-18 ft BGS	18-20 ft BGS	0-2 ft BGS	
Sample Type	a	b	c	d	e	f	g	h	i	j						
Units																
Volatile Organic Compounds																
1,1,1-Trichloroethane	mg/kg	4	4	460	460	4500	15000	31000	29000000	460	460	0.045 U	0.041 U	0.039 U	0.045 U	0.043 U
1,1,2,2-Tetrachloroethane	mg/kg	0.7	1.6	94	23	34	34	34	68000	240	870	0.09 U	0.081 U	0.077 U	0.09 U	0.086 U
1,1,2-Trichloroethane	mg/kg	0.1	6.6	420	24	57	57	120	250000	840	920	0.045 U	0.041 U	0.039 U	0.045 U	0.043 U
1,1-Dichloroethane	mg/kg	50	15	890	430	2500	6000	14000	15000000	890	890	0.045 U	0.041 U	0.039 U	0.045 U	0.043 U
1,1-Dichloroethene	mg/kg	0.14	1.3	220	0.33	3.7	15	37	78000	570	570	0.045 U	0.041 U	0.039 U	0.045 U	0.043 U
1,2,4-Trichlorobenzene	mg/kg	4.2	1.8	1100	1100	34000	34000	34000	11000000	1100	1100	0.23 U	0.2 U	0.19 U	0.22 U	0.21 U
1,2-Dibromo-3-chloropropane (DBCP)	mg/kg	0.01		1.2	1.2	15	15	15	5900	1.2	1.2	0.23 U	0.2 U	0.19 U	0.22 U	0.21 U
1,2-Dibromoethane (Ethylene Dibromide)	mg/kg	0.02	0.02	0.5	3.6	5.8	5.8	9.8	18000	0.43	890	0.23 U	0.2 U	0.19 U	0.22 U	0.21 U
1,2-Dichlorobenzene	mg/kg	14	0.36	210	210	46000	46000	55000	44000000	210	210	0.09 U	0.081 U	0.077 U	0.09 U	0.086 U
1,2-Dichloroethane	mg/kg	0.1	7.2	380	11	21	33	74	150000	420	1200	0.045 U	0.041 U	0.039 U	0.045 U	0.043 U
1,2-Dichloropropane	mg/kg	0.1	5.8	320	7.4	30	51	120	120000	550	550	0.045 U	0.041 U	0.039 U	0.045 U	0.043 U
1,3-Dichlorobenzene	mg/kg	0.48	1.1	51	ID	ID	ID	ID	ID	170	170	0.09 U	0.081 U	0.077 U	0.09 U	0.086 U
1,4-Dichlorobenzene	mg/kg	1.7	0.29	140	100	260	260	340	570000	1900		0.09 U	0.081 U	0.077 U	0.09 U	0.086 U
2-Butanone (Methyl Ethyl Ketone)	mg/kg	760	44	27000	27000	35000	35000	36000	29000000	27000	27000	0.68 U	0.61 U	0.58 U	0.67 U	0.64 U
2-Hexanone	mg/kg	58		2500	1800	1300	1300	1500	1200000	2500	2500	2.3 U	2 U	1.9 U	2.2 U	2.1 U
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	mg/kg	100	ID	2700	2700	53000	53000	70000	60000000	2700	2700	2.3 U	2 U	1.9 U	2.2 U	2.1 U
Acetone	mg/kg	42	34	110000	110000	160000	160000	200000	170000000	73000	110000	0.68 U	0.61 U	0.58 U	0.67 UJ	0.64 UJ
Benzene	mg/kg	0.1	4	220	8.4	45	99	230	470000	400	400	0.045 U	0.041 U	0.039 U	0.045 U	0.043 U
Bromodichloromethane	mg/kg	1.6	ID	280	6.4	31	31	57	110000	490	1500	0.09 U	0.081 U	0.077 U	0.09 U	0.086 U
Bromoform	mg/kg	1.6	ID	870	770	3100	3100	3100	3600000	870	870	0.09 U	0.081 U	0.077 U	0.09 U	0.086 U
Bromomethane (Methyl Bromide)	mg/kg	0.58	0.7	1400	1.6	13	57	140	150000	1000	2200	0.23 U	0.2 U	0.19 U	0.22 U	0.21 U
Carbon disulfide	mg/kg	46	ID	280	140	1600	8000	19000	21000000	280	280	0.23 U	0.2 U	0.19 U	0.22 U	0.21 U
Carbon tetrachloride	mg/kg	0.1	0.9	92	0.99	12	34	79	170000	390	390	0.045 U	0.041 U	0.039 U	0.045 U	0.043 U
Chlorobenzene	mg/kg	2	0.94	260	220	920	1100	2100	2100000	260	260	0.045 U	0.041 U	0.039 U	0.045 U	0.043 U
Chloroethane	mg/kg	34	ID	950	950	36000	120000	280000	290000000	950	950	0.23 U	0.2 U	0.19 U	0.22 U	0.21 U
Chloroform (Trichloromethane)	mg/kg	1.6	3.4	1500	38	150	340	790	1600000	1500	1500	0.045 U	0.041 U	0.039 U	0.045 U	0.043 U
Chloromethane (Methyl Chloride)	mg/kg	22	ID	1100	10	120	1000	2500	2600000	1100	1100	0.23 U	0.2 U	0.19 U	0.22 U	0.21 U
cis-1,2-Dichloroethene	mg/kg	1.4	12	640	41	210	430	1000	1000000	640	640	0.045 U	0.041 U	0.039 U	0.045 U	0.043 U
cis-1,3-Dichloropropene	mg/kg											0.045 U	0.041 U	0.039 U	0.045 U	0.043 U
Cyclohexane	mg/kg											1.1 U	0.98 U	0.93 U	1.1 U	1 U
Dibromochloromethane	mg/kg	1.6	ID	360	21	80	80	98	160000	500	610	0.045 U	0.041 U	0.039 U	0.045 U	0.043 U
Dichlorodifluoromethane (CFC-12)	mg/kg	270	ID	1000	1700	63000	550000	1400000	1500000000	1000	1000	0.09 U	0.081 U	0.077 U	0.09 U	0.086 U
Ethylbenzene	mg/kg	1.5	0.36	140	140	2400	3100	6500	13000000	140	140	0.045 U	0.041 U	0.039 U	0.045 U	0.043 U
Isopropylbenzene	mg/kg	260	ID	390	390	2000	2000	3000	2600000	390	390	0.23 U	0.2 U	0.19 U	0.22 U	0.21 U
Methyl acetate	mg/kg											1.1 U	0.98 U	0.93 U	1.1 U	1 U
Methyl cyclohexane	mg/kg											1.1 U	0.98 U	0.93 U	1.1 U	1 U
Methyl Tert Butyl Ether	mg/kg	0.8	15	5900	5900	30000	41000	89000	88000000	5900	5900	0.23 U	0.2 U	0.19 U	0.22 U	0.21 U
Methylene chloride	mg/kg	0.1	19	2300	240	700	1700	4000	8300000	2300	2300	0.23 U	0.2 U	0.19 U	0.22 U	0.21 U
Styrene	mg/kg	2.7	2.2	270	520	3300	3300	4200	6900000	520	520	0.045 U	0.041 U	0.039 U	0.045 U	0.043 U
Tetrachloroethene	mg/kg	0.1	0.9	88	60	600	1400	3300	6800000	88	88	0.045 U	0.041 U	0.039 U	0.045 U	0.043 U
Toluene	mg/kg	16	2.8	250	250	3300	36000	36000	12000000	250	250	0.09 U	0.081 U	0.077 U	0.09 U	0.086 U
trans-1,2-Dichloroethene	mg/kg	2	30	1400	43	330	840	2000	2100000	1400	1400	0.045 U	0.041 U	0.039 U	0.045 U	0.043 U
trans-1,3-Dichloropropene	mg/kg											0.045 U	0.041 U	0.039 U	0.045 U	0.043 U
Trichloroethene	mg/kg	0.1	4	440	37	260	440	1100	2300000	500	500	0.045 U	0.041 U	0.039 U	0.045 U	0.038 J
Trichlorofluoromethane (CFC-11)	mg/kg	150		560	560	110000	140000000	140000000	1700000000	560	560	0.09 U	0.081 U	0.077 U	0.09 U	0.086 U
Trifluorotrichloroethane (Freon 113)	mg/kg	550	1.7	550	550	210000	890000	2100000	2300000000	550	550	0.23 U	0.2 U	0.19 U	0.22 U	0.21 U
Vinyl chloride	mg/kg	0.04	0.3	20	2.8	29	170	420	890000	34	490	0.09 U	0.081 U	0.077 U	0.09 U	0.086 U
Xylene (total)	mg/kg	5.6	0.7	150	150	54000	65000	130000	130000000	150	150	0.14 U	0.12 U	0.12 U	0.13 U	0.13 U

Notes:
(1) Cleanup criteria identified by MDEQ RRD Op Memo No. 1, updated 1/23/2006, pursuant to 1994 PA 451 as amended.
U - Not present at or above the associated value.
J - Estimated concentration.
UJ - Estimated reporting limit.
 Value exceeds referenced Part 201 Criteria (i.e. a, b, etc.)
ID - Insufficient data to develop criterion
NLL - Hazardous substance is not likely to leach under most soil conditions
NLV - Hazardous substance is not likely to volatilize under most conditions

TABLE 3

SUMMARY OF SOIL SAMPLE RESULTS COMPARED TO MICHIGAN ACT 451, PART 201 INDUSTRIAL CRITERIA
GENERAL MOTORS CORPORATION
GRAND RAPIDS METAL PLANT
WYOMING, MICHIGAN

Sample Location	Michigan Act 451, Part 201 Industrial and Commercial II, III, IV ⁽¹⁾											SB18-05	SB18-05	SB18-05	SB18-05	SB18-05
Sample Identification	Industrial and Commercial	Groundwater Surface Water	Groundwater Contact	Soil Volatilization to Indoor Air	Infinite Source	Finite VSIC for 5 Meter Source	Finite VSIC for 2 Meter Source	Particulate Soil Inhalation	Direct Contact Industrial and Commercial II	Soil Saturation Concentration	SO-17360-120305-DCR-530	SO-17360-120305-DCR-531	SO-17360-120305-DCR-532	SO-17360-120305-DCR-533	SO-17360-120305-DCR-534	
Sample Date	Drinking Water	Interface Protection	Protection	Inhalation	Inhalation	Thickness	Thickness				12/3/2005	12/3/2005	12/3/2005	12/3/2005	12/3/2005	
Sample Depth											2-4 ft BGS	4-6 ft BGS	6-8 ft BGS	8-10 ft BGS	10-12 ft BGS	
Sample Type	a	b	c	d	e	f	g	h	i	j						
Units																
Volatile Organic Compounds																
1,1,1-Trichloroethane	mg/kg	4	4	460	460	4500	15000	31000	29000000	460	460	0.041 U	0.043 U	0.042 U	0.046 U	0.041 U
1,1,2,2-Tetrachloroethane	mg/kg	0.7	1.6	94	23	34	34	34	68000	240	870	0.083 U	0.086 U	0.085 U	0.092 U	0.081 U
1,1,2-Trichloroethane	mg/kg	0.1	6.6	420	24	57	57	120	250000	840	920	0.041 U	0.043 U	0.042 U	0.046 U	0.041 U
1,1-Dichloroethane	mg/kg	50	15	890	430	2500	6000	14000	15000000	890	890	0.041 U	0.043 U	0.042 U	0.046 U	0.041 U
1,1-Dichloroethene	mg/kg	0.14	1.3	220	0.33	3.7	15	37	78000	570	570	0.041 U	0.043 U	0.042 U	0.046 U	0.041 U
1,2,4-Trichlorobenzene	mg/kg	4.2	1.8	1100	1100	34000	34000	34000	11000000	1100	1100	0.21 U	0.21 U	0.21 U	0.23 U	0.2 U
1,2-Dibromo-3-chloropropane (DBCP)	mg/kg	0.01		1.2	1.2	15	15	15	5900	1.2	1.2	0.21 U	0.21 U	0.21 U	0.23 U	0.2 U
1,2-Dibromoethane (Ethylene Dibromide)	mg/kg	0.02	0.02	0.5	3.6	5.8	5.8	9.8	18000	0.43	890	0.21 U	0.21 U	0.21 U	0.23 U	0.2 U
1,2-Dichlorobenzene	mg/kg	14	0.36	210	210	46000	46000	55000	44000000	210	210	0.083 U	0.086 U	0.085 U	0.092 U	0.081 U
1,2-Dichloroethane	mg/kg	0.1	7.2	380	11	21	33	74	150000	420	1200	0.041 U	0.043 U	0.042 U	0.046 U	0.041 U
1,2-Dichloropropane	mg/kg	0.1	5.8	320	7.4	30	51	120	120000	550	550	0.041 U	0.043 U	0.042 U	0.046 U	0.041 U
1,3-Dichlorobenzene	mg/kg	0.48	1.1	51	ID	ID	ID	ID	ID	170	170	0.083 U	0.086 U	0.085 U	0.092 U	0.081 U
1,4-Dichlorobenzene	mg/kg	1.7	0.29	140	100	260	260	340	570000	1900		0.083 U	0.086 U	0.085 U	0.092 U	0.081 U
2-Butanone (Methyl Ethyl Ketone)	mg/kg	760	44	27000	27000	35000	35000	36000	29000000	27000	27000	0.62 U	0.64 U	0.63 U	0.69 U	0.61 U
2-Hexanone	mg/kg	58		2500	1800	1300	1300	1500	1200000	2500	2500	2.1 U	2.1 U	2.1 U	2.3 U	2 U
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	mg/kg	100	ID	2700	2700	53000	53000	70000	60000000	2700	2700	2.1 U	2.1 U	2.1 U	2.3 U	2 U
Acetone	mg/kg	42	34	110000	110000	160000	160000	200000	170000000	73000	110000	0.62 UJ	0.64 UJ	0.63 UJ	0.69 UJ	0.61 UJ
Benzene	mg/kg	0.1	4	220	8.4	45	99	230	470000	400	400	0.041 U	0.043 U	0.042 U	0.046 U	0.041 U
Bromodichloromethane	mg/kg	1.6	ID	280	6.4	31	31	57	110000	490	1500	0.083 U	0.086 U	0.085 U	0.092 U	0.081 U
Bromoform	mg/kg	1.6	ID	870	770	3100	3100	3100	3600000	870	870	0.083 U	0.086 U	0.085 U	0.092 U	0.081 U
Bromomethane (Methyl Bromide)	mg/kg	0.58	0.7	1400	1.6	13	57	140	150000	1000	2200	0.21 U	0.21 U	0.21 U	0.23 U	0.2 U
Carbon disulfide	mg/kg	46	ID	280	140	1600	8000	19000	21000000	280	280	0.21 U	0.21 U	0.21 U	0.23 U	0.2 U
Carbon tetrachloride	mg/kg	0.1	0.9	92	0.99	12	34	79	170000	390	390	0.041 U	0.043 U	0.042 U	0.046 U	0.041 U
Chlorobenzene	mg/kg	2	0.94	260	220	920	1100	2100	2100000	260	260	0.041 U	0.043 U	0.042 U	0.046 U	0.041 U
Chloroethane	mg/kg	34	ID	950	950	36000	120000	280000	290000000	950	950	0.21 U	0.21 U	0.21 U	0.23 U	0.2 U
Chloroform (Trichloromethane)	mg/kg	1.6	3.4	1500	38	150	340	790	1600000	1500	1500	0.041 U	0.043 U	0.042 U	0.046 U	0.041 U
Chloromethane (Methyl Chloride)	mg/kg	22	ID	1100	10	120	1000	2500	2600000	1100	1100	0.21 U	0.21 U	0.21 U	0.23 U	0.2 U
cis-1,2-Dichloroethene	mg/kg	1.4	12	640	41	210	430	1000	1000000	640	640	0.041 U	0.043 U	0.042 U	0.046 U	0.041 U
cis-1,3-Dichloropropene	mg/kg											0.041 U	0.043 U	0.042 U	0.046 U	0.041 U
Cyclohexane	mg/kg											0.99 U	1 U	1 U	1.1 U	0.97 U
Dibromochloromethane	mg/kg	1.6	ID	360	21	80	80	98	160000	500	610	0.041 U	0.043 U	0.042 U	0.046 U	0.041 U
Dichlorodifluoromethane (CFC-12)	mg/kg	270	ID	1000	1700	63000	550000	1400000	1500000000	1000	1000	0.083 U	0.086 U	0.085 U	0.092 U	0.081 U
Ethylbenzene	mg/kg	1.5	0.36	140	140	2400	3100	6500	13000000	140	140	0.041 U	0.043 U	0.042 U	0.046 U	0.041 U
Isopropylbenzene	mg/kg	260	ID	390	390	2000	2000	3000	2600000	390	390	0.21 U	0.21 U	0.21 U	0.23 U	0.2 U
Methyl acetate	mg/kg											0.99 U	1 U	1 U	1.1 U	0.97 U
Methyl cyclohexane	mg/kg											0.99 U	1 U	1 U	1.1 U	0.97 U
Methyl Tert Butyl Ether	mg/kg	0.8	15	5900	5900	30000	41000	89000	88000000	5900	5900	0.21 U	0.21 U	0.21 U	0.23 U	0.2 U
Methylene chloride	mg/kg	0.1	19	2300	240	700	1700	4000	8300000	2300	2300	0.21 U	0.21 U	0.21 U	0.23 U	0.2 U
Styrene	mg/kg	2.7	2.2	270	520	3300	3300	4200	6900000	520	520	0.041 U	0.043 U	0.042 U	0.046 U	0.041 U
Tetrachloroethene	mg/kg	0.1	0.9	88	60	600	1400	3300	6800000	88	88	0.041 U	0.043 U	0.042 U	0.046 U	0.041 U
Toluene	mg/kg	16	2.8	250	250	3300	36000	36000	12000000	250	250	0.083 U	0.086 U	0.085 U	0.092 U	0.081 U
trans-1,2-Dichloroethene	mg/kg	2	30	1400	43	330	840	2000	2100000	1400	1400	0.041 U	0.043 U	0.042 U	0.046 U	0.041 U
trans-1,3-Dichloropropene	mg/kg											0.041 U	0.043 U	0.042 U	0.046 U	0.041 U
Trichloroethene	mg/kg	0.1	4	440	37	260	440	1100	2300000	500	500	0.041 U	0.043 U	0.042 U	0.046 U	0.041 U
Trichlorofluoromethane (CFC-11)	mg/kg	150		560	560	110000	14000000	14000000	1700000000	560	560	0.083 U	0.086 U	0.085 U	0.092 U	0.081 U
Trifluorotrichloroethane (Freon 113)	mg/kg	550	1.7	550	550	210000	890000	2100000	2300000000	550	550	0.21 U	0.21 U	0.21 U	0.23 U	0.2 U
Vinyl chloride	mg/kg	0.04	0.3	20	2.8	29	170	420	890000	34	490	0.083 U	0.086 U	0.085 U	0.092 U	0.081 U
Xylene (total)	mg/kg	5.6	0.7	150	150	54000	65000	130000	130000000	150	150	0.12 U	0.13 U	0.13 U	0.14 U	0.12 U

Notes:
⁽¹⁾ Cleanup criteria identified by MDEQ RRD Op Memo No. 1, updated 1/23/2006, pursuant to 1994 PA 451 as amended.
U - Not present at or above the associated value.
J - Estimated concentration.
UJ - Estimated reporting limit.
 Value exceeds referenced Part 201 Criteria (i.e. a, b, etc.)
ID - Insufficient data to develop criterion
NLL - Hazardous substance is not likely to leach under most soil conditions
NLV - Hazardous substance is not likely to volatilize under most conditions

TABLE 3

SUMMARY OF SOIL SAMPLE RESULTS COMPARED TO MICHIGAN ACT 451, PART 201 INDUSTRIAL CRITERIA
GENERAL MOTORS CORPORATION
GRAND RAPIDS METAL PLANT
WYOMING, MICHIGAN

Sample Location	<i>Michigan Act 451, Part 201 Industrial and Commercial II, III, IV ⁽¹⁾</i>										<i>SB18-05</i>	<i>SB18-05</i>	<i>SB18-05</i>	<i>SB18-05</i>	<i>SB18-05</i>
Sample Identification	Industrial and	Groundwater	Groundwater	Soil Volatilization	Infinite Source	Finite VSIC for	Finite VSIC for	Particulate	Direct Contact	Soil Saturation	<i>SO-17360-120305-DCR-535</i>	<i>SO-17360-120305-DCR-536</i>	<i>SO-17360-120305-DCR-537</i>	<i>SO-17360-120305-DCR-538</i>	<i>SO-17360-120305-DCR-539</i>
Sample Date	Commercial	Surface Water	Contact	to Indoor Air	Volatile Soil	5 Meter Source	2 Meter Source	Soil Inhalation	Industrial and	Concentration	<i>12/3/2005</i>	<i>12/3/2005</i>	<i>12/3/2005</i>	<i>12/3/2005</i>	<i>12/3/2005</i>
Sample Depth	Drinking Water	Interface Protection	Protection	Inhalation	Inhalation	Thickness	Thickness		Commercial II	Screening	<i>10-12 ft BGS</i>	<i>12-14 ft BGS</i>	<i>14-16 ft BGS</i>	<i>16-18 ft BGS</i>	<i>18-20 ft BGS</i>
Sample Type	a	b	c	d	e	f	g	h	i	j	<i>Duplicate</i>				
<i>Units</i>															
<i>Volatile Organic Compounds</i>															
1,1,1-Trichloroethane	mg/kg	4	4	460	460	4500	15000	31000	29000000	460	460	0.046 U	0.042 U	0.043 U	0.045 U
1,1,2,2-Tetrachloroethane	mg/kg	0.7	1.6	94	23	34	34	34	68000	240	870	0.091 U	0.084 U	0.086 U	0.09 U
1,1,2-Trichloroethane	mg/kg	0.1	6.6	420	24	57	57	120	250000	840	920	0.046 U	0.042 U	0.043 U	0.045 U
1,1-Dichloroethane	mg/kg	50	15	890	430	2500	6000	14000	15000000	890	890	0.046 U	0.042 U	0.043 U	0.045 U
1,1-Dichloroethene	mg/kg	0.14	1.3	220	0.33	3.7	15	37	78000	570	570	0.046 U	0.042 U	0.043 U	0.045 U
1,2,4-Trichlorobenzene	mg/kg	4.2	1.8	1100	1100	34000	34000	34000	11000000	1100	1100	0.23 U	0.21 U	0.21 U	0.22 U
1,2-Dibromo-3-chloropropane (DBCP)	mg/kg	0.01		1.2	1.2	15	15	15	5900	1.2	1.2	0.23 U	0.21 U	0.21 U	0.22 U
1,2-Dibromoethane (Ethylene Dibromide)	mg/kg	0.02	0.02	0.5	3.6	5.8	5.8	9.8	18000	0.43	890	0.23 U	0.21 U	0.21 U	0.22 U
1,2-Dichlorobenzene	mg/kg	14	0.36	210	210	46000	46000	55000	44000000	210	210	0.091 U	0.084 U	0.086 U	0.09 U
1,2-Dichloroethane	mg/kg	0.1	7.2	380	11	21	33	74	150000	420	1200	0.046 U	0.042 U	0.043 U	0.045 U
1,2-Dichloropropane	mg/kg	0.1	5.8	320	7.4	30	51	120	120000	550	550	0.046 U	0.042 U	0.043 U	0.045 U
1,3-Dichlorobenzene	mg/kg	0.48	1.1	51	ID	ID	ID	ID	ID	170	170	0.091 U	0.084 U	0.086 U	0.09 U
1,4-Dichlorobenzene	mg/kg	1.7	0.29	140	100	260	260	340	570000	1900		0.091 U	0.084 U	0.086 U	0.09 U
2-Butanone (Methyl Ethyl Ketone)	mg/kg	760	44	27000	27000	35000	35000	36000	29000000	27000	27000	0.69 U	0.63 U	0.64 U	0.67 U
2-Hexanone	mg/kg	58		2500	1800	1300	1300	1500	1200000	2500		2.3 U	2.1 U	2.1 U	2.2 U
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	mg/kg	100	ID	2700	2700	53000	53000	70000	60000000	2700	2700	2.3 U	2.1 U	2.1 U	2.2 U
Acetone	mg/kg	42	34	110000	110000	160000	160000	200000	170000000	73000	110000	0.69 UJ	0.63 UJ	0.64 UJ	0.67 UJ
Benzene	mg/kg	0.1	4	220	8.4	45	99	230	470000	400	400	0.046 U	0.042 U	0.043 U	0.045 U
Bromodichloromethane	mg/kg	1.6	ID	280	6.4	31	31	57	110000	490	1500	0.091 U	0.084 U	0.086 U	0.09 U
Bromoform	mg/kg	1.6	ID	870	770	3100	3100	3100	3600000	870	870	0.091 U	0.084 U	0.086 U	0.09 U
Bromomethane (Methyl Bromide)	mg/kg	0.58	0.7	1400	1.6	13	57	140	150000	1000	2200	0.23 U	0.21 U	0.21 U	0.22 U
Carbon disulfide	mg/kg	46	ID	280	140	1600	8000	19000	21000000	280	280	0.23 U	0.21 U	0.21 U	0.22 U
Carbon tetrachloride	mg/kg	0.1	0.9	92	0.99	12	34	79	170000	390	390	0.046 U	0.042 U	0.043 U	0.045 U
Chlorobenzene	mg/kg	2	0.94	260	220	920	1100	2100	2100000	260	260	0.046 U	0.042 U	0.043 U	0.045 U
Chloroethane	mg/kg	34	ID	950	950	36000	120000	280000	290000000	950	950	0.23 U	0.21 U	0.21 U	0.22 U
Chloroform (Trichloromethane)	mg/kg	1.6	3.4	1500	38	150	340	790	1600000	1500	1500	0.046 U	0.042 U	0.043 U	0.045 U
Chloromethane (Methyl Chloride)	mg/kg	22	ID	1100	10	120	1000	2500	2600000	1100	1100	0.23 U	0.21 U	0.21 U	0.22 U
cis-1,2-Dichloroethene	mg/kg	1.4	12	640	41	210	430	1000	1000000	640	640	0.046 U	0.042 U	0.043 U	0.045 U
cis-1,3-Dichloropropene	mg/kg											0.046 U	0.042 U	0.043 U	0.045 U
Cyclohexane	mg/kg											1.1 U	1 U	1 U	1.1 U
Dibromochloromethane	mg/kg	1.6	ID	360	21	80	80	98	160000	500	610	0.046 U	0.042 U	0.043 U	0.045 U
Dichlorodifluoromethane (CFC-12)	mg/kg	270	ID	1000	1700	63000	550000	1400000	1500000000	1000	1000	0.091 U	0.084 U	0.086 U	0.09 U
Ethylbenzene	mg/kg	1.5	0.36	140	140	2400	3100	6500	13000000	140	140	0.046 U	0.042 U	0.043 U	0.045 U
Isopropylbenzene	mg/kg	260	ID	390	390	2000	2000	3000	2600000	390	390	0.23 U	0.21 U	0.21 U	0.22 U
Methyl acetate	mg/kg											1.1 U	1 U	0.074 J	1.1 U
Methyl cyclohexane	mg/kg											1.1 U	1 U	1 U	1.1 U
Methyl Tert Butyl Ether	mg/kg	0.8	15	5900	5900	30000	41000	89000	88000000	5900	5900	0.23 U	0.21 U	0.21 U	0.22 U
Methylene chloride	mg/kg	0.1	19	2300	240	700	1700	4000	8300000	2300	2300	0.23 U	0.21 U	0.21 U	0.22 U
Styrene	mg/kg	2.7	2.2	270	520	3300	3300	4200	6900000	520	520	0.046 U	0.042 U	0.043 U	0.045 U
Tetrachloroethene	mg/kg	0.1	0.9	88	60	600	1400	3300	6800000	88	88	0.046 U	0.042 U	0.043 U	0.045 U
Toluene	mg/kg	16	2.8	250	250	3300	36000	36000	12000000	250	250	0.091 U	0.084 U	0.086 U	0.09 U
trans-1,2-Dichloroethene	mg/kg	2	30	1400	43	330	840	2000	2100000	1400	1400	0.046 U	0.042 U	0.043 U	0.045 U
trans-1,3-Dichloropropene	mg/kg											0.046 U	0.042 U	0.043 U	0.045 U
Trichloroethene	mg/kg	0.1	4	440	37	260	440	1100	2300000	500	500	0.046 U	0.042 U	0.043 U	0.045 U
Trichlorofluoromethane (CFC-11)	mg/kg	150		560	560	110000	14000000	140000000	1700000000	560	560	0.091 U	0.084 U	0.086 U	0.09 U
Trifluorotrichloroethane (Freon 113)	mg/kg	550	1.7	550	550	210000	890000	2100000	2300000000	550	550	0.23 U	0.21 U	0.21 U	0.22 U
Vinyl chloride	mg/kg	0.04	0.3	20	2.8	29	170	420	890000	34	490	0.091 U	0.084 U	0.086 U	0.09 U
Xylene (total)	mg/kg	5.6	0.7	150	150	54000	65000	130000	130000000	150	150	0.14 U	0.13 U	0.13 U	0.13 U

Notes:
⁽¹⁾ Cleanup criteria identified by MDEQ RRD Op Memo No. 1, updated 1/23/2006, pursuant to 1994 PA 451 as amended.
U - Not present at or above the associated value.
J - Estimated concentration.
UJ - Estimated reporting limit.

Value exceeds referenced Part 201 Criteria (i.e. a, b, etc.)

ID - Insufficient data to develop criterion

NLL - Hazardous substance is not likely to leach under most soil conditions

NLV - Hazardous substance is not likely to volatilize under most conditions

TABLE 3

SUMMARY OF SOIL SAMPLE RESULTS COMPARED TO MICHIGAN ACT 451, PART 201 INDUSTRIAL CRITERIA
GENERAL MOTORS CORPORATION
GRAND RAPIDS METAL PLANT
WYOMING, MICHIGAN

Sample Location	Michigan Act 451, Part 201 Industrial and Commercial II, III, IV ⁽¹⁾										Trip Blank	Trip Blank	
Sample Identification	Industrial and	Groundwater	Groundwater	Soil Volatilization	Infinite Source	Finite VSIC for	Finite VSIC for	Particulate	Direct Contact	Soil Saturation	TB-17360-071205-DCR-501	SO-17360-120305-DCR-550	
Sample Date	Commercial	Surface Water	Contact	to Indoor Air	Volatile Soil	5 Meter Source	2 Meter Source	Soil Inhalation	Industrial and	Concentration	7/12/2005	12/3/2005	
Sample Depth	Drinking Water	Interface Protection	Protection	Inhalation	Inhalation	Thickness	Thickness		Commercial II	Screening			
Sample Type	a	b	c	d	e	f	g	h	i	j			
Units													
Volatile Organic Compounds													
1,1,1-Trichloroethane	mg/kg	4	4	460	460	4500	15000	31000	29000000	460	460	0.04 U	0.04 U
1,1,2,2-Tetrachloroethane	mg/kg	0.7	1.6	94	23	34	34	34	68000	240	870	0.08 U	0.08 U
1,1,2-Trichloroethane	mg/kg	0.1	6.6	420	24	57	57	120	250000	840	920	0.04 U	0.04 U
1,1-Dichloroethane	mg/kg	50	15	890	430	2500	6000	14000	15000000	890	890	0.04 U	0.04 U
1,1-Dichloroethene	mg/kg	0.14	1.3	220	0.33	3.7	15	37	78000	570	570	0.04 U	0.04 U
1,2,4-Trichlorobenzene	mg/kg	4.2	1.8	1100	1100	34000	34000	34000	11000000	1100	1100	0.2 U	0.2 U
1,2-Dibromo-3-chloropropane (DBCP)	mg/kg	0.01		1.2	1.2	15	15	15	5900	1.2	1.2	0.2 U	0.2 U
1,2-Dibromoethane (Ethylene Dibromide)	mg/kg	0.02	0.02	0.5	3.6	5.8	5.8	9.8	18000	0.43	890	0.2 U	0.2 U
1,2-Dichlorobenzene	mg/kg	14	0.36	210	210	46000	46000	55000	44000000	210	210	0.08 U	0.08 U
1,2-Dichloroethane	mg/kg	0.1	7.2	380	11	21	33	74	150000	420	1200	0.04 U	0.04 U
1,2-Dichloropropane	mg/kg	0.1	5.8	320	7.4	30	51	120	120000	550	550	0.04 U	0.04 U
1,3-Dichlorobenzene	mg/kg	0.48	1.1	51	ID	ID	ID	ID	ID	170	170	0.08 U	0.08 U
1,4-Dichlorobenzene	mg/kg	1.7	0.29	140	100	260	260	340	570000	1900		0.08 U	0.08 U
2-Butanone (Methyl Ethyl Ketone)	mg/kg	760	44	27000	27000	35000	35000	36000	29000000	27000	27000	0.6 U	0.6 U
2-Hexanone	mg/kg	58		2500	1800	1300	1300	1500	1200000	2500	2500	2 U	2 U
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	mg/kg	100	ID	2700	2700	53000	53000	70000	60000000	2700	2700	2 U	2 U
Acetone	mg/kg	42	34	110000	110000	160000	160000	200000	170000000	73000	110000	0.6 U	0.6 U
Benzene	mg/kg	0.1	4	220	8.4	45	99	230	470000	400	400	0.04 U	0.04 U
Bromodichloromethane	mg/kg	1.6	ID	280	6.4	31	31	57	110000	490	1500	0.08 UJ	0.08 U
Bromoform	mg/kg	1.6	ID	870	770	3100	3100	3100	3600000	870	870	0.08 U	0.08 U
Bromomethane (Methyl Bromide)	mg/kg	0.58	0.7	1400	1.6	13	57	140	150000	1000	2200	0.2 U	0.2 U
Carbon disulfide	mg/kg	46	ID	280	140	1600	8000	19000	21000000	280	280	0.2 U	0.2 U
Carbon tetrachloride	mg/kg	0.1	0.9	92	0.99	12	34	79	170000	390	390	0.04 U	0.04 U
Chlorobenzene	mg/kg	2	0.94	260	220	920	1100	2100	2100000	260	260	0.04 U	0.04 U
Chloroethane	mg/kg	34	ID	950	950	36000	120000	280000	290000000	950	950	0.2 U	0.2 U
Chloroform (Trichloromethane)	mg/kg	1.6	3.4	1500	38	150	340	790	1600000	1500	1500	0.04 U	0.04 U
Chloromethane (Methyl Chloride)	mg/kg	22	ID	1100	10	120	1000	2500	2600000	1100	1100	0.2 U	0.2 U
cis-1,2-Dichloroethene	mg/kg	1.4	12	640	41	210	430	1000	1000000	640	640	0.04 U	0.04 U
cis-1,3-Dichloropropene	mg/kg											0.04 UJ	0.04 U
Cyclohexane	mg/kg											0.96 U	0.96 U
Dibromochloromethane	mg/kg	1.6	ID	360	21	80	80	98	160000	500	610	0.04 U	0.04 U
Dichlorodifluoromethane (CFC-12)	mg/kg	270	ID	1000	1700	63000	550000	1400000	1500000000	1000	1000	0.08 U	0.08 U
Ethylbenzene	mg/kg	1.5	0.36	140	140	2400	3100	6500	13000000	140	140	0.04 U	0.04 U
Isopropylbenzene	mg/kg	260	ID	390	390	2000	2000	3000	2600000	390	390	0.2 U	0.2 U
Methyl acetate	mg/kg											0.077 J	0.96 U
Methyl cyclohexane	mg/kg											0.96 U	0.96 U
Methyl Tert Butyl Ether	mg/kg	0.8	15	5900	5900	30000	41000	89000	88000000	5900	5900	0.2 U	0.2 U
Methylene chloride	mg/kg	0.1	19	2300	240	700	1700	4000	8300000	2300	2300	0.2 U	0.2 U
Styrene	mg/kg	2.7	2.2	270	520	3300	3300	4200	6900000	520	520	0.04 U	0.04 U
Tetrachloroethene	mg/kg	0.1	0.9	88	60	600	1400	3300	6800000	88	88	0.04 U	0.04 U
Toluene	mg/kg	16	2.8	250	250	3300	36000	36000	12000000	250	250	0.08 U	0.08 U
trans-1,2-Dichloroethene	mg/kg	2	30	1400	43	330	840	2000	2100000	1400	1400	0.04 U	0.04 U
trans-1,3-Dichloropropene	mg/kg											0.04 U	0.04 U
Trichloroethene	mg/kg	0.1	4	440	37	260	440	1100	2300000	500	500	0.04 U	0.04 U
Trichlorofluoromethane (CFC-11)	mg/kg	150		560	560	110000	14000000	140000000	1700000000	560	560	0.08 U	0.08 U
Trifluorotrichloroethane (Freon 113)	mg/kg	550	1.7	550	550	210000	890000	2100000	2300000000	550	550	0.2 U	0.2 U
Vinyl chloride	mg/kg	0.04	0.3	20	2.8	29	170	420	890000	34	490	0.08 U	0.08 U
Xylene (total)	mg/kg	5.6	0.7	150	150	54000	65000	130000	130000000	150	150	0.12 U	0.12 U

Notes:
⁽¹⁾ Cleanup criteria identified by MDEQ RRD Op Memo No. 1, updated 1/23/2006, pursuant to 1994 PA 451 as amended.
U - Not present at or above the associated value.
J - Estimated concentration.
UJ - Estimated reporting limit.
 Value exceeds referenced Part 201 Criteria (i.e. a, b, etc.)
ID - Insufficient data to develop criterion
NLL - Hazardous substance is not likely to leach under most soil conditions
NLV - Hazardous substance is not likely to volatilize under most conditions

ATTACHMENT A
STRATIGRAPHIC SOIL BORING LOGS



STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

Page 1 of 1

PROJECT NAME: GM GRAND RAPIDS

PROJECT NUMBER: 17360-09

CLIENT: GENERAL MOTORS

LOCATION: WYOMING, MI

HOLE DESIGNATION: SB1-04

DATE COMPLETED: July 15, 2004

DRILLING METHOD: HSA/SPLIT SPOON

FIELD PERSONNEL: D. RIVERS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	BOREHOLE INSTALLATION	SAMPLE				
				NUMBER	INTERVAL	REC (%)	N' VALUE	PID (ppm)
	wood block floor	0.20						
	CONCRETE-with fine gravels, white	1.00	CONCRETE	1HA				402
2	SM-SILTY SAND, trace fine gravels, compact, fine grained, poorly graded, dark brown, moist			2SS			14	397
4	- orange brown-oxidation at 2.5ft BGS			3SS			15	12.8
6	- fine grained at 5.3ft BGS			4SS			21	10.1
8	- light brown at 6.5ft BGS			5SS			21	7
10	- orange-brown at 9.5ft BGS		8" BOREHOLE	6SS			15	3.1
12	- brown at 11.5ft BGS			7SS			21	3.0
14	- fine to medium grained, tan/beige at 13.3ft BGS			8SS			12	2.8
16			BENTONITE CHIPS	9SS			29	1.8
18	- fine to coarse grained, light gray to white, trace fine to medium gravels at 17.5ft BGS			10SS			46	2.1
20	- fine grained, tan/beige, no gravels at 21.0ft BGS			11SS			12	1.4
22	END OF BOREHOLE @ 22.0ft BGS	22.00						
24								
26								
28								
30								
32								
34								
36								
38								
40								
42								
44								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS

OVERBURDEN LOG 17360-09B.GPJ CRA CORP.GDT 9/30/04



STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

Page 1 of 1

PROJECT NAME: GM GRAND RAPIDS

HOLE DESIGNATION: SB2-04

PROJECT NUMBER: 17360-09

DATE COMPLETED: July 14, 2004

CLIENT: GENERAL MOTORS

DRILLING METHOD: HSA/SPLIT SPOON

LOCATION: WYOMING, MI

FIELD PERSONNEL: D. RIVERS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	BOREHOLE INSTALLATION	SAMPLE			
				NUMBER	INTERVAL	REC (%)	N' VALUE
	wood block floor	0.20					
	CONCRETE-with fine gravels, white	1.00	CONCRETE	1HA			
2	SM-SILTY SAND, trace fine gravels, compact, fine grained, poorly graded, red brown, moist			2SS			17
4	- orange brown-oxidation at 3.0ft BGS			3SS			16
	- fine to medium grained at 3.5ft BGS			4SS			17
6	- no gravels, fine grained, tan/beige at 6.5ft BGS			5SS			16
8	- orange-brown at 8.5ft BGS			6SS			10
10	- fine to medium grained, light gray to white at 9.5ft BGS		8" BOREHOLE	7SS			28
12	- fine to coarse grained, tan/beige at 12.5ft BGS			8SS			23
14				9SS			30
16	- dense, fine to medium grained at 17.0ft BGS		BENTONITE CHIPS	10SS			21
18	- fine to coarse grained, tan/beige at 18.0ft BGS			11SS			21
20	- fine grained at 20.5ft BGS						
22	- very moist at 21.3ft BGS	22.00					
	END OF BOREHOLE @ 22.0ft BGS						
24							
26							
28							
30							
32							
34							
36							
38							
40							
42							
44							

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS

OVERBURDEN LOG 17360-09B.GPJ CRA CORP.GDT 9/30/04



STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

Page 1 of 1

PROJECT NAME: GM GRAND RAPIDS

PROJECT NUMBER: 17360-09

CLIENT: GENERAL MOTORS

LOCATION: WYOMING, MI

HOLE DESIGNATION: SB3-04

DATE COMPLETED: July 14, 2004

DRILLING METHOD: HSA/SPLIT SPOON

FIELD PERSONNEL: D. RIVERS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	BOREHOLE INSTALLATION	SAMPLE				
				NUMBER	INTERVAL	REC (%)	N' VALUE	PID (ppm)
	wood block floor	0.20						
	CONCRETE-with fine gravels, white	1.00	CONCRETE	1HA				3.6
2	SM-SILTY SAND, trace fine gravels, compact, fine grained, poorly graded, red brown, moist			2SS			24	3.1
4	- light brown at 2.5ft BGS			3SS			18	4.1
6	- fine to medium grained, orange brown, oxidation at 5.0ft BGS			4SS			18	3.7
8	- fine grained, tan/beige, no gravels at 6.5ft BGS			5SS			23	2.9
10	- fine to coarse grained, light gray to white, trace fine gravels at 8.3ft BGS		8" BOREHOLE	6SS			20	3.1
12				7SS			24	3.7
14				8SS			21	2.4
16			BENTONITE CHIPS	9SS			45	3.4
18	- dense, fine grained, no gravels, tan/beige at 17.5ft BGS			10SS			26	3.9
20	- compact, fine to medium grained at 18.8ft BGS			11SS			20	3.1
22	- fine grained at 20.5ft BGS							
22	- very moist at 21.8ft BGS	22.00						
22	END OF BOREHOLE @ 22.0ft BGS							
24								
26								
28								
30								
32								
34								
36								
38								
40								
42								
44								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS

OVERBURDEN LOG 17360-09B.GPJ CRA CORP.GDT 9/30/04



STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

Page 1 of 1

PROJECT NAME: GM GRAND RAPIDS

HOLE DESIGNATION: SB4-04

PROJECT NUMBER: 17360-09

DATE COMPLETED: July 15, 2004

CLIENT: GENERAL MOTORS

DRILLING METHOD: HSA/SPLIT SPOON

LOCATION: WYOMING, MI

FIELD PERSONNEL: D. RIVERS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	BOREHOLE INSTALLATION	SAMPLE				
				NUMBER	INTERVAL	REC (%)	N' VALUE	PID (ppm)
	wood block floor	0.20						
	CONCRETE-with fine gravels, white	1.00	CONCRETE	1HA				430
2	SM-SILTY SAND, trace fine gravels, compact, fine grained, poorly graded, red brown, moist			2SS			14	442
4	- orange-brown oxidation at 2.8ft BGS			3SS			14	412
6	- fine grained, brown, no gravels at 5.0ft BGS			4SS			7	87.1
8				5SS			8	402
10			8" BOREHOLE	6SS			10	431
12	- fine to medium grained, medium brown at 11.0ft BGS			7SS			4	317
14	- fine to coarse grained, light gray to white, trace fine gravels at 12.5ft BGS			8SS			42	306
16			BENTONITE CHIPS	9SS			18	265
18	- fine grained, tan/beige, no gravels at 17.5ft BGS			10SS			28	178
20	- fine to coarse grained, trace fine gravels at 18.8ft BGS			11SS			13	219
22	END OF BOREHOLE @ 22.0ft BGS	22.00						
24								
26								
28								
30								
32								
34								
36								
38								
40								
42								
44								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS



OVERBURDEN LOG 17360-098.GPJ CRA CORP.GDT 9/30/04



STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

Page 1 of 1

PROJECT NAME: GM GRAND RAPIDS

HOLE DESIGNATION: SB5-04

PROJECT NUMBER: 17360-09

DATE COMPLETED: July 15, 2004

CLIENT: GENERAL MOTORS

DRILLING METHOD: HSA/SPLIT SPOON

LOCATION: WYOMING, MI

FIELD PERSONNEL: D. RIVERS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	BOREHOLE INSTALLATION	SAMPLE				
				NUMBER	INTERVAL	REC (%)	'N' VALUE	PID (ppm)
	wood block floor	0.20						
	CONCRETE	1.00	CONCRETE SEAL	1HA				786
2	SM-SILTY SAND, trace fine gravels, compact, fine grained, poorly graded, red brown, moist			2SS			26	+2000
4	- dark brown at 2.5ft BGS			3SS			14	957
6	- orange brown, oxidation, fine to medium grained, at 3.0ft BGS			4SS			22	794
8	- light brown at 5.0ft BGS			5SS			13	586
10	- fine grained, tan/beige at 6.5ft BGS		8" BOREHOLE	6SS			14	639
12	- fine to coarse grained, light gray to white, trace fine gravels at 11.5ft BGS			7SS			10	473
14				8SS			5	498
16			BENTONITE CHIPS	9SS			12	+2000
18	- well graded at 17.3ft BGS			10SS			16	1151
20	- fine grained, tan/beige, no gravels at 19.5ft BGS			11SS			6	1221
22	END OF BOREHOLE @ 22.0ft BGS	22.00						
24								
26								
28								
30								
32								
34								
36								
38								
40								
42								
44								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS

OVERBURDEN LOG 17360-09B.GPJ CRA CORP.GDT 9/30/04



STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

Page 1 of 1

PROJECT NAME: GM GRAND RAPIDS

HOLE DESIGNATION: SB15-05

PROJECT NUMBER: 17360-10

DATE COMPLETED: December 3, 2005

CLIENT: GENERAL MOTORS

DRILLING METHOD: GEOPROBE

LOCATION: GRAND RAPIDS, MI

FIELD PERSONNEL: D. RIVERS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	BOREHOLE INSTALLATION	SAMPLE			
				NUMBER	INTERVAL	REC (%)	'N' VALUE
	WOODBLOCK/CONCRETE	0.66	CONCRETE	1GP 0-2' -540		66	
2	SM-SANDS, with silts, compact, fine grained, trace medium to coarse grained, poorly graded, dark brown, moist			2GP 2-4' -541		66	
4	- brown at 3.5ft BGS			3GP 4-6' -542		66	
6	- tan/beige at 6.0ft BGS			4GP 6-8' -543		75	
8				5GP 8-10' -544		75	
10	- brown at 11.0ft BGS		2-1/4" BOREHOLE	6GP 10-12' -545		75	
12				7GP 12-14' -546		75	
14	SP-SANDS, with fine to medium gravels, compact, fine to coarse grained, poorly graded, orange brown, moist	13.00		8GP 14-16' -547		75	
16	- tan/beige at 14.5ft BGS		BENTONITE CHIPS	9GP 16-18' -548		75	
18				10GP 18-20' -549		75	
20	END OF BOREHOLE @ 20.0ft BGS	20.00					
22							
24							
26							
28							
30							
32							
34							

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS

OVERBURDEN LOG 17360-10.GPJ CRA CORP.GDT 8/30/06



STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

Page 1 of 1

PROJECT NAME: GM GRAND RAPIDS

HOLE DESIGNATION: SB16-05

PROJECT NUMBER: 17360-10

DATE COMPLETED: December 3, 2005

CLIENT: GENERAL MOTORS

DRILLING METHOD: GEOPROBE

LOCATION: GRAND RAPIDS, MI

FIELD PERSONNEL: D. RIVERS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	BOREHOLE INSTALLATION	SAMPLE			
				NUMBER	INTERVAL	REC (%)	'N' VALUE
	CONCRETE	0.50	CONCRETE	1GP 0-2' -508 -509		66	
2	SM-SANDS, with silts, compact, fine to medium grained, poorly graded, dark brown, moist			2GP 2-4' -510		66	
4	- light brown, trace coarse grained at 0.75ft BGS			3GP 4-6' -511		66	
6				4GP 6-8' -512		66	
8				5GP 8-10' -513		66	
10			2-1/4" BOREHOLE	6GP 10-12' -514		66	
12				7GP 12-14' -515		66	
14	SP-SANDS, trace silts and fine gravels, compact, fine to coarse grained, poorly graded, brown, moist	13.00		8GP 14-16' -516		66	
16	- light brown, with fine gravels at 16.0ft BGS		BENTONITE CHIPS	9GP 16-18' -517		75	
18				10GP 18-20' -518		75	
20	END OF BOREHOLE @ 20.0ft BGS	20.00					
22							
24							
26							
28							
30							
32							
34							

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS

OVERBURDEN LOG 17360-10.GPJ CRA CORP.GDT 8/30/06



STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

Page 1 of 1

PROJECT NAME: GM GRAND RAPIDS

HOLE DESIGNATION: SB17-05

PROJECT NUMBER: 17360-10

DATE COMPLETED: December 3, 2005

CLIENT: GENERAL MOTORS

DRILLING METHOD: GEOPROBE

LOCATION: GRAND RAPIDS, MI

FIELD PERSONNEL: D. RIVERS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	BOREHOLE INSTALLATION	SAMPLE			
				NUMBER	INTERVAL	REC (%)	'N' VALUE
0	CONCRETE	0.50	CONCRETE	1GP 0-2' -519		66	
2	SM-SANDS, with silts, compact, fine grained, trace medium to coarse grained, poorly graded, brown, moist - dark brown at 2.5ft BGS - rust brown at 3.5ft BGS			2GP 2-4' -520		66	
4				3GP 4-6' -521		66	
6	- light brown at 6.0ft BGS			4GP 6-8' -522		66	
8				5GP 8-10' -523		66	
10	SP-SANDS, with fine to medium gravels, trace silts, compact, fine to coarse grained, poorly graded, orange-brown, moist	9.50	2-1/4" BOREHOLE	6GP 10-12' -524		66	
12	- light brown at 12.0ft BGS			7GP 12-14' -525		66	
14				8GP 14-16' -526		66	
16			BENTONITE CHIPS	9GP 16-18' -527		66	
18				10GP 18-20' -528		66	
20	END OF BOREHOLE @ 20.0ft BGS	20.00					
22							
24							
26							
28							
30							
32							
34							

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS



OVERBURDEN LOG 17360-10.GPJ CRA CORP.GDT 8/30/06



STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

Page 1 of 1

PROJECT NAME: GM GRAND RAPIDS

HOLE DESIGNATION: SB18-05

PROJECT NUMBER: 17360-10

DATE COMPLETED: December 3, 2005

CLIENT: GENERAL MOTORS

DRILLING METHOD: GEOPROBE

LOCATION: GRAND RAPIDS, MI

FIELD PERSONNEL: D. RIVERS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	BOREHOLE INSTALLATION	SAMPLE			
				NUMBER	INTERVAL	REC (%)	"N" VALUE
	WOODBLOCK/CONCRETE	0.66	CONCRETE	1GP 0-2' -529		66	
2	SM-SANDS, with silts, trace fine gravels, compact, fine grained, trace medium to coarse grained, poorly graded, brown, moist			2GP 2-4' -530		66	
4				3GP 4-6' -531		66	
6				4GP 6-8' -532		66	
8	- fine to coarse grained, orange brown at 8.8ft BGS			5GP 8-10' -533		66	
10	- fine grained, trace medium to coarse grained at 9.8ft BGS		2-1/4" BOREHOLE	6GP 10-12' -534 -535		66	
12	SP-SANDS, compact, fine to coarse grained, poorly graded, orange brown, moist	12.00		7GP 12-14' -536		66	
14	- light brown at 13.5ft BGS			8GP 14-16' -537		66	
16			BENTONITE CHIPS	9GP 16-18' -538		75	
18				10GP 18-20' -539		75	
20	SM-SANDS, with silts, compact, fine grained, poorly graded, light brown, moist	19.00					
20	END OF BOREHOLE @ 20.0ft BGS	20.00					
22							
24							
26							
28							
30							
32							
34							

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS ☐

OVERBURDEN LOG 17360-10.GPJ CRA CORP.GDT 8/30/06



STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

Page 1 of 1

PROJECT NAME: GM GRAND RAPIDS

HOLE DESIGNATION: SB10-05

PROJECT NUMBER: 17360-10

DATE COMPLETED: July 11, 2005

CLIENT: GENERAL MOTORS

DRILLING METHOD: DIRECT PUSH

LOCATION: GRAND RAPIDS, MI

FIELD PERSONNEL: D. RIVERS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	BOREHOLE INSTALLATION	SAMPLE				
				NUMBER	INTERVAL	REC (%)	'N' VALUE	PID (ppm)
	wood block & concrete flooring	0.75	CONCRETE	1DP				13.0
2	SP-SANDS, trace silts & fine gravels, compact, fine grained, poorly graded, brown, moist			2DP				11.5
4	- orange-brown at 2.0ft BGS - brown at 4.0ft BGS			3DP				12.2
6				4DP				12.7
8	- some orange streaking at 8.8ft BGS			5DP				10.4
10	- light brown at 9.5ft BGS		2-1/4" BOREHOLE	6DP				9.8
12				7DP				13.0
14		14.25		8DP				9.3
16	SW-SANDS, trace silts & fine gravels, compact, fine to coarse grained, well graded, light brown, moist		BENTONITE CHIPS	9DP				9.9
18		18.00		10DP				11.7
20	SP-SANDS, compact, fine grained, poorly graded, tan/beige, moist	20.00						
22	END OF BOREHOLE @ 20.0ft BGS							
24								
26								
28								
30								
32								
34								
36								
38								
40								
42								
44								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS

OVERBURDEN LOG 17360-10.GPJ CRA CORP.GDT 8/30/06



STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

Page 1 of 1

PROJECT NAME: GM GRAND RAPIDS

HOLE DESIGNATION: SB11-05

PROJECT NUMBER: 17360-10

DATE COMPLETED: July 11, 2005

CLIENT: GENERAL MOTORS

DRILLING METHOD: DIRECT PUSH

LOCATION: GRAND RAPIDS, MI

FIELD PERSONNEL: D. RIVERS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	BOREHOLE INSTALLATION	SAMPLE				
				NUMBER	INTERVAL	REC (%)	'N' VALUE	PID (ppm)
	wood block & concrete flooring	0.75	CONCRETE	1DP				11.5
2	SP-SANDS, trace silts & fine gravels, compact, fine grained, trace medium to coarse grained, poorly graded, medium brown, moist			2DP				16.0
4	- brown at 1.5ft BGS			3DP				13.3
6				4DP				18.3
8				5DP				18.8
10	- light-brown at 9.5ft BGS		2-1/4" BOREHOLE	6DP				14.2
12				7DP				21.0
14		14.50		8DP				21.0
16	SW-SANDS, trace silts & fine gravels, compact, fine to coarse grained, well graded, light brown, moist		BENTONITE CHIPS	9DP				15.9
18	SP-SANDS, trace silts, compact, fine grained, trace medium to coarse grained, poorly graded, tan/beige, moist	17.50		10DP				12.9
20	END OF BOREHOLE @ 20.0ft BGS	20.00						
22								
24								
26								
28								
30								
32								
34								
36								
38								
40								
42								
44								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS

OVERBURDEN LOG 17360-10.GPJ CRA CORP.GDT 8/30/06



STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

Page 1 of 1

PROJECT NAME: GM GRAND RAPIDS

HOLE DESIGNATION: SB12-05

PROJECT NUMBER: 17360-10

DATE COMPLETED: July 11, 2005

CLIENT: GENERAL MOTORS

DRILLING METHOD: DIRECT PUSH

LOCATION: GRAND RAPIDS, MI

FIELD PERSONNEL: D. RIVERS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	BOREHOLE INSTALLATION	SAMPLE				
				NUMBER	INTERVAL	REC (%)	'N' VALUE	PID (ppm)
	wood block & concrete flooring	0.75	CONCRETE	1DP				13.1
2	SP-SANDS, trace silts & fine gravels, compact, fine grained, trace medium to coarse grained, poorly graded, medium brown, moist - brown, fine to medium grained at 3.5ft BGS			2DP				27.5
4				3DP				22.0
6				4DP				29.8
8				5DP				21.5
10	- fine grained, trace medium grained, light brown at 7.5ft BGS		2-1/4" BOREHOLE	6DP				20.0
12				7DP				18.5
14		14.00		8DP				18.6
16			BENTONITE CHIPS	9DP				17.3
18	SW-SANDS, trace silts & fine gravels, compact, fine to coarse grained, well graded, light brown, moist			10DP				16.2
20		20.00						
22	END OF BOREHOLE @ 20.0ft BGS							
24								
26								
28								
30								
32								
34								
36								
38								
40								
42								
44								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS ☐

OVERBURDEN LOG 17360-10.GPJ CRA CORP.GDT 8/30/06



STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

Page 1 of 1

PROJECT NAME: GM GRAND RAPIDS

HOLE DESIGNATION: SB13-05

PROJECT NUMBER: 17360-10

DATE COMPLETED: July 11, 2005

CLIENT: GENERAL MOTORS

DRILLING METHOD: DIRECT PUSH

LOCATION: GRAND RAPIDS, MI

FIELD PERSONNEL: D. RIVERS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	BOREHOLE INSTALLATION	SAMPLE				
				NUMBER	INTERVAL	REC (%)	N' VALUE	PID (ppm)
0	concrete - brown at 1.0ft BGS	0.66	CONCRETE	1DP				11.8
2	SP-SANDS, compact, fine grained, poorly graded, dark brown, moist			2DP				12.4
4				3DP				12.2
6				4DP				13.6
8				5DP				14.7
10			2-1/4" BOREHOLE	6DP				12.8
12				7DP				14.7
14	SW-SANDS, trace fine gravels, compact, fine to coarse grained, well graded, light brown, moist	13.00		8DP				17.0
16	- fine grained, trace medium to coarse grained, moderately graded at 16.0ft BGS			9DP				14.7
18	- fine to coarse grained, well graded at 16.5ft BGS		BENTONITE CHIPS	10DP				16.8
20	END OF BOREHOLE @ 20.0ft BGS	20.00						
22								
24								
26								
28								
30								
32								
34								
36								
38								
40								
42								
44								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS

OVERBURDEN LOG 17360-10.GPJ CRA CORP.GDT 8/30/06



STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

Page 1 of 1

PROJECT NAME: GM GRAND RAPIDS

HOLE DESIGNATION: SB14-05

PROJECT NUMBER: 17360-10

DATE COMPLETED: July 12, 2005

CLIENT: GENERAL MOTORS

DRILLING METHOD: DIRECT PUSH

LOCATION: GRAND RAPIDS, MI

FIELD PERSONNEL: D. RIVERS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	BOREHOLE INSTALLATION	SAMPLE				
				NUMBER	INTERVAL	REC (%)	'N' VALUE	PID (ppm)
	wood block & concrete flooring	0.75	CONCRETE	1DP				15.8
2	SP-SANDS, trace silts & fine gravels, compact, fine grained, trace medium grained, dark brown, moist - brown at 2.0ft BGS			2DP				13.5
4				3DP				13.5
6				4DP				13.6
8				5DP				13.3
10	SW-SANDS, trace silts & fine gravels, compact, fine to coarse grained, well graded, light brown, moist		2-1/4" BOREHOLE	6DP				18.7
12				7DP				19.7
14		13.75		8DP				21.0
16			BENTONITE CHIPS	9DP				22.6
18				10DP				21.1
20	END OF BOREHOLE @ 20.0ft BGS	20.00						
22								
24								
26								
28								
30								
32								
34								
36								
38								
40								
42								
44								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS

OVERBURDEN LOG 17360-10.GPJ CRA CORP.GDT 8/30/06



STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

Page 1 of 1

PROJECT NAME: GM GRAND RAPIDS

HOLE DESIGNATION: SB6-05

PROJECT NUMBER: 17360-10

DATE COMPLETED: July 11, 2005

CLIENT: GENERAL MOTORS

DRILLING METHOD: DIRECT PUSH

LOCATION: GRAND RAPIDS, MI

FIELD PERSONNEL: D. RIVERS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	BOREHOLE INSTALLATION	SAMPLE				
				NUMBER	INTERVAL	REC (%)	'N' VALUE	PID (ppm)
	wood block & concrete flooring	0.75	CONCRETE	1DP				10.1
2	SP-SANDS, trace silts & fine gravels, compact, fine grained, trace medium to coarse grained, poorly graded, medium brown, moist - brown at 3.5ft BGS - orange-brown at 13.5ft BGS			2DP				11.5
4				3DP				13.2
6				4DP				12.8
8				5DP				15.6
10			2-1/4" BOREHOLE	6DP				14.1
12				7DP				16.5
14				8DP				15.3
16			BENTONITE CHIPS	9DP				10.5
18		17.00		10DP				13.2
20	SW-SANDS, trace silts & fine gravels, compact, fine to coarse grained, well graded, light brown, moist							
20	END OF BOREHOLE @ 20.0ft BGS	20.00						
22								
24								
26								
28								
30								
32								
34								
36								
38								
40								
42								
44								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS

OVERBURDEN LOG 17360-10.GPJ CRA CORP.GDT 8/30/06



STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

Page 1 of 1

PROJECT NAME: GM GRAND RAPIDS

HOLE DESIGNATION: SB7-05

PROJECT NUMBER: 17360-10

DATE COMPLETED: July 11, 2005

CLIENT: GENERAL MOTORS

DRILLING METHOD: DIRECT PUSH

LOCATION: GRAND RAPIDS, MI

FIELD PERSONNEL: D. RIVERS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	BOREHOLE INSTALLATION	SAMPLE				
				NUMBER	INTERVAL	REC (%)	"N" VALUE	PID (ppm)
2	wood block & concrete flooring	0.75	CONCRETE	1DP				13.2
4	SP-SANDS, trace silts & fine gravels, compact, fine to coarse grained, poorly graded, brown, moist			2DP				28.8
6	- fine grained, light brown at 6.0ft BGS			3DP				16.8
8				4DP				18.4
10			2-1/4" BOREHOLE	5DP				21.7
12				6DP				21.5
14				7DP				23.8
16	SW-SANDS, trace silts & fine gravels, compact, fine to coarse grained, well graded, light brown, moist	14.25	BENTONITE CHIPS	8DP				15.6
18				9DP				14.7
20	END OF BOREHOLE @ 20.0ft BGS	20.00		10DP				9.8
22								
24								
26								
28								
30								
32								
34								
36								
38								
40								
42								
44								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS ☐

OVERBURDEN LOG 17360-10.GPJ CRA CORP.GDT 8/30/06



STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

Page 1 of 1

PROJECT NAME: GM GRAND RAPIDS

HOLE DESIGNATION: SB8-05

PROJECT NUMBER: 17360-10

DATE COMPLETED: July 12, 2005

CLIENT: GENERAL MOTORS

DRILLING METHOD: DIRECT PUSH

LOCATION: GRAND RAPIDS, MI

FIELD PERSONNEL: D. RIVERS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	BOREHOLE INSTALLATION	SAMPLE				
				NUMBER	INTERVAL	REC (%)	'N' VALUE	PID (ppm)
	wood block & concrete flooring	0.75	CONCRETE	1DP				26.3
2	SP-SANDS, trace silts & fine gravels, compact, fine to coarse grained, poorly graded, brown, moist - brown at 2.5ft BGS			2DP				23.7
4				3DP				18.2
6				4DP				21.0
8				5DP				18.9
10				6DP				29.9
12	- light brown at 9.5ft BGS		2-1/4" BOREHOLE	7DP				18.9
14	SW-SANDS, trace silts & fine gravels, compact, fine to coarse grained, well graded, light brown, moist	14.00		8DP				16.2
16			BENTONITE CHIPS	9DP				14.8
18				10DP				15.0
20		20.00						
22	END OF BOREHOLE @ 20.0ft BGS							
24								
26								
28								
30								
32								
34								
36								
38								
40								
42								
44								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS ☐

OVERBURDEN LOG 17360-10.GPJ CRA CORP.GDT 8/30/06



STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

Page 1 of 1

PROJECT NAME: GM GRAND RAPIDS

HOLE DESIGNATION: SB9-05

PROJECT NUMBER: 17360-10

DATE COMPLETED: July 11, 2005

CLIENT: GENERAL MOTORS

DRILLING METHOD: DIRECT PUSH

LOCATION: GRAND RAPIDS, MI

FIELD PERSONNEL: D. RIVERS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	BOREHOLE INSTALLATION	SAMPLE				
				NUMBER	INTERVAL	REC (%)	'N' VALUE	PID (ppm)
	wood block & concrete flooring	0.75	CONCRETE	1DP				9.5
2	SP-SANDS, trace silts & fine gravels, compact, fine to coarse grained, poorly graded, brown, moist			2DP				14.6
4				3DP				17.7
6				4DP				17.6
8				5DP				17.7
10				6DP				13.9
12	- some orange streaking at 8.5ft BGS		2-1/4" BOREHOLE	7DP				14.0
14				8DP				11.5
16				9DP				8.7
18			BENTONITE CHIPS	10DP				7.9
20	SW-SANDS, trace silts & fine gravels, compact, fine to coarse grained, well graded, light brown, moist	14.25						
22	END OF BOREHOLE @ 20.0ft BGS	20.00						
24								
26								
28								
30								
32								
34								
36								
38								
40								
42								
44								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

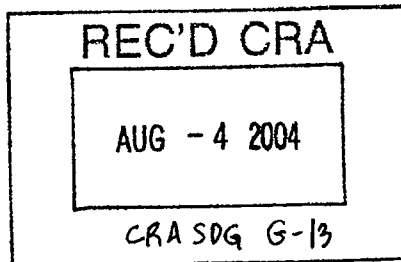
CHEMICAL ANALYSIS



OVERBURDEN LOG 17360-10.GPJ CRA CORP.GDT 8/30/06

ATTACHMENT B

LABORATORY ANALYTICAL DATA



STL

STL North Canton
4101 Shuffel Drive NW
North Canton, OH 44720

Tel: 330 497 9396 Fax: 330 497 0772
www.stl-inc.com

ANALYTICAL REPORT

PROJECT NO. 17360-09

GM-GRAND RAPIDS

Lot #: A4G150200

Paul Wiseman

Conestoga Rovers & Assoc., Inc
14496 Sheldon Rd Suite 200
Plymouth, MI 48170

ORIGINAL ANALYTICAL REPORT

Project#: 17360-09 Lab#: A4G150200

Name: GM GRAND RAPIDS.

Description

SEVERN TRENT LABORATORIES, INC. Event: VAS Sampling
Samples: 22 solids DCR 078-099.
Analysis: TCL VOCs.

TAT: STANDARD TAT

Lab: STL-NC


Amy L. McCormick
Project Manager

Checked Against Preliminary Data:

Date: N/A Init.: N/A

Date of Validation Memo: 10/20/04

Invoice Approval Date: _____

Comments: _____

July 30, 2004

CRA

CONESTOGA-ROVERS & ASSOCIATES, INC.

14496 Sheldon Road, Suite 200

Plymouth, MI 48170 • (734) 453-5123

CHAIN OF CUSTODY RECORD

SAMPLER'S SIGNATURE: [Signature] PRINTED NAME: David C Rovers

SEQ: No. DATE TIME

7/14/04 1410

1415

1420

1430

1440

1445

1455

1505

S-17360-071909-DC02-092

-093

-094

-095

-096

-097

-098

-099

SAMPLE TYPE

Sol

CONTAINERS

2

2

2

2

2

2

2

2

PARAMETERS

TCL 100

Y

Y

Y

Y

Y

Y

Y

Y

Y

Y

Y

Y

Y

Y

Y

Y

Y

Y

Y

REMARKS

STD TRAF

TOTAL NUMBER OF CONTAINERS

16

RELINQUISHED BY:

1. [Signature]

DATE: 7-14-04

TIME: 1915

RECEIVED BY:

1. [Signature]

DATE: 7-15-04

TIME: 10:00

RELINQUISHED BY:

2. [Signature]

DATE: 7-15-04

TIME: 10:00

RELINQUISHED BY:

3. [Signature]

DATE: 7-15-04

TIME: 10:00

METHOD OF SHIPMENT: FED EX

AIR BILL No. 8318 9665 3065

White - Fully Executed Copy

Yellow - Receiving Laboratory Copy

Pink - Shipper Copy

Goldendrod - Sampler Copy

SAMPLE TEAM:

David C Rovers

RECEIVED FOR LABORATORY BY:

Angela M. Mattina

DATE: 7-15-04

TIME: 10:00

27171

CASE NARRATIVE

CASE NARRATIVE

A4G150200

The following report contains the analytical results for twenty-two solid samples submitted to STL North Canton by Conestoga-Rovers & Associates, Inc. from the GM-Grand Rapids Site, project number 17360-09. The samples were received July 15, 2004, according to documented sample acceptance procedures.

STL utilizes USEPA approved methods in all analytical work. The samples presented in this report were analyzed for the parameter(s) listed on the analytical methods summary page in accordance with the method(s) indicated. Preliminary results were provided to the Chemistry Department on July 29, 2004. A summary of QC data for these analyses is included at the back of the report.

STL North Canton attests to the validity of the laboratory data generated by STL facilities reported herein. All analyses performed by STL facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the applicable methods. STL's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

All solid sample results are reported on an "as received" basis unless otherwise indicated by a dry weight adjustment footnote at the bottom of the analytical report page. The list of parameters which are never reported on a dry weight basis is included on the Sample Summary.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

If you have any questions, please call the Project Manager, Amy L. McCormick, at 330-497-9396.

This report is sequentially paginated. The final page of the report is labeled as "END OF REPORT."

SUPPLEMENTAL QC INFORMATION

SAMPLE RECEIVING

The temperature of the cooler upon sample receipt was 5.8°C.

CASE NARRATIVE (continued)

GC/MS VOLATILES

The sample(s) that contained concentrations of target analyte(s) at a reportable level in the associated Method Blank(s) were flagged with "B". All target analytes in the Method Blank must be below the reporting limit (RL) or the associated sample(s) must be ND with the exception of common laboratory contaminants.

The sample(s) that contain results between the MDL and the RL were flagged with "J". There is a possibility of false positive or mis-identification at these quantitation levels. In analytical methods requiring confirmation of the analyte reported, confirmation was performed only down to the standard reporting limit (SRL). The acceptance criteria for QC samples may not be met at these quantitation levels.

GENERAL CHEMISTRY

The analytical results met the requirements of the laboratory's QA/QC program.

QUALITY CONTROL ELEMENTS OF SW-846 METHODS

STL North Canton conducts a quality assurance/quality control (QA/QC) program designed to provide scientifically valid and legally defensible data. Toward this end, several types of quality control indicators are incorporated into the QA/QC program, which is described in detail in QA Policy, QA-003. These indicators are introduced into the sample testing process to provide a mechanism for the assessment of the analytical data.

QC BATCH

Environmental samples are taken through the testing process in groups called QUALITY CONTROL BATCHES (QC batches). A QC batch contains up to twenty environmental samples of a similar matrix (water, soil) that are processed using the same reagents and standards. STL North Canton requires that each environmental sample be associated with a QC batch.

Several quality control samples are included in each QC batch and are processed identically to the twenty environmental samples. These QC samples include a METHOD BLANK (MB), a LABORATORY CONTROL SAMPLE (LCS) and, where appropriate, a MATRIX SPIKE/MATRIX SPIKE DUPLICATE (MS/MSD) pair or a MATRIX SPIKE/SAMPLE DUPLICATE (MS/DU) pair. If there is insufficient sample to perform an MS/MSD or an MS/DU, then a LABORATORY CONTROL SAMPLE DUPLICATE (LCSD) is included in the QC batch.

LABORATORY CONTROL SAMPLE

The Laboratory Control Sample is a QC sample that is created by adding known concentrations of a full or partial set of target analytes to a matrix similar to that of the environmental samples in the QC batch. The LCS analyte recovery results are used to monitor the analytical process and provide evidence that the laboratory is performing the method within acceptable guidelines. All control analytes indicated by a bold type in the LCS must meet acceptance criteria. Failure to meet the established recovery guidelines requires the reparation and reanalysis of all samples in the QC batch. The only exception is that if the LCS recoveries are biased high and the associated sample is ND (non-detected) for the parameter(s) of interest, the batch is acceptable.

At times, a Laboratory Control Sample Duplicate (LCSD) is also included in the QC batch. An LCSD is a QC sample that is created and handled identically to the LCS. Analyte recovery data from the LCSD is assessed in the same way as that of the LCS. The LCSD recoveries, together with the LCS recoveries, are used to determine the reproducibility (precision) of the analytical system. Precision data are expressed as relative percent differences (RPDs). If the RPD fails for an LCS/LCSD and yet the recoveries are within acceptance criteria, the batch is still acceptable.

METHOD BLANK

The Method Blank is a QC sample consisting of all the reagents used in analyzing the environmental samples contained in the QC batch. Method Blank results are used to determine if interference or contamination in the analytical system could lead to the reporting of false positive data or elevated analyte concentrations. All target analytes must be below the reporting limits (RL) or the associated sample(s) must be ND except under the following circumstances:

- Common organic contaminants may be present at concentrations up to 5 times the reporting limits. Common metals contaminants may be present at concentrations up to 2 times the reporting limit, or the reported blank concentration must be twenty fold less than the concentration reported in the associated environmental samples. (See common laboratory contaminants listed below.)

Volatile (GC or GC/MS)

Methylene chloride
Acetone
2-Butanone

Semivolatile (GC/MS)

Phthalate Esters

Metals

Copper
Iron
Zinc
Lead*

- *for analyses run on TJA Trace ICP, ICPMS or GFAA only*

QUALITY CONTROL ELEMENTS OF SW-846 METHODS (Continued)

- Organic blanks will be accepted if compounds detected in the blank are present in the associated samples at levels 10 times the blank level. Inorganic blanks will be accepted if elements detected in the blank are present in the associated samples at 20 times the blank level.
- Blanks will be accepted if the compounds/elements detected are not present in any of the associated environmental samples.

Failure to meet these Method Blank criteria requires the reparation and reanalysis of all samples in the QC batch.

MATRIX SPIKE/MATRIX SPIKE DUPLICATE

A Matrix Spike and a Matrix Spike Duplicate are a pair of environmental samples to which known concentrations of a full or partial set of target analytes are added. The MS/MSD results are determined in the same manner as the results of the environmental sample used to prepare the MS/MSD. The analyte recoveries and the relative percent differences (RPDs) of the recoveries are calculated and used to evaluate the effect of the sample matrix on the analytical results. Due to the potential variability of the matrix of each sample, the MS/MSD results may not have an immediate bearing on any samples except the one spiked; therefore, the associated batch MS/MSD may not reflect the same compounds as the samples contained in the analytical report. When these MS/MSD results fail to meet acceptance criteria, the data is evaluated. If the LCS is within acceptance criteria, the batch is considered acceptable. The acceptance criteria do not apply to samples that are diluted for organics if the native sample amount is 4x the concentration of the spike.

For certain methods, a Matrix Spike/Sample Duplicate (MS/DU) may be included in the QC batch in place of the MS/MSD. For the parameters (i.e. pH, ignitability) where it is not possible to prepare a spiked sample, a Sample Duplicate may be included in the QC batch. However, a Sample Duplicate is less likely to provide usable precision statistics depending on the likelihood of finding concentrations below the standard reporting limit. When the Sample Duplicate result fails to meet acceptance criteria, the data is evaluated.

SURROGATE COMPOUNDS

In addition to these batch-related QC indicators, each organic environmental and QC sample is spiked with surrogate compounds. Surrogates are organic chemicals that behave similarly to the analytes of interest and that are rarely present in the environment. Surrogate recoveries are used to monitor the individual performance of a sample in the analytical system.

If surrogate recoveries are biased high in the LCS, LCSD, or the Method Blank, and the associated sample(s) are ND, the batch is acceptable. Otherwise, if the LCS, LCSD, or Method Blank surrogate(s) fail to meet recovery criteria, the entire sample batch is reprepared and reanalyzed. If the surrogate recoveries are outside criteria for environmental samples, the samples will be reprepared and reanalyzed unless there is objective evidence of matrix interference or if the sample dilution is greater than the threshold outlined in the associated method SOP.

For the GC/MS BNA methods, the surrogate criterion is that two of the three surrogates for each fraction must meet acceptance criteria. The third surrogate must have a recovery of ten percent or greater.

For the Pesticide, PCB, and PAH methods, the surrogate criterion is that one of two surrogate compounds must meet acceptance criteria.



STL North Canton Certifications and Approvals:

Alabama (#41170), California (#01144CA), Connecticut (#PH-0590), Florida (#E87225), Illinois (#100439), Kansas (#E10336), Massachusetts (#M-OH048), Maryland (#272), Minnesota (#39-999-348), New Jersey (#OH001), New York (#10975), Ohio (#6090), OhioVAP (#CL0024), Rhode Island (#237), South Carolina (#92007001, #92007002, #92007003), Tennessee (#02903), Utah (#QUAN9), Virginia (#00011), West Virginia (#210), Wisconsin (#999518190), NAVY, ARMY, USDA Soil Permit, ACIL Seal of Excellence - Participating Lab Status Award (#82)

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EXECUTIVE SUMMARY

EXECUTIVE SUMMARY - Detection Highlights

AAG150200

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>	<u>ANALYTICAL METHOD</u>
S-17360-071404-DCR-078 07/14/04 10:50 001				
Chloromethane	25 J,B	540	ug/kg	SW846 8260B
Cyclohexane	18 J	2600	ug/kg	SW846 8260B
Methylcyclohexane	100 J	2600	ug/kg	SW846 8260B
Toluene	42 J	220	ug/kg	SW846 8260B
Trichloroethene	2800	110	ug/kg	SW846 8260B
Xylenes (total)	84 J	330	ug/kg	SW846 8260B
Percent Solids	95.8	10.0	%	MCAWW 160.3 MOD
S-17360-071404-DCR-079 07/14/04 10:55 002				
Chloromethane	33 J,B	320	ug/kg	SW846 8260B
Percent Solids	98.2	10.0	%	MCAWW 160.3 MOD
S-17360-071404-DCR-080 07/14/04 11:00 003				
Trichloroethene	20 J	59	ug/kg	SW846 8260B
Percent Solids	98.2	10.0	%	MCAWW 160.3 MOD
S-17360-071404-DCR-081 07/14/04 11:05 004				
Chloromethane	46 J,B	400	ug/kg	SW846 8260B
Percent Solids	95.9	10.0	%	MCAWW 160.3 MOD
S-17360-071404-DCR-082 07/14/04 11:10 005				
Chloromethane	26 J,B	270	ug/kg	SW846 8260B
Trichloroethene	78	53	ug/kg	SW846 8260B
Percent Solids	98.1	10.0	%	MCAWW 160.3 MOD
S-17360-071404-DCR-083 07/14/04 11:15 006				
Chloromethane	24 J,B	260	ug/kg	SW846 8260B
Trichloroethene	24 J	51	ug/kg	SW846 8260B
Percent Solids	97.7	10.0	%	MCAWW 160.3 MOD
S-17360-071404-DCR-084 07/14/04 11:25 007				
Chloromethane	23 J,B	250	ug/kg	SW846 8260B
Trichloroethene	40 J	50	ug/kg	SW846 8260B
Percent Solids	97.9	10.0	%	MCAWW 160.3 MOD

(Continued on next page)

EXECUTIVE SUMMARY - Detection Highlights

A4GL50200

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>	<u>ANALYTICAL METHOD</u>
S-17360-071404-DCR-085 07/14/04 11:30 008				
Chloromethane	24 J,B	260	ug/kg	SW846 8260B
Trichloroethene	31 J	53	ug/kg	SW846 8260B
Percent Solids	98.0	10.0	%	MCAWW 160.3 MOD
S-17360-071404-DCR-086 07/14/04 11:40 009				
Chloromethane	24 J,B	290	ug/kg	SW846 8260B
Percent Solids	98.0	10.0	%	MCAWW 160.3 MOD
S-17360-071404-DCR-087 07/14/04 11:50 010				
Chloromethane	22 J,B	270	ug/kg	SW846 8260B
Trichloroethene	20 J	55	ug/kg	SW846 8260B
Percent Solids	96.3	10.0	%	MCAWW 160.3 MOD
S-17360-071404-DCR-088 07/14/04 12:00 011				
Chloromethane	20 J,B	260	ug/kg	SW846 8260B
Percent Solids	96.7	10.0	%	MCAWW 160.3 MOD
S-17360-071404-DCR-089 07/14/04 13:55 012				
Methylcyclohexane	200 J	10000	ug/kg	SW846 8260B
Toluene	160 J	860	ug/kg	SW846 8260B
Trichloroethene	12000	430	ug/kg	SW846 8260B
Xylenes (total)	280 J	1300	ug/kg	SW846 8260B
Percent Solids	95.0	10.0	%	MCAWW 160.3 MOD
S-17360-071404-DCR-090 07/14/04 14:00 013				
Chloromethane	22 J,B	290	ug/kg	SW846 8260B
Percent Solids	97.5	10.0	%	MCAWW 160.3 MOD
S-17360-071404-DCR-091 07/14/04 14:05 014				
Percent Solids	97.6	10.0	%	MCAWW 160.3 MOD
S-17360-071404-DCR-092 07/14/04 14:10 015				
Percent Solids	97.0	10.0	%	MCAWW 160.3 MOD

(Continued on next page)

EXECUTIVE SUMMARY - Detection Highlights

A4G150200

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>	<u>ANALYTICAL METHOD</u>
S-17360-071404-DCR-093 07/14/04 14:15 016				
Trichloroethene	40 J	58	ug/kg	SW846 8260B
Percent Solids	95.0	10.0	%	MCAWW 160.3 MOD
S-17360-071404-DCR-094 07/14/04 14:20 017				
Trichloroethene	22 J	61	ug/kg	SW846 8260B
Percent Solids	98.1	10.0	%	MCAWW 160.3 MOD
S-17360-071404-DCR-095 07/14/04 14:30 018				
Chloromethane	19 J,B	270	ug/kg	SW846 8260B
Trichloroethene	22 J	55	ug/kg	SW846 8260B
Percent Solids	96.3	10.0	%	MCAWW 160.3 MOD
S-17360-071404-DCR-096 07/14/04 14:40 019				
Chloromethane	18 J,B	290	ug/kg	SW846 8260B
Trichloroethene	87	57	ug/kg	SW846 8260B
Percent Solids	96.8	10.0	%	MCAWW 160.3 MOD
S-17360-071404-DCR-097 07/14/04 14:45 020				
Trichloroethene	63	55	ug/kg	SW846 8260B
Percent Solids	98.1	10.0	%	MCAWW 160.3 MOD
S-17360-071404-DCR-098 07/14/04 14:55 021				
Trichloroethene	27 J	59	ug/kg	SW846 8260B
Percent Solids	97.0	10.0	%	MCAWW 160.3 MOD
S-17360-071404-DCR-099 07/14/04 15:05 022				
Trichloroethene	46 J	55	ug/kg	SW846 8260B
Percent Solids	97.5	10.0	%	MCAWW 160.3 MOD

METHOD SUMMARY

ANALYTICAL METHODS SUMMARY

A4G150200

<u>PARAMETER</u>	<u>ANALYTICAL METHOD</u>
Total Residue as Percent Solids	MCAWW 160.3 MOD
Volatile Organics by GC/MS	SW846 8260B

References:

- MCAWW "Methods for Chemical Analysis of Water and Wastes",
EPA-600/4-79-020, March 1983 and subsequent revisions.
- SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical
Methods", Third Edition, November 1986 and its updates.

SAMPLE SUMMARY

SAMPLE SUMMARY

A4G150200

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
GK5LT	001	S-17360-071404-DCR-078	07/14/04	10:50
GK5L7	002	S-17360-071404-DCR-079	07/14/04	10:55
GK5L9	003	S-17360-071404-DCR-080	07/14/04	11:00
GK5MC	004	S-17360-071404-DCR-081	07/14/04	11:05
GK566	005	S-17360-071404-DCR-082	07/14/04	11:10
GK568	006	S-17360-071404-DCR-083	07/14/04	11:15
GK57C	007	S-17360-071404-DCR-084	07/14/04	11:25
GK57D	008	S-17360-071404-DCR-085	07/14/04	11:30
GK57E	009	S-17360-071404-DCR-086	07/14/04	11:40
GK57F	010	S-17360-071404-DCR-087	07/14/04	11:50
GK57H	011	S-17360-071404-DCR-088	07/14/04	12:00
GK57J	012	S-17360-071404-DCR-089	07/14/04	13:55
GK57K	013	S-17360-071404-DCR-090	07/14/04	14:00
GK57M	014	S-17360-071404-DCR-091	07/14/04	14:05
GK57N	015	S-17360-071404-DCR-092	07/14/04	14:10
GK57P	016	S-17360-071404-DCR-093	07/14/04	14:15
GK57Q	017	S-17360-071404-DCR-094	07/14/04	14:20
GK57R	018	S-17360-071404-DCR-095	07/14/04	14:25
GK57T	019	S-17360-071404-DCR-096	07/14/04	14:30
GK57V	020	S-17360-071404-DCR-097	07/14/04	14:35
GK57W	021	S-17360-071404-DCR-098	07/14/04	14:55
GK57X	022	S-17360-071404-DCR-099	07/14/04	15:05

NOTE (S) :

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

***SHIPPING
AND
RECEIVING DOCUMENTS***

1012

CRA

CONESTOGA-ROVERS & ASSOCIATES, INC.
14496 Sheldon Road, Suite 200
Plymouth, MI 48170 • (734) 453-5123

CHAIN OF CUSTODY RECORD

SAMPLER'S SIGNATURE: [Signature] PRINTED NAME: Daniel C. Rovers

SHIPPED TO (Laboratory Name): STL - North Canton

REFERENCE NUMBER: 17360-09

PROJECT NAME: GM-Grand Rapids

SEQ. No.	DATE	TIME	SAMPLE TYPE	CONTAINERS	PARAMETERS		REMARKS
					PARAMETERS	REMARKS	
	7/14/84	10:50	S-17360-071404-DNR-078	2			
		10:53	-079	2			STD TAT
		11:00	-080	2			
		11:05	-081	2			
		11:10	-082	2			
		11:15	-083	2			
		11:25	-084	2			
		11:30	-085	2			
		11:40	-086	2			
		11:50	-087	2			
		12:00	-088	2			
		13:55	-089	2			
		14:00	-090	2			
		14:05	-091	2			CLA contact Paul Wiseman
				TOTAL NUMBER OF CONTAINERS			
				28			

RELINQUISHED BY: 1. [Signature]

RELINQUISHED BY: 2. _____

RELINQUISHED BY: 3. _____

DATE: 7-14-84 RECEIVED BY: 1. _____

DATE: 7-15-84 RECEIVED BY: 2. _____

DATE: _____ RECEIVED BY: 3. _____

DATE: _____

TIME: _____

DATE: _____

TIME: _____

DATE: _____

TIME: _____

METHOD OF SHIPMENT: FED EX

AIR BILL No. 831896653065

White - Fully Executed Copy
Yellow - Recertifying Laboratory Copy

SAMPLE TEAM: Daniel C. Rovers

RECEIVED FOR LABORATORY BY: [Signature]

27170

DATE: 7-15-84 TIME: 10:00

RSR280
 Client: 57787
 Lot #: A4G150200
 Case Number/SDG: 17360-09
 Storage Location: C116 MS

Severn Trent Laboratories, Inc.
 Sample Control Record

Laboratory Sample I.D.	Transferred By	Date	Entered	Removed	Reason	Date Returned
GK5LT	STILLERJ	7/15/04	Yes		Storage	
GK5L7	STILLERJ	7/15/04	Yes		Storage	
GK5L9	STILLERJ	7/15/04	Yes		Storage	
GK5MC	STILLERJ	7/15/04	Yes		Storage	
GK566	STILLERJ	7/15/04	Yes		Storage	
GK568	STILLERJ	7/15/04	Yes		Storage	
GK57C	STILLERJ	7/15/04	Yes		Storage	
GK57D	STILLERJ	7/15/04	Yes		Storage	
GK57E	STILLERJ	7/15/04	Yes		Storage	
GK57F	STILLERJ	7/15/04	Yes		Storage	
GK57H	STILLERJ	7/15/04	Yes		Storage	
GK57J	STILLERJ	7/15/04	Yes		Storage	
GK57K	STILLERJ	7/15/04	Yes		Storage	
GK57M	STILLERJ	7/15/04	Yes		Storage	
GK57N	STILLERJ	7/15/04	Yes		Storage	
GK57P	STILLERJ	7/15/04	Yes		Storage	
GK57Q	STILLERJ	7/15/04	Yes		Storage	
GK57R	STILLERJ	7/15/04	Yes		Storage	
GK57T	STILLERJ	7/15/04	Yes		Storage	
GK57V	STILLERJ	7/15/04	Yes		Storage	
GK57W	STILLERJ	7/15/04	Yes		Storage	
GK57X	STILLERJ	7/15/04	Yes		Storage	

STL Cooler Receipt Form/Narrative
North Canton Facility

Lot Number: 44615000

Client: CRA

Project: GM - Grand Rapids

Quote#:

Cooler Received on: 7-15-04

Opened on: 7-15-04

by: Angela Matthews
 (Signature)

Fedx ☒ Client Drop Off ☐ UPS ☐ DHL ☐ FAS ☐ Other: _____
 STL Cooler No# _____ Foam Box ☐ Client Cooler ☒ Other _____

1. Were custody seals on the outside of the cooler? Yes ☒ No ☐ Intact? Yes ☒ No ☐ NA ☐
 If YES, Quantity _____
 Were the custody seals signed and dated? Yes ☐ No ☒ NA ☐
 2. Shipper's packing slip attached to this form? Yes ☒ No ☐ NA ☐
 3. Did custody papers accompany the samples? Yes ☒ No ☐
 4. Did you sign the custody papers in the appropriate place? Yes ☒ No ☐ Relinquished by client? Yes ☒ No ☐
 5. Packing material used: Bubble Wrap ☒ Foam ☐ None ☐ Other: _____
 6. Cooler temperature upon receipt 5.8 °C (see back of form for multiple coolers/temp)
 METHOD: Temp Vial ☐ Coolant & Sample ☒ Against Bottles ☐ IR ☐ ICE/H₂O Slurry ☐
 COOLANT: Wet Ice ☒ Blue Ice ☐ Dry Ice ☐ Water ☐ None ☐
 7. Did all bottles arrive in good condition (Unbroken)? Yes ☒ No ☐
 8. Could all bottle labels and/or tags be reconciled with the COC? Yes ☒ No ☐
 9. Were samples at the correct pH? (record below/on back) Yes ☐ No ☐ NA ☒
 10. Were correct bottles used for the tests indicated? Yes ☒ No ☐ NA ☒
 11. Were air bubbles >6 mm in any VOA vials? Yes ☐ No ☐ NA ☒
 12. Sufficient quantity received to perform indicated analyses? Yes ☒ No ☐
- Contacted PM _____ Date: _____ by: _____ via Voice Mail ☐ Verbal ☐ Other ☐
- Concerning: _____

1. CHAIN OF CUSTODY

The following discrepancies occurred:

2. SAMPLE CONDITION

Sample(s) _____ were received after the recommended holding time had expired.
 Sample(s) _____ were received in a broken container.

3. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in sample receiving to meet recommended pH level(s). Nitric Acid Lot #122603-HNO₃; Sulfuric Acid Lot # 011-304-H₂SO₄; Sodium Hydroxide Lot # 111401-NaOH; Hydrochloric Acid Lot # 100902-HCl; Sodium Hydroxide and Zinc Acetate Lot # 112801-CH₃COOZZN/NaOH
 Sample(s) _____ were received with bubble > 6 mm in diameter (cc: PM)

4. Other (see below or back)

Client ID	pH	Date	Initials

[illegible]

GCMS VOLATILE DATA

CONESTOGA-ROVERS & ASSOC., INC.

Client Sample ID: S-17360-071404-DCR-078

GC/MS Volatiles

Lot-Sample #....: A4G150200-001 **Work Order #....:** GK5LT1AA **Matrix.....:** SO
Date Sampled....: 07/14/04 10:50 **Date Received...:** 07/15/04
Prep Date.....: 07/16/04 **Analysis Date...:** 07/20/04
Prep Batch #....: 4202313
Dilution Factor: 2.08 **Initial Wgt/Vol:** 24 g **Final Wgt/Vol...:** 25 mL
% Moisture.....: 4.2 **Method.....:** SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acetone	ND	1600	ug/kg	220
Benzene	ND	110	ug/kg	14
Bromodichloromethane	ND	220	ug/kg	26
Bromoform	ND	220	ug/kg	28
Bromomethane	ND	540	ug/kg	54
2-Butanone	ND	1600	ug/kg	110
Carbon disulfide	ND	540	ug/kg	43
Carbon tetrachloride	ND	110	ug/kg	26
Chlorobenzene	ND	110	ug/kg	14
Chloroethane	ND	540	ug/kg	140
Chloroform	ND	110	ug/kg	26
Chloromethane	25 J,B	540	ug/kg	11
Cyclohexane	18 J	2600	ug/kg	17
Dibromochloromethane	ND	110	ug/kg	15
1,2-Dibromo-3-chloro- propane	ND	540	ug/kg	130
1,2-Dibromoethane	ND	540	ug/kg	22
1,2-Dichlorobenzene	ND	220	ug/kg	37
1,3-Dichlorobenzene	ND	220	ug/kg	16
1,4-Dichlorobenzene	ND	220	ug/kg	17
Dichlorodifluoromethane	ND	220	ug/kg	12
1,1-Dichloroethane	ND	110	ug/kg	16
1,2-Dichloroethane	ND	110	ug/kg	20
1,1-Dichloroethene	ND	110	ug/kg	18
cis-1,2-Dichloroethene	ND	110	ug/kg	30
trans-1,2-Dichloroethene	ND	110	ug/kg	24
1,2-Dichloropropane	ND	110	ug/kg	16
cis-1,3-Dichloropropene	ND	110	ug/kg	12
trans-1,3-Dichloropropene	ND	110	ug/kg	12
Ethylbenzene	ND	110	ug/kg	15
2-Hexanone	ND	5400	ug/kg	52
Isopropylbenzene	ND	540	ug/kg	11
Methyl acetate	ND	2600	ug/kg	110
Methylene chloride	ND	540	ug/kg	220
Methylcyclohexane	100 J	2600	ug/kg	12
4-Methyl-2-pentanone	ND	5400	ug/kg	24
Methyl tert-butyl ether	ND	540	ug/kg	22
Styrene	ND	110	ug/kg	61

(Continued on next page)

CONESTOGA-ROVERS & ASSOC., INC.

Client Sample ID: S-17360-071404-DCR-078

GC/MS Volatiles

Lot-Sample #...: A4G150200-001 Work Order #...: GK5LT1AA Matrix.....: SO

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>	<u>MDL</u>
1,1,2,2-Tetrachloroethane	ND	220	ug/kg	18
Tetrachloroethene	ND	110	ug/kg	20
Toluene	42 J	220	ug/kg	20
1,2,4-Trichloro- benzene	ND	540	ug/kg	26
1,1,1-Trichloroethane	ND	110	ug/kg	21
1,1,2-Trichloroethane	ND	110	ug/kg	22
Trichloroethene	2800	110	ug/kg	26
Trichlorofluoromethane	ND	220	ug/kg	18
1,1,2-Trichloro- 1,2,2-trifluoroethane	ND	540	ug/kg	22
Vinyl chloride	ND	220	ug/kg	35
Xylenes (total)	84 J	330	ug/kg	33

<u>SURROGATE</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>
Dibromofluoromethane	71 DIL	(59 - 138)
1,2-Dichloroethane-d4	78 DIL	(61 - 130)
oluene-d8	91 DIL	(60 - 143)
4-Bromofluorobenzene	82 DIL	(47 - 158)

NOTE(S):

DIL The concentration is estimated or not reported due to dilution or the presence of interfering analytes.

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than RL.

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

CONESTOGA-ROVERS & ASSOC., INC.

Client Sample ID: S-17360-071404-DCR-079

GC/MS Volatiles

Lot-Sample #....: A4G150200-002 Work Order #....: GK5L71AA Matrix.....: SO
 Date Sampled....: 07/14/04 10:55 Date Received...: 07/15/04
 Prep Date.....: 07/16/04 Analysis Date...: 07/19/04
 Prep Batch #....: 4202313
 Dilution Factor: 1.24 Initial Wgt/Vol: 20.2 g Final Wgt/Vol...: 25 mL
 % Moisture.....: 1.8 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acetone	ND	950	ug/kg	130
Benzene	ND	63	ug/kg	8.1
Bromodichloromethane	ND	130	ug/kg	15
Bromoform	ND	130	ug/kg	16
Bromomethane	ND	320	ug/kg	32
2-Butanone	ND	950	ug/kg	62
Carbon disulfide	ND	320	ug/kg	25
Carbon tetrachloride	ND	63	ug/kg	15
Chlorobenzene	ND	63	ug/kg	8.0
Chloroethane	ND	320	ug/kg	82
Chloroform	ND	63	ug/kg	15
Chloromethane	33 J,B	320	ug/kg	6.6
Cyclohexane	ND	1500	ug/kg	9.7
Dibromochloromethane	ND	63	ug/kg	8.7
1,2-Dibromo-3-chloro- propane	ND	320	ug/kg	76
1,2-Dibromoethane	ND	320	ug/kg	13
1,2-Dichlorobenzene	ND	130	ug/kg	21
1,3-Dichlorobenzene	ND	130	ug/kg	9.1
1,4-Dichlorobenzene	ND	130	ug/kg	10
Dichlorodifluoromethane	ND	130	ug/kg	6.8
1,1-Dichloroethane	ND	63	ug/kg	9.2
1,2-Dichloroethane	ND	63	ug/kg	12
1,1-Dichloroethene	ND	63	ug/kg	10
cis-1,2-Dichloroethene	ND	63	ug/kg	18
trans-1,2-Dichloroethene	ND	63	ug/kg	14
1,2-Dichloropropane	ND	63	ug/kg	9.3
cis-1,3-Dichloropropene	ND	63	ug/kg	6.9
trans-1,3-Dichloropropene	ND	63	ug/kg	6.8
Ethylbenzene	ND	63	ug/kg	8.6
2-Hexanone	ND	3200	ug/kg	30
Isopropylbenzene	ND	320	ug/kg	6.4
Methyl acetate	ND	1500	ug/kg	66
Methylene chloride	ND	320	ug/kg	130
Methylcyclohexane	ND	1500	ug/kg	7.2
4-Methyl-2-pentanone	ND	3200	ug/kg	14
Methyl tert-butyl ether	ND	320	ug/kg	13
Styrene	ND	63	ug/kg	35

(Continued on next page)

CONESTOGA-ROVERS & ASSOC., INC.

Client Sample ID: S-17360-071404-DCR-079

GC/MS Volatiles

Lot-Sample #....: A4G150200-002 Work Order #....: GK5L71AA Matrix.....: SO

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>	<u>MDL</u>
1,1,2,2-Tetrachloroethane	ND	130	ug/kg	10
Tetrachloroethene	ND	63	ug/kg	11
Toluene	ND	130	ug/kg	11
1,2,4-Trichloro- benzene	ND	320	ug/kg	15
1,1,1-Trichloroethane	ND	63	ug/kg	12
1,1,2-Trichloroethane	ND	63	ug/kg	13
Trichloroethene	ND	63	ug/kg	15
Trichlorofluoromethane	ND	130	ug/kg	10
1,1,2-Trichloro- 1,2,2-trifluoroethane	ND	320	ug/kg	13
Vinyl chloride	ND	130	ug/kg	20
Xylenes (total)	ND	190	ug/kg	19

<u>SURROGATE</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>
Dibromofluoromethane	76	(59 - 138)
1,2-Dichloroethane-d4	80	(61 - 130)
Toluene-d8	93	(60 - 143)
4-Bromofluorobenzene	86	(47 - 158)

NOTE(S) :

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than RL.

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

CONESTOGA-ROVERS & ASSOC., INC.

Client Sample ID: S-17360-071404-DCR-080

GC/MS Volatiles

Lot-Sample #....: A4G150200-003 Work Order #....: GK5L91AA Matrix.....: SO
 Date Sampled....: 07/14/04 11:00 Date Received...: 07/15/04
 Prep Date.....: 07/16/04 Analysis Date...: 07/20/04
 Prep Batch #....: 4202313
 Dilution Factor: 1.16 Initial Wgt/Vol: 21.6 g Final Wgt/Vol...: 25 mL
 % Moisture.....: 1.8 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING		
		LIMIT	UNITS	MDL
Acetone	ND	890	ug/kg	120
Benzene	ND	59	ug/kg	7.6
Bromodichloromethane	ND	120	ug/kg	14
Bromoform	ND	120	ug/kg	15
Bromomethane	ND	300	ug/kg	30
2-Butanone	ND	890	ug/kg	58
Carbon disulfide	ND	300	ug/kg	24
Carbon tetrachloride	ND	59	ug/kg	14
Chlorobenzene	ND	59	ug/kg	7.4
Chloroethane	ND	300	ug/kg	77
Chloroform	ND	59	ug/kg	14
Chloromethane	ND	300	ug/kg	6.1
Cyclohexane	ND	1400	ug/kg	9.1
Dibromochloromethane	ND	59	ug/kg	8.1
1,2-Dibromo-3-chloro- propane	ND	300	ug/kg	71
1,2-Dibromoethane	ND	300	ug/kg	12
1,2-Dichlorobenzene	ND	120	ug/kg	20
1,3-Dichlorobenzene	ND	120	ug/kg	8.5
1,4-Dichlorobenzene	ND	120	ug/kg	9.3
Dichlorodifluoromethane	ND	120	ug/kg	6.4
1,1-Dichloroethane	ND	59	ug/kg	8.6
1,2-Dichloroethane	ND	59	ug/kg	11
1,1-Dichloroethene	ND	59	ug/kg	9.8
cis-1,2-Dichloroethene	ND	59	ug/kg	17
trans-1,2-Dichloroethene	ND	59	ug/kg	13
1,2-Dichloropropane	ND	59	ug/kg	8.7
cis-1,3-Dichloropropene	ND	59	ug/kg	6.5
trans-1,3-Dichloropropene	ND	59	ug/kg	6.4
Ethylbenzene	ND	59	ug/kg	8.0
2-Hexanone	ND	3000	ug/kg	28
Isopropylbenzene	ND	300	ug/kg	6.0
Methyl acetate	ND	1400	ug/kg	61
Methylene chloride	ND	300	ug/kg	120
Methylcyclohexane	ND	1400	ug/kg	6.7
4-Methyl-2-pentanone	ND	3000	ug/kg	13
Methyl tert-butyl ether	ND	300	ug/kg	12
Styrene	ND	59	ug/kg	33

(Continued on next page)

CONESTOGA-ROVERS & ASSOC., INC.

Client Sample ID: S-17360-071404-DCR-080

GC/MS Volatiles

Lot-Sample #...: A4G150200-003 Work Order #...: GK5L91AA Matrix.....: SO

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
1,1,2,2-Tetrachloroethane	ND	120	ug/kg	9.7
Tetrachloroethene	ND	59	ug/kg	11
Toluene	ND	120	ug/kg	11
1,2,4-Trichloro- benzene	ND	300	ug/kg	14
1,1,1-Trichloroethane	ND	59	ug/kg	11
1,1,2-Trichloroethane	ND	59	ug/kg	12
Trichloroethene	20 J	59	ug/kg	14
Trichlorofluoromethane	ND	120	ug/kg	9.8
1,1,2-Trichloro- 1,2,2-trifluoroethane	ND	300	ug/kg	12
Vinyl chloride	ND	120	ug/kg	19
Xylenes (total)	ND	180	ug/kg	18

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	71	(59 - 138)
1,2-Dichloroethane-d4	81	(61 - 130)
Toluene-d8	95	(60 - 143)
4-Bromofluorobenzene	86	(47 - 158)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than RL.

CONESTOGA-ROVERS & ASSOC., INC.

Client Sample ID: S-17360-071404-DCR-081

GC/MS Volatiles

Lot-Sample #....: A4G150200-004 Work Order #....: GK5MC1AA Matrix.....: SO
 Date Sampled....: 07/14/04 11:05 Date Received...: 07/15/04
 Prep Date.....: 07/16/04 Analysis Date...: 07/19/04
 Prep Batch #....: 4202313
 Dilution Factor: 1.52 Initial Wgt/Vol: 16.4 g Final Wgt/Vol...: 25 mL
 % Moisture.....: 4.1 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING		
		LIMIT	UNITS	MDL
Acetone	ND	1200	ug/kg	160
Benzene	ND	79	ug/kg	10
Bromodichloromethane	ND	160	ug/kg	19
Bromoform	ND	160	ug/kg	21
Bromomethane	ND	400	ug/kg	40
2-Butanone	ND	1200	ug/kg	78
Carbon disulfide	ND	400	ug/kg	32
Carbon tetrachloride	ND	79	ug/kg	19
Chlorobenzene	ND	79	ug/kg	10
Chloroethane	ND	400	ug/kg	100
Chloroform	ND	79	ug/kg	19
Chloromethane	46 J,B	400	ug/kg	8.2
Cyclohexane	ND	1900	ug/kg	12
Dibromochloromethane	ND	79	ug/kg	11
1,2-Dibromo-3-chloro- propane	ND	400	ug/kg	95
1,2-Dibromoethane	ND	400	ug/kg	16
1,2-Dichlorobenzene	ND	160	ug/kg	27
1,3-Dichlorobenzene	ND	160	ug/kg	11
1,4-Dichlorobenzene	ND	160	ug/kg	13
Dichlorodifluoromethane	ND	160	ug/kg	8.6
1,1-Dichloroethane	ND	79	ug/kg	12
1,2-Dichloroethane	ND	79	ug/kg	15
1,1-Dichloroethene	ND	79	ug/kg	13
cis-1,2-Dichloroethene	ND	79	ug/kg	22
trans-1,2-Dichloroethene	ND	79	ug/kg	17
1,2-Dichloropropane	ND	79	ug/kg	12
cis-1,3-Dichloropropene	ND	79	ug/kg	8.7
trans-1,3-Dichloropropene	ND	79	ug/kg	8.6
Ethylbenzene	ND	79	ug/kg	11
2-Hexanone	ND	4000	ug/kg	38
Isopropylbenzene	ND	400	ug/kg	8.1
Methyl acetate	ND	1900	ug/kg	82
Methylene chloride	ND	400	ug/kg	160
Methylcyclohexane	ND	1900	ug/kg	9.0
4-Methyl-2-pentanone	ND	4000	ug/kg	17
Methyl tert-butyl ether	ND	400	ug/kg	16
Styrene	ND	79	ug/kg	44

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CONESTOGA-ROVERS & ASSOC., INC.

Client Sample ID: S-17360-071404-DCR-081

GC/MS Volatiles

Lot-Sample #....: A4G150200-004 Work Order #....: GK5MC1AA Matrix.....: SO

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
1,1,2,2-Tetrachloroethane	ND	160	ug/kg	13
Tetrachloroethene	ND	79	ug/kg	14
Toluene	ND	160	ug/kg	14
1,2,4-Trichloro- benzene	ND	400	ug/kg	19
1,1,1-Trichloroethane	ND	79	ug/kg	15
1,1,2-Trichloroethane	ND	79	ug/kg	16
Trichloroethene	ND	79	ug/kg	19
Trichlorofluoromethane	ND	160	ug/kg	13
1,1,2-Trichloro- 1,2,2-trifluoroethane	ND	400	ug/kg	16
Vinyl chloride	ND	160	ug/kg	25
Xylenes (total)	ND	240	ug/kg	24

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	76	(59 - 138)
,2-Dichloroethane-d4	80	(61 - 130)
Toluene-d8	97	(60 - 143)
4-Bromofluorobenzene	90	(47 - 158)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than RL.

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

CONESTOGA-ROVERS & ASSOC., INC.

Client Sample ID: S-17360-071404-DCR-082

GC/MS Volatiles

Lot-Sample #....: A4G150200-005 **Work Order #....:** GK5661AA **Matrix.....:** SO
Date Sampled....: 07/14/04 11:10 **Date Received...:** 07/15/04
Prep Date.....: 07/16/04 **Analysis Date...:** 07/19/04
Prep Batch #....: 4202313
Dilution Factor: 1.05 **Initial Wgt/Vol:** 23.7 g **Final Wgt/Vol...:** 25 mL
% Moisture.....: 1.9 **Method.....:** SW846 8260B

PARAMETER	RESULT	REPORTING		
		LIMIT	UNITS	MDL
Acetone	ND	800	ug/kg	110
Benzene	ND	53	ug/kg	6.8
Bromodichloromethane	ND	110	ug/kg	13
Bromoform	ND	110	ug/kg	14
Bromomethane	ND	270	ug/kg	27
2-Butanone	ND	800	ug/kg	52
Carbon disulfide	ND	270	ug/kg	21
Carbon tetrachloride	ND	53	ug/kg	13
Chlorobenzene	ND	53	ug/kg	6.7
Chloroethane	ND	270	ug/kg	70
Chloroform	ND	53	ug/kg	13
Chloromethane	26 J,B	270	ug/kg	5.6
Cyclohexane	ND	1300	ug/kg	8.2
Dibromochloromethane	ND	53	ug/kg	7.4
1,2-Dibromo-3-chloro-propane	ND	270	ug/kg	64
1,2-Dibromoethane	ND	270	ug/kg	11
1,2-Dichlorobenzene	ND	110	ug/kg	18
1,3-Dichlorobenzene	ND	110	ug/kg	7.7
1,4-Dichlorobenzene	ND	110	ug/kg	8.5
Dichlorodifluoromethane	ND	110	ug/kg	5.8
1,1-Dichloroethane	ND	53	ug/kg	7.8
1,2-Dichloroethane	ND	53	ug/kg	10
1,1-Dichloroethene	ND	53	ug/kg	8.9
cis-1,2-Dichloroethene	ND	53	ug/kg	15
trans-1,2-Dichloroethene	ND	53	ug/kg	12
1,2-Dichloropropane	ND	53	ug/kg	7.9
cis-1,3-Dichloropropene	ND	53	ug/kg	5.9
trans-1,3-Dichloropropene	ND	53	ug/kg	5.8
Ethylbenzene	ND	53	ug/kg	7.3
2-Hexanone	ND	2700	ug/kg	26
Isopropylbenzene	ND	270	ug/kg	5.5
Methyl acetate	ND	1300	ug/kg	56
Methylene chloride	ND	270	ug/kg	110
Methylcyclohexane	ND	1300	ug/kg	6.1
4-Methyl-2-pentanone	ND	2700	ug/kg	12
Methyl tert-butyl ether	ND	270	ug/kg	11
Styrene	ND	53	ug/kg	30

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CONESTOGA-ROVERS & ASSOC., INC.

Client Sample ID: S-17360-071404-DCR-082

GC/MS Volatiles

Lot-Sample #...: A4G150200-005 Work Order #...: GK5661AA Matrix.....: SO

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
1,1,2,2-Tetrachloroethane	ND	110	ug/kg	8.8
Tetrachloroethene	ND	53	ug/kg	9.6
Toluene	ND	110	ug/kg	9.7
1,2,4-Trichloro- benzene	ND	270	ug/kg	13
1,1,1-Trichloroethane	ND	53	ug/kg	10
1,1,2-Trichloroethane	ND	53	ug/kg	11
Trichloroethene	78	53	ug/kg	13
Trichlorofluoromethane	ND	110	ug/kg	8.9
1,1,2-Trichloro- 1,2,2-trifluoroethane	ND	270	ug/kg	11
Vinyl chloride	ND	110	ug/kg	17
Xylenes (total)	ND	160	ug/kg	16

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	73	(59 - 138)
1,2-Dichloroethane-d4	78	(61 - 130)
Toluene-d8	94	(60 - 143)
4-Bromofluorobenzene	86	(47 - 158)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than RL.

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

CONESTOGA-ROVERS & ASSOC., INC.

Client Sample ID: S-17360-071404-DCR-083

GC/MS Volatiles

Lot-Sample #....: A4G150200-006 **Work Order #....:** GK5681AA **Matrix.....:** SO
Date Sampled....: 07/14/04 11:15 **Date Received...:** 07/15/04
Prep Date.....: 07/16/04 **Analysis Date...:** 07/19/04
Prep Batch #....: 4202313
Dilution Factor: 1 **Initial Wgt/Vol:** 24.9 g **Final Wgt/Vol...:** 25 mL
% Moisture.....: 2.3 **Method.....:** SW846 8260B

PARAMETER	RESULT	REPORTING		
		LIMIT	UNITS	MDL
Acetone	ND	770	ug/kg	100
Benzene	ND	51	ug/kg	6.5
Bromodichloromethane	ND	100	ug/kg	12
Bromoform	ND	100	ug/kg	13
Bromomethane	ND	260	ug/kg	26
2-Butanone	ND	770	ug/kg	50
Carbon disulfide	ND	260	ug/kg	20
Carbon tetrachloride	ND	51	ug/kg	12
Chlorobenzene	ND	51	ug/kg	6.4
Chloroethane	ND	260	ug/kg	67
Chloroform	ND	51	ug/kg	12
Chloromethane	24 J,B	260	ug/kg	5.3
Cyclohexane	ND	1200	ug/kg	7.9
Dibromochloromethane	ND	51	ug/kg	7.1
1,2-Dibromo-3-chloro- propane	ND	260	ug/kg	61
1,2-Dibromoethane	ND	260	ug/kg	10
1,2-Dichlorobenzene	ND	100	ug/kg	17
1,3-Dichlorobenzene	ND	100	ug/kg	7.4
1,4-Dichlorobenzene	ND	100	ug/kg	8.1
Dichlorodifluoromethane	ND	100	ug/kg	5.5
1,1-Dichloroethane	ND	51	ug/kg	7.5
1,2-Dichloroethane	ND	51	ug/kg	9.5
1,1-Dichloroethene	ND	51	ug/kg	8.5
cis-1,2-Dichloroethene	ND	51	ug/kg	14
trans-1,2-Dichloroethene	ND	51	ug/kg	11
1,2-Dichloropropane	ND	51	ug/kg	7.6
cis-1,3-Dichloropropene	ND	51	ug/kg	5.6
trans-1,3-Dichloropropene	ND	51	ug/kg	5.5
Ethylbenzene	ND	51	ug/kg	7.0
2-Hexanone	ND	2600	ug/kg	25
Isopropylbenzene	ND	260	ug/kg	5.2
Methyl acetate	ND	1200	ug/kg	53
Methylene chloride	ND	260	ug/kg	100
Methylcyclohexane	ND	1200	ug/kg	5.8
4-Methyl-2-pentanone	ND	2600	ug/kg	11
Methyl tert-butyl ether	ND	260	ug/kg	10
Styrene	ND	51	ug/kg	29

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CONESTOGA-ROVERS & ASSOC., INC.

Client Sample ID: S-17360-071404-DCR-083

GC/MS Volatiles

Lot-Sample #....: A4G150200-006 Work Order #....: GK5681AA Matrix.....: SO

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
1,1,2,2-Tetrachloroethane	ND	100	ug/kg	8.4
Tetrachloroethene	ND	51	ug/kg	9.2
Toluene	ND	100	ug/kg	9.3
1,2,4-Trichloro- benzene	ND	260	ug/kg	12
1,1,1-Trichloroethane	ND	51	ug/kg	9.7
1,1,2-Trichloroethane	ND	51	ug/kg	10
Trichloroethene	24 J	51	ug/kg	12
Trichlorofluoromethane	ND	100	ug/kg	8.5
1,1,2-Trichloro- 1,2,2-trifluoroethane	ND	260	ug/kg	10
Vinyl chloride	ND	100	ug/kg	16
Xylenes (total)	ND	150	ug/kg	15

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	72	(59 - 138)
1,2-Dichloroethane-d4	78	(61 - 130)
toluene-d8	94	(60 - 143)
4-Bromofluorobenzene	83	(47 - 158)

NOTE(S) :

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than RL.

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

CONESTOGA-ROVERS & ASSOC., INC.

Client Sample ID: S-17360-071404-DCR-084

GC/MS Volatiles

Lot-Sample #....: A4G150200-007 Work Order #....: GK57C1AA Matrix.....: SO
 Date Sampled....: 07/14/04 11:25 Date Received...: 07/15/04
 Prep Date.....: 07/16/04 Analysis Date...: 07/19/04
 Prep Batch #....: 4202313
 Dilution Factor: 0.98 Initial Wgt/Vol: 25.6 g Final Wgt/Vol...: 25 mL
 % Moisture.....: 2.2 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acetone	ND	750	ug/kg	99
Benzene	ND	50	ug/kg	6.4
Bromodichloromethane	ND	100	ug/kg	12
Bromoform	ND	100	ug/kg	13
Bromomethane	ND	250	ug/kg	25
2-Butanone	ND	750	ug/kg	49
Carbon disulfide	ND	250	ug/kg	20
Carbon tetrachloride	ND	50	ug/kg	12
Chlorobenzene	ND	50	ug/kg	6.3
Chloroethane	ND	250	ug/kg	65
Chloroform	ND	50	ug/kg	12
Chloromethane	23 J,B	250	ug/kg	5.2
Cyclohexane	ND	1200	ug/kg	7.7
Dibromochloromethane	ND	50	ug/kg	6.9
1,2-Dibromo-3-chloro- propane	ND	250	ug/kg	60
1,2-Dibromoethane	ND	250	ug/kg	9.9
1,2-Dichlorobenzene	ND	100	ug/kg	17
1,3-Dichlorobenzene	ND	100	ug/kg	7.2
1,4-Dichlorobenzene	ND	100	ug/kg	7.9
Dichlorodifluoromethane	ND	100	ug/kg	5.4
1,1-Dichloroethane	ND	50	ug/kg	7.3
1,2-Dichloroethane	ND	50	ug/kg	9.3
1,1-Dichloroethene	ND	50	ug/kg	8.3
cis-1,2-Dichloroethene	ND	50	ug/kg	14
trans-1,2-Dichloroethene	ND	50	ug/kg	11
1,2-Dichloropropane	ND	50	ug/kg	7.4
cis-1,3-Dichloropropene	ND	50	ug/kg	5.5
trans-1,3-Dichloropropene	ND	50	ug/kg	5.4
Ethylbenzene	ND	50	ug/kg	6.8
2-Hexanone	ND	2500	ug/kg	24
Isopropylbenzene	ND	250	ug/kg	5.1
Methyl acetate	ND	1200	ug/kg	52
Methylene chloride	ND	250	ug/kg	99
Methylcyclohexane	ND	1200	ug/kg	5.7
4-Methyl-2-pentanone	ND	2500	ug/kg	11
Methyl tert-butyl ether	ND	250	ug/kg	10
Styrene	ND	50	ug/kg	28

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CONESTOGA-ROVERS & ASSOC., INC.

Client Sample ID: S-17360-071404-DCR-084

GC/MS Volatiles

Lot-Sample #....: A4G150200-007 Work Order #....: GK57C1AA Matrix.....: SO

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
1,1,2,2-Tetrachloroethane	ND	100	ug/kg	8.2
Tetrachloroethene	ND	50	ug/kg	9.0
Toluene	ND	100	ug/kg	9.1
1,2,4-Trichloro- benzene	ND	250	ug/kg	12
1,1,1-Trichloroethane	ND	50	ug/kg	9.5
1,1,2-Trichloroethane	ND	50	ug/kg	9.9
Trichloroethene	40 J	50	ug/kg	12
Trichlorofluoromethane	ND	100	ug/kg	8.3
1,1,2-Trichloro- 1,2,2-trifluoroethane	ND	250	ug/kg	10
Vinyl chloride	ND	100	ug/kg	16
Xylenes (total)	ND	150	ug/kg	15

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	74	(59 - 138)
1,2-Dichloroethane-d4	83	(61 - 130)
Toluene-d8	96	(60 - 143)
4-Bromofluorobenzene	87	(47 - 158)

NOTE(S) :

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than RL.

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

CONESTOGA-ROVERS & ASSOC., INC.

Client Sample ID: S-17360-071404-DCR-085

GC/MS Volatiles

Lot-Sample #....: A4G150200-008 Work Order #....: GK57D1AA Matrix.....: SO
 Date Sampled....: 07/14/04 11:30 Date Received...: 07/15/04
 Prep Date.....: 07/16/04 Analysis Date...: 07/19/04
 Prep Batch #....: 4202313
 Dilution Factor: 1.03 Initial Wgt/Vol: 24.3 g Final Wgt/Vol...: 25 mL
 % Moisture.....: 2.0 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acetone	ND	790	ug/kg	100
Benzene	ND	53	ug/kg	6.7
Bromodichloromethane	ND	110	ug/kg	13
Bromoform	ND	110	ug/kg	14
Bromomethane	ND	260	ug/kg	26
2-Butanone	ND	790	ug/kg	52
Carbon disulfide	ND	260	ug/kg	21
Carbon tetrachloride	ND	53	ug/kg	13
Chlorobenzene	ND	53	ug/kg	6.6
Chloroethane	ND	260	ug/kg	68
Chloroform	ND	53	ug/kg	13
Chloromethane	24 J,B	260	ug/kg	5.5
Cyclohexane	ND	1300	ug/kg	8.1
Dibromochloromethane	ND	53	ug/kg	7.3
1,2-Dibromo-3-chloro- propane	ND	260	ug/kg	63
1,2-Dibromoethane	ND	260	ug/kg	10
1,2-Dichlorobenzene	ND	110	ug/kg	18
1,3-Dichlorobenzene	ND	110	ug/kg	7.6
1,4-Dichlorobenzene	ND	110	ug/kg	8.3
Dichlorodifluoromethane	ND	110	ug/kg	5.7
1,1-Dichloroethane	ND	53	ug/kg	7.7
1,2-Dichloroethane	ND	53	ug/kg	9.8
1,1-Dichloroethene	ND	53	ug/kg	8.7
cis-1,2-Dichloroethene	ND	53	ug/kg	15
trans-1,2-Dichloroethene	ND	53	ug/kg	12
1,2-Dichloropropane	ND	53	ug/kg	7.8
cis-1,3-Dichloropropene	ND	53	ug/kg	5.8
trans-1,3-Dichloropropene	ND	53	ug/kg	5.7
Ethylbenzene	ND	53	ug/kg	7.2
2-Hexanone	ND	2600	ug/kg	25
Isopropylbenzene	ND	260	ug/kg	5.4
Methyl acetate	ND	1300	ug/kg	55
Methylene chloride	ND	260	ug/kg	100
Methylcyclohexane	ND	1300	ug/kg	6.0
4-Methyl-2-pentanone	ND	2600	ug/kg	12
Methyl tert-butyl ether	ND	260	ug/kg	11
Styrene	ND	53	ug/kg	29

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CONESTOGA-ROVERS & ASSOC., INC.

Client Sample ID: S-17360-071404-DCR-085

GC/MS Volatiles

Lot-Sample #....: A4G150200-008 Work Order #....: GK57D1AA Matrix.....: SO

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>	<u>MDL</u>
1,1,2,2-Tetrachloroethane	ND	110	ug/kg	8.6
Tetrachloroethene	ND	53	ug/kg	9.5
Toluene	ND	110	ug/kg	9.6
1,2,4-Trichloro- benzene	ND	260	ug/kg	13
1,1,1-Trichloroethane	ND	53	ug/kg	10
1,1,2-Trichloroethane	ND	53	ug/kg	10
Trichloroethene	31 J	53	ug/kg	13
Trichlorofluoromethane	ND	110	ug/kg	8.7
1,1,2-Trichloro- 1,2,2-trifluoroethane	ND	260	ug/kg	11
Vinyl chloride	ND	110	ug/kg	17
Xylenes (total)	ND	160	ug/kg	16

<u>SURROGATE</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>
Dibromofluoromethane	73	(59 - 138)
1,2-Dichloroethane-d4	83	(61 - 130)
Toluene-d8	96	(60 - 143)
4-Bromofluorobenzene	87	(47 - 158)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than RL.

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

CONESTOGA-ROVERS & ASSOC., INC.

Client Sample ID: S-17360-071404-DCR-086

GC/MS Volatiles

Lot-Sample #....: A4G150200-009 Work Order #....: GK57E1AA Matrix.....: SO
 Date Sampled....: 07/14/04 11:40 Date Received...: 07/15/04
 Prep Date.....: 07/16/04 Analysis Date...: 07/19/04
 Prep Batch #....: 4202313
 Dilution Factor: 1.13 Initial Wgt/Vol: 22.2 g Final Wgt/Vol...: 25 mL
 % Moisture.....: 2.0 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING		
		LIMIT	UNITS	MDL
Acetone	ND	860	ug/kg	110
Benzene	ND	58	ug/kg	7.4
Bromodichloromethane	ND	120	ug/kg	14
Bromoform	ND	120	ug/kg	15
Bromomethane	ND	290	ug/kg	29
2-Butanone	ND	860	ug/kg	56
Carbon disulfide	ND	290	ug/kg	23
Carbon tetrachloride	ND	58	ug/kg	14
Chlorobenzene	ND	58	ug/kg	7.3
Chloroethane	ND	290	ug/kg	75
Chloroform	ND	58	ug/kg	14
Chloromethane	24 J,B	290	ug/kg	6.0
Cyclohexane	ND	1400	ug/kg	8.9
Dibromochloromethane	ND	58	ug/kg	8.0
1,2-Dibromo-3-chloro- propane	ND	290	ug/kg	69
1,2-Dibromoethane	ND	290	ug/kg	11
1,2-Dichlorobenzene	ND	120	ug/kg	20
1,3-Dichlorobenzene	ND	120	ug/kg	8.3
1,4-Dichlorobenzene	ND	120	ug/kg	9.1
Dichlorodifluoromethane	ND	120	ug/kg	6.2
1,1-Dichloroethane	ND	58	ug/kg	8.4
1,2-Dichloroethane	ND	58	ug/kg	11
1,1-Dichloroethene	ND	58	ug/kg	9.6
cis-1,2-Dichloroethene	ND	58	ug/kg	16
trans-1,2-Dichloroethene	ND	58	ug/kg	13
1,2-Dichloropropane	ND	58	ug/kg	8.5
cis-1,3-Dichloropropene	ND	58	ug/kg	6.3
trans-1,3-Dichloropropene	ND	58	ug/kg	6.2
Ethylbenzene	ND	58	ug/kg	7.8
2-Hexanone	ND	2900	ug/kg	28
Isopropylbenzene	ND	290	ug/kg	5.9
Methyl acetate	ND	1400	ug/kg	60
Methylene chloride	ND	290	ug/kg	110
Methylcyclohexane	ND	1400	ug/kg	6.6
4-Methyl-2-pentanone	ND	2900	ug/kg	13
Methyl tert-butyl ether	ND	290	ug/kg	12
Styrene	ND	58	ug/kg	32

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CONESTOGA-ROVERS & ASSOC., INC.

Client Sample ID: S-17360-071404-DCR-086

GC/MS Volatiles

Lot-Sample #...: A4G150200-009 Work Order #...: GK57E1AA Matrix.....: SO

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u>		
		<u>LIMIT</u>	<u>UNITS</u>	<u>MDL</u>
1,1,2,2-Tetrachloroethane	ND	120	ug/kg	9.5
Tetrachloroethene	ND	58	ug/kg	10
Toluene	ND	120	ug/kg	10
1,2,4-Trichloro- benzene	ND	290	ug/kg	14
1,1,1-Trichloroethane	ND	58	ug/kg	11
1,1,2-Trichloroethane	ND	58	ug/kg	11
Trichloroethene	ND	58	ug/kg	14
Trichlorofluoromethane	ND	120	ug/kg	9.6
1,1,2-Trichloro- 1,2,2-trifluoroethane	ND	290	ug/kg	12
Vinyl chloride	ND	120	ug/kg	18
Xylenes (total)	ND	170	ug/kg	17

<u>SURROGATE</u>	<u>PERCENT</u>	<u>RECOVERY</u>
	<u>RECOVERY</u>	<u>LIMITS</u>
Dibromofluoromethane	72	(59 - 138)
1,2-Dichloroethane-d4	78	(61 - 130)
Toluene-d8	94	(60 - 143)
4-Bromofluorobenzene	83	(47 - 158)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than RL.

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

CONESTOGA-ROVERS & ASSOC., INC.

Client Sample ID: 8-17360-071404-DCR-087

GC/MS Volatiles

Lot-Sample #....: A4G150200-010 Work Order #....: GK57F1AA Matrix.....: SO
 Date Sampled....: 07/14/04 11:50 Date Received...: 07/15/04
 Prep Date.....: 07/16/04 Analysis Date...: 07/19/04
 Prep Batch #....: 4202313
 Dilution Factor: 1.05 Initial Wgt/Vol: 23.8 g Final Wgt/Vol...: 25 mL
 % Moisture.....: 3.8 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acetone	ND	820	ug/kg	110
Benzene	ND	55	ug/kg	7.0
Bromodichloromethane	ND	110	ug/kg	13
Bromoform	ND	110	ug/kg	14
Bromomethane	ND	270	ug/kg	27
2-Butanone	ND	820	ug/kg	53
Carbon disulfide	ND	270	ug/kg	22
Carbon tetrachloride	ND	55	ug/kg	13
Chlorobenzene	ND	55	ug/kg	6.9
Chloroethane	ND	270	ug/kg	71
Chloroform	ND	55	ug/kg	13
Chloromethane	22 J,B	270	ug/kg	5.7
Cyclohexane	ND	1300	ug/kg	8.4
Dibromochloromethane	ND	55	ug/kg	7.5
1,2-Dibromo-3-chloro- propane	ND	270	ug/kg	65
1,2-Dibromoethane	ND	270	ug/kg	11
1,2-Dichlorobenzene	ND	110	ug/kg	19
1,3-Dichlorobenzene	ND	110	ug/kg	7.9
1,4-Dichlorobenzene	ND	110	ug/kg	8.6
Dichlorodifluoromethane	ND	110	ug/kg	5.9
1,1-Dichloroethane	ND	55	ug/kg	8.0
1,2-Dichloroethane	ND	55	ug/kg	10
1,1-Dichloroethene	ND	55	ug/kg	9.1
cis-1,2-Dichloroethene	ND	55	ug/kg	15
trans-1,2-Dichloroethene	ND	55	ug/kg	12
1,2-Dichloropropane	ND	55	ug/kg	8.1
cis-1,3-Dichloropropene	ND	55	ug/kg	6.0
trans-1,3-Dichloropropene	ND	55	ug/kg	5.9
Ethylbenzene	ND	55	ug/kg	7.4
2-Hexanone	ND	2700	ug/kg	26
Isopropylbenzene	ND	270	ug/kg	5.6
Methyl acetate	ND	1300	ug/kg	57
Methylene chloride	ND	270	ug/kg	110
Methylcyclohexane	ND	1300	ug/kg	6.2
4-Methyl-2-pentanone	ND	2700	ug/kg	12
Methyl tert-butyl ether	ND	270	ug/kg	11
Styrene	ND	55	ug/kg	31

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CONESTOGA-ROVERS & ASSOC., INC.

Client Sample ID: S-17360-071404-DCR-087

GC/MS Volatiles

Lot-Sample #....: A4G150200-010 Work Order #....: GK57F1AA Matrix.....: SO

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
1,1,2,2-Tetrachloroethane	ND	110	ug/kg	8.9
Tetrachloroethene	ND	55	ug/kg	9.8
Toluene	ND	110	ug/kg	9.9
1,2,4-Trichloro- benzene	ND	270	ug/kg	13
1,1,1-Trichloroethane	ND	55	ug/kg	10
1,1,2-Trichloroethane	ND	55	ug/kg	11
Trichloroethene	20 J	55	ug/kg	13
Trichlorofluoromethane	ND	110	ug/kg	9.1
1,1,2-Trichloro- 1,2,2-trifluoroethane	ND	270	ug/kg	11
Vinyl chloride	ND	110	ug/kg	17
Xylenes (total)	ND	160	ug/kg	16

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	69	(59 - 138)
1,2-Dichloroethane-d4	79	(61 - 130)
Toluene-d8	94	(60 - 143)
4-Bromofluorobenzene	87	(47 - 158)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than RL.

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

CONESTOGA-ROVERS & ASSOC., INC.

Client Sample ID: S-17360-071404-DCR-088

GC/MS Volatiles

Lot-Sample #....: A4G150200-011 Work Order #....: GK57H1AA Matrix.....: SO
 Date Sampled....: 07/14/04 12:00 Date Received...: 07/15/04
 Prep Date.....: 07/16/04 Analysis Date...: 07/19/04
 Prep Batch #....: 4202313
 Dilution Factor: 1.02 Initial Wgt/Vol: 24.6 g Final Wgt/Vol...: 25 mL
 % Moisture.....: 3.3 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acetone	ND	790	ug/kg	100
Benzene	ND	53	ug/kg	6.8
Bromodichloromethane	ND	110	ug/kg	13
Bromoform	ND	110	ug/kg	14
Bromomethane	ND	260	ug/kg	26
2-Butanone	ND	790	ug/kg	52
Carbon disulfide	ND	260	ug/kg	21
Carbon tetrachloride	ND	53	ug/kg	13
Chlorobenzene	ND	53	ug/kg	6.6
Chloroethane	ND	260	ug/kg	69
Chloroform	ND	53	ug/kg	13
Chloromethane	20 J,B	260	ug/kg	5.5
Cyclohexane	ND	1300	ug/kg	8.1
Dibromochloromethane	ND	53	ug/kg	7.3
1,2-Dibromo-3-chloro- propane	ND	260	ug/kg	63
1,2-Dibromoethane	ND	260	ug/kg	10
1,2-Dichlorobenzene	ND	110	ug/kg	18
1,3-Dichlorobenzene	ND	110	ug/kg	7.6
1,4-Dichlorobenzene	ND	110	ug/kg	8.3
Dichlorodifluoromethane	ND	110	ug/kg	5.7
1,1-Dichloroethane	ND	53	ug/kg	7.7
1,2-Dichloroethane	ND	53	ug/kg	9.8
1,1-Dichloroethene	ND	53	ug/kg	8.8
cis-1,2-Dichloroethene	ND	53	ug/kg	15
trans-1,2-Dichloroethene	ND	53	ug/kg	12
1,2-Dichloropropane	ND	53	ug/kg	7.8
cis-1,3-Dichloropropene	ND	53	ug/kg	5.8
trans-1,3-Dichloropropene	ND	53	ug/kg	5.7
Ethylbenzene	ND	53	ug/kg	7.2
2-Hexanone	ND	2600	ug/kg	25
Isopropylbenzene	ND	260	ug/kg	5.4
Methyl acetate	ND	1300	ug/kg	55
Methylene chloride	ND	260	ug/kg	100
Methylcyclohexane	ND	1300	ug/kg	6.0
4-Methyl-2-pentanone	ND	2600	ug/kg	12
Methyl tert-butyl ether	ND	260	ug/kg	11
Styrene	ND	53	ug/kg	30

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CONESTOGA-ROVERS & ASSOC., INC.

Client Sample ID: S-17360-071404-DCR-088

GC/MS Volatiles

Lot-Sample #....: A4G150200-011 Work Order #....: GK57H1AA Matrix.....: SO

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
1,1,2,2-Tetrachloroethane	ND	110	ug/kg	8.7
Tetrachloroethene	ND	53	ug/kg	9.5
Toluene	ND	110	ug/kg	9.6
1,2,4-Trichloro- benzene	ND	260	ug/kg	13
1,1,1-Trichloroethane	ND	53	ug/kg	10
1,1,2-Trichloroethane	ND	53	ug/kg	10
Trichloroethene	ND	53	ug/kg	13
Trichlorofluoromethane	ND	110	ug/kg	8.8
1,1,2-Trichloro- 1,2,2-trifluoroethane	ND	260	ug/kg	11
Vinyl chloride	ND	110	ug/kg	17
Xylenes (total)	ND	160	ug/kg	16

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	66	(59 - 138)
1,2-Dichloroethane-d4	73	(61 - 130)
Toluene-d8	85	(60 - 143)
4-Bromofluorobenzene	81	(47 - 158)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than RL.

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

CONESTOGA-ROVERS & ASSOC., INC.

Client Sample ID: S-17360-071404-DCR-089

GC/MS Volatiles

Lot-Sample #....: A4G150200-012 Work Order #....: GK57J1AA Matrix.....: SO
 Date Sampled....: 07/14/04 13:55 Date Received...: 07/15/04
 Prep Date.....: 07/16/04 Analysis Date...: 07/20/04
 Prep Batch #....: 4202313
 Dilution Factor: 8.17 Initial Wgt/Vol: 20.4 g Final Wgt/Vol...: 25 mL
 % Moisture.....: 5.0 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING		
		LIMIT	UNITS	MDL
Acetone	ND	6500	ug/kg	850
Benzene	ND	430	ug/kg	55
Bromodichloromethane	ND	860	ug/kg	100
Bromoform	ND	860	ug/kg	110
Bromomethane	ND	2200	ug/kg	220
2-Butanone	ND	6500	ug/kg	420
Carbon disulfide	ND	2200	ug/kg	170
Carbon tetrachloride	ND	430	ug/kg	100
Chlorobenzene	ND	430	ug/kg	54
Chloroethane	ND	2200	ug/kg	560
Chloroform	ND	430	ug/kg	100
Chloromethane	ND	2200	ug/kg	45
Cyclohexane	ND	10000	ug/kg	66
Dibromochloromethane	ND	430	ug/kg	59
1,2-Dibromo-3-chloro- propane	ND	2200	ug/kg	520
1,2-Dibromoethane	ND	2200	ug/kg	85
1,2-Dichlorobenzene	ND	860	ug/kg	150
1,3-Dichlorobenzene	ND	860	ug/kg	62
1,4-Dichlorobenzene	ND	860	ug/kg	68
Dichlorodifluoromethane	ND	860	ug/kg	46
1,1-Dichloroethane	ND	430	ug/kg	63
1,2-Dichloroethane	ND	430	ug/kg	80
1,1-Dichloroethene	ND	430	ug/kg	71
cis-1,2-Dichloroethene	ND	430	ug/kg	120
trans-1,2-Dichloroethene	ND	430	ug/kg	95
1,2-Dichloropropane	ND	430	ug/kg	64
cis-1,3-Dichloropropene	ND	430	ug/kg	47
trans-1,3-Dichloropropene	ND	430	ug/kg	46
Ethylbenzene	ND	430	ug/kg	59
2-Hexanone	ND	22000	ug/kg	210
Isopropylbenzene	ND	2200	ug/kg	44
Methyl acetate	ND	10000	ug/kg	450
Methylene chloride	ND	2200	ug/kg	850
Methylcyclohexane	200 J	10000	ug/kg	49
4-Methyl-2-pentanone	ND	22000	ug/kg	95
Methyl tert-butyl ether	ND	2200	ug/kg	86
Styrene	ND	430	ug/kg	240

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CONESTOGA-ROVERS & ASSOC., INC.

Client Sample ID: S-17360-071404-DCR-089

GC/MS Volatiles

Lot-Sample #....: A4G150200-012 Work Order #....: GK57J1AA Matrix.....: SO

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>	<u>MDL</u>
1,1,2,2-Tetrachloroethane	ND	860	ug/kg	71
Tetrachloroethene	ND	430	ug/kg	77
Toluene	160 J	860	ug/kg	78
1,2,4-Trichloro- benzene	ND	2200	ug/kg	100
1,1,1-Trichloroethane	ND	430	ug/kg	82
1,1,2-Trichloroethane	ND	430	ug/kg	85
Trichloroethene	12000	430	ug/kg	100
Trichlorofluoromethane	ND	860	ug/kg	71
1,1,2-Trichloro- 1,2,2-trifluoroethane	ND	2200	ug/kg	86
Vinyl chloride	ND	860	ug/kg	140
Xylenes (total)	280 J	1300	ug/kg	130

<u>SURROGATE</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>
Dibromofluoromethane	72 DIL	(59 - 138)
1,2-Dichloroethane-d4	74 DIL	(61 - 130)
Toluene-d8	87 DIL	(60 - 143)
4-Bromofluorobenzene	79 DIL	(47 - 158)

NOTE(S) :

DIL The concentration is estimated or not reported due to dilution or the presence of interfering analytes.

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than RL.

CONESTOGA-ROVERS & ASSOC., INC.

Client Sample ID: S-17360-071404-DCR-090

GC/MS Volatiles

Lot-Sample #....: A4G150200-013 Work Order #....: GK57K1AA Matrix.....: SO
 Date Sampled....: 07/14/04 14:00 Date Received...: 07/15/04
 Prep Date.....: 07/16/04 Analysis Date...: 07/19/04
 Prep Batch #....: 4202313
 Dilution Factor: 1.13 Initial Wgt/Vol: 22.2 g Final Wgt/Vol...: 25 mL
 % Moisture.....: 2.5 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING		
		LIMIT	UNITS	MDL
Acetone	ND	870	ug/kg	110
Benzene	ND	58	ug/kg	7.4
Bromodichloromethane	ND	120	ug/kg	14
Bromoform	ND	120	ug/kg	15
Bromomethane	ND	290	ug/kg	29
2-Butanone	ND	870	ug/kg	57
Carbon disulfide	ND	290	ug/kg	23
Carbon tetrachloride	ND	58	ug/kg	14
Chlorobenzene	ND	58	ug/kg	7.3
Chloroethane	ND	290	ug/kg	75
Chloroform	ND	58	ug/kg	14
Chloromethane	22 J,B	290	ug/kg	6.0
Cyclohexane	ND	1400	ug/kg	8.9
Dibromochloromethane	ND	58	ug/kg	8.0
1,2-Dibromo-3-chloro- propane	ND	290	ug/kg	70
1,2-Dibromoethane	ND	290	ug/kg	11
1,2-Dichlorobenzene	ND	120	ug/kg	20
1,3-Dichlorobenzene	ND	120	ug/kg	8.3
1,4-Dichlorobenzene	ND	120	ug/kg	9.2
Dichlorodifluoromethane	ND	120	ug/kg	6.3
1,1-Dichloroethane	ND	58	ug/kg	8.5
1,2-Dichloroethane	ND	58	ug/kg	11
1,1-Dichloroethene	ND	58	ug/kg	9.6
cis-1,2-Dichloroethene	ND	58	ug/kg	16
trans-1,2-Dichloroethene	ND	58	ug/kg	13
1,2-Dichloropropane	ND	58	ug/kg	8.6
cis-1,3-Dichloropropene	ND	58	ug/kg	6.4
trans-1,3-Dichloropropene	ND	58	ug/kg	6.3
Ethylbenzene	ND	58	ug/kg	7.9
2-Hexanone	ND	2900	ug/kg	28
Isopropylbenzene	ND	290	ug/kg	5.9
Methyl acetate	ND	1400	ug/kg	60
Methylene chloride	ND	290	ug/kg	110
Methylcyclohexane	ND	1400	ug/kg	6.6
4-Methyl-2-pentanone	ND	2900	ug/kg	13
Methyl tert-butyl ether	ND	290	ug/kg	12
Styrene	ND	58	ug/kg	32

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CONESTOGA-ROVERS & ASSOC., INC.

Client Sample ID: S-17360-071404-DCR-090

GC/MS Volatiles

Lot-Sample #....: A4G150200-013 Work Order #....: GK57K1AA Matrix.....: SO

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
1,1,2,2-Tetrachloroethane	ND	120	ug/kg	9.5
Tetrachloroethene	ND	58	ug/kg	10
Toluene	ND	120	ug/kg	11
1,2,4-Trichloro- benzene	ND	290	ug/kg	14
1,1,1-Trichloroethane	ND	58	ug/kg	11
1,1,2-Trichloroethane	ND	58	ug/kg	11
Trichloroethene	ND	58	ug/kg	14
Trichlorofluoromethane	ND	120	ug/kg	9.6
1,1,2-Trichloro- 1,2,2-trifluoroethane	ND	290	ug/kg	12
Vinyl chloride	ND	120	ug/kg	19
Xylenes (total)	ND	170	ug/kg	17

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	72	(59 - 138)
1,2-Dichloroethane-d4	81	(61 - 130)
Toluene-d8	94	(60 - 143)
4-Bromofluorobenzene	86	(47 - 158)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than RL.

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

CONESTOGA-ROVERS & ASSOC., INC.

Client Sample ID: S-17360-071404-DCR-091

GC/MS Volatiles

Lot-Sample #....: A4G150200-014 Work Order #....: GK57M1AA Matrix.....: SO
 Date Sampled....: 07/14/04 14:05 Date Received...: 07/15/04
 Prep Date.....: 07/16/04 Analysis Date...: 07/19/04
 Prep Batch #....: 4202313
 Dilution Factor: 1.2 Initial Wgt/Vol: 20.9 g Final Wgt/Vol...: 25 mL
 % Moisture.....: 2.4 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acetone	ND	920	ug/kg	120
Benzene	ND	61	ug/kg	7.9
Bromodichloromethane	ND	120	ug/kg	15
Bromoform	ND	120	ug/kg	16
Bromomethane	ND	310	ug/kg	31
2-Butanone	ND	920	ug/kg	60
Carbon disulfide	ND	310	ug/kg	25
Carbon tetrachloride	ND	61	ug/kg	15
Chlorobenzene	ND	61	ug/kg	7.7
Chloroethane	ND	310	ug/kg	80
Chloroform	ND	61	ug/kg	15
Chloromethane	ND	310	ug/kg	6.4
Cyclohexane	ND	1500	ug/kg	9.5
Dibromochloromethane	ND	61	ug/kg	8.5
1,2-Dibromo-3-chloro- propane	ND	310	ug/kg	74
1,2-Dibromoethane	ND	310	ug/kg	12
1,2-Dichlorobenzene	ND	120	ug/kg	21
1,3-Dichlorobenzene	ND	120	ug/kg	8.8
1,4-Dichlorobenzene	ND	120	ug/kg	9.7
Dichlorodifluoromethane	ND	120	ug/kg	6.6
1,1-Dichloroethane	ND	61	ug/kg	9.0
1,2-Dichloroethane	ND	61	ug/kg	11
1,1-Dichloroethene	ND	61	ug/kg	10
cis-1,2-Dichloroethene	ND	61	ug/kg	17
trans-1,2-Dichloroethene	ND	61	ug/kg	14
1,2-Dichloropropane	ND	61	ug/kg	9.1
cis-1,3-Dichloropropene	ND	61	ug/kg	6.8
trans-1,3-Dichloropropene	ND	61	ug/kg	6.6
Ethylbenzene	ND	61	ug/kg	8.4
2-Hexanone	ND	3100	ug/kg	29
Isopropylbenzene	ND	310	ug/kg	6.3
Methyl acetate	ND	1500	ug/kg	64
Methylene chloride	ND	310	ug/kg	120
Methylcyclohexane	ND	1500	ug/kg	7.0
4-Methyl-2-pentanone	ND	3100	ug/kg	14
Methyl tert-butyl ether	ND	310	ug/kg	12
Styrene	ND	61	ug/kg	34

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CONESTOGA-ROVERS & ASSOC., INC.

Client Sample ID: S-17360-071404-DCR-091

GC/MS Volatiles

Lot-Sample #...: A4G150200-014 Work Order #...: GK57M1AA Matrix.....: SO

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
1,1,2,2-Tetrachloroethane	ND	120	ug/kg	10
Tetrachloroethene	ND	61	ug/kg	11
Toluene	ND	120	ug/kg	11
1,2,4-Trichloro- benzene	ND	310	ug/kg	15
1,1,1-Trichloroethane	ND	61	ug/kg	12
1,1,2-Trichloroethane	ND	61	ug/kg	12
Trichloroethene	ND	61	ug/kg	15
Trichlorofluoromethane	ND	120	ug/kg	10
1,1,2-Trichloro- 1,2,2-trifluoroethane	ND	310	ug/kg	12
Vinyl chloride	ND	120	ug/kg	20
Xylenes (total)	ND	180	ug/kg	18

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	75	(59 - 138)
1,2-Dichloroethane-d4	81	(61 - 130)
Toluene-d8	93	(60 - 143)
4-Bromofluorobenzene	85	(47 - 158)

NOTE (S) :

Results and reporting limits have been adjusted for dry weight.

CONESTOGA-ROVERS & ASSOC., INC.

Client Sample ID: S-17360-071404-DCR-092

GC/MS Volatiles

Lot-Sample #....: A4G150200-015 Work Order #....: GK57N1AA Matrix.....: SO
 Date Sampled....: 07/14/04 14:10 Date Received...: 07/15/04
 Prep Date.....: 07/16/04 Analysis Date...: 07/19/04
 Prep Batch #....: 4202313
 Dilution Factor: 1.14 Initial Wgt/Vol: 21.9 g Final Wgt/Vol...: 25 mL
 * Moisture.....: 3.0 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING		
		LIMIT	UNITS	MDL
Acetone	ND	880	ug/kg	120
Benzene	ND	59	ug/kg	7.5
Bromodichloromethane	ND	120	ug/kg	14
Bromoform	ND	120	ug/kg	15
Bromomethane	ND	290	ug/kg	29
2-Butanone	ND	880	ug/kg	58
Carbon disulfide	ND	290	ug/kg	24
Carbon tetrachloride	ND	59	ug/kg	14
Chlorobenzene	ND	59	ug/kg	7.4
Chloroethane	ND	290	ug/kg	76
Chloroform	ND	59	ug/kg	14
Chloromethane	ND	290	ug/kg	6.1
Cyclohexane	ND	1400	ug/kg	9.0
Dibromochloromethane	ND	59	ug/kg	8.1
1,2-Dibromo-3-chloro- propane	ND	290	ug/kg	71
1,2-Dibromoethane	ND	290	ug/kg	12
1,2-Dichlorobenzene	ND	120	ug/kg	20
1,3-Dichlorobenzene	ND	120	ug/kg	8.5
1,4-Dichlorobenzene	ND	120	ug/kg	9.3
Dichlorodifluoromethane	ND	120	ug/kg	6.3
1,1-Dichloroethane	ND	59	ug/kg	8.6
1,2-Dichloroethane	ND	59	ug/kg	11
1,1-Dichloroethene	ND	59	ug/kg	9.8
cis-1,2-Dichloroethene	ND	59	ug/kg	16
trans-1,2-Dichloroethene	ND	59	ug/kg	13
1,2-Dichloropropane	ND	59	ug/kg	8.7
cis-1,3-Dichloropropene	ND	59	ug/kg	6.5
trans-1,3-Dichloropropene	ND	59	ug/kg	6.3
Ethylbenzene	ND	59	ug/kg	8.0
2-Hexanone	ND	2900	ug/kg	28
Isopropylbenzene	ND	290	ug/kg	6.0
Methyl acetate	ND	1400	ug/kg	61
Methylene chloride	ND	290	ug/kg	120
Methylcyclohexane	ND	1400	ug/kg	6.7
4-Methyl-2-pentanone	ND	2900	ug/kg	13
Methyl tert-butyl ether	ND	290	ug/kg	12
Styrene	ND	59	ug/kg	33

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COMESTOGA-ROVERS & ASSOC., INC.

Client Sample ID: S-17360-071404-DCR-092

GC/MS Volatiles

Lot-Sample #....: A4G150200-015 Work Order #....: GK57N1AA Matrix.....: SO

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
1,1,2,2-Tetrachloroethane	ND	120	ug/kg	9.6
Tetrachloroethene	ND	59	ug/kg	11
Toluene	ND	120	ug/kg	11
1,2,4-Trichloro- benzene	ND	290	ug/kg	14
1,1,1-Trichloroethane	ND	59	ug/kg	11
1,1,2-Trichloroethane	ND	59	ug/kg	12
Trichloroethene	ND	59	ug/kg	14
Trichlorofluoromethane	ND	120	ug/kg	9.8
1,1,2-Trichloro- 1,2,2-trifluoroethane	ND	290	ug/kg	12
Vinyl chloride	ND	120	ug/kg	19
Xylenes (total)	ND	180	ug/kg	18

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	82	(59 - 138)
1,2-Dichloroethane-d4	89	(61 - 130)
Toluene-d8	104	(60 - 143)
4-Bromofluorobenzene	93	(47 - 158)

NOTE (S) :

Results and reporting limits have been adjusted for dry weight.

CONESTOGA-ROVERS & ASSOC., INC.

Client Sample ID: S-17360-071404-DCR-093

GC/MS Volatiles

Lot-Sample #....: A4G150200-016	Work Order #....: GK57P1AA	Matrix.....: SO
Date Sampled....: 07/14/04 14:15	Date Received...: 07/15/04	
Prep Date.....: 07/16/04	Analysis Date...: 07/19/04	
Prep Batch #....: 4202313		
Dilution Factor: 1.11	Initial Wgt/Vol: 22.6 g	Final Wgt/Vol...: 25 mL
% Moisture.....: 5.0	Method.....: SW846 8260B	

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acetone	ND	880	ug/kg	120
Benzene	ND	58	ug/kg	7.5
Bromodichloromethane	ND	120	ug/kg	14
Bromoform	ND	120	ug/kg	15
Bromomethane	ND	290	ug/kg	29
2-Butanone	ND	880	ug/kg	57
Carbon disulfide	ND	290	ug/kg	23
Carbon tetrachloride	ND	58	ug/kg	14
Chlorobenzene	ND	58	ug/kg	7.4
Chloroethane	ND	290	ug/kg	76
Chloroform	ND	58	ug/kg	14
Chloromethane	ND	290	ug/kg	6.1
Cyclohexane	ND	1400	ug/kg	9.0
Dibromochloromethane	ND	58	ug/kg	8.1
1,2-Dibromo-3-chloro- propane	ND	290	ug/kg	70
1,2-Dibromoethane	ND	290	ug/kg	12
1,2-Dichlorobenzene	ND	120	ug/kg	20
1,3-Dichlorobenzene	ND	120	ug/kg	8.4
1,4-Dichlorobenzene	ND	120	ug/kg	9.2
Dichlorodifluoromethane	ND	120	ug/kg	6.3
1,1-Dichloroethane	ND	58	ug/kg	8.5
1,2-Dichloroethane	ND	58	ug/kg	11
1,1-Dichloroethene	ND	58	ug/kg	9.7
cis-1,2-Dichloroethene	ND	58	ug/kg	16
trans-1,2-Dichloroethene	ND	58	ug/kg	13
1,2-Dichloropropane	ND	58	ug/kg	8.6
cis-1,3-Dichloropropene	ND	58	ug/kg	6.4
trans-1,3-Dichloropropene	ND	58	ug/kg	6.3
Ethylbenzene	ND	58	ug/kg	7.9
2-Hexanone	ND	2900	ug/kg	28
Isopropylbenzene	ND	290	ug/kg	6.0
Methyl acetate	ND	1400	ug/kg	61
Methylene chloride	ND	290	ug/kg	120
Methylcyclohexane	ND	1400	ug/kg	6.7
4-Methyl-2-pentanone	ND	2900	ug/kg	13
Methyl tert-butyl ether	ND	290	ug/kg	12
Styrene	ND	58	ug/kg	33

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CONESTOGA-ROVERS & ASSOC., INC.

Client Sample ID: S-17360-071404-DCR-093

GC/MS Volatiles

Lot-Sample #....: A4G150200-016 Work Order #....: GK57P1AA Matrix.....: SO

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
1,1,2,2-Tetrachloroethane	ND	120	ug/kg	9.6
Tetrachloroethene	ND	58	ug/kg	11
Toluene	ND	120	ug/kg	11
1,2,4-Trichloro- benzene	ND	290	ug/kg	14
1,1,1-Trichloroethane	ND	58	ug/kg	11
1,1,2-Trichloroethane	ND	58	ug/kg	12
Trichloroethene	40 J	58	ug/kg	14
Trichlorofluoromethane	ND	120	ug/kg	9.7
1,1,2-Trichloro- 1,2,2-trifluoroethane	ND	290	ug/kg	12
Vinyl chloride	ND	120	ug/kg	19
Xylenes (total)	ND	180	ug/kg	18

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	74	(59 - 138)
1,2-Dichloroethane-d4	80	(61 - 130)
Toluene-d8	93	(60 - 143)
4-Bromofluorobenzene	85	(47 - 158)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than RL.

CONESTOGA-ROVERS & ASSOC., INC.

Client Sample ID: 8-17360-071404-DCR-094

GC/MS Volatiles

Lot-Sample #....: A4G150200-017 Work Order #....: GK57Q1AA Matrix.....: SO
 Date Sampled....: 07/14/04 14:20 Date Received...: 07/15/04
 Prep Date.....: 07/16/04 Analysis Date...: 07/20/04
 Prep Batch #....: 4202313
 Dilution Factor: 1.2 Initial Wgt/Vol: 20.9 g Final Wgt/Vol...: 25 mL
 % Moisture.....: 1.9 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING		
		LIMIT	UNITS	MDL
Acetone	ND	920	ug/kg	120
Benzene	ND	61	ug/kg	7.8
Bromodichloromethane	ND	120	ug/kg	15
Bromoform	ND	120	ug/kg	16
Bromomethane	ND	310	ug/kg	31
2-Butanone	ND	920	ug/kg	60
Carbon disulfide	ND	310	ug/kg	24
Carbon tetrachloride	ND	61	ug/kg	15
Chlorobenzene	ND	61	ug/kg	7.7
Chloroethane	ND	310	ug/kg	80
Chloroform	ND	61	ug/kg	15
Chloromethane	ND	310	ug/kg	6.4
Cyclohexane	ND	1500	ug/kg	9.4
Dibromochloromethane	ND	61	ug/kg	8.4
1,2-Dibromo-3-chloro- propane	ND	310	ug/kg	73
1,2-Dibromoethane	ND	310	ug/kg	12
1,2-Dichlorobenzene	ND	120	ug/kg	21
1,3-Dichlorobenzene	ND	120	ug/kg	8.8
1,4-Dichlorobenzene	ND	120	ug/kg	9.7
Dichlorodifluoromethane	ND	120	ug/kg	6.6
1,1-Dichloroethane	ND	61	ug/kg	8.9
1,2-Dichloroethane	ND	61	ug/kg	11
1,1-Dichloroethene	ND	61	ug/kg	10
cis-1,2-Dichloroethene	ND	61	ug/kg	17
trans-1,2-Dichloroethene	ND	61	ug/kg	13
1,2-Dichloropropane	ND	61	ug/kg	9.1
cis-1,3-Dichloropropene	ND	61	ug/kg	6.7
trans-1,3-Dichloropropene	ND	61	ug/kg	6.6
Ethylbenzene	ND	61	ug/kg	8.3
2-Hexanone	ND	3100	ug/kg	29
Isopropylbenzene	ND	310	ug/kg	6.2
Methyl acetate	ND	1500	ug/kg	64
Methylene chloride	ND	310	ug/kg	120
Methylcyclohexane	ND	1500	ug/kg	7.0
4-Methyl-2-pentanone	ND	3100	ug/kg	13
Methyl tert-butyl ether	ND	310	ug/kg	12
Styrene	ND	61	ug/kg	34

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CONESTOGA-ROVERS & ASSOC., INC.

Client Sample ID: S-17360-071404-DCR-094

GC/MS Volatiles

Lot-Sample #....: A4G150200-017 Work Order #....: GK57Q1AA Matrix.....: SO

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
1,1,2,2-Tetrachloroethane	ND	120	ug/kg	10
Tetrachloroethene	ND	61	ug/kg	11
Toluene	ND	120	ug/kg	11
1,2,4-Trichloro- benzene	ND	310	ug/kg	15
1,1,1-Trichloroethane	ND	61	ug/kg	12
1,1,2-Trichloroethane	ND	61	ug/kg	12
Trichloroethene	22 J	61	ug/kg	15
Trichlorofluoromethane	ND	120	ug/kg	10
1,1,2-Trichloro- 1,2,2-trifluoroethane	ND	310	ug/kg	12
Vinyl chloride	ND	120	ug/kg	20
Xylenes (total)	ND	180	ug/kg	18

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	68	(59 - 138)
1,2-Dichloroethane-d4	81	(61 - 130)
Toluene-d8	94	(60 - 143)
4-Bromofluorobenzene	85	(47 - 158)

NOTE(S) :

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than RL.

CONESTOGA-ROVERS & ASSOC., INC.

Client Sample ID: 8-17360-071404-DCR-095

GC/MS Volatiles

Lot-Sample #....: A4G150200-018 **Work Order #....:** GK57R1AA **Matrix.....:** 80
Date Sampled....: 07/14/04 14:30 **Date Received...:** 07/15/04
Prep Date.....: 07/16/04 **Analysis Date...:** 07/20/04
Prep Batch #....: 4202313
Dilution Factor: 1.05 **Initial Wgt/Vol:** 23.7 g **Final Wgt/Vol...:** 25 mL
% Moisture.....: 3.8 **Method.....:** SW846 8260B

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u> <u>LIMIT</u>	<u>UNITS</u>	<u>MDL</u>
Acetone	ND	820	ug/kg	110
Benzene	ND	55	ug/kg	7.0
Bromodichloromethane	ND	110	ug/kg	13
Bromoform	ND	110	ug/kg	14
Bromomethane	ND	270	ug/kg	27
2-Butanone	ND	820	ug/kg	53
Carbon disulfide	ND	270	ug/kg	22
Carbon tetrachloride	ND	55	ug/kg	13
Chlorobenzene	ND	55	ug/kg	6.9
Chloroethane	ND	270	ug/kg	71
Chloroform	ND	55	ug/kg	13
Chloromethane	19 J,B	270	ug/kg	5.7
Cyclohexane	ND	1300	ug/kg	8.4
Dibromochloromethane	ND	55	ug/kg	7.5
1,2-Dibromo-3-chloro- propane	ND	270	ug/kg	65
1,2-Dibromoethane	ND	270	ug/kg	11
1,2-Dichlorobenzene	ND	110	ug/kg	19
1,3-Dichlorobenzene	ND	110	ug/kg	7.9
1,4-Dichlorobenzene	ND	110	ug/kg	8.6
Dichlorodifluoromethane	ND	110	ug/kg	5.9
1,1-Dichloroethane	ND	55	ug/kg	8.0
1,2-Dichloroethane	ND	55	ug/kg	10
1,1-Dichloroethene	ND	55	ug/kg	9.1
cis-1,2-Dichloroethene	ND	55	ug/kg	15
trans-1,2-Dichloroethene	ND	55	ug/kg	12
1,2-Dichloropropane	ND	55	ug/kg	8.1
cis-1,3-Dichloropropene	ND	55	ug/kg	6.0
trans-1,3-Dichloropropene	ND	55	ug/kg	5.9
Ethylbenzene	ND	55	ug/kg	7.4
2-Hexanone	ND	2700	ug/kg	26
Isopropylbenzene	ND	270	ug/kg	5.6
Methyl acetate	ND	1300	ug/kg	57
Methylene chloride	ND	270	ug/kg	110
Methylcyclohexane	ND	1300	ug/kg	6.2
4-Methyl-2-pentanone	ND	2700	ug/kg	12
Methyl tert-butyl ether	ND	270	ug/kg	11
Styrene	ND	55	ug/kg	31

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CONESTOGA-ROVERS & ASSOC., INC.

Client Sample ID: S-17360-071404-DCR-095

GC/MS Volatiles

Lot-Sample #....: A4G150200-018 Work Order #....: GK57R1AA Matrix.....: SO

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
1,1,2,2-Tetrachloroethane	ND	110	ug/kg	8.9
Tetrachloroethene	ND	55	ug/kg	9.8
Toluene	ND	110	ug/kg	9.9
1,2,4-Trichloro- benzene	ND	270	ug/kg	13
1,1,1-Trichloroethane	ND	55	ug/kg	10
1,1,2-Trichloroethane	ND	55	ug/kg	11
Trichloroethene	22 J	55	ug/kg	13
Trichlorofluoromethane	ND	110	ug/kg	9.1
1,1,2-Trichloro- 1,2,2-trifluoroethane	ND	270	ug/kg	11
Vinyl chloride	ND	110	ug/kg	17
Xylenes (total)	ND	160	ug/kg	16

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	64	(59 - 138)
1,2-Dichloroethane-d4	79	(61 - 130)
Toluene-d8	95	(60 - 143)
4-Bromofluorobenzene	86	(47 - 158)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than RL.

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

CONESTOGA-ROVERS & ASSOC., INC.

Client Sample ID: S-17360-071404-DCR-096

GC/MS Volatiles

Lot-Sample #....: A4G150200-019 Work Order #....: GK57T1AA Matrix.....: SO
 Date Sampled....: 07/14/04 14:40 Date Received...: 07/15/04
 Prep Date.....: 07/16/04 Analysis Date...: 07/20/04
 Prep Batch #....: 4202313
 Dilution Factor: 1.11 Initial Wgt/Vol: 22.6 g Final Wgt/Vol...: 25 mL
 % Moisture.....: 3.2 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acetone	ND	860	ug/kg	110
Benzene	ND	57	ug/kg	7.3
Bromodichloromethane	ND	110	ug/kg	14
Bromoform	ND	110	ug/kg	15
Bromomethane	ND	290	ug/kg	29
2-Butanone	ND	860	ug/kg	56
Carbon disulfide	ND	290	ug/kg	23
Carbon tetrachloride	ND	57	ug/kg	14
Chlorobenzene	ND	57	ug/kg	7.2
Chloroethane	ND	290	ug/kg	75
Chloroform	ND	57	ug/kg	14
Chloromethane	18 J,B	290	ug/kg	6.0
Cyclohexane	ND	1400	ug/kg	8.8
Dibromochloromethane	ND	57	ug/kg	7.9
1,2-Dibromo-3-chloro- propane	ND	290	ug/kg	69
1,2-Dibromoethane	ND	290	ug/kg	11
1,2-Dichlorobenzene	ND	110	ug/kg	19
1,3-Dichlorobenzene	ND	110	ug/kg	8.3
1,4-Dichlorobenzene	ND	110	ug/kg	9.1
Dichlorodifluoromethane	ND	110	ug/kg	6.2
1,1-Dichloroethane	ND	57	ug/kg	8.4
1,2-Dichloroethane	ND	57	ug/kg	11
1,1-Dichloroethene	ND	57	ug/kg	9.5
cis-1,2-Dichloroethane	ND	57	ug/kg	16
trans-1,2-Dichloroethene	ND	57	ug/kg	13
1,2-Dichloropropane	ND	57	ug/kg	8.5
cis-1,3-Dichloropropene	ND	57	ug/kg	6.3
trans-1,3-Dichloropropene	ND	57	ug/kg	6.2
Ethylbenzene	ND	57	ug/kg	7.8
2-Hexanone	ND	2900	ug/kg	28
Isopropylbenzene	ND	290	ug/kg	5.8
Methyl acetate	ND	1400	ug/kg	60
Methylene chloride	ND	290	ug/kg	110
Methylcyclohexane	ND	1400	ug/kg	6.5
4-Methyl-2-pentanone	ND	2900	ug/kg	13
Methyl tert-butyl ether	ND	290	ug/kg	11
Styrene	ND	57	ug/kg	32

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CONESTOGA-ROVERS & ASSOC., INC.

Client Sample ID: S-17360-071404-DCR-096

GC/MS Volatiles

Lot-Sample #....: A4G150200-019 Work Order #....: GK57T1AA Matrix.....: SO

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
1,1,2,2-Tetrachloroethane	ND	110	ug/kg	9.4
Tetrachloroethene	ND	57	ug/kg	10
Toluene	ND	110	ug/kg	10
1,2,4-Trichloro- benzene	ND	290	ug/kg	14
1,1,1-Trichloroethane	ND	57	ug/kg	11
1,1,2-Trichloroethane	ND	57	ug/kg	11
Trichloroethene	87	57	ug/kg	14
Trichlorofluoromethane	ND	110	ug/kg	9.5
1,1,2-Trichloro- 1,2,2-trifluoroethane	ND	290	ug/kg	11
Vinyl chloride	ND	110	ug/kg	18
Xylenes (total)	ND	170	ug/kg	17

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	64	(59 - 138)
1,2-Dichloroethane-d4	79	(61 - 130)
Toluene-d8	92	(60 - 143)
4-Bromofluorobenzene	84	(47 - 158)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than RL.

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

CONESTOGA-ROVERS & ASSOC., INC.

Client Sample ID: 8-17360-071404-DCR-097

GC/MS Volatiles

Lot-Sample #....: A4G150200-020 Work Order #....: GK57V1AA Matrix.....: SO
Date Sampled....: 07/14/04 14:45 Date Received...: 07/15/04
Prep Date.....: 07/16/04 Analysis Date...: 07/20/04
Prep Batch #....: 4202313
Dilution Factor: 1.08 Initial Wgt/Vol: 23.2 g Final Wgt/Vol...: 25 mL
% Moisture.....: 1.9 Method.....: SW846 8260B

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>	<u>MDL</u>
Acetone	ND	830	ug/kg	110
Benzene	ND	55	ug/kg	7.0
Bromodichloromethane	ND	110	ug/kg	13
Bromoform	ND	110	ug/kg	14
Bromomethane	ND	280	ug/kg	28
2-Butanone	ND	830	ug/kg	54
Carbon disulfide	ND	280	ug/kg	22
Carbon tetrachloride	ND	55	ug/kg	13
Chlorobenzene	ND	55	ug/kg	6.9
Chloroethane	ND	280	ug/kg	72
Chloroform	ND	55	ug/kg	13
Chloromethane	ND	280	ug/kg	5.7
Cyclohexane	ND	1300	ug/kg	8.5
Dibromochloromethane	ND	55	ug/kg	7.6
1,2-Dibromo-3-chloro- propane	ND	280	ug/kg	66
1,2-Dibromoethane	ND	280	ug/kg	11
1,2-Dichlorobenzene	ND	110	ug/kg	19
1,3-Dichlorobenzene	ND	110	ug/kg	7.9
1,4-Dichlorobenzene	ND	110	ug/kg	8.7
Dichlorodifluoromethane	ND	110	ug/kg	5.9
1,1-Dichloroethane	ND	55	ug/kg	8.0
1,2-Dichloroethane	ND	55	ug/kg	10
1,1-Dichloroethene	ND	55	ug/kg	9.1
cis-1,2-Dichloroethene	ND	55	ug/kg	15
trans-1,2-Dichloroethene	ND	55	ug/kg	12
1,2-Dichloropropane	ND	55	ug/kg	8.1
cis-1,3-Dichloropropene	ND	55	ug/kg	6.1
trans-1,3-Dichloropropene	ND	55	ug/kg	5.9
Ethylbenzene	ND	55	ug/kg	7.5
2-Hexanone	ND	2800	ug/kg	26
Isopropylbenzene	ND	280	ug/kg	5.6
Methyl acetate	ND	1300	ug/kg	57
Methylene chloride	ND	280	ug/kg	110
Methylcyclohexane	ND	1300	ug/kg	6.3
4-Methyl-2-pentanone	ND	2800	ug/kg	12
Methyl tert-butyl ether	ND	280	ug/kg	11
Styrene	ND	55	ug/kg	31

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CONESTOGA-ROVERS & ASSOC., INC.

Client Sample ID: S-17360-071404-DCR-097

GC/MS Volatiles

Lot-Sample #....: A4G150200-020 Work Order #....: GK57V1AA Matrix.....: SO

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
1,1,2,2-Tetrachloroethane	ND	110	ug/kg	9.0
Tetrachloroethene	ND	55	ug/kg	9.9
Toluene	ND	110	ug/kg	10
1,2,4-Trichloro- benzene	ND	280	ug/kg	13
1,1,1-Trichloroethane	ND	55	ug/kg	10
1,1,2-Trichloroethane	ND	55	ug/kg	11
Trichloroethene	63	55	ug/kg	13
Trichlorofluoromethane	ND	110	ug/kg	9.1
1,1,2-Trichloro- 1,2,2-trifluoroethane	ND	280	ug/kg	11
Vinyl chloride	ND	110	ug/kg	18
Xylenes (total)	ND	170	ug/kg	17

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	66	(59 - 138)
1,2-Dichloroethane-d4	82	(61 - 130)
Toluene-d8	93	(60 - 143)
4-Bromofluorobenzene	86	(47 - 158)

NOTE (S) :

Results and reporting limits have been adjusted for dry weight.

CONESTOGA-ROVERS & ASSOC., INC.

Client Sample ID: S-17360-071404-DCR-098

GC/MS Volatiles

Lot-Sample #....: A4G150200-021 Work Order #....: GK57W1AA Matrix.....: 80
 Date Sampled....: 07/14/04 14:55 Date Received...: 07/15/04
 Prep Date.....: 07/16/04 Analysis Date...: 07/21/04
 Prep Batch #....: 4203414
 Dilution Factor: 1.15 Initial Wgt/Vol: 21.7 g Final Wgt/Vol...: 25 mL
 % Moisture.....: 3.0 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acetone	ND	890	ug/kg	120
Benzene	ND	59	ug/kg	7.6
Bromodichloromethane	ND	120	ug/kg	14
Bromoform	ND	120	ug/kg	15
Bromomethane	ND	300	ug/kg	30
2-Butanone	ND	890	ug/kg	58
Carbon disulfide	ND	300	ug/kg	24
Carbon tetrachloride	ND	59	ug/kg	14
Chlorobenzene	ND	59	ug/kg	7.5
Chloroethane	ND	300	ug/kg	77
Chloroform	ND	59	ug/kg	14
Chloromethane	ND	300	ug/kg	6.2
Cyclohexane	ND	1400	ug/kg	9.1
Dibromochloromethane	ND	59	ug/kg	8.2
1,2-Dibromo-3-chloro- propane	ND	300	ug/kg	71
1,2-Dibromoethane	ND	300	ug/kg	12
1,2-Dichlorobenzene	ND	120	ug/kg	20
1,3-Dichlorobenzene	ND	120	ug/kg	8.5
1,4-Dichlorobenzene	ND	120	ug/kg	9.4
Dichlorodifluoromethane	ND	120	ug/kg	6.4
1,1-Dichloroethane	ND	59	ug/kg	8.7
1,2-Dichloroethane	ND	59	ug/kg	11
1,1-Dichloroethene	ND	59	ug/kg	9.8
cis-1,2-Dichloroethene	ND	59	ug/kg	17
trans-1,2-Dichloroethene	ND	59	ug/kg	13
1,2-Dichloropropane	ND	59	ug/kg	8.8
cis-1,3-Dichloropropene	ND	59	ug/kg	6.5
trans-1,3-Dichloropropene	ND	59	ug/kg	6.4
Ethylbenzene	ND	59	ug/kg	8.1
2-Hexanone	ND	3000	ug/kg	28
Isopropylbenzene	ND	300	ug/kg	6.0
Methyl acetate	ND	1400	ug/kg	62
Methylene chloride	ND	300	ug/kg	120
Methylcyclohexane	ND	1400	ug/kg	6.8
4-Methyl-2-pentanone	ND	3000	ug/kg	13
Methyl tert-butyl ether	ND	300	ug/kg	12
Styrene	ND	59	ug/kg	33

(Continued on next page)

CONESTOGA-ROVERS & ASSOC., INC.

Client Sample ID: S-17360-071404-DCR-098

GC/MS Volatiles

Lot-Sample #....: A4G150200-021 Work Order #....: GK57W1AA Matrix.....: SO

PARAMETER	RESULT	REPORTING		
		LIMIT	UNITS	MDL
1,1,2,2-Tetrachloroethane	ND	120	ug/kg	9.7
Tetrachloroethene	ND	59	ug/kg	11
Toluene	ND	120	ug/kg	11
1,2,4-Trichloro-benzene	ND	300	ug/kg	14
1,1,1-Trichloroethane	ND	59	ug/kg	11
1,1,2-Trichloroethane	ND	59	ug/kg	12
Trichloroethene	27 J	59	ug/kg	14
Trichlorofluoromethane	ND	120	ug/kg	9.8
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	300	ug/kg	12
Vinyl chloride	ND	120	ug/kg	19
Xylenes (total)	ND	180	ug/kg	18

SURROGATE	PERCENT		RECOVERY	
	RECOVERY		LIMITS	
Dibromofluoromethane	74		(59 - 138)	
1,2-Dichloroethane-d4	84		(61 - 130)	
Toluene-d8	96		(60 - 143)	
4-Bromofluorobenzene	86		(47 - 158)	

NOTE(S) :

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than RL.

CONESTOGA-ROVERS & ASSOC., INC.

Client Sample ID: S-17360-071404-DCR-099

GC/MS Volatiles

Lot-Sample #....: A4G150200-022 Work Order #....: GK57X1AA Matrix.....: 80
 Date Sampled....: 07/14/04 15:05 Date Received...: 07/15/04
 Prep Date.....: 07/16/04 Analysis Date...: 07/21/04
 Prep Batch #....: 4203414
 Dilution Factor: 1.08 Initial Wgt/Vol: 23.1 g Final Wgt/Vol...: 25 mL
 % Moisture.....: 2.5 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acetone	ND	830	ug/kg	110
Benzene	ND	55	ug/kg	7.1
Bromodichloromethane	ND	110	ug/kg	13
Bromoform	ND	110	ug/kg	14
Bromomethane	ND	280	ug/kg	28
2-Butanone	ND	830	ug/kg	54
Carbon disulfide	ND	280	ug/kg	22
Carbon tetrachloride	ND	55	ug/kg	13
Chlorobenzene	ND	55	ug/kg	7.0
Chloroethane	ND	280	ug/kg	72
Chloroform	ND	55	ug/kg	13
Chloromethane	ND	280	ug/kg	5.8
Cyclohexane	ND	1300	ug/kg	8.5
Dibromochloromethane	ND	55	ug/kg	7.6
1,2-Dibromo-3-chloro- propane	ND	280	ug/kg	66
1,2-Dibromoethane	ND	280	ug/kg	11
1,2-Dichlorobenzene	ND	110	ug/kg	19
1,3-Dichlorobenzene	ND	110	ug/kg	8.0
1,4-Dichlorobenzene	ND	110	ug/kg	8.7
Dichlorodifluoromethane	ND	110	ug/kg	6.0
1,1-Dichloroethane	ND	55	ug/kg	8.1
1,2-Dichloroethane	ND	55	ug/kg	10
1,1-Dichloroethene	ND	55	ug/kg	9.2
cis-1,2-Dichloroethene	ND	55	ug/kg	16
trans-1,2-Dichloroethene	ND	55	ug/kg	12
1,2-Dichloropropane	ND	55	ug/kg	8.2
cis-1,3-Dichloropropene	ND	55	ug/kg	6.1
trans-1,3-Dichloropropene	ND	55	ug/kg	6.0
Ethylbenzene	ND	55	ug/kg	7.5
2-Hexanone	ND	2800	ug/kg	27
Isopropylbenzene	ND	280	ug/kg	5.6
Methyl acetate	ND	1300	ug/kg	58
Methylene chloride	ND	280	ug/kg	110
Methylcyclohexane	ND	1300	ug/kg	6.3
4-Methyl-2-pentanone	ND	2800	ug/kg	12
Methyl tert-butyl ether	ND	280	ug/kg	11
Styrene	ND	55	ug/kg	31

(Continued on next page)

CONESTOGA-ROVERS & ASSOC., INC.

Client Sample ID: S-17360-071404-DCR-099

GC/MS Volatiles

Lot-Sample #....: A4G150200-022 Work Order #....: GK57X1AA Matrix.....: SO

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
1,1,2,2-Tetrachloroethane	ND	110	ug/kg	9.1
Tetrachloroethene	ND	55	ug/kg	10
Toluene	ND	110	ug/kg	10
1,2,4-Trichloro- benzene	ND	280	ug/kg	13
1,1,1-Trichloroethane	ND	55	ug/kg	11
1,1,2-Trichloroethane	ND	55	ug/kg	11
Trichloroethene	46 J	55	ug/kg	13
Trichlorofluoromethane	ND	110	ug/kg	9.2
1,1,2-Trichloro- 1,2,2-trifluoroethane	ND	280	ug/kg	11
Vinyl chloride	ND	110	ug/kg	18
Xylenes (total)	ND	170	ug/kg	17

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	68	(59 - 138)
1,2-Dichloroethane-d4	81	(61 - 130)
Toluene-d8	93	(60 - 143)
4-Bromofluorobenzene	86	(47 - 158)

NOTE (S) :

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than RL.

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #....: A4G150200
 MB Lot-Sample #: A4G200000-313

Work Order #....: GLE581AA

Matrix.....: SOLID

Analysis Date...: 07/19/04
 Dilution Factor: 1

Prep Date.....: 07/16/04

Final Wgt/Vol...: 25 mL

Prep Batch #....: 4202313

Initial Wgt/Vol: 25 g

PARAMETER	RESULT	REPORTING			METHOD
		LIMIT	UNITS		
Acetone	ND	750	ug/kg		SW846 8260B
Benzene	ND	50	ug/kg		SW846 8260B
Bromodichloromethane	ND	100	ug/kg		SW846 8260B
Bromoform	ND	100	ug/kg		SW846 8260B
Bromomethane	ND	250	ug/kg		SW846 8260B
2-Butanone	ND	750	ug/kg		SW846 8260B
Carbon disulfide	ND	250	ug/kg		SW846 8260B
Carbon tetrachloride	ND	50	ug/kg		SW846 8260B
Chlorobenzene	ND	50	ug/kg		SW846 8260B
Chloroethane	ND	250	ug/kg		SW846 8260B
Chloroform	ND	50	ug/kg		SW846 8260B
Chloromethane	24 J	250	ug/kg		SW846 8260B
Cyclohexane	ND	1200	ug/kg		SW846 8260B
Dibromochloromethane	ND	50	ug/kg		SW846 8260B
1,2-Dibromo-3-chloro-propane	ND	250	ug/kg		SW846 8260B
1,2-Dibromoethane	ND	250	ug/kg		SW846 8260B
1,2-Dichlorobenzene	ND	100	ug/kg		SW846 8260B
1,3-Dichlorobenzene	ND	100	ug/kg		SW846 8260B
1,4-Dichlorobenzene	ND	100	ug/kg		SW846 8260B
Dichlorodifluoromethane	ND	100	ug/kg		SW846 8260B
1,1-Dichloroethane	ND	50	ug/kg		SW846 8260B
1,2-Dichloroethane	ND	50	ug/kg		SW846 8260B
1,1-Dichloroethene	ND	50	ug/kg		SW846 8260B
cis-1,2-Dichloroethene	ND	50	ug/kg		SW846 8260B
trans-1,2-Dichloroethene	ND	50	ug/kg		SW846 8260B
1,2-Dichloropropane	ND	50	ug/kg		SW846 8260B
cis-1,3-Dichloropropene	ND	50	ug/kg		SW846 8260B
trans-1,3-Dichloropropene	ND	50	ug/kg		SW846 8260B
Ethylbenzene	ND	50	ug/kg		SW846 8260B
2-Hexanone	ND	2500	ug/kg		SW846 8260B
Isopropylbenzene	ND	250	ug/kg		SW846 8260B
Methyl acetate	ND	1200	ug/kg		SW846 8260B
Methylene chloride	ND	250	ug/kg		SW846 8260B
Methylcyclohexane	ND	1200	ug/kg		SW846 8260B
4-Methyl-2-pentanone	ND	2500	ug/kg		SW846 8260B
Methyl tert-butyl ether	ND	250	ug/kg		SW846 8260B
Styrene	ND	50	ug/kg		SW846 8260B
1,1,2,2-Tetrachloroethane	ND	100	ug/kg		SW846 8260B
Tetrachloroethene	ND	50	ug/kg		SW846 8260B
Toluene	ND	100	ug/kg		SW846 8260B

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METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A4G150200

Work Order #...: GLE581AA

Matrix.....: SOLID

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>	<u>METHOD</u>
1,2,4-Trichloro- benzene	ND	250	ug/kg	SW846 8260B
1,1,1-Trichloroethane	ND	50	ug/kg	SW846 8260B
1,1,2-Trichloroethane	ND	50	ug/kg	SW846 8260B
Trichloroethene	ND	50	ug/kg	SW846 8260B
Trichlorofluoromethane	ND	100	ug/kg	SW846 8260B
1,1,2-Trichloro- 1,2,2-trifluoroethane	ND	250	ug/kg	SW846 8260B
Vinyl chloride	ND	100	ug/kg	SW846 8260B
Xylenes (total)	ND	150	ug/kg	SW846 8260B

<u>SURROGATE</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>
Dibromofluoromethane	82	(59 - 138)
1,2-Dichloroethane-d4	84	(61 - 130)
Toluene-d8	96	(60 - 143)
4-Bromofluorobenzene	89	(47 - 158)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

J Estimated result. Result is less than RL.

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #....: A4G150200
MB Lot-Sample #: A4G210000-414

Work Order #....: GLJF51AA

Matrix.....: SOLID

Analysis Date...: 07/21/04

Prep Date.....: 07/16/04

Final Wgt/Vol...: 25 mL

Dilution Factor: 1

Prep Batch #....: 4203414

Initial Wgt/Vol: 25 g

PARAMETER	RESULT	REPORTING			METHOD
		LIMIT	UNITS		
Acetone	ND	750	ug/kg	SW846	8260B
Benzene	ND	50	ug/kg	SW846	8260B
Bromodichloromethane	ND	100	ug/kg	SW846	8260B
Bromoform	ND	100	ug/kg	SW846	8260B
Bromomethane	ND	250	ug/kg	SW846	8260B
2-Butanone	ND	750	ug/kg	SW846	8260B
Carbon disulfide	ND	250	ug/kg	SW846	8260B
Carbon tetrachloride	ND	50	ug/kg	SW846	8260B
Chlorobenzene	ND	50	ug/kg	SW846	8260B
Chloroethane	ND	250	ug/kg	SW846	8260B
Chloroform	ND	50	ug/kg	SW846	8260B
Chloromethane	15 J	250	ug/kg	SW846	8260B
Cyclohexane	ND	1200	ug/kg	SW846	8260B
Dibromochloromethane	ND	50	ug/kg	SW846	8260B
1,2-Dibromo-3-chloro-propane	ND	250	ug/kg	SW846	8260B
1,2-Dibromoethane	ND	250	ug/kg	SW846	8260B
1,2-Dichlorobenzene	ND	100	ug/kg	SW846	8260B
1,3-Dichlorobenzene	ND	100	ug/kg	SW846	8260B
1,4-Dichlorobenzene	ND	100	ug/kg	SW846	8260B
Dichlorodifluoromethane	ND	100	ug/kg	SW846	8260B
1,1-Dichloroethane	ND	50	ug/kg	SW846	8260B
1,2-Dichloroethane	ND	50	ug/kg	SW846	8260B
1,1-Dichloroethene	ND	50	ug/kg	SW846	8260B
cis-1,2-Dichloroethene	ND	50	ug/kg	SW846	8260B
trans-1,2-Dichloroethene	ND	50	ug/kg	SW846	8260B
1,2-Dichloropropane	ND	50	ug/kg	SW846	8260B
cis-1,3-Dichloropropene	ND	50	ug/kg	SW846	8260B
trans-1,3-Dichloropropene	ND	50	ug/kg	SW846	8260B
Ethylbenzene	ND	50	ug/kg	SW846	8260B
2-Hexanone	ND	2500	ug/kg	SW846	8260B
Isopropylbenzene	ND	250	ug/kg	SW846	8260B
Methyl acetate	ND	1200	ug/kg	SW846	8260B
Methylene chloride	ND	250	ug/kg	SW846	8260B
Methylcyclohexane	ND	1200	ug/kg	SW846	8260B
4-Methyl-2-pentanone	ND	2500	ug/kg	SW846	8260B
Methyl tert-butyl ether	ND	250	ug/kg	SW846	8260B
Styrene	ND	50	ug/kg	SW846	8260B
1,1,2,2-Tetrachloroethane	ND	100	ug/kg	SW846	8260B
Tetrachloroethene	ND	50	ug/kg	SW846	8260B
Toluene	ND	100	ug/kg	SW846	8260B

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METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #....: A4G150200

Work Order #....: GLJF51AA

Matrix.....: SOLID

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>	<u>METHOD</u>
1,2,4-Trichloro- benzene	13 J	250	ug/kg	SW846 8260B
1,1,1-Trichloroethane	ND	50	ug/kg	SW846 8260B
1,1,2-Trichloroethane	ND	50	ug/kg	SW846 8260B
Trichloroethene	ND	50	ug/kg	SW846 8260B
Trichlorofluoromethane	ND	100	ug/kg	SW846 8260B
1,1,2-Trichloro- 1,2,2-trifluoroethane	ND	250	ug/kg	SW846 8260B
Vinyl chloride	ND	100	ug/kg	SW846 8260B
Xylenes (total)	ND	150	ug/kg	SW846 8260B
<u>SURROGATE</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>		
Dibromofluoromethane	82	(59 - 138)		
1,2-Dichloroethane-d4	87	(61 - 130)		
Toluene-d8	99	(60 - 143)		
4-Bromofluorobenzene	91	(47 - 158)		

JTE(S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

J Estimated result. Result is less than RL.

LABORATORY CONTROL SAMPLE DATA REPORT

GC/MS Volatiles

Client Lot #....: A4G150200 Work Order #....: GLE581AC-LCS Matrix.....: SOLID
 LCS Lot-Sample#: A4G200000-313 GLE581AD-LCSD
 Prep Date.....: 07/16/04 Analysis Date...: 07/19/04
 Prep Batch #....: 4202313
 Dilution Factor: 1 Final Wgt/Vol...: 25 mL
 Initial Wgt/Vol: 25 g

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	RPD	METHOD
Benzene	200	190	ug/kg	95		SW846 8260B
	200	190	ug/kg	95	0.010	SW846 8260B
Chlorobenzene	200	200	ug/kg	99		SW846 8260B
	200	200	ug/kg	98	1.0	SW846 8260B
1,1-Dichloroethene	200	200	ug/kg	100		SW846 8260B
	200	200	ug/kg	100	0.080	SW846 8260B
Toluene	200	200	ug/kg	100		SW846 8260B
	200	200	ug/kg	101	0.96	SW846 8260B
Trichloroethene	200	190	ug/kg	93		SW846 8260B
	200	190	ug/kg	97	3.6	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	90	(59 - 138)
	85	(59 - 138)
1,2-Dichloroethane-d4	89	(61 - 130)
	85	(61 - 130)
Toluene-d8	99	(60 - 143)
	94	(60 - 143)
4-Bromofluorobenzene	95	(47 - 158)
	87	(47 - 158)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.
 Bold print denotes control parameters

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #....: A4G150200 Work Order #....: GLE581AC-LCS Matrix.....: SOLID
 LCS Lot-Sample#: A4G200000-313 GLE581AD-LCSD
 Prep Date.....: 07/16/04 Analysis Date...: 07/19/04
 Prep Batch #....: 4202313
 Dilution Factor: 1 Final Wgt/Vol...: 25 mL
 Initial Wgt/Vol: 25 g

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
Benzene	95	(75 - 129)			SW846 8260B
Chlorobenzene	95	(75 - 129)	0.010	(0-20)	SW846 8260B
	99	(75 - 127)			SW846 8260B
1,1-Dichloroethene	98	(75 - 127)	1.0	(0-22)	SW846 8260B
	100	(55 - 142)			SW846 8260B
Toluene	100	(55 - 142)	0.080	(0-27)	SW846 8260B
	100	(71 - 130)			SW846 8260B
Trichloroethene	101	(71 - 130)	0.96	(0-24)	SW846 8260B
	93	(70 - 131)			SW846 8260B
	97	(70 - 131)	3.6	(0-23)	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	90	(59 - 138)
	85	(59 - 138)
1,2-Dichloroethane-d4	89	(61 - 130)
	85	(61 - 130)
Toluene-d8	99	(60 - 143)
	94	(60 - 143)
4-Bromofluorobenzene	95	(47 - 158)
	87	(47 - 158)

NOTE (S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.
 Bold print denotes control parameters

LABORATORY CONTROL SAMPLE DATA REPORT

GC/MS Volatiles

Client Lot #...: A4G150200 Work Order #...: GLJF51AC-LCS Matrix.....: SOLID
 LCS Lot-Sample#: A4G210000-414 GLJF51AD-LCSD
 Prep Date.....: 07/16/04 Analysis Date...: 07/21/04
 Prep Batch #...: 4203414
 Dilution Factor: 1 Final Wgt/Vol...: 25 mL
 Initial Wgt/Vol: 25 g

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	RPD	METHOD
Benzene	200	180	ug/kg	92		SW846 8260B
	200	200	ug/kg	99	7.2	SW846 8260B
Chlorobenzene	200	190	ug/kg	97		SW846 8260B
	200	200	ug/kg	101	4.6	SW846 8260B
1,1-Dichloroethene	200	180	ug/kg	91		SW846 8260B
	200	190	ug/kg	96	5.8	SW846 8260B
Toluene	200	200	ug/kg	99		SW846 8260B
	200	210	ug/kg	103	3.7	SW846 8260B
Trichloroethene	200	180	ug/kg	92		SW846 8260B
	200	200	ug/kg	99	7.2	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	84	(59 - 138)
	86	(59 - 138)
1,2-Dichloroethane-d4	84	(61 - 130)
	89	(61 - 130)
Toluene-d8	95	(60 - 143)
	100	(60 - 143)
4-Bromofluorobenzene	90	(47 - 158)
	92	(47 - 158)

NOTE (S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #....: A4G150200 Work Order #....: GLJF51AC-LCS Matrix.....: SOLID
 LCS Lot-Sample#: A4G210000-414 GLJF51AD-LCSD
 Prep Date.....: 07/16/04 Analysis Date...: 07/21/04
 Prep Batch #....: 4203414
 Dilution Factor: 1 Final Wgt/Vol...: 25 mL
 Initial Wgt/Vol: 25 g

<u>PARAMETER</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>	<u>RPD</u>	<u>RPD LIMITS</u>	<u>METHOD</u>
Benzene	92	(75 - 129)			SW846 8260B
	99	(75 - 129)	7.2	(0-20)	SW846 8260B
Chlorobenzene	97	(75 - 127)			SW846 8260B
	101	(75 - 127)	4.6	(0-22)	SW846 8260B
1,1-Dichloroethene	91	(55 - 142)			SW846 8260B
	96	(55 - 142)	5.8	(0-27)	SW846 8260B
Toluene	99	(71 - 130)			SW846 8260B
	103	(71 - 130)	3.7	(0-24)	SW846 8260B
Trichloroethene	92	(70 - 131)			SW846 8260B
	99	(70 - 131)	7.2	(0-23)	SW846 8260B

<u>SURROGATE</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>
Dibromofluoromethane	84	(59 - 138)
	86	(59 - 138)
1,2-Dichloroethane-d4	84	(61 - 130)
	89	(61 - 130)
Toluene-d8	95	(60 - 143)
	100	(60 - 143)
4-Bromofluorobenzene	90	(47 - 158)
	92	(47 - 158)

NOTE (S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.
 Bold print denotes control parameters

GENERAL CHEMISTRY DATA

CONESTOGA-ROVERS & ASSOC., INC.

Client Sample ID: S-17360-071404-DCR-078

General Chemistry

Lot-Sample #....: A4G150200-001 Work Order #....: GK5LT Matrix.....: SO
Date Sampled...: 07/14/04 10:50 Date Received...: 07/15/04
% Moisture.....: 4.2

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION- ANALYSIS DATE	PREP BATCH #
Percent Solids	95.8	10.0	%	MCAWN 160.3 MOD	07/16-07/19/04	4198072
		Dilution Factor: 1		MDL.....: 10.0		

CONESTOGA-ROVERS & ASSOC., INC.

Client Sample ID: S-17360-071404-DCR-079

General Chemistry

Lot-Sample #....: A4G150200-002 Work Order #....: GK5L7 Matrix.....: SO
Date Sampled....: 07/14/04 10:55 Date Received...: 07/15/04
* Moisture.....: 1.8

<u>PARAMETER</u>	<u>RESULT</u>	<u>RL</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>PREP BATCH #</u>
Percent Solids	98.2	10.0	†	MCANW 160.3 MOD	07/16-07/19/04	4198072
		Dilution Factor: 1		MDL.....: 10.0		

CONESTOGA-ROVERS & ASSOC., INC.

Client Sample ID: S-17360-071404-DCR-080

General Chemistry

Lot-Sample #....: A4G150200-003 Work Order #....: GK5L9 Matrix.....: SO
Date Sampled....: 07/14/04 11:00 Date Received...: 07/15/04
% Moisture.....: 1.8

<u>PARAMETER</u>	<u>RESULT</u>	<u>RL</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>PREP BATCH #</u>
Percent Solids	98.2	10.0	%	MCAWW 160.3 MOD	07/16-07/19/04	4198072
		Dilution Factor: 1		MDL.....: 10.0		

COMESTOGA-ROVERS & ASSOC., INC.

Client Sample ID: S-17360-071404-DCR-081

General Chemistry

Lot-Sample #....: A4G150200-004 Work Order #....: GK5MC Matrix.....: SO
Date Sampled....: 07/14/04 11:05 Date Received...: 07/15/04
% Moisture.....: 4.1

<u>PARAMETER</u>	<u>RESULT</u>	<u>RL</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>PREP BATCH #</u>
Percent Solids	95.9	10.0	%	MCANW 160.3 MOD	07/16-07/19/04	4198072
		Dilution Factor: 1		MDL.....: 10.0		

CONESTOGA-ROVERS & ASSOC., INC.

Client Sample ID: S-17360-071404-DCR-082

General Chemistry

Lot-Sample #....: A4G150200-005 Work Order #....: GK566 Matrix.....: SO
Date Sampled....: 07/14/04 11:10 Date Received...: 07/15/04
% Moisture.....: 1.9

<u>PARAMETER</u>	<u>RESULT</u>	<u>RL</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>PREP BATCH #</u>
Percent Solids	98.1	10.0	%	MCANW 160.3 MOD	07/16-07/19/04	4198072
		Dilution Factor: 1		MDL.....: 10.0		

CONESTOGA-ROVERS & ASSOC., INC.

Client Sample ID: S-17360-071404-DCR-083

General Chemistry

Lot-Sample #....: A4G150200-006 Work Order #....: GK568 Matrix.....: SO
Date Sampled....: 07/14/04 11:15 Date Received...: 07/15/04
% Moisture.....: 2.3

<u>PARAMETER</u>	<u>RESULT</u>	<u>RL</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>PREP BATCH #</u>
Percent Solids	97.7	10.0	%	MCAWW 160.3 MOD	07/16-07/19/04	4198072
		Dilution Factor: 1		MDL.....: 10.0		

CONESTOGA-ROVERS & ASSOC., INC.

Client Sample ID: S-17360-071404-DCR-084

General Chemistry

Lot-Sample #....: A4G150200-007 Work Order #....: GK57C Matrix.....: SO
Date Sampled....: 07/14/04 11:25 Date Received...: 07/15/04
% Moisture.....: 2.2

<u>PARAMETER</u>	<u>RESULT</u>	<u>RL</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>PREP BATCH #</u>
Percent Solids	97.9	10.0	%	MCANW 160.3 MOD	07/16-07/19/04	4198072
		Dilution Factor: 1		MDL.....: 10.0		

CONESTOGA-ROVERS & ASSOC., INC.

Client Sample ID: S-17360-071404-DCR-085

General Chemistry

Lot-Sample #....: A4G150200-008 Work Order #....: GK57D Matrix.....: SO
Date Sampled....: 07/14/04 11:30 Date Received...: 07/15/04
% Moisture.....: 2.0

<u>PARAMETER</u>	<u>RESULT</u>	<u>RL</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>PREP BATCH #</u>
Percent Solids	98.0	10.0	%	MCANW 160.3 MOD	07/16-07/19/04	4198072
		Dilution Factor: 1		MDL.....: 10.0		

COMESTOGA-ROVERS & ASSOC., INC.

Client Sample ID: S-17360-071404-DCR-086

General Chemistry

Lot-Sample #...: A4G150200-009 Work Order #...: GK57E Matrix.....: SO
Date Sampled...: 07/14/04 11:40 Date Received...: 07/15/04
% Moisture.....: 2.0

<u>PARAMETER</u>	<u>RESULT</u>	<u>RL</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>PREP BATCH #</u>
Percent Solids	98.0	10.0	%	MCANW 160.3 MOD	07/16-07/19/04	4198072
		Dilution Factor: 1		MDL.....: 10.0		

CONESTOGA-ROVERS & ASSOC., INC.

Client Sample ID: S-17360-071404-DCR-087

General Chemistry

Lot-Sample #....: A4G150200-010 Work Order #....: GK57F Matrix.....: SO
Date Sampled....: 07/14/04 11:50 Date Received...: 07/15/04
% Moisture.....: 3.8

<u>PARAMETER</u>	<u>RESULT</u>	<u>RL</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>PREP BATCH #</u>
Percent Solids	96.3	10.0	%	MCANW 160.3 MOD	07/16-07/19/04	4198072
		Dilution Factor: 1		MDL.....: 10.0		

CONESTOGA-ROVERS & ASSOC., INC.

Client Sample ID: S-17360-071404-DCR-088

General Chemistry

Lot-Sample #...: A4G150200-011 Work Order #...: GK57H Matrix.....: SO
Date Sampled...: 07/14/04 12:00 Date Received...: 07/15/04
% Moisture.....: 3.3

<u>PARAMETER</u>	<u>RESULT</u>	<u>RL</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>PREP BATCH #</u>
Percent Solids	96.7	10.0	%	MCANW 160.3 MOD	07/16-07/19/04	4198072
		Dilution Factor: 1		MDL.....: 10.0		

CONESTOGA-ROVERS & ASSOC., INC.

Client Sample ID: S-17360-071404-DCR-089

General Chemistry

Lot-Sample #....: A4G150200-012 Work Order #....: GK57J Matrix.....: SO
Date Sampled....: 07/14/04 13:55 Date Received...: 07/15/04
% Moisture.....: 5.0

<u>PARAMETER</u>	<u>RESULT</u>	<u>RL</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>PREP BATCH #</u>
Percent Solids	95.0	10.0	%	MCAWW 160.3 MOD	07/16-07/19/04	4198072
		Dilution Factor: 1		MDL.....: 10.0		

CONESTOGA-ROVERS & ASSOC., INC.

Client Sample ID: S-17360-071404-DCR-090

General Chemistry

Lot-Sample #....: A4G150200-013 Work Order #....: GK57K Matrix.....: SO
Date Sampled....: 07/14/04 14:00 Date Received...: 07/15/04
% Moisture.....: 2.5

<u>PARAMETER</u>	<u>RESULT</u>	<u>RL</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>PREP BATCH #</u>
Percent Solids	97.5	10.0	%	MCAWW 160.3 MOD	07/16-07/19/04	4198072
		Dilution Factor: 1		MDL.....: 10.0		

CONESTOGA-ROVERS & ASSOC., INC.

Client Sample ID: S-17360-071404-DCR-091

General Chemistry

Lot-Sample #....: A4G150200-014 Work Order #....: GK57M Matrix.....: SO
Date Sampled....: 07/14/04 14:05 Date Received...: 07/15/04
% Moisture.....: 2.4

<u>PARAMETER</u>	<u>RESULT</u>	<u>RL</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>PREP BATCH #</u>
Percent Solids	97.6	10.0	%	MCAMW 160.3 MOD	07/16-07/19/04	4198072
		Dilution Factor: 1		MDL.....: 10.0		

CONESTOGA-ROVERS & ASSOC., INC.

Client Sample ID: S-17360-071404-DCR-092

General Chemistry

Lot-Sample #....: A4G150200-015 Work Order #....: GK57N Matrix.....: SO
Date Sampled....: 07/14/04 14:10 Date Received...: 07/15/04
% Moisture.....: 3.0

<u>PARAMETER</u>	<u>RESULT</u>	<u>RL</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>PREP BATCH #</u>
Percent Solids	97.0	10.0	%	MCANW 160.3 MOD	07/16-07/19/04	4198073
		Dilution Factor: 1		MDL.....: 10.0		

CONESTOGA-ROVERS & ASSOC., INC.

Client Sample ID: S-17360-071404-DCR-093

General Chemistry

Lot-Sample #....: A4G150200-016 Work Order #....: GK57P Matrix.....: SO
Date Sampled....: 07/14/04 14:15 Date Received...: 07/15/04
% Moisture.....: 5.0

<u>PARAMETER</u>	<u>RESULT</u>	<u>RL</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>PREP BATCH #</u>
Percent Solids	95.0	10.0	%	MCANW 160.3 MOD	07/16-07/19/04	4198073
		Dilution Factor: 1		MDL.....: 10.0		

CONESTOGA-ROVERS & ASSOC., INC.

Client Sample ID: S-17360-071404-DCR-094

General Chemistry

Lot-Sample #....: A4G150200-017 Work Order #....: GK57Q Matrix.....: SO
Date Sampled....: 07/14/04 14:20 Date Received...: 07/15/04
% Moisture.....: 1.9

<u>PARAMETER</u>	<u>RESULT</u>	<u>RL</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>PREP BATCH #</u>
Percent Solids	98.1	10.0	%	MCAWW 160.3 MOD	07/16-07/19/04	4198073
		Dilution Factor: 1		MDL.....: 10.0		

CONESTOGA-ROVERS & ASSOC., INC.

Client Sample ID: S-17360-071404-DCR-095

General Chemistry

Lot-Sample #....: A4G150200-018 Work Order #....: GK57R Matrix.....: SO
Date Sampled....: 07/14/04 14:30 Date Received...: 07/15/04
% Moisture.....: 3.8

<u>PARAMETER</u>	<u>RESULT</u>	<u>RL</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>PREP BATCH #</u>
Percent Solids	96.3	10.0	%	MCANN 160.3 MOD	07/16-07/19/04	4198073
		Dilution Factor: 1		MDL.....: 10.0		

CORRESTOGA-ROVERS & ASSOC., INC.

Client Sample ID: S-17360-071404-DCR-096

General Chemistry

Lot-Sample #....: A4G150200-019 Work Order #....: GK57T Matrix.....: SO
Date Sampled....: 07/14/04 14:40 Date Received...: 07/15/04
% Moisture.....: 3.2

<u>PARAMETER</u>	<u>RESULT</u>	<u>RL</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>PREP BATCH #</u>
Percent Solids	96.8	10.0	%	MCANW 160.3 MOD	07/16-07/19/04	4198073
		Dilution Factor: 1		MDL.....: 10.0		

CONESTOGA-ROVERS & ASSOC., INC.

Client Sample ID: S-17360-071404-DCR-097

General Chemistry

Lot-Sample #...: A4G150200-020 Work Order #...: GK57V Matrix.....: SO
Date Sampled...: 07/14/04 14:45 Date Received...: 07/15/04
% Moisture.....: 1.9

<u>PARAMETER</u>	<u>RESULT</u>	<u>RL</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>PREP BATCH #</u>
Percent Solids	98.1	10.0	%	MCANW 160.3 MOD	07/16-07/19/04	4198073
		Dilution Factor: 1		MDL.....: 10.0		

CONESTOGA-ROVERS & ASSOC., INC.

Client Sample ID: S-17360-071404-DCR-098

General Chemistry

Lot-Sample #....: A4G150200-021 Work Order #....: GK57W Matrix.....: SO
Date Sampled....: 07/14/04 14:55 Date Received...: 07/15/04
% Moisture.....: 3.0

<u>PARAMETER</u>	<u>RESULT</u>	<u>RL</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>PREP BATCH #</u>
Percent Solids	97.0	10.0	%	MCANW 160.3 MOD	07/16-07/19/04	4198073
		Dilution Factor: 1		MDL.....: 10.0		

CONESTOGA-ROVERS & ASSOC., INC.

Client Sample ID: S-17360-071404-DCR-099

General Chemistry

Lot-Sample #....: A4G150200-022 Work Order #....: GK57X Matrix.....: SO
Date Sampled....: 07/14/04 15:05 Date Received...: 07/15/04
% Moisture.....: 2.5

<u>PARAMETER</u>	<u>RESULT</u>	<u>RL</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>PREP BATCH #</u>
Percent Solids	97.5	10.0	%	MCANW 160.3 MOD	07/16-07/19/04	4198073
		Dilution Factor: 1		MDL.....: 10.0		

METHOD BLANK REPORT

General Chemistry

Client Lot #...: A4G150200

Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION- ANALYSIS DATE	PREP BATCH #	
Percent Solids	ND	10.0	%	Work Order #: GK7K51AA MB Lot-Sample #: A4G160000-072 MCAWW 160.3 MOD	07/16-07/19/04	4198072	
		Dilution Factor: 1					
Percent Solids	ND	10.0	%	Work Order #: GK7K41AA MB Lot-Sample #: A4G160000-073 MCAWW 160.3 MOD	07/16-07/19/04	4198073	
		Dilution Factor: 1					

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

SAMPLE DUPLICATE EVALUATION REPORT

General Chemistry

Client Lot #....: A4G150200

Work Order #....: GK5LT-SMP
GK5LT-DUP

Matrix.....: SO

Date Sampled....: 07/14/04 10:50 Date Received...: 07/15/04

* Moisture.....: 4.2

PARAM	RESULT	DUPLICATE RESULT	UNITS	RPD	RPD LIMIT	METHOD	PREPARATION- ANALYSIS DATE	PREP BATCH #
Percent Solids	95.8	96.0	%	0.28	(0-20)	SD Lot-Sample #: A4G150200-001 MCANW 160.3 MOD	07/16-07/19/04	4198072

Dilution Factor: 1

SAMPLE DUPLICATE EVALUATION REPORT

General Chemistry

Client Lot #....: A4G150200

Work Order #....: GK57M-SMP
GK57M-DUP

Matrix.....: SO

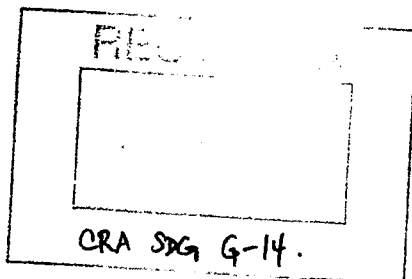
Date Sampled....: 07/14/04 14:05 Date Received...: 07/15/04

% Moisture.....: 2.4

PARAM	RESULT	DUPLICATE RESULT	UNITS	RPD	RPD LIMIT	METHOD	PREPARATION- ANALYSIS DATE	PREP BATCH
Percent Solids	97.6	97.4	%	0.25	(0-20)	SD Lot-Sample #: A4G150200-014 MCAWW 160.3 MOD	07/16-07/19/04	419807

Dilution Factor: 1

END OF REPORT



STL

STL North Canton
4101 Shuffel Drive NW
North Canton, OH 44720

Tel: 330 497 9396 Fax: 330 497 0772
www.stl-inc.com

ANALYTICAL REPORT

PROJECT NO. 17360-09

GM-GRAND RAPIDS

Lot #: A4G160169

Paul Wiseman

Conestoga Rovers & Assoc., Inc
14496 Sheldon Rd Suite 200
Plymouth, MI 48170

ORIGINAL ANALYTICAL REPORT

Project#: 17360-09 Lab#: A4G160169

Name: GM GRAND RAPIDS.

SEVERN TRENT LABORATORIES, INC

	Description
Event:	<u>VAS Sampling</u>
Samples:	<u>33 soils per 100-132.</u>
Analysis:	<u>TCL VOCs.</u>

TAT: STANDARD TAT

Lab: STL-NC

Amy L. McCormick
Amy L. McCormick
Project Manager

Checked Against Preliminary Data:

Date: N/A Init.: N/A

Date of Validation Memo: 10/20/04

Invoice Approval Date: _____

July 30, 2004

Comments: _____

Coscor-mt 287 1st 5

CRA

CONESTOGA-ROVERS & ASSOCIATES, INC.
1496 Sheldon Road, Suite 200
Plymouth, MI 48170 • (734) 453-5123

SHIPPED TO (Laboratory Name): **STC-North Carter**

REFERENCE NUMBER:
17360-09

PROJECT NAME: **Gm-Grand Rapids**

CHAIN OF CUSTODY RECORD

SAMPLER'S SIGNATURE: *David C Rovers* PRINTED NAME: **David C Rovers**

SEQ. No.	DATE	TIME	SAMPLE TYPE	CONTAINERS	PARAMETERS	REMARKS
	7/15/04	800	S-17360-071504-DCR-100	2	✓	STD T4T
		805	-101	2	✓	
		810	-102	2	✓	
		820	-103	2	✓	
		825	-104	2	✓	
		830	-105	2	✓	
		835	-106	2	✓	
		840	-107	2	✓	
		845	-108	2	✓	
		855	-109	2	✓	
		900	-110	2	✓	
		1050	-111	2	✓	
		1055	-112	2	✓	
		1100	-113	2	✓	
TOTAL NUMBER OF CONTAINERS					28	

CLD Contact
Paul Wiseman

RELINQUISHED BY: *David C Rovers*

DATE: 7-15-04

TIME: 1905

RELINQUISHED BY: _____

DATE: _____

TIME: _____

RELINQUISHED BY: _____

DATE: _____

TIME: _____

METHOD OF SHIPMENT: **FED EX**

AIR BILL No. **845068047997**

White - Fully Executed Copy
Yellow - Receiving Laboratory Copy

SAMPLE TEAM: **David C Rovers**

RECEIVED FOR LABORATORY BY: *Angela Matthews*

27172

DATE: 7-16-04 TIME: 0925

Cover - MF 584 2 of 3
SRL - North Canton

CRA

CONESTOGA-ROVERS & ASSOCIATES, INC.
14496 Sheldon Road, Suite 200
Plymouth, MI 48170 • (734) 453-5123

SHIPPED TO (Laboratory Name):

REFERENCE NUMBER:
17360-09

PROJECT NAME: GM - Grand Rapids

CHAIN OF CUSTODY RECORD

SAMPLER'S SIGNATURE: [Signature] PRINTED NAME: David C. Rivers

SEQ. No.	DATE	TIME	SAMPLE TYPE	CONTAINERS	PARAMETERS	REMARKS
	7/15/04	1105	S-17360-071504-DEC-119	2	✓	STD TAT
		1110	-115	2	✓	
		1120	-116	2	✓	
		1125	-117	2	✓	
		1130	-118	2	✓	
		1140	-119	2	✓	
		1150	-120	2	✓	
		1200	-121	2	✓	
		1235	-122	2	✓	
		1240	-123	2	✓	
		1245	-124	2	✓	
		1250	-125	2	✓	
		1330	-126	2	✓	
		1335	-127	2	✓	
TOTAL NUMBER OF CONTAINERS					28	
						CRA Contact Paul Wiseman

RELINQUISHED BY: 1. <u>[Signature]</u>	DATE: 7-15-04	RECEIVED BY: 1. _____	DATE: _____
RELINQUISHED BY: 2. _____	TIME: 1900	RECEIVED BY: 2. _____	TIME: _____
RELINQUISHED BY: 3. _____	DATE: _____	RECEIVED BY: 3. _____	DATE: _____
	TIME: _____		TIME: _____

METHOD OF SHIPMENT: **FED EX** AIR BILL No. 0450 6864 7947

White Yellow	-Fully Executed Copy -Receiving Laboratory Copy	27173	SAMPLE TEAM: <u>David C. Rivers</u>	RECEIVED FOR LABORATORY BY: <u>[Signature]</u>
	Pink Goldenrod			DATE: 7-16-04 TIME: 0925

Cooler - VML-507 3 of 3

CRA

CONESTOGA-ROVERS & ASSOCIATES, INC.

14496 Sheldon Road, Suite 200

Plymouth, MI 48170 • (734) 453-5123

SHIPPED TO (Laboratory Name):

STL North Canton

REFERENCE NUMBER:

17360-07

PROJECT NAME: GM - Grand Rapids

CHAIN OF CUSTODY RECORD

SAMPLER'S SIGNATURE: [Signature] PRINTED NAME: David C. Rivers

PARAMETERS

NO. OF CONTAINERS

SAMPLE TYPE

SEQ. No.

DATE

TIME

SAMPLE TYPE

7/15/04 1340 S-17360-071504-DEK-128

1345 1350 1400 1410

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1345 1350 1400 1410

1345 1350 1400 1410

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STD TAT

OK at contact
Paul W. Green

TOTAL NUMBER OF CONTAINERS

10

RELINQUISHED BY: [Signature]

DATE: 7-15-04
TIME: 1900

RECEIVED BY: 1.

DATE:

RELINQUISHED BY: 2.

DATE: TIME:

RECEIVED BY: 2.

DATE:

RELINQUISHED BY: 3.

DATE: TIME:

RECEIVED BY: 1.

DATE:

METHOD OF SHIPMENT: FED EX

AIR BILL No. 84536064 7947

White - Fully Executed Copy
Yellow - Receiving Laboratory Copy

SAMPLE TEAM: David C. Rivers

RECEIVED FOR LABORATORY BY: [Signature]

27174

DATE: 7-6-04 TIME: 0925



CASE NARRATIVE

CASE NARRATIVE

A4G160169

The following report contains the analytical results for thirty-three solid samples submitted to STL North Canton by Conestoga-Rovers & Associates, Inc. from the GM-Grand Rapids Site, project number 17360-09. The samples were received July 16, 2004, according to documented sample acceptance procedures.

STL utilizes USEPA approved methods in all analytical work. The samples presented in this report were analyzed for the parameter(s) listed on the analytical methods summary page in accordance with the method(s) indicated. Preliminary results were provided to the Chemistry Department on July 30, 2004. A summary of QC data for these analyses is included at the back of the report.

STL North Canton attests to the validity of the laboratory data generated by STL facilities reported herein. All analyses performed by STL facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the applicable methods. STL's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

All solid sample results are reported on an "as received" basis unless otherwise indicated by a dry weight adjustment footnote at the bottom of the analytical report page. The list of parameters which are never reported on a dry weight basis is included on the Sample Summary.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

If you have any questions, please call the Project Manager, Amy L. McCormick, at 330-497-9396.

This report is sequentially paginated. The final page of the report is labeled as "END OF REPORT."

SUPPLEMENTAL QC INFORMATION

SAMPLE RECEIVING

The temperature of the cooler upon sample receipt was 4.6°C.

CASE NARRATIVE (continued)

GC/MS VOLATILES

The sample(s) that contained concentrations of target analyte(s) at a reportable level in the associated Method Blank(s) were flagged with "B". All target analytes in the Method Blank must be below the reporting limit (RL) or the associated sample(s) must be ND with the exception of common laboratory contaminants.

The sample(s) that contain results between the MDL and the RL were flagged with "J". There is a possibility of false positive or mis-identification at these quantitation levels. In analytical methods requiring confirmation of the analyte reported, confirmation was performed only down to the standard reporting limit (SRL). The acceptance criteria for QC samples may not be met at these quantitation levels.

GENERAL CHEMISTRY

The analytical results met the requirements of the laboratory's QA/QC program.

QUALITY CONTROL ELEMENTS OF SW-846 METHODS

STL North Canton conducts a quality assurance/quality control (QA/QC) program designed to provide scientifically valid and legally defensible data. Toward this end, several types of quality control indicators are incorporated into the QA/QC program, which is described in detail in QA Policy, QA-003. These indicators are introduced into the sample testing process to provide a mechanism for the assessment of the analytical data.

QC BATCH

Environmental samples are taken through the testing process in groups called QUALITY CONTROL BATCHES (QC batches). A QC batch contains up to twenty environmental samples of a similar matrix (water, soil) that are processed using the same reagents and standards. STL North Canton requires that each environmental sample be associated with a QC batch.

Several quality control samples are included in each QC batch and are processed identically to the twenty environmental samples. These QC samples include a METHOD BLANK (MB), a LABORATORY CONTROL SAMPLE (LCS) and, where appropriate, a MATRIX SPIKE/MATRIX SPIKE DUPLICATE (MS/MSD) pair or a MATRIX SPIKE/SAMPLE DUPLICATE (MS/DU) pair. If there is insufficient sample to perform an MS/MSD or an MS/DU, then a LABORATORY CONTROL SAMPLE DUPLICATE (LCSD) is included in the QC batch.

LABORATORY CONTROL SAMPLE

The Laboratory Control Sample is a QC sample that is created by adding known concentrations of a full or partial set of target analytes to a matrix similar to that of the environmental samples in the QC batch. The LCS analyte recovery results are used to monitor the analytical process and provide evidence that the laboratory is performing the method within acceptable guidelines. All control analytes indicated by a bold type in the LCS must meet acceptance criteria. Failure to meet the established recovery guidelines requires the reparation and reanalysis of all samples in the QC batch. The only exception is that if the LCS recoveries are biased high and the associated sample is ND (non-detected) for the parameter(s) of interest, the batch is acceptable.

At times, a Laboratory Control Sample Duplicate (LCSD) is also included in the QC batch. An LCSD is a QC sample that is created and handled identically to the LCS. Analyte recovery data from the LCSD is assessed in the same way as that of the LCS. The LCSD recoveries, together with the LCS recoveries, are used to determine the reproducibility (precision) of the analytical system. Precision data are expressed as relative percent differences (RPDs). If the RPD fails for an LCS/LCSD and yet the recoveries are within acceptance criteria, the batch is still acceptable.

METHOD BLANK

The Method Blank is a QC sample consisting of all the reagents used in analyzing the environmental samples contained in the QC batch. Method Blank results are used to determine if interference or contamination in the analytical system could lead to the reporting of false positive data or elevated analyte concentrations. All target analytes must be below the reporting limits (RL) or the associated sample(s) must be ND except under the following circumstances:

- Common organic contaminants may be present at concentrations up to 5 times the reporting limits. Common metals contaminants may be present at concentrations up to 2 times the reporting limit, or the reported blank concentration must be twenty fold less than the concentration reported in the associated environmental samples. (See common laboratory contaminants listed below.)

Volatile (GC or GC/MS)

Methylene chloride
Acetone
2-Butanone

Semivolatile (GC/MS)

Phthalate Esters

Metals

Copper
Iron
Zinc
Lead*

- for analyses run on TJA Trace ICP, ICPMS or GFAA only

QUALITY CONTROL ELEMENTS OF SW-846 METHODS (Continued)

- Organic blanks will be accepted if compounds detected in the blank are present in the associated samples at levels 10 times the blank level. Inorganic blanks will be accepted if elements detected in the blank are present in the associated samples at 20 times the blank level.
- Blanks will be accepted if the compounds/elements detected are not present in any of the associated environmental samples.

Failure to meet these Method Blank criteria requires the reparation and reanalysis of all samples in the QC batch.

MATRIX SPIKE/MATRIX SPIKE DUPLICATE

A Matrix Spike and a Matrix Spike Duplicate are a pair of environmental samples to which known concentrations of a full or partial set of target analytes are added. The MS/MSD results are determined in the same manner as the results of the environmental sample used to prepare the MS/MSD. The analyte recoveries and the relative percent differences (RPDs) of the recoveries are calculated and used to evaluate the effect of the sample matrix on the analytical results. Due to the potential variability of the matrix of each sample, the MS/MSD results may not have an immediate bearing on any samples except the one spiked; therefore, the associated batch MS/MSD may not reflect the same compounds as the samples contained in the analytical report. When these MS/MSD results fail to meet acceptance criteria, the data is evaluated. If the LCS is within acceptance criteria, the batch is considered acceptable. The acceptance criteria do not apply to samples that are diluted for organics if the native sample amount is 4x the concentration of the spike.

For certain methods, a Matrix Spike/Sample Duplicate (MS/DU) may be included in the QC batch in place of the MS/MSD. For the parameters (i.e. pH, ignitability) where it is not possible to prepare a spiked sample, a Sample Duplicate may be included in the QC batch. However, a Sample Duplicate is less likely to provide usable precision statistics depending on the likelihood of finding concentrations below the standard reporting limit. When the Sample Duplicate result fails to meet acceptance criteria, the data is evaluated.

SURROGATE COMPOUNDS

In addition to these batch-related QC indicators, each organic environmental and QC sample is spiked with surrogate compounds. Surrogates are organic chemicals that behave similarly to the analytes of interest and that are rarely present in the environment. Surrogate recoveries are used to monitor the individual performance of a sample in the analytical system.

If surrogate recoveries are biased high in the LCS, LCSD, or the Method Blank, and the associated sample(s) are ND, the batch is acceptable. Otherwise, if the LCS, LCSD, or Method Blank surrogate(s) fail to meet recovery criteria, the entire sample batch is reprep and reanalyzed. If the surrogate recoveries are outside criteria for environmental samples, the samples will be reprep and reanalyzed unless there is objective evidence of matrix interference or if the sample dilution is greater than the threshold outlined in the associated method SOP.

For the GC/MS BNA methods, the surrogate criterion is that two of the three surrogates for each fraction must meet acceptance criteria. The third surrogate must have a recovery of ten percent or greater.

For the Pesticide, PCB, and PAH methods, the surrogate criterion is that one of two surrogate compounds must meet acceptance criteria.

STL North Canton Certifications and Approvals:

Alabama (#41170), California (#01144CA), Connecticut (#PH-0590), Florida (#E87225), Illinois (#100439), Kansas (#E10336), Massachusetts (#M-OH048), Maryland (#272), Minnesota (#39-999-348), New Jersey (#OH001), New York (#10975), Ohio (#6090), OhioVAP (#CLO024), Rhode Island (#237), South Carolina (#92007001, #92007002, #92007003), Tennessee (#02903), Utah (#QUAN9), Virginia (#00011), West Virginia (#210), Wisconsin (#999518190), NAVY, ARMY, USDA Soil Permit, ACIL Seal of Excellence – Participating Lab Status Award (#82)



Y:\HerrenD\FORMS\New exp inserts\sw846 2-2-04.doc, Revised: 01/28/04 DJL

EXECUTIVE SUMMARY

EXECUTIVE SUMMARY - Detection Highlights

MAG160169

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
S-17360-071504-DCR-100 07/15/04 08:00 001				
Benzene	33 J	200	ug/kg	SW846 8260B
Cyclohexane	31 J	4800	ug/kg	SW846 8260B
Isopropylbenzene	25 J	1000	ug/kg	SW846 8260B
Methylcyclohexane	200 J	4800	ug/kg	SW846 8260B
Toluene	140 J	400	ug/kg	SW846 8260B
Trichloroethene	5700	200	ug/kg	SW846 8260B
Xylenes (total)	200 J	600	ug/kg	SW846 8260B
Percent Solids	95.1	10.0	%	MCAWW 160.3 MOD
S-17360-071504-DCR-101 07/15/04 08:05 002				
Percent Solids	97.5	10.0	%	MCAWW 160.3 MOD
S-17360-071504-DCR-102 07/15/04 08:10 003				
Chloromethane	18 J,B	330	ug/kg	SW846 8260B
Percent Solids	97.9	10.0	%	MCAWW 160.3 MOD
S-17360-071504-DCR-103 07/15/04 08:20 004				
2-Butanone	59 J	910	ug/kg	SW846 8260B
Percent Solids	97.5	10.0	%	MCAWW 160.3 MOD
S-17360-071504-DCR-104 07/15/04 08:25 005				
Percent Solids	97.2	10.0	%	MCAWW 160.3 MOD
S-17360-071504-DCR-105 07/15/04 08:30 006				
Trichloroethene	25 J	56	ug/kg	SW846 8260B
Percent Solids	98.0	10.0	%	MCAWW 160.3 MOD
S-17360-071504-DCR-106 07/15/04 08:35 007				
Percent Solids	96.6	10.0	%	MCAWW 160.3 MOD
S-17360-071504-DCR-107 07/15/04 08:40 008				
Chloromethane	21 J,B	280	ug/kg	SW846 8260B
Trichloroethene	20 J	56	ug/kg	SW846 8260B
Percent Solids	97.7	10.0	%	MCAWW 160.3 MOD

(Continued on next page)

EXECUTIVE SUMMARY - Detection Highlights

A4G160169

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>	<u>ANALYTICAL METHOD</u>
S-17360-071504-DCR-108 07/15/04 08:45 009				
Trichloroethene	25 J	55	ug/kg	SW846 8260B
Percent Solids	97.4	10.0	%	MCAWW 160.3 MOD
S-17360-071504-DCR-109 07/15/04 08:55 010				
Percent Solids	97.0	10.0	%	MCAWW 160.3 MOD
S-17360-071504-DCR-110 07/15/04 09:00 011				
Percent Solids	93.0	10.0	%	MCAWW 160.3 MOD
S-17360-071504-DCR-111 07/15/04 10:50 012				
Trichloroethene	190	66	ug/kg	SW846 8260B
Percent Solids	94.3	10.0	%	MCAWW 160.3 MOD
S-17360-071504-DCR-112 07/15/04 10:55 013				
Chloromethane	27 J	380	ug/kg	SW846 8260B
Percent Solids	96.8	10.0	%	MCAWW 160.3 MOD
S-17360-071504-DCR-113 07/15/04 11:00 014				
Percent Solids	98.3	10.0	%	MCAWW 160.3 MOD
S-17360-071504-DCR-114 07/15/04 11:05 015				
Percent Solids	98.1	10.0	%	MCAWW 160.3 MOD
S-17360-071504-DCR-115 07/15/04 11:10 016				
Percent Solids	97.1	10.0	%	MCAWW 160.3 MOD
S-17360-071504-DCR-116 07/15/04 11:20 017				
Chloromethane	21 J	330	ug/kg	SW846 8260B
Percent Solids	95.2	10.0	%	MCAWW 160.3 MOD
S-17360-071504-DCR-117 07/15/04 11:25 018				
Chloromethane	18 J	280	ug/kg	SW846 8260B
Percent Solids	96.2	10.0	%	MCAWW 160.3 MOD

(Continued on next page)

EXECUTIVE SUMMARY - Detection Highlights

A4G160169

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
S-17360-071504-DCR-118 07/15/04 11:30 019				
Trichloroethene	41 J	61	ug/kg	SW846 8260B
Percent Solids	97.2	10.0	%	MCAWW 160.3 MOD
S-17360-071504-DCR-119 07/15/04 11:40 020				
Percent Solids	98.5	10.0	%	MCAWW 160.3 MOD
S-17360-071504-DCR-120 07/15/04 11:50 021				
Percent Solids	97.4	10.0	%	MCAWW 160.3 MOD
S-17360-071504-DCR-121 07/15/04 12:00 022				
Chloromethane	23 J	270	ug/kg	SW846 8260B
Trichloroethene	18 J	53	ug/kg	SW846 8260B
Percent Solids	95.5	10.0	%	MCAWW 160.3 MOD
S-17360-071504-DCR-122 07/15/04 12:35 023				
Methylcyclohexane	39 J	1400	ug/kg	SW846 8260B
Toluene	21 J	120	ug/kg	SW846 8260B
Trichloroethene	2000	59	ug/kg	SW846 8260B
Xylenes (total)	38 J	180	ug/kg	SW846 8260B
Percent Solids	94.7	10.0	%	MCAWW 160.3 MOD
S-17360-071504-DCR-123 07/15/04 12:40 024				
Percent Solids	96.9	10.0	%	MCAWW 160.3 MOD
S-17360-071504-DCR-124 07/15/04 12:45 025				
Chloromethane	24 J,B	280	ug/kg	SW846 8260B
Percent Solids	98.1	10.0	%	MCAWW 160.3 MOD
S-17360-071504-DCR-125 07/15/04 12:50 026				
Percent Solids	98.1	10.0	%	MCAWW 160.3 MOD
S-17360-071504-DCR-126 07/15/04 13:30 027				
1,2,4-Trichloro- benzene	30 J	300	ug/kg	SW846 8260B
Percent Solids	97.7	10.0	%	MCAWW 160.3 MOD

(Continued on next page)

EXECUTIVE SUMMARY - Detection Highlights

AAG160169

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>	<u>ANALYTICAL METHOD</u>
S-17360-071504-DCR-127 07/15/04 13:35 028				
Percent Solids	95.8	10.0	%	MCAWW 160.3 MOD
S-17360-071504-DCR-128 07/15/04 13:40 029				
Chloromethane	19 J,B	290	ug/kg	SW846 8260B
Trichloroethene	16 J	58	ug/kg	SW846 8260B
Percent Solids	97.5	10.0	%	MCAWW 160.3 MOD
S-17360-071504-DCR-129 07/15/04 13:45 030				
Trichloroethene	14 J	57	ug/kg	SW846 8260B
Percent Solids	96.7	10.0	%	MCAWW 160.3 MOD
S-17360-071504-DCR-130 07/15/04 13:50 031				
Percent Solids	97.6	10.0	%	MCAWW 160.3 MOD
S-17360-071504-DCR-131 07/15/04 14:00 032				
Percent Solids	98.0	10.0	%	MCAWW 160.3 MOD
S-17360-071504-DCR-132 07/15/04 14:10 033				
Percent Solids	87.1	10.0	%	MCAWW 160.3 MOD



METHOD SUMMARY

ANALYTICAL METHODS SUMMARY

A4G160169

<u>PARAMETER</u>	<u>ANALYTICAL METHOD</u>
Total Residue as Percent Solids	MCAWW 160.3 MOD
Volatile Organics by GC/MS	SW846 8260B

References:

- MCAWW "Methods for Chemical Analysis of Water and Wastes",
EPA-600/4-79-020, March 1983 and subsequent revisions.
- SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical
Methods", Third Edition, November 1986 and its updates.



SAMPLE SUMMARY

SAMPLE SUMMARY

A4G160169

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
GK78C	001	S-17360-071504-DCR-100	07/15/04	08:00
GK78G	002	S-17360-071504-DCR-101	07/15/04	08:05
GK78L	003	S-17360-071504-DCR-102	07/15/04	08:10
GK78N	004	S-17360-071504-DCR-103	07/15/04	08:20
GK78R	005	S-17360-071504-DCR-104	07/15/04	08:25
GK78W	006	S-17360-071504-DCR-105	07/15/04	08:30
GK78X	007	S-17360-071504-DCR-106	07/15/04	08:35
GK781	008	S-17360-071504-DCR-107	07/15/04	08:40
GK783	009	S-17360-071504-DCR-108	07/15/04	08:45
GK784	010	S-17360-071504-DCR-109	07/15/04	08:55
GK786	011	S-17360-071504-DCR-110	07/15/04	09:00
GK788	012	S-17360-071504-DCR-111	07/15/04	10:50
GK789	013	S-17360-071504-DCR-112	07/15/04	10:55
GK79C	014	S-17360-071504-DCR-113	07/15/04	11:00
GK79D	015	S-17360-071504-DCR-114	07/15/04	11:05
GK79H	016	S-17360-071504-DCR-115	07/15/04	11:10
GK79J	017	S-17360-071504-DCR-116	07/15/04	11:20
GK79K	018	S-17360-071504-DCR-117	07/15/04	11:
GK79M	019	S-17360-071504-DCR-118	07/15/04	11,
GK79P	020	S-17360-071504-DCR-119	07/15/04	11
GK79T	021	S-17360-071504-DCR-120	07/15/04	11:50
GK79W	022	S-17360-071504-DCR-121	07/15/04	12:00
GK791	023	S-17360-071504-DCR-122	07/15/04	12:35
GK793	024	S-17360-071504-DCR-123	07/15/04	12:40
GK795	025	S-17360-071504-DCR-124	07/15/04	12:45
GK798	026	S-17360-071504-DCR-125	07/15/04	12:50
GK8AD	027	S-17360-071504-DCR-126	07/15/04	13:30
GK8AE	028	S-17360-071504-DCR-127	07/15/04	13:35
GK8AF	029	S-17360-071504-DCR-128	07/15/04	13:40
GK8AG	030	S-17360-071504-DCR-129	07/15/04	13:45
GK8AH	031	S-17360-071504-DCR-130	07/15/04	13:50
GK8AJ	032	S-17360-071504-DCR-131	07/15/04	14:00
GK8AK	033	S-17360-071504-DCR-132	07/15/04	14:10

(Continued on next page)

SAMPLE SUMMARY

M4G160169

WO #	SAMPLE#	CLIENT	SAMPLE ID	SAMPLED DATE	SAMP TIME

NOTE(S) :

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

***SHIPPING
AND
RECEIVING DOCUMENTS***

CRA

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Plymouth, MI 48170 • (734) 453-5123

SHIPPED TO (Laboratory Name): STL North Canton

Case - mt 584 1 of 3

CHAIN OF CUSTODY RECORD

REFERENCE NUMBER:
17360-09

PROJECT NAME: Gm - Grand Rapids

SAMPLER'S
SIGNATURE: *[Signature]*

PRINTED
NAME: David C Rivers

DATE: 7/15/94

PARAMETERS

SEC:
No.

DATE TIME

5-17360-0715-04-D-CR-100

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SHIPPED TO (Laboratory Name):

STL - North Canton

Cables - MT 584 2 of 3

CHAIN OF CUSTODY RECORD

REFERENCE NUMBER:
17365-09

PROJECT NAME: GM - Grand Rapids

SAMPLER'S
SIGNATURE: *[Signature]*

PRINTED
NAME: David C. Rivers

DATE: 7/13/04

PARAMETERS

REMARKS

SEQ. NO. DATE TIME

7/13/04 11:05 S-17365-071564-DCR-114

SAMPLE TYPE

TEL

REMARKS

SEQ. NO.	DATE	TIME	SAMPLE TYPE	NO. OF CONTAINERS	PARAMETERS	REMARKS
1	7/13/04	11:05	S-17365-071564-DCR-114	2	TEL	STD TAT
2	7/13/04	11:10	S-17365-071564-DCR-114	2	TEL	
3	7/13/04	11:20	S-17365-071564-DCR-114	2	TEL	
4	7/13/04	11:25	S-17365-071564-DCR-114	2	TEL	
5	7/13/04	11:30	S-17365-071564-DCR-114	2	TEL	
6	7/13/04	11:40	S-17365-071564-DCR-114	2	TEL	
7	7/13/04	11:50	S-17365-071564-DCR-114	2	TEL	
8	7/13/04	12:00	S-17365-071564-DCR-114	2	TEL	
9	7/13/04	12:05	S-17365-071564-DCR-114	2	TEL	
10	7/13/04	12:10	S-17365-071564-DCR-114	2	TEL	
11	7/13/04	12:15	S-17365-071564-DCR-114	2	TEL	
12	7/13/04	12:20	S-17365-071564-DCR-114	2	TEL	
13	7/13/04	12:25	S-17365-071564-DCR-114	2	TEL	
14	7/13/04	12:30	S-17365-071564-DCR-114	2	TEL	
15	7/13/04	12:35	S-17365-071564-DCR-114	2	TEL	
16	7/13/04	12:40	S-17365-071564-DCR-114	2	TEL	
17	7/13/04	12:45	S-17365-071564-DCR-114	2	TEL	
18	7/13/04	12:50	S-17365-071564-DCR-114	2	TEL	
19	7/13/04	12:55	S-17365-071564-DCR-114	2	TEL	
20	7/13/04	13:00	S-17365-071564-DCR-114	2	TEL	
21	7/13/04	13:05	S-17365-071564-DCR-114	2	TEL	
22	7/13/04	13:10	S-17365-071564-DCR-114	2	TEL	
23	7/13/04	13:15	S-17365-071564-DCR-114	2	TEL	
24	7/13/04	13:20	S-17365-071564-DCR-114	2	TEL	
25	7/13/04	13:25	S-17365-071564-DCR-114	2	TEL	
26	7/13/04	13:30	S-17365-071564-DCR-114	2	TEL	
27	7/13/04	13:35	S-17365-071564-DCR-114	2	TEL	
28	7/13/04	13:40	S-17365-071564-DCR-114	2	TEL	

TOTAL NUMBER OF CONTAINERS

CREA Contact
Paul W. [unclear]

1. RELINQUISHED BY: *[Signature]*

DATE: 7-15-04

RECEIVED BY: 1.

DATE:

2. RELINQUISHED BY:

DATE:

RECEIVED BY: 2.

DATE:

3. RELINQUISHED BY:

DATE:

RECEIVED BY: 1.

DATE:

METHOD OF SHIPMENT:

FED EX

AIR BILL NO. 845068647447

White - Fully Executed Copy
Yellow - Receiving Laboratory Copy
Pink - Shipper Copy
Goldend - Sampler Copy

SAMPLE TEAM:

David C. Rivers

RECEIVED FOR LABORATORY BY:

DATE: 7-16-04 TIME: 0925

27173

RSR280
 Client: 57787
 Lot #: A4G160169
 Case Number/SDG: 17360-09
 Storage Location: C119 MS

Severn Trent Laboratories, Inc.
 Sample Control Record

Laboratory Sample I.D.	Transferred By	Date	Entered	Removed	Reason	Date Returned
GK78C	STILLERJ	7/16/04	Yes		Storage	
GK78G	STILLERJ	7/16/04	Yes		Storage	
GK78L	STILLERJ	7/16/04	Yes		Storage	
GK78N	STILLERJ	7/16/04	Yes		Storage	
GK78R	STILLERJ	7/16/04	Yes		Storage	
GK78W	STILLERJ	7/16/04	Yes		Storage	
GK78X	STILLERJ	7/16/04	Yes		Storage	
GK781	STILLERJ	7/16/04	Yes		Storage	
GK783	STILLERJ	7/16/04	Yes		Storage	
GK784	STILLERJ	7/16/04	Yes		Storage	
GK786	STILLERJ	7/16/04	Yes		Storage	
GK788	STILLERJ	7/16/04	Yes		Storage	
GK789	STILLERJ	7/16/04	Yes		Storage	
GK79C	STILLERJ	7/16/04	Yes		Storage	
GK79D	STILLERJ	7/16/04	Yes		Storage	
GK79H	STILLERJ	7/16/04	Yes		Storage	
GK79J	STILLERJ	7/16/04	Yes		Storage	
GK79K	STILLERJ	7/16/04	Yes		Storage	
GK79M	STILLERJ	7/16/04	Yes		Storage	
GK79P	STILLERJ	7/16/04	Yes		Storage	
GK79T	STILLERJ	7/16/04	Yes		Storage	
GK79W	STILLERJ	7/16/04	Yes		Storage	
GK791	STILLERJ	7/16/04	Yes		Storage	

RSR280
 Client: 57787
 Lot #: A40160169
 Case Number/SDG: 17360-09
 Storage Location: C119 MS

Severn Trent Laboratories, Inc.
 Sample Control Record

Laboratory Sample I.D.	Transferred By	Date	Entered	Removed	Reason	Date Returned
GK793	STILLERJ	7/16/04	Yes		Storage	
GK795	STILLERJ	7/16/04	Yes		Storage	
GK798	STILLERJ	7/16/04	Yes		Storage	
GK8AD	STILLERJ	7/16/04	Yes		Storage	
GK8AE	STILLERJ	7/16/04	Yes		Storage	
GK8AF	STILLERJ	7/16/04	Yes		Storage	
GK8AG	STILLERJ	7/16/04	Yes		Storage	
GK8AH	STILLERJ	7/16/04	Yes		Storage	
GK8AJ	STILLERJ	7/16/04	Yes		Storage	
GK8AK	STILLERJ	7/16/04	Yes		Storage	

STL Cooler Receipt Form/Narrative
North Canton Facility

Lot Number: A4G160169

Client: CRA

Project: GM-Grand Rapids

Quote#: 50154

Cooler Received on: 7-16-04

Opened on: 7-16-04

by: Angela Mathews
 (Signature)

Fedx ☒ Client Drop Off ☐ UPS ☐ DHL ☐ FAS ☐ Other: _____

STL Cooler No# M1584 Foam Box ☐ Client Cooler ☒ Other _____

1. Were custody seals on the outside of the cooler? Yes ☒ No ☐ Intact? Yes ☒ No ☐ NA ☐

If YES, Quantity _____

Were the custody seals signed and dated?

Yes ☐ No ☒ NA ☐

2. Shipper's packing slip attached to this form?

Yes ☒ No ☐ NA ☐

3. Did custody papers accompany the samples? Yes ☒ No ☐

Relinquished by client? Yes ☒ No ☐

4. Did you sign the custody papers in the appropriate place?

Yes ☒ No ☐

5. Packing material used: Bubble Wrap ☒ Foam ☐ None ☐ Other: _____

6. Cooler temperature upon receipt 4.6 °C (see back of form for multiple coolers/temp)

METHOD: Temp Vial ☐ Coolant & Sample ☐ Against Bottles ☐ IR ☒ ICE/H₂O Slurry ☐

COOLANT: Wet Ice ☒ Blue Ice ☐ Dry Ice ☐ Water ☐ None ☐

None ☐

7. Did all bottles arrive in good condition (Unbroken)?

Yes ☒ No ☐

8. Could all bottle labels and/or tags be reconciled with the COC?

Yes ☒ No ☐

9. Were samples at the correct pH? (record below/on back)

Yes ☒ No ☐ NA ☒

10. Were correct bottles used for the tests indicated?

Yes ☒ No ☐

11. Were air bubbles >6 mm in any VOA vials?

Yes ☐ No ☐ NA ☒

12. Sufficient quantity received to perform indicated analyses?

Yes ☒ No ☐

Contacted PM _____ Date: _____ by: _____ via Voice Mail ☐ Verbal ☐ Other ☐

Concerning: _____

1. CHAIN OF CUSTODY

The following discrepancies occurred:

2. SAMPLE CONDITION

Sample(s) _____ were received after the recommended holding time had expired.

Sample(s) _____ were received in a broken container.

3. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in sample receiving to meet recommended pH level(s). Nitric Acid Lot #122603-HNO₃; Sulfuric Acid Lot # 011-504-H₂SO₄; Sodium Hydroxide Lot # 111401-NaOH; Hydrochloric Acid Lot # 100902-HCl; Sodium Hydroxide and Zinc Acetate Lot # 112801-CH₃COO₂ZN/NaOH

Sample(s) _____ were received with bubble > 6 mm in diameter (cc: PM)

4. Other (see below or back)

Client ID	pH	Date	Initials

**STL Cooler Receipt Form/Narrative
North Canton Facility**

[illegible]

Discrepancies Cont.

GCMS VOLATILE DATA

CONESTOGA-ROVERS & ASSOC., INC.

Client Sample ID: S-17360-071504-DCR-100

GC/MS Volatiles

Lot-Sample #....: A4G160169-001 Work Order #....: GK78C1AA Matrix.....: 80
 Date Sampled....: 07/15/04 08:00 Date Received...: 07/16/04
 Prep Date.....: 07/16/04 Analysis Date...: 07/22/04
 Prep Batch #....: 4203414
 Dilution Factor: 3.82 Initial Wgt/Vol: 21.8 g Final Wgt/Vol...: 25 mL
 % Moisture.....: 4.9 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acetone	ND	3000	ug/kg	400
Benzene	33 J	200	ug/kg	26
Bromodichloromethane	ND	400	ug/kg	48
Bromoform	ND	400	ug/kg	52
Bromomethane	ND	1000	ug/kg	100
2-Butanone	ND	3000	ug/kg	200
Carbon disulfide	ND	1000	ug/kg	80
Carbon tetrachloride	ND	200	ug/kg	48
Chlorobenzene	ND	200	ug/kg	25
Chloroethane	ND	1000	ug/kg	260
Chloroform	ND	200	ug/kg	48
Chloromethane	ND	1000	ug/kg	21
Cyclohexane	31 J	4800	ug/kg	31
Dibromochloromethane	ND	200	ug/kg	28
1,2-Dibromo-3-chloro- propane	ND	1000	ug/kg	240
1,2-Dibromoethane	ND	1000	ug/kg	40
1,2-Dichlorobenzene	ND	400	ug/kg	68
1,3-Dichlorobenzene	ND	400	ug/kg	29
1,4-Dichlorobenzene	ND	400	ug/kg	32
Dichlorodifluoromethane	ND	400	ug/kg	22
1,1-Dichloroethane	ND	200	ug/kg	29
1,2-Dichloroethane	ND	200	ug/kg	37
1,1-Dichloroethene	ND	200	ug/kg	33
cis-1,2-Dichloroethene	ND	200	ug/kg	56
trans-1,2-Dichloroethene	ND	200	ug/kg	44
1,2-Dichloropropane	ND	200	ug/kg	30
cis-1,3-Dichloropropene	ND	200	ug/kg	22
trans-1,3-Dichloropropene	ND	200	ug/kg	22
Ethylbenzene	ND	200	ug/kg	27
2-Hexanone	ND	10000	ug/kg	96
Isopropylbenzene	25 J	1000	ug/kg	20
Methyl acetate	ND	4800	ug/kg	210
Methylene chloride	ND	1000	ug/kg	400
Methylcyclohexane	200 J	4800	ug/kg	23
4-Methyl-2-pentanone	ND	10000	ug/kg	44
Methyl tert-butyl ether	ND	1000	ug/kg	40
Styrene	ND	200	ug/kg	110

(Continued on next page)

CONESTOGA-ROVERS & ASSOC., INC.

Client Sample ID: S-17360-071504-DCR-100

GC/MS Volatiles

Lot-Sample #....: A4G160169-001 Work Order #....: GK78C1AA Matrix.....: SO

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>	<u>MDL</u>
1,1,2,2-Tetrachloroethane	ND	400	ug/kg	33
Tetrachloroethene	ND	200	ug/kg	36
Toluene	140 J	400	ug/kg	37
1,2,4-Trichloro- benzene	ND	1000	ug/kg	48
1,1,1-Trichloroethane	ND	200	ug/kg	38
1,1,2-Trichloroethane	ND	200	ug/kg	40
Trichloroethene	5700	200	ug/kg	48
Trichlorofluoromethane	ND	400	ug/kg	33
1,1,2-Trichloro- 1,2,2-trifluoroethane	ND	1000	ug/kg	40
Vinyl chloride	ND	400	ug/kg	64
Xylenes (total)	200 J	600	ug/kg	60

<u>SURROGATE</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>
Dibromofluoromethane	75 DIL	(59 - 138)
1,2-Dichloroethane-d4	81 DIL	(61 - 130)
Toluene-d8	91 DIL	(60 - 143)
4-Bromofluorobenzene	83 DIL	(47 - 158)

NOTE(S):

DIL The concentration is estimated or not reported due to dilution or the presence of interfering analytes.

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than RL.

CONESTOGA-ROVERS & ASSOC., INC.

Client Sample ID: S-17360-071504-DCR-101

GC/MS Volatiles

Lot-Sample #....: A4G160169-002 Work Order #....: GK78G1AA Matrix.....: SO
 Date Sampled....: 07/15/04 08:05 Date Received...: 07/16/04
 Prep Date.....: 07/16/04 Analysis Date...: 07/21/04
 Prep Batch #....: 4203414
 Dilution Factor: 2.21 Initial Wgt/Vol: 11.3 g Final Wgt/Vol...: 25 mL
 % Moisture.....: 2.5 Method.....: SWB46 8260B

PARAMETER	RESULT	REPORTING		
		LIMIT	UNITS	MDL
Acetone	ND	1700	ug/kg	220
Benzene	ND	110	ug/kg	15
Bromodichloromethane	ND	230	ug/kg	27
Bromoform	ND	230	ug/kg	29
Bromomethane	ND	570	ug/kg	57
2-Butanone	ND	1700	ug/kg	110
Carbon disulfide	ND	570	ug/kg	45
Carbon tetrachloride	ND	110	ug/kg	27
Chlorobenzene	ND	110	ug/kg	14
Chloroethane	ND	570	ug/kg	150
Chloroform	ND	110	ug/kg	27
Chloromethane	ND	570	ug/kg	12
Cyclohexane	ND	2700	ug/kg	17
Dibromochloromethane	ND	110	ug/kg	16
1,2-Dibromo-3-chloro- propane	ND	570	ug/kg	140
1,2-Dibromoethane	ND	570	ug/kg	22
1,2-Dichlorobenzene	ND	230	ug/kg	39
1,3-Dichlorobenzene	ND	230	ug/kg	16
1,4-Dichlorobenzene	ND	230	ug/kg	18
Dichlorodifluoromethane	ND	230	ug/kg	12
1,1-Dichloroethane	ND	110	ug/kg	17
1,2-Dichloroethane	ND	110	ug/kg	21
1,1-Dichloroethene	ND	110	ug/kg	19
cis-1,2-Dichloroethene	ND	110	ug/kg	32
trans-1,2-Dichloroethene	ND	110	ug/kg	25
1,2-Dichloropropane	ND	110	ug/kg	17
cis-1,3-Dichloropropene	ND	110	ug/kg	12
trans-1,3-Dichloropropene	ND	110	ug/kg	12
Ethylbenzene	ND	110	ug/kg	15
2-Hexanone	ND	5700	ug/kg	54
Isopropylbenzene	ND	570	ug/kg	12
Methyl acetate	ND	2700	ug/kg	120
Methylene chloride	ND	570	ug/kg	220
Methylcyclohexane	ND	2700	ug/kg	13
4-Methyl-2-pentanone	ND	5700	ug/kg	25
Methyl tert-butyl ether	ND	570	ug/kg	23
Styrene	ND	110	ug/kg	63

(Continued on next page)

CONESTOGA-ROVERS & ASSOC., INC.

Client Sample ID: 8-17360-071504-DCR-101

GC/MS Volatiles

Lot-Sample #....: A4G160169-002 Work Order #....: GK78G1AA Matrix.....: SO

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
1,1,2,2-Tetrachloroethane	ND	230	ug/kg	19
Tetrachloroethene	ND	110	ug/kg	20
Toluene	ND	230	ug/kg	21
1,2,4-Trichloro- benzene	ND	570	ug/kg	27
1,1,1-Trichloroethane	ND	110	ug/kg	22
1,1,2-Trichloroethane	ND	110	ug/kg	22
Trichloroethene	ND	110	ug/kg	27
Trichlorofluoromethane	ND	230	ug/kg	19
1,1,2-Trichloro- 1,2,2-trifluoroethane	ND	570	ug/kg	23
Vinyl chloride	ND	230	ug/kg	36
Xylenes (total)	ND	340	ug/kg	34

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	75	(59 - 138)
1,2-Dichloroethane-d4	84	(61 - 130)
Toluene-d8	96	(60 - 143)
4-Bromofluorobenzene	88	(47 - 158)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

CONESTOGA-ROVERS & ASSOC., INC.

Client Sample ID: S-17360-071504-DCR-102

GC/MS Volatiles

Lot-Sample #....: A4G160169-003 Work Order #....: GK78L1AA Matrix.....: SO
 Date Sampled....: 07/15/04 08:10 Date Received...: 07/16/04
 Prep Date.....: 07/16/04 Analysis Date...: 07/21/04
 Prep Batch #....: 4203414
 Dilution Factor: 1.29 Initial Wgt/Vol: 19.4 g Final Wgt/Vol...: 25 mL
 % Moisture.....: 2.1 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acetone	ND	990	ug/kg	130
Benzene	ND	66	ug/kg	8.4
Bromodichloromethane	ND	130	ug/kg	16
Bromoform	ND	130	ug/kg	17
Bromomethane	ND	330	ug/kg	33
2-Butanone	ND	990	ug/kg	65
Carbon disulfide	ND	330	ug/kg	26
Carbon tetrachloride	ND	66	ug/kg	16
Chlorobenzene	ND	66	ug/kg	8.3
Chloroethane	ND	330	ug/kg	86
Chloroform	ND	66	ug/kg	16
Chloromethane	18 J,B	330	ug/kg	6.9
Cyclohexane	ND	1600	ug/kg	10
Dibromochloromethane	ND	66	ug/kg	9.1
1,2-Dibromo-3-chloro- propane	ND	330	ug/kg	79
1,2-Dibromoethane	ND	330	ug/kg	13
1,2-Dichlorobenzene	ND	130	ug/kg	22
1,3-Dichlorobenzene	ND	130	ug/kg	9.5
1,4-Dichlorobenzene	ND	130	ug/kg	10
Dichlorodifluoromethane	ND	130	ug/kg	7.1
1,1-Dichloroethane	ND	66	ug/kg	9.6
1,2-Dichloroethane	ND	66	ug/kg	12
1,1-Dichloroethene	ND	66	ug/kg	11
cis-1,2-Dichloroethene	ND	66	ug/kg	18
trans-1,2-Dichloroethene	ND	66	ug/kg	14
1,2-Dichloropropane	ND	66	ug/kg	9.7
cis-1,3-Dichloropropene	ND	66	ug/kg	7.2
trans-1,3-Dichloropropene	ND	66	ug/kg	7.1
Ethylbenzene	ND	66	ug/kg	9.0
2-Hexanone	ND	3300	ug/kg	32
Isopropylbenzene	ND	330	ug/kg	6.7
Methyl acetate	ND	1600	ug/kg	69
Methylene chloride	ND	330	ug/kg	130
Methylcyclohexane	ND	1600	ug/kg	7.5
4-Methyl-2-pentanone	ND	3300	ug/kg	14
Methyl tert-butyl ether	ND	330	ug/kg	13
Styrene	ND	66	ug/kg	37

(Continued on next page)

CONESTOGA-ROVERS & ASSOC., INC.

Client Sample ID: S-17360-071504-DCR-102

GC/MS Volatiles

Lot-Sample #....: A4G160169-003 Work Order #....: GK78L1AA Matrix.....: SO

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>	<u>MDL</u>
1,1,2,2-Tetrachloroethane	ND	130	ug/kg	11
Tetrachloroethene	ND	66	ug/kg	12
Toluene	ND	130	ug/kg	12
1,2,4-Trichloro- benzene	ND	330	ug/kg	16
1,1,1-Trichloroethane	ND	66	ug/kg	13
1,1,2-Trichloroethane	ND	66	ug/kg	13
Trichloroethene	ND	66	ug/kg	16
Trichlorofluoromethane	ND	130	ug/kg	11
1,1,2-Trichloro- 1,2,2-trifluoroethane	ND	330	ug/kg	13
Vinyl chloride	ND	130	ug/kg	21
Xylenes (total)	ND	200	ug/kg	20

<u>SURROGATE</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>
Dibromofluoromethane	76	(59 - 138)
1,2-Dichloroethane-d4	83	(61 - 130)
Toluene-d8	94	(60 - 143)
4-Bromofluorobenzene	86	(47 - 158)

NOTE (S) :

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than RL.

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

CONESTOGA-ROVERS & ASSOC., INC.

Client Sample ID: S-17360-071504-DCR-103

GC/MS Volatiles

Lot-Sample #....: A4G160169-004 Work Order #....: GK78N1AA Matrix.....: SO
 Date Sampled....: 07/15/04 08:20 Date Received...: 07/16/04
 Prep Date.....: 07/16/04 Analysis Date...: 07/21/04
 Prep Batch #....: 4203414
 Dilution Factor: 1.18 Initial Wgt/Vol: 21.1 g Final Wgt/Vol...: 25 mL
 % Moisture.....: 2.5 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING		
		LIMIT	UNITS	MDL
Acetone	ND	910	ug/kg	120
Benzene	ND	61	ug/kg	7.7
Bromodichloromethane	ND	120	ug/kg	15
Bromoform	ND	120	ug/kg	16
Bromomethane	ND	300	ug/kg	30
2-Butanone	59 J	910	ug/kg	59
Carbon disulfide	ND	300	ug/kg	24
Carbon tetrachloride	ND	61	ug/kg	15
Chlorobenzene	ND	61	ug/kg	7.6
Chloroethane	ND	300	ug/kg	79
Chloroform	ND	61	ug/kg	15
Chloromethane	ND	300	ug/kg	6.3
Cyclohexane	ND	1500	ug/kg	9.3
Dibromochloromethane	ND	61	ug/kg	8.3
1,2-Dibromo-3-chloro- propane	ND	300	ug/kg	73
1,2-Dibromoethane	ND	300	ug/kg	12
1,2-Dichlorobenzene	ND	120	ug/kg	21
1,3-Dichlorobenzene	ND	120	ug/kg	8.7
1,4-Dichlorobenzene	ND	120	ug/kg	9.6
Dichlorodifluoromethane	ND	120	ug/kg	6.5
1,1-Dichloroethane	ND	61	ug/kg	8.8
1,2-Dichloroethane	ND	61	ug/kg	11
1,1-Dichloroethene	ND	61	ug/kg	10
cis-1,2-Dichloroethene	ND	61	ug/kg	17
trans-1,2-Dichloroethene	ND	61	ug/kg	13
1,2-Dichloropropane	ND	61	ug/kg	9.0
cis-1,3-Dichloropropene	ND	61	ug/kg	6.7
trans-1,3-Dichloropropene	ND	61	ug/kg	6.5
Ethylbenzene	ND	61	ug/kg	8.2
2-Hexanone	ND	3000	ug/kg	29
Isopropylbenzene	ND	300	ug/kg	6.2
Methyl acetate	ND	1500	ug/kg	63
Methylene chloride	ND	300	ug/kg	120
Methylcyclohexane	ND	1500	ug/kg	6.9
4-Methyl-2-pentanone	ND	3000	ug/kg	13
Methyl tert-butyl ether	ND	300	ug/kg	12
Styrene	ND	61	ug/kg	34

(Continued on next page)

CONESTOGA-ROVERS & ASSOC., INC.

Client Sample ID: S-17360-071504-DCR-103

GC/MS Volatiles

Lot-Sample #....: A4G160169-004 Work Order #....: GK78N1AA Matrix.....: SO

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
1,1,2,2-Tetrachloroethane	ND	120	ug/kg	9.9
Tetrachloroethene	ND	61	ug/kg	11
Toluene	ND	120	ug/kg	11
1,2,4-Trichloro- benzene	ND	300	ug/kg	15
1,1,1-Trichloroethane	ND	61	ug/kg	11
1,1,2-Trichloroethane	ND	61	ug/kg	12
Trichloroethene	ND	61	ug/kg	15
Trichlorofluoromethane	ND	120	ug/kg	10
1,1,2-Trichloro- 1,2,2-trifluoroethane	ND	300	ug/kg	12
Vinyl chloride	ND	120	ug/kg	19
Xylenes (total)	ND	180	ug/kg	18

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	78	(59 - 138)
1,2-Dichloroethane-d4	83	(61 - 130)
Toluene-d8	97	(60 - 143)
4-Bromofluorobenzene	88	(47 - 158)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than RL.

COMESTOGA-ROVERS & ASSOC., INC.

Client Sample ID: 8-17360-071504-DCR-104

GC/MS Volatiles

Lot-Sample #....: A4G160169-005 Work Order #....: GK78R1AA Matrix.....: SO
 Date Sampled....: 07/15/04 08:25 Date Received...: 07/16/04
 Prep Date.....: 07/16/04 Analysis Date...: 07/21/04
 Prep Batch #....: 4203414
 Dilution Factor: 1.17 Initial Wgt/Vol: 21.4 g Final Wgt/Vol...: 25 mL
 % Moisture.....: 2.8 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acetone	ND	900	ug/kg	120
Benzene	ND	60	ug/kg	7.7
Bromodichloromethane	ND	120	ug/kg	14
Bromoform	ND	120	ug/kg	16
Bromomethane	ND	300	ug/kg	30
2-Butanone	ND	900	ug/kg	59
Carbon disulfide	ND	300	ug/kg	24
Carbon tetrachloride	ND	60	ug/kg	14
Chlorobenzene	ND	60	ug/kg	7.6
Chloroethane	ND	300	ug/kg	78
Chloroform	ND	60	ug/kg	14
Chloromethane	ND	300	ug/kg	6.3
Cyclohexane	ND	1400	ug/kg	9.3
Dibromochloromethane	ND	60	ug/kg	8.3
1,2-Dibromo-3-chloro- propane	ND	300	ug/kg	72
1,2-Dibromoethane	ND	300	ug/kg	12
1,2-Dichlorobenzene	ND	120	ug/kg	20
1,3-Dichlorobenzene	ND	120	ug/kg	8.7
1,4-Dichlorobenzene	ND	120	ug/kg	9.5
Dichlorodifluoromethane	ND	120	ug/kg	6.5
1,1-Dichloroethane	ND	60	ug/kg	8.8
1,2-Dichloroethane	ND	60	ug/kg	11
1,1-Dichloroethene	ND	60	ug/kg	10
cis-1,2-Dichloroethene	ND	60	ug/kg	17
trans-1,2-Dichloroethene	ND	60	ug/kg	13
1,2-Dichloropropane	ND	60	ug/kg	8.9
cis-1,3-Dichloropropene	ND	60	ug/kg	6.6
trans-1,3-Dichloropropene	ND	60	ug/kg	6.5
Ethylbenzene	ND	60	ug/kg	8.2
2-Hexanone	ND	3000	ug/kg	29
Isopropylbenzene	ND	300	ug/kg	6.1
Methyl acetate	ND	1400	ug/kg	63
Methylene chloride	ND	300	ug/kg	120
Methylcyclohexane	ND	1400	ug/kg	6.9
4-Methyl-2-pentanone	ND	3000	ug/kg	13
Methyl tert-butyl ether	ND	300	ug/kg	12
Styrene	ND	60	ug/kg	34

(Continued on next page)

CONESTOGA-ROVERS & ASSOC., INC.

Client Sample ID: 8-17360-071504-DCR-104

GC/MS Volatiles

Lot-Sample #....: A4G160169-005 Work Order #....: GK78R1AA Matrix.....: SO

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
1,1,2,2-Tetrachloroethane	ND	120	ug/kg	9.9
Tetrachloroethene	ND	60	ug/kg	11
Toluene	ND	120	ug/kg	11
1,2,4-Trichloro- benzene	ND	300	ug/kg	14
1,1,1-Trichloroethane	ND	60	ug/kg	11
1,1,2-Trichloroethane	ND	60	ug/kg	12
Trichloroethene	ND	60	ug/kg	14
Trichlorofluoromethane	ND	120	ug/kg	10
1,1,2-Trichloro- 1,2,2-trifluoroethane	ND	300	ug/kg	12
Vinyl chloride	ND	120	ug/kg	19
Xylenes (total)	ND	180	ug/kg	18
SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS		
Dibromofluoromethane	75	(59 - 138)		
1,2-Dichloroethane-d4	83	(61 - 130)		
Toluene-d8	95	(60 - 143)		
4-Bromofluorobenzene	87	(47 - 158)		

NOTE(S) :

Results and reporting limits have been adjusted for dry weight.

CONESTOGA-ROVERS & ASSOC., INC.

Client Sample ID: S-17360-071504-DCR-105

GC/MS Volatiles

Lot-Sample #....: A4G160169-006 Work Order #....: GK78W1AA Matrix.....: SO
 Date Sampled...: 07/15/04 08:30 Date Received...: 07/16/04
 Prep Date.....: 07/16/04 Analysis Date...: 07/21/04
 Prep Batch #....: 4203414
 Dilution Factor: 1.09 Initial Wgt/Vol: 23 g Final Wgt/Vol...: 25 mL
 % Moisture.....: 2.0 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING		
		LIMIT	UNITS	MDL
Acetone	ND	830	ug/kg	110
Benzene	ND	56	ug/kg	7.1
Bromodichloromethane	ND	110	ug/kg	13
Bromoform	ND	110	ug/kg	14
Bromomethane	ND	280	ug/kg	28
2-Butanone	ND	830	ug/kg	54
Carbon disulfide	ND	280	ug/kg	22
Carbon tetrachloride	ND	56	ug/kg	13
Chlorobenzene	ND	56	ug/kg	7.0
Chloroethane	ND	280	ug/kg	72
Chloroform	ND	56	ug/kg	13
Chloromethane	ND	280	ug/kg	5.8
Cyclohexane	ND	1300	ug/kg	8.6
Dibromochloromethane	ND	56	ug/kg	7.7
1,2-Dibromo-3-chloro- propane	ND	280	ug/kg	67
1,2-Dibromoethane	ND	280	ug/kg	11
1,2-Dichlorobenzene	ND	110	ug/kg	19
1,3-Dichlorobenzene	ND	110	ug/kg	8.0
1,4-Dichlorobenzene	ND	110	ug/kg	8.8
Dichlorodifluoromethane	ND	110	ug/kg	6.0
1,1-Dichloroethane	ND	56	ug/kg	8.1
1,2-Dichloroethane	ND	56	ug/kg	10
1,1-Dichloroethene	ND	56	ug/kg	9.2
cis-1,2-Dichloroethene	ND	56	ug/kg	16
trans-1,2-Dichloroethene	ND	56	ug/kg	12
1,2-Dichloropropane	ND	56	ug/kg	8.2
cis-1,3-Dichloropropene	ND	56	ug/kg	6.1
trans-1,3-Dichloropropene	ND	56	ug/kg	6.0
Ethylbenzene	ND	56	ug/kg	7.6
2-Hexanone	ND	2800	ug/kg	27
Isopropylbenzene	ND	280	ug/kg	5.7
Methyl acetate	ND	1300	ug/kg	58
Methylene chloride	ND	280	ug/kg	110
Methylcyclohexane	ND	1300	ug/kg	6.3
4-Methyl-2-pentanone	ND	2800	ug/kg	12
Methyl tert-butyl ether	ND	280	ug/kg	11
Styrene	ND	56	ug/kg	31

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CONESTOGA-ROVERS & ASSOC., INC.

Client Sample ID: 8-17360-071504-DCR-105

GC/MS Volatiles

Lot-Sample #....: A4G160169-006 Work Order #....: GK78W1AA Matrix.....: SO

PARAMETER	RESULT	REPORTING		
		LIMIT	UNITS	MDL
1,1,2,2-Tetrachloroethane	ND	110	ug/kg	9.1
Tetrachloroethene	ND	56	ug/kg	10
Toluene	ND	110	ug/kg	10
1,2,4-Trichloro- benzene	ND	280	ug/kg	13
1,1,1-Trichloroethane	ND	56	ug/kg	11
1,1,2-Trichloroethane	ND	56	ug/kg	11
Trichloroethene	25 J	56	ug/kg	13
Trichlorofluoromethane	ND	110	ug/kg	9.2
1,1,2-Trichloro- 1,2,2-trifluoroethane	ND	280	ug/kg	11
Vinyl chloride	ND	110	ug/kg	18
Xylenes (total)	ND	170	ug/kg	17

SURROGATE	PERCENT	RECOVERY
	RECOVERY	LIMITS
Dibromofluoromethane	74	(59 - 138)
1,2-Dichloroethane-d4	81	(61 - 130)
Toluene-d8	94	(60 - 143)
4-Bromofluorobenzene	86	(47 - 158)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than RL.

CONESTOGA-ROVERS & ASSOC., INC.

Client Sample ID: S-17360-071504-DCR-106

GC/MS Volatiles

Lot-Sample #....: A4G160169-007 Work Order #....: GK78X1AA Matrix.....: SO
 Date Sampled....: 07/15/04 08:35 Date Received...: 07/16/04
 Prep Date.....: 07/16/04 Analysis Date...: 07/21/04
 Prep Batch #....: 4203414
 Dilution Factor: 0.96 Initial Wgt/Vol: 26.1 g Final Wgt/Vol...: 25 mL
 % Moisture.....: 3.4 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING		
		LIMIT	UNITS	MDL
Acetone	ND	750	ug/kg	98
Benzene	ND	50	ug/kg	6.4
Bromodichloromethane	ND	99	ug/kg	12
Bromoform	ND	99	ug/kg	13
Bromomethane	ND	250	ug/kg	25
2-Butanone	ND	750	ug/kg	49
Carbon disulfide	ND	250	ug/kg	20
Carbon tetrachloride	ND	50	ug/kg	12
Chlorobenzene	ND	50	ug/kg	6.3
Chloroethane	ND	250	ug/kg	65
Chloroform	ND	50	ug/kg	12
Chloromethane	ND	250	ug/kg	5.2
Cyclohexane	ND	1200	ug/kg	7.6
Dibromochloromethane	ND	50	ug/kg	6.9
1,2-Dibromo-3-chloro- propane	ND	250	ug/kg	60
1,2-Dibromoethane	ND	250	ug/kg	9.8
1,2-Dichlorobenzene	ND	99	ug/kg	17
1,3-Dichlorobenzene	ND	99	ug/kg	7.2
1,4-Dichlorobenzene	ND	99	ug/kg	7.8
Dichlorodifluoromethane	ND	99	ug/kg	5.4
1,1-Dichloroethane	ND	50	ug/kg	7.3
1,2-Dichloroethane	ND	50	ug/kg	9.2
1,1-Dichloroethene	ND	50	ug/kg	8.2
cis-1,2-Dichloroethene	ND	50	ug/kg	14
trans-1,2-Dichloroethene	ND	50	ug/kg	11
1,2-Dichloropropane	ND	50	ug/kg	7.4
cis-1,3-Dichloropropene	ND	50	ug/kg	5.5
trans-1,3-Dichloropropene	ND	50	ug/kg	5.4
Ethylbenzene	ND	50	ug/kg	6.8
2-Hexanone	ND	2500	ug/kg	24
Isopropylbenzene	ND	250	ug/kg	5.1
Methyl acetate	ND	1200	ug/kg	52
Methylene chloride	ND	250	ug/kg	98
Methylcyclohexane	ND	1200	ug/kg	5.7
4-Methyl-2-pentanone	ND	2500	ug/kg	11
Methyl tert-butyl ether	ND	250	ug/kg	9.9
Styrene	ND	50	ug/kg	28

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CONESTOGA-ROVERS & ASSOC., INC.

Client Sample ID: S-17360-071504-DCR-106

GC/MS Volatiles

Lot-Sample #....: A4G160169-007 Work Order #....: GK78X1AA Matrix.....: SO

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
1,1,2,2-Tetrachloroethane	ND	99	ug/kg	8.1
Tetrachloroethene	ND	50	ug/kg	8.9
Toluene	ND	99	ug/kg	9.0
1,2,4-Trichloro- benzene	ND	250	ug/kg	12
1,1,1-Trichloroethane	ND	50	ug/kg	9.4
1,1,2-Trichloroethane	ND	50	ug/kg	9.8
Trichloroethene	ND	50	ug/kg	12
Trichlorofluoromethane	ND	99	ug/kg	8.2
1,1,2-Trichloro- 1,2,2-trifluoroethane	ND	250	ug/kg	9.9
Vinyl chloride	ND	99	ug/kg	16
Xylenes (total)	ND	150	ug/kg	15

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	71	(59 - 138)
1,2-Dichloroethane-d4	82	(61 - 130)
Toluene-d8	93	(60 - 143)
4-Bromofluorobenzene	85	(47 - 158)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

COMESTOGA-ROVERS & ASSOC., INC.

Client Sample ID: S-17360-071504-DCR-107

GC/MS Volatiles

Lot-Sample #....: A4G160169-008 Work Order #....: GK7811AA Matrix.....: SO
 Date Sampled....: 07/15/04 08:40 Date Received...: 07/16/04
 Prep Date.....: 07/16/04 Analysis Date...: 07/21/04
 Prep Batch #....: 4203414
 Dilution Factor: 1.09 Initial Wgt/Vol: 23 g Final Wgt/Vol...: 25 mL
 % Moisture.....: 2.3 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING		
		LIMIT	UNITS	MDL
Acetone	ND	840	ug/kg	110
Benzene	ND	56	ug/kg	7.1
Bromodichloromethane	ND	110	ug/kg	13
Bromoform	ND	110	ug/kg	15
Bromomethane	ND	280	ug/kg	28
2-Butanone	ND	840	ug/kg	55
Carbon disulfide	ND	280	ug/kg	22
Carbon tetrachloride	ND	56	ug/kg	13
Chlorobenzene	ND	56	ug/kg	7.0
Chloroethane	ND	280	ug/kg	73
Chloroform	ND	56	ug/kg	13
Chloromethane	21 J,B	280	ug/kg	5.8
Cyclohexane	ND	1300	ug/kg	8.6
Dibromochloromethane	ND	56	ug/kg	7.7
1,2-Dibromo-3-chloro- propane	ND	280	ug/kg	67
1,2-Dibromoethane	ND	280	ug/kg	11
1,2-Dichlorobenzene	ND	110	ug/kg	19
1,3-Dichlorobenzene	ND	110	ug/kg	8.0
1,4-Dichlorobenzene	ND	110	ug/kg	8.8
Dichlorodifluoromethane	ND	110	ug/kg	6.0
1,1-Dichloroethane	ND	56	ug/kg	8.1
1,2-Dichloroethane	ND	56	ug/kg	10
1,1-Dichloroethene	ND	56	ug/kg	9.3
cis-1,2-Dichloroethene	ND	56	ug/kg	16
trans-1,2-Dichloroethene	ND	56	ug/kg	12
1,2-Dichloropropane	ND	56	ug/kg	8.3
cis-1,3-Dichloropropene	ND	56	ug/kg	6.1
trans-1,3-Dichloropropene	ND	56	ug/kg	6.0
Ethylbenzene	ND	56	ug/kg	7.6
2-Hexanone	ND	2800	ug/kg	27
Isopropylbenzene	ND	280	ug/kg	5.7
Methyl acetate	ND	1300	ug/kg	58
Methylene chloride	ND	280	ug/kg	110
Methylcyclohexane	ND	1300	ug/kg	6.4
4-Methyl-2-pentanone	ND	2800	ug/kg	12
Methyl tert-butyl ether	ND	280	ug/kg	11
Styrene	ND	56	ug/kg	31

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CONESTOGA-ROVERS & ASSOC., INC.

Client Sample ID: S-17360-071504-DCR-107

GC/MS Volatiles

Lot-Sample #....: A4G160169-008 Work Order #....: GK7811AA Matrix.....: SO

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
1,1,2,2-Tetrachloroethane	ND	110	ug/kg	9.1
Tetrachloroethene	ND	56	ug/kg	10
Toluene	ND	110	ug/kg	10
1,2,4-Trichloro- benzene	ND	280	ug/kg	13
1,1,1-Trichloroethane	ND	56	ug/kg	11
1,1,2-Trichloroethane	ND	56	ug/kg	11
Trichloroethene	20 J	56	ug/kg	13
Trichlorofluoromethane	ND	110	ug/kg	9.3
1,1,2-Trichloro- 1,2,2-trifluoroethane	ND	280	ug/kg	11
Vinyl chloride	ND	110	ug/kg	18
Xylenes (total)	ND	170	ug/kg	17

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	68	(59 - 138)
1,2-Dichloroethane-d4	80	(61 - 130)
Toluene-d8	93	(60 - 143)
4-Bromofluorobenzene	84	(47 - 158)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than RL.

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

CONESTOGA-ROVERS & ASSOC., INC.

Client Sample ID: S-17360-071504-DCR-108

GC/MS Volatiles

Lot-Sample #....: A4G160169-009 Work Order #....: GK7831AA Matrix.....: SO
 Date Sampled....: 07/15/04 08:45 Date Received...: 07/16/04
 Prep Date.....: 07/16/04 Analysis Date...: 07/21/04
 Prep Batch #....: 4203414
 Dilution Factor: 1.07 Initial Wgt/Vol: 23.4 g Final Wgt/Vol...: 25 mL
 % Moisture.....: 2.6 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acetone	ND	820	ug/kg	11.0
Benzene	ND	55	ug/kg	7.0
Bromodichloromethane	ND	110	ug/kg	13
Bromoform	ND	110	ug/kg	14
Bromomethane	ND	270	ug/kg	27
2-Butanone	ND	820	ug/kg	54
Carbon disulfide	ND	270	ug/kg	22
Carbon tetrachloride	ND	55	ug/kg	13
Chlorobenzene	ND	55	ug/kg	6.9
Chloroethane	ND	270	ug/kg	71
Chloroform	ND	55	ug/kg	13
Chloromethane	ND	270	ug/kg	5.7
Cyclohexane	ND	1300	ug/kg	8.5
Dibromochloromethane	ND	55	ug/kg	7.6
1,2-Dibromo-3-chloro- propane	ND	270	ug/kg	66
1,2-Dibromoethane	ND	270	ug/kg	11
1,2-Dichlorobenzene	ND	110	ug/kg	19
1,3-Dichlorobenzene	ND	110	ug/kg	7.9
1,4-Dichlorobenzene	ND	110	ug/kg	8.7
Dichlorodifluoromethane	ND	110	ug/kg	5.9
1,1-Dichloroethane	ND	55	ug/kg	8.0
1,2-Dichloroethane	ND	55	ug/kg	10
1,1-Dichloroethene	ND	55	ug/kg	9.1
cis-1,2-Dichloroethene	ND	55	ug/kg	15
trans-1,2-Dichloroethene	ND	55	ug/kg	12
1,2-Dichloropropane	ND	55	ug/kg	8.1
cis-1,3-Dichloropropene	ND	55	ug/kg	6.0
trans-1,3-Dichloropropene	ND	55	ug/kg	5.9
Ethylbenzene	ND	55	ug/kg	7.5
2-Hexanone	ND	2700	ug/kg	26
Isopropylbenzene	ND	270	ug/kg	5.6
Methyl acetate	ND	1300	ug/kg	57
Methylene chloride	ND	270	ug/kg	110
Methylcyclohexane	ND	1300	ug/kg	6.3
4-Methyl-2-pentanone	ND	2700	ug/kg	12
Methyl tert-butyl ether	ND	270	ug/kg	11
Styrene	ND	55	ug/kg	31

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CONESTOGA-ROVERS & ASSOC., INC.

Client Sample ID: S-17360-071504-DCR-108

GC/MS Volatiles

Lot-Sample #....: A4G160169-009 Work Order #....: GK7831AA Matrix.....: SO

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
1,1,2,2-Tetrachloroethane	ND	110	ug/kg	9.0
Tetrachloroethene	ND	55	ug/kg	9.9
Toluene	ND	110	ug/kg	10
1,2,4-Trichloro- benzene	ND	270	ug/kg	13
1,1,1-Trichloroethane	ND	55	ug/kg	10
1,1,2-Trichloroethane	ND	55	ug/kg	11
Trichloroethene	25 J	55	ug/kg	13
Trichlorofluoromethane	ND	110	ug/kg	9.1
1,1,2-Trichloro- 1,2,2-trifluoroethane	ND	270	ug/kg	11
Vinyl chloride	ND	110	ug/kg	18
Xylenes (total)	ND	160	ug/kg	16

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	71	(59 - 138)
1,2-Dichloroethane-d4	83	(61 - 130)
Toluene-d8	97	(60 - 143)
4-Bromofluorobenzene	86	(47 - 158)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than RL.

CONESTOGA-ROVERS & ASSOC., INC.

Client Sample ID: S-17360-071504-DCR-109

GC/MS Volatiles

Lot-Sample #....: A4G160169-010 Work Order #....: GK7841AA Matrix.....: SO
 Date Sampled....: 07/15/04 08:55 Date Received...: 07/16/04
 Prep Date.....: 07/16/04 Analysis Date...: 07/21/04
 Prep Batch #....: 4203414
 Dilution Factor: 1.2 Initial Wgt/Vol: 20.9 g Final Wgt/Vol...: 25 mL
 % Moisture.....: 3.0 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING		
		LIMIT	UNITS	MDL
Acetone	ND	930	ug/kg	120
Benzene	ND	62	ug/kg	7.9
Bromodichloromethane	ND	120	ug/kg	15
Bromoform	ND	120	ug/kg	16
Bromomethane	ND	310	ug/kg	31
2-Butanone	ND	930	ug/kg	61
Carbon disulfide	ND	310	ug/kg	25
Carbon tetrachloride	ND	62	ug/kg	15
Chlorobenzene	ND	62	ug/kg	7.8
Chloroethane	ND	310	ug/kg	80
Chloroform	ND	62	ug/kg	15
Chloromethane	ND	310	ug/kg	6.4
Cyclohexane	ND	1500	ug/kg	9.5
Dibromochloromethane	ND	62	ug/kg	8.5
1,2-Dibromo-3-chloro- propane	ND	310	ug/kg	74
1,2-Dibromoethane	ND	310	ug/kg	12
1,2-Dichlorobenzene	ND	120	ug/kg	21
1,3-Dichlorobenzene	ND	120	ug/kg	8.9
1,4-Dichlorobenzene	ND	120	ug/kg	9.8
Dichlorodifluoromethane	ND	120	ug/kg	6.7
1,1-Dichloroethane	ND	62	ug/kg	9.0
1,2-Dichloroethane	ND	62	ug/kg	12
1,1-Dichloroethene	ND	62	ug/kg	10
cis-1,2-Dichloroethene	ND	62	ug/kg	17
trans-1,2-Dichloroethene	ND	62	ug/kg	14
1,2-Dichloropropane	ND	62	ug/kg	9.2
cis-1,3-Dichloropropene	ND	62	ug/kg	6.8
trans-1,3-Dichloropropene	ND	62	ug/kg	6.7
Ethylbenzene	ND	62	ug/kg	8.4
2-Hexanone	ND	3100	ug/kg	30
Isopropylbenzene	ND	310	ug/kg	6.3
Methyl acetate	ND	1500	ug/kg	64
Methylene chloride	ND	310	ug/kg	120
Methylcyclohexane	ND	1500	ug/kg	7.1
4-Methyl-2-pentanone	ND	3100	ug/kg	14
Methyl tert-butyl ether	ND	310	ug/kg	12
Styrene	ND	62	ug/kg	35

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CONESTOGA-ROVERS & ASSOC., INC.

Client Sample ID: S-17360-071504-DCR-109

GC/MS Volatiles

Lot-Sample #....: A4G160169-010 Work Order #....: GK7841AA Matrix.....: SO

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
1,1,2,2-Tetrachloroethane	ND	120	ug/kg	10
Tetrachloroethene	ND	62	ug/kg	11
Toluene	ND	120	ug/kg	11
1,2,4-Trichloro- benzene	ND	310	ug/kg	15
1,1,1-Trichloroethane	ND	62	ug/kg	12
1,1,2-Trichloroethane	ND	62	ug/kg	12
Trichloroethene	ND	62	ug/kg	15
Trichlorofluoromethane	ND	120	ug/kg	10
1,1,2-Trichloro- 1,2,2-trifluoroethane	ND	310	ug/kg	12
Vinyl chloride	ND	120	ug/kg	20
Xylenes (total)	ND	190	ug/kg	19

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	67	(59 - 138)
1,2-Dichloroethane-d4	81	(61 - 130)
Toluene-d8	94	(60 - 143)
4-Bromofluorobenzene	86	(47 - 158)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

CONESTOGA-ROVERS & ASSOC., INC.

Client Sample ID: 8-17360-071504-DCR-110

GC/MS Volatiles

Lot-Sample #....: A4G160169-011 Work Order #....: GK7861AA Matrix.....: 80
 Date Sampled....: 07/15/04 09:00 Date Received...: 07/16/04
 Prep Date.....: 07/17/04 Analysis Date...: 07/20/04
 Prep Batch #....: 4203401
 Dilution Factor: 1.32 Initial Wgt/Vol: 3.8 g Final Wgt/Vol...: 5 mL
 % Moisture.....: 7.0 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acetone	ND	1100	ug/kg	140
Benzene	ND	71	ug/kg	9.1
Bromodichloromethane	ND	140	ug/kg	17
Bromoform	ND	140	ug/kg	18
Bromomethane	ND	350	ug/kg	35
2-Butanone	ND	1100	ug/kg	70
Carbon disulfide	ND	350	ug/kg	28
Carbon tetrachloride	ND	71	ug/kg	17
Chlorobenzene	ND	71	ug/kg	8.9
Chloroethane	ND	350	ug/kg	92
Chloroform	ND	71	ug/kg	17
Chloromethane	ND	350	ug/kg	7.4
Cyclohexane	ND	1700	ug/kg	11
Dibromochloromethane	ND	71	ug/kg	9.8
1,2-Dibromo-3-chloro- propane	ND	350	ug/kg	85
1,2-Dibromoethane	ND	350	ug/kg	14
1,2-Dichlorobenzene	ND	140	ug/kg	24
1,3-Dichlorobenzene	ND	140	ug/kg	10
1,4-Dichlorobenzene	ND	140	ug/kg	11
Dichlorodifluoromethane	ND	140	ug/kg	7.7
1,1-Dichloroethane	ND	71	ug/kg	10
1,2-Dichloroethane	ND	71	ug/kg	13
1,1-Dichloroethene	ND	71	ug/kg	12
cis-1,2-Dichloroethene	ND	71	ug/kg	20
trans-1,2-Dichloroethene	ND	71	ug/kg	16
1,2-Dichloropropane	ND	71	ug/kg	11
cis-1,3-Dichloropropene	ND	71	ug/kg	7.8
trans-1,3-Dichloropropene	ND	71	ug/kg	7.7
Ethylbenzene	ND	71	ug/kg	9.7
2-Hexanone	ND	3500	ug/kg	34
Isopropylbenzene	ND	350	ug/kg	7.2
Methyl acetate	ND	1700	ug/kg	74
Methylene chloride	ND	350	ug/kg	140
Methylcyclohexane	ND	1700	ug/kg	8.1
4-Methyl-2-pentanone	ND	3500	ug/kg	16
Methyl tert-butyl ether	ND	350	ug/kg	14
Styrene	ND	71	ug/kg	40

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CONESTOGA-ROVERS & ASSOC., INC.

Client Sample ID: S-17360-071504-DCR-110

GC/MS Volatiles

Lot-Sample #....: A4G160169-011 Work Order #....: GK7861AA Matrix.....: SO

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
1,1,2,2-Tetrachloroethane	ND	140	ug/kg	12
Tetrachloroethene	ND	71	ug/kg	13
Toluene	ND	140	ug/kg	13
1,2,4-Trichloro- benzene	ND	350	ug/kg	17
1,1,1-Trichloroethane	ND	71	ug/kg	13
1,1,2-Trichloroethane	ND	71	ug/kg	14
Trichloroethene	ND	71	ug/kg	17
Trichlorofluoromethane	ND	140	ug/kg	12
1,1,2-Trichloro- 1,2,2-trifluoroethane	ND	350	ug/kg	14
Vinyl chloride	ND	140	ug/kg	23
Xylenes (total)	ND	210	ug/kg	21

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	81	(59 - 138)
1,2-Dichloroethane-d4	82	(61 - 130)
Toluene-d8	98	(60 - 143)
4-Bromofluorobenzene	89	(47 - 158)

NOTE (S) :

Results and reporting limits have been adjusted for dry weight.

CONESTOGA-ROVERS & ASSOC., INC.

Client Sample ID: 8-17360-071504-DCR-111

GC/MS Volatiles

Lot-Sample #....: A4G160169-012 Work Order #....: GK7881AA Matrix.....: SO
 Date Sampled....: 07/15/04 10:50 Date Received...: 07/16/04
 Prep Date.....: 07/17/04 Analysis Date...: 07/20/04
 Prep Batch #....: 4203401
 Dilution Factor: 1.25 Initial Wgt/Vol: 4 g Final Wgt/Vol...: 5 mL
 % Moisture.....: 5.7 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acetone	ND	990	ug/kg	130
Benzene	ND	66	ug/kg	8.5
Bromodichloromethane	ND	130	ug/kg	16
Bromoform	ND	130	ug/kg	17
Bromomethane	ND	330	ug/kg	33
2-Butanone	ND	990	ug/kg	65
Carbon disulfide	ND	330	ug/kg	27
Carbon tetrachloride	ND	66	ug/kg	16
Chlorobenzene	ND	66	ug/kg	8.3
Chloroethane	ND	330	ug/kg	86
Chloroform	ND	66	ug/kg	16
Chloromethane	ND	330	ug/kg	6.9
Cyclohexane	ND	1600	ug/kg	10
Dibromochloromethane	ND	66	ug/kg	9.1
1,2-Dibromo-3-chloro- propane	ND	330	ug/kg	80
1,2-Dibromoethane	ND	330	ug/kg	13
1,2-Dichlorobenzene	ND	130	ug/kg	23
1,3-Dichlorobenzene	ND	130	ug/kg	9.5
1,4-Dichlorobenzene	ND	130	ug/kg	10
Dichlorodifluoromethane	ND	130	ug/kg	7.2
1,1-Dichloroethane	ND	66	ug/kg	9.7
1,2-Dichloroethane	ND	66	ug/kg	12
1,1-Dichloroethene	ND	66	ug/kg	11
cis-1,2-Dichloroethene	ND	66	ug/kg	19
trans-1,2-Dichloroethene	ND	66	ug/kg	15
1,2-Dichloropropane	ND	66	ug/kg	9.8
cis-1,3-Dichloropropene	ND	66	ug/kg	7.3
trans-1,3-Dichloropropene	ND	66	ug/kg	7.2
Ethylbenzene	ND	66	ug/kg	9.0
2-Hexanone	ND	3300	ug/kg	32
Isopropylbenzene	ND	330	ug/kg	6.8
Methyl acetate	ND	1600	ug/kg	69
Methylene chloride	ND	330	ug/kg	130
Methylcyclohexane	ND	1600	ug/kg	7.6
4-Methyl-2-pentanone	ND	3300	ug/kg	15
Methyl tert-butyl ether	ND	330	ug/kg	13
Styrene	ND	66	ug/kg	37

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CONESTOGA-ROVERS & ASSOC., INC.

Client Sample ID: S-17360-071504-DCR-111

GC/MS Volatiles

Lot-Sample #....: A4G160169-012 Work Order #....: GK7881AA Matrix.....: SO

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>	<u>MDL</u>
1,1,2,2-Tetrachloroethane	ND	130	ug/kg	11
Tetrachloroethene	ND	66	ug/kg	12
Toluene	ND	130	ug/kg	12
1,2,4-Trichloro- benzene	ND	330	ug/kg	16
1,1,1-Trichloroethane	ND	66	ug/kg	13
1,1,2-Trichloroethane	ND	66	ug/kg	13
Trichloroethene	190	66	ug/kg	16
Trichlorofluoromethane	ND	130	ug/kg	11
1,1,2-Trichloro- 1,2,2-trifluoroethane	ND	330	ug/kg	13
Vinyl chloride	ND	130	ug/kg	21
Xylenes (total)	ND	200	ug/kg	20

<u>SURROGATE</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>
Dibromofluoromethane	79	(59 - 138)
1,2-Dichloroethane-d4	86	(61 - 130)
Toluene-d8	100	(60 - 143)
4-Bromofluorobenzene	93	(47 - 158)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

CONESTOGA-ROVERS & ASSOC., INC.

Client Sample ID: S-17360-071504-DCR-112

GC/MS Volatiles

Lot-Sample #....: A4G160169-013 Work Order #....: GK7891AA Matrix.....: SO
 Date Sampled....: 07/15/04 10:55 Date Received...: 07/16/04
 Prep Date.....: 07/17/04 Analysis Date...: 07/20/04
 Prep Batch #....: 4203401
 Dilution Factor: 1.47 Initial Wgt/Vol: 3.4 g Final Wgt/Vol...: 5 mL
 % Moisture.....: 3.2 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acetone	ND	1100	ug/kg	150
Benzene	ND	76	ug/kg	9.7
Bromodichloromethane	ND	150	ug/kg	18
Bromoform	ND	150	ug/kg	20
Bromomethane	ND	380	ug/kg	38
2-Butanone	ND	1100	ug/kg	74
Carbon disulfide	ND	380	ug/kg	30
Carbon tetrachloride	ND	76	ug/kg	18
Chlorobenzene	ND	76	ug/kg	9.6
Chloroethane	ND	380	ug/kg	99
Chloroform	ND	76	ug/kg	18
Chloromethane	27 J	380	ug/kg	7.9
Cyclohexane	ND	1800	ug/kg	12
Dibromochloromethane	ND	76	ug/kg	10
1,2-Dibromo-3-chloro- propane	ND	380	ug/kg	91
1,2-Dibromoethane	ND	380	ug/kg	15
1,2-Dichlorobenzene	ND	150	ug/kg	26
1,3-Dichlorobenzene	ND	150	ug/kg	11
1,4-Dichlorobenzene	ND	150	ug/kg	12
Dichlorodifluoromethane	ND	150	ug/kg	8.2
1,1-Dichloroethane	ND	76	ug/kg	11
1,2-Dichloroethane	ND	76	ug/kg	14
1,1-Dichloroethene	ND	76	ug/kg	13
cis-1,2-Dichloroethene	ND	76	ug/kg	21
trans-1,2-Dichloroethene	ND	76	ug/kg	17
1,2-Dichloropropane	ND	76	ug/kg	11
cis-1,3-Dichloropropene	ND	76	ug/kg	8.3
trans-1,3-Dichloropropene	ND	76	ug/kg	8.2
Ethylbenzene	ND	76	ug/kg	10
2-Hexanone	ND	3800	ug/kg	36
Isopropylbenzene	ND	380	ug/kg	7.7
Methyl acetate	ND	1800	ug/kg	79
Methylene chloride	ND	380	ug/kg	150
Methylcyclohexane	ND	1800	ug/kg	8.7
4-Methyl-2-pentanone	ND	3800	ug/kg	17
Methyl tert-butyl ether	ND	380	ug/kg	15
Styrene	ND	76	ug/kg	43

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CONESTOGA-ROVERS & ASSOC., INC.

Client Sample ID: S-17360-071504-DCR-112

GC/MS Volatiles

Lot-Sample #....: A4G160169-013 Work Order #....: GK7891AA Matrix.....: SO

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
1,1,2,2-Tetrachloroethane	ND	150	ug/kg	12
Tetrachloroethene	ND	76	ug/kg	14
Toluene	ND	150	ug/kg	14
1,2,4-Trichloro- benzene	ND	380	ug/kg	18
1,1,1-Trichloroethane	ND	76	ug/kg	14
1,1,2-Trichloroethane	ND	76	ug/kg	15
Trichloroethene	ND	76	ug/kg	18
Trichlorofluoromethane	ND	150	ug/kg	13
1,1,2-Trichloro- 1,2,2-trifluoroethane	ND	380	ug/kg	15
Vinyl chloride	ND	150	ug/kg	24
Xylenes (total)	ND	230	ug/kg	23

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	82	(59 - 138)
1,2-Dichloroethane-d4	88	(61 - 130)
Toluene-d8	104	(60 - 143)
4-Bromofluorobenzene	93	(47 - 158)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than RL.

CONESTOGA-ROVERS & ASSOC., INC.

Client Sample ID: 8-17360-071504-DCR-113

GC/MS Volatiles

Lot-Sample #....: A4G160169-014 Work Order #....: GK79C1AA Matrix.....: SO
 Date Sampled....: 07/15/04 11:00 Date Received...: 07/16/04
 Prep Date.....: 07/17/04 Analysis Date...: 07/20/04
 Prep Batch #....: 4203401
 Dilution Factor: 1.61 Initial Wgt/Vol: 3.1 g Final Wgt/Vol...: 5 mL
 % Moisture.....: 1.7 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acetone	ND	1200	ug/kg	160
Benzene	ND	82	ug/kg	10
Bromodichloromethane	ND	160	ug/kg	20
Bromoform	ND	160	ug/kg	21
Bromomethane	ND	410	ug/kg	41
2-Butanone	ND	1200	ug/kg	80
Carbon disulfide	ND	410	ug/kg	33
Carbon tetrachloride	ND	82	ug/kg	20
Chlorobenzene	ND	82	ug/kg	10
Chloroethane	ND	410	ug/kg	110
Chloroform	ND	82	ug/kg	20
Chloromethane	ND	410	ug/kg	8.5
Cyclohexane	ND	2000	ug/kg	13
Dibromochloromethane	ND	82	ug/kg	11
1,2-Dibromo-3-chloro- propane	ND	410	ug/kg	98
1,2-Dibromoethane	ND	410	ug/kg	16
1,2-Dichlorobenzene	ND	160	ug/kg	28
1,3-Dichlorobenzene	ND	160	ug/kg	12
1,4-Dichlorobenzene	ND	160	ug/kg	13
Dichlorodifluoromethane	ND	160	ug/kg	8.8
1,1-Dichloroethane	ND	82	ug/kg	12
1,2-Dichloroethane	ND	82	ug/kg	15
1,1-Dichloroethene	ND	82	ug/kg	14
cis-1,2-Dichloroethene	ND	82	ug/kg	23
trans-1,2-Dichloroethene	ND	82	ug/kg	18
1,2-Dichloropropane	ND	82	ug/kg	12
cis-1,3-Dichloropropene	ND	82	ug/kg	9.0
trans-1,3-Dichloropropene	ND	82	ug/kg	8.8
Ethylbenzene	ND	82	ug/kg	11
2-Hexanone	ND	4100	ug/kg	39
Isopropylbenzene	ND	410	ug/kg	8.4
Methyl acetate	ND	2000	ug/kg	85
Methylene chloride	ND	410	ug/kg	160
Methylcyclohexane	ND	2000	ug/kg	9.3
4-Methyl-2-pentanone	ND	4100	ug/kg	18
Methyl tert-butyl ether	ND	410	ug/kg	16
Styrene	ND	82	ug/kg	46

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CONESTOGA-ROVERS & ASSOC., INC.

Client Sample ID: 8-17360-071504-DCR-113

GC/MS Volatiles

Lot-Sample #....: A4G160169-014 Work Order #....: GK79C1AA Matrix.....: SO

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
1,1,2,2-Tetrachloroethane	ND	160	ug/kg	13
Tetrachloroethene	ND	82	ug/kg	15
Toluene	ND	160	ug/kg	15
1,2,4-Trichloro- benzene	ND	410	ug/kg	20
1,1,1-Trichloroethane	ND	82	ug/kg	16
1,1,2-Trichloroethane	ND	82	ug/kg	16
Trichloroethene	ND	82	ug/kg	20
Trichlorofluoromethane	ND	160	ug/kg	14
1,1,2-Trichloro- 1,2,2-trifluoroethane	ND	410	ug/kg	16
Vinyl chloride	ND	160	ug/kg	26
Xylenes (total)	ND	250	ug/kg	25

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	83	(59 - 138)
1,2-Dichloroethane-d4	89	(61 - 130)
Toluene-d8	107	(60 - 143)
4-Bromofluorobenzene	97	(47 - 158)

NOTE(S) :

Results and reporting limits have been adjusted for dry weight.

CONESTOGA-ROVERS & ASSOC., INC.

Client Sample ID: S-17360-071504-DCR-114

GC/MS Volatiles

Lot-Sample #....: A4G160169-015 Work Order #....: GK79D1AA Matrix.....: SO
 Date Sampled....: 07/15/04 11:05 Date Received...: 07/16/04
 Prep Date.....: 07/17/04 Analysis Date...: 07/20/04
 Prep Batch #....: 4203401
 Dilution Factor: 1.16 Initial Wgt/Vol: 4.3 g Final Wgt/Vol...: 5 mL
 % Moisture.....: 1.9 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING		
		LIMIT	UNITS	MDL
Acetone	ND	890	ug/kg	120
Benzene	ND	59	ug/kg	7.6
Bromodichloromethane	ND	120	ug/kg	14
Bromoform	ND	120	ug/kg	15
Bromomethane	ND	300	ug/kg	30
2-Butanone	ND	890	ug/kg	58
Carbon disulfide	ND	300	ug/kg	24
Carbon tetrachloride	ND	59	ug/kg	14
Chlorobenzene	ND	59	ug/kg	7.4
Chloroethane	ND	300	ug/kg	77
Chloroform	ND	59	ug/kg	14
Chloromethane	ND	300	ug/kg	6.1
Cyclohexane	ND	1400	ug/kg	9.1
Dibromochloromethane	ND	59	ug/kg	8.2
1,2-Dibromo-3-chloro- propane	ND	300	ug/kg	71
1,2-Dibromoethane	ND	300	ug/kg	12
1,2-Dichlorobenzene	ND	120	ug/kg	20
1,3-Dichlorobenzene	ND	120	ug/kg	8.5
1,4-Dichlorobenzene	ND	120	ug/kg	9.3
Dichlorodifluoromethane	ND	120	ug/kg	6.4
1,1-Dichloroethane	ND	59	ug/kg	8.6
1,2-Dichloroethane	ND	59	ug/kg	11
1,1-Dichloroethene	ND	59	ug/kg	9.8
cis-1,2-Dichloroethene	ND	59	ug/kg	17
trans-1,2-Dichloroethene	ND	59	ug/kg	13
1,2-Dichloropropane	ND	59	ug/kg	8.7
cis-1,3-Dichloropropene	ND	59	ug/kg	6.5
trans-1,3-Dichloropropene	ND	59	ug/kg	6.4
Ethylbenzene	ND	59	ug/kg	8.0
2-Hexanone	ND	3000	ug/kg	28
Isopropylbenzene	ND	300	ug/kg	6.0
Methyl acetate	ND	1400	ug/kg	61
Methylene chloride	ND	300	ug/kg	120
Methylcyclohexane	ND	1400	ug/kg	6.7
4-Methyl-2-pentanone	ND	3000	ug/kg	13
Methyl tert-butyl ether	ND	300	ug/kg	12
Styrene	ND	59	ug/kg	33

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CONESTOGA-ROVERS & ASSOC., INC.

Client Sample ID: S-17360-071504-DCR-114

GC/MS Volatiles

Lot-Sample #....: A4G160169-015 Work Order #....: GK79D1AA Matrix.....: SO

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
1,1,2,2-Tetrachloroethane	ND	120	ug/kg	9.7
Tetrachloroethene	ND	59	ug/kg	11
Toluene	ND	120	ug/kg	11
1,2,4-Trichloro- benzene	ND	300	ug/kg	14
1,1,1-Trichloroethane	ND	59	ug/kg	11
1,1,2-Trichloroethane	ND	59	ug/kg	12
Trichloroethene	ND	59	ug/kg	14
Trichlorofluoromethane	ND	120	ug/kg	9.8
1,1,2-Trichloro- 1,2,2-trifluoroethane	ND	300	ug/kg	12
Vinyl chloride	ND	120	ug/kg	19
Xylenes (total)	ND	180	ug/kg	18

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	82	(59 - 138)
1,2-Dichloroethane-d4	92	(61 - 130)
Toluene-d8	106	(60 - 143)
4-Bromofluorobenzene	97	(47 - 158)

NOTE (S) :

Results and reporting limits have been adjusted for dry weight.

CONESTOGA-ROVERS & ASSOC., INC.

Client Sample ID: 8-17360-071504-DCR-115

GC/MS Volatiles

Lot-Sample #....: A4G160169-016 Work Order #....: GK79H1AA Matrix.....: 80
 Date Sampled....: 07/15/04 11:10 Date Received...: 07/16/04
 Prep Date.....: 07/17/04 Analysis Date...: 07/20/04
 Prep Batch #....: 4203401
 Dilution Factor: 1.14 Initial Wgt/Vol: 4.4 g Final Wgt/Vol...: 5 mL
 % Moisture.....: 2.9 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acetone	ND	880	ug/kg	120
Benzene	ND	59	ug/kg	7.5
Bromodichloromethane	ND	120	ug/kg	14
Bromoform	ND	120	ug/kg	15
Bromomethane	ND	290	ug/kg	29
2-Butanone	ND	880	ug/kg	58
Carbon disulfide	ND	290	ug/kg	23
Carbon tetrachloride	ND	59	ug/kg	14
Chlorobenzene	ND	59	ug/kg	7.4
Chloroethane	ND	290	ug/kg	76
Chloroform	ND	59	ug/kg	14
Chloromethane	ND	290	ug/kg	6.1
Cyclohexane	ND	1400	ug/kg	9.0
Dibromochloromethane	ND	59	ug/kg	8.1
1,2-Dibromo-3-chloro- propane	ND	290	ug/kg	70
1,2-Dibromoethane	ND	290	ug/kg	12
1,2-Dichlorobenzene	ND	120	ug/kg	20
1,3-Dichlorobenzene	ND	120	ug/kg	8.4
1,4-Dichlorobenzene	ND	120	ug/kg	9.3
Dichlorodifluoromethane	ND	120	ug/kg	6.3
1,1-Dichloroethane	ND	59	ug/kg	8.6
1,2-Dichloroethane	ND	59	ug/kg	11
1,1-Dichloroethene	ND	59	ug/kg	9.7
cis-1,2-Dichloroethene	ND	59	ug/kg	16
trans-1,2-Dichloroethene	ND	59	ug/kg	13
1,2-Dichloropropane	ND	59	ug/kg	8.7
cis-1,3-Dichloropropene	ND	59	ug/kg	6.5
trans-1,3-Dichloropropene	ND	59	ug/kg	6.3
Ethylbenzene	ND	59	ug/kg	8.0
2-Hexanone	ND	2900	ug/kg	28
Isopropylbenzene	ND	290	ug/kg	6.0
Methyl acetate	ND	1400	ug/kg	61
Methylene chloride	ND	290	ug/kg	120
Methylcyclohexane	ND	1400	ug/kg	6.7
4-Methyl-2-pentanone	ND	2900	ug/kg	13
Methyl tert-butyl ether	ND	290	ug/kg	12
Styrene	ND	59	ug/kg	33

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CONESTOGA-ROVERS & ASSOC., INC.

Client Sample ID: 8-17360-071504-DCR-115

GC/MS Volatiles

Lot-Sample #....: A4G160169-016 Work Order #....: GK79H1AA Matrix.....: SO

PARAMETER	RESULT	REPORTING		
		LIMIT	UNITS	MDL
1,1,2,2-Tetrachloroethane	ND	120	ug/kg	9.6
Tetrachloroethene	ND	59	ug/kg	11
Toluene	ND	120	ug/kg	11
1,2,4-Trichloro- benzene	ND	290	ug/kg	14
1,1,1-Trichloroethane	ND	59	ug/kg	11
1,1,2-Trichloroethane	ND	59	ug/kg	12
Trichloroethene	ND	59	ug/kg	14
Trichlorofluoromethane	ND	120	ug/kg	9.7
1,1,2-Trichloro- 1,2,2-trifluoroethane	ND	290	ug/kg	12
Vinyl chloride	ND	120	ug/kg	19
Xylenes (total)	ND	180	ug/kg	18

SURROGATE	PERCENT	
	RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	86	(59 - 138)
1,2-Dichloroethane-d4	94	(61 - 130)
Toluene-d8	107	(60 - 143)
4-Bromofluorobenzene	95	(47 - 158)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

CONESTOGA-ROVERS & ASSOC., INC.

Client Sample ID: 8-17360-071504-DCR-116

GC/MS Volatiles

Lot-Sample #....: A4G160169-017 Work Order #....: GK79J1AA Matrix.....: SO
 Date Sampled....: 07/15/04 11:20 Date Received...: 07/16/04
 Prep Date.....: 07/17/04 Analysis Date...: 07/20/04
 Prep Batch #....: 4203401
 Dilution Factor: 1.25 Initial Wgt/Vol: 4 g Final Wgt/Vol...: 5 mL
 % Moisture.....: 4.8 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING		
		LIMIT	UNITS	MDL
Acetone	ND	980	ug/kg	130
Benzene	ND	66	ug/kg	8.4
Bromodichloromethane	ND	130	ug/kg	16
Bromoform	ND	130	ug/kg	17
Bromomethane	ND	330	ug/kg	33
2-Butanone	ND	980	ug/kg	64
Carbon disulfide	ND	330	ug/kg	26
Carbon tetrachloride	ND	66	ug/kg	16
Chlorobenzene	ND	66	ug/kg	8.3
Chloroethane	ND	330	ug/kg	85
Chloroform	ND	66	ug/kg	16
Chloromethane	21 J	330	ug/kg	6.8
Cyclohexane	ND	1600	ug/kg	10
Dibromochloromethane	ND	66	ug/kg	9.1
1,2-Dibromo-3-chloro- propane	ND	330	ug/kg	79
1,2-Dibromoethane	ND	330	ug/kg	13
1,2-Dichlorobenzene	ND	130	ug/kg	22
1,3-Dichlorobenzene	ND	130	ug/kg	9.5
1,4-Dichlorobenzene	ND	130	ug/kg	10
Dichlorodifluoromethane	ND	130	ug/kg	7.1
1,1-Dichloroethane	ND	66	ug/kg	9.6
1,2-Dichloroethane	ND	66	ug/kg	12
1,1-Dichloroethene	ND	66	ug/kg	11
cis-1,2-Dichloroethane	ND	66	ug/kg	18
trans-1,2-Dichloroethene	ND	66	ug/kg	14
1,2-Dichloropropane	ND	66	ug/kg	9.7
cis-1,3-Dichloropropene	ND	66	ug/kg	7.2
trans-1,3-Dichloropropene	ND	66	ug/kg	7.1
Ethylbenzene	ND	66	ug/kg	8.9
2-Hexanone	ND	3300	ug/kg	32
Isopropylbenzene	ND	330	ug/kg	6.7
Methyl acetate	ND	1600	ug/kg	68
Methylene chloride	ND	330	ug/kg	130
Methylcyclohexane	ND	1600	ug/kg	7.5
4-Methyl-2-pentanone	ND	3300	ug/kg	14
Methyl tert-butyl ether	ND	330	ug/kg	13
Styrene	ND	66	ug/kg	37

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CONESTOGA-ROVERS & ASSOC., INC.

Client Sample ID: S-17360-071504-DCR-116

GC/MS Volatiles

Lot-Sample #....: A4G160169-017 Work Order #....: GK79J1AA Matrix.....: SO

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
1,1,2,2-Tetrachloroethane	ND	130	ug/kg	11
Tetrachloroethene	ND	66	ug/kg	12
Toluene	ND	130	ug/kg	12
1,2,4-Trichloro- benzene	ND	330	ug/kg	16
1,1,1-Trichloroethane	ND	66	ug/kg	12
1,1,2-Trichloroethane	ND	66	ug/kg	13
Trichloroethene	ND	66	ug/kg	16
Trichlorofluoromethane	ND	130	ug/kg	11
1,1,2-Trichloro- 1,2,2-trifluoroethane	ND	330	ug/kg	13
Vinyl chloride	ND	130	ug/kg	21
Xylenes (total)	ND	200	ug/kg	20

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	81	(59 - 138)
1,2-Dichloroethane-d4	88	(61 - 130)
Toluene-d8	103	(60 - 143)
4-Bromofluorobenzene	93	(47 - 158)

NOTE(S) :

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than RL.

CONESTOGA-ROVERS & ASSOC., INC.

Client Sample ID: S-17360-071504-DCR-117

GC/MS Volatiles

Lot-Sample #....: A4G160169-018 Work Order #....: GK79K1AA Matrix.....: 80
 Date Sampled....: 07/15/04 11:25 Date Received...: 07/16/04
 Prep Date.....: 07/17/04 Analysis Date...: 07/20/04
 Prep Batch #....: 4203401
 Dilution Factor: 1.09 Initial Wgt/Vol: 4.6 g Final Wgt/Vol...: 5 mL
 % Moisture.....: 3.8 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acetone	ND	850	ug/kg	110
Benzene	ND	57	ug/kg	7.3
Bromodichloromethane	ND	110	ug/kg	14
Bromoform	ND	110	ug/kg	15
Bromomethane	ND	280	ug/kg	28
2-Butanone	ND	850	ug/kg	56
Carbon disulfide	ND	280	ug/kg	23
Carbon tetrachloride	ND	57	ug/kg	14
Chlorobenzene	ND	57	ug/kg	7.1
Chloroethane	ND	280	ug/kg	74
Chloroform	ND	57	ug/kg	14
Chloromethane	18 J	280	ug/kg	5.9
Cyclohexane	ND	1400	ug/kg	8.7
Dibromochloromethane	ND	57	ug/kg	7.8
1,2-Dibromo-3-chloro- propane	ND	280	ug/kg	68
1,2-Dibromoethane	ND	280	ug/kg	11
1,2-Dichlorobenzene	ND	110	ug/kg	19
1,3-Dichlorobenzene	ND	110	ug/kg	8.2
1,4-Dichlorobenzene	ND	110	ug/kg	9.0
Dichlorodifluoromethane	ND	110	ug/kg	6.1
1,1-Dichloroethane	ND	57	ug/kg	8.3
1,2-Dichloroethane	ND	57	ug/kg	11
1,1-Dichloroethene	ND	57	ug/kg	9.4
cis-1,2-Dichloroethene	ND	57	ug/kg	16
trans-1,2-Dichloroethene	ND	57	ug/kg	12
1,2-Dichloropropane	ND	57	ug/kg	8.4
cis-1,3-Dichloropropene	ND	57	ug/kg	6.2
trans-1,3-Dichloropropene	ND	57	ug/kg	6.1
Ethylbenzene	ND	57	ug/kg	7.7
2-Hexanone	ND	2800	ug/kg	27
Isopropylbenzene	ND	280	ug/kg	5.8
Methyl acetate	ND	1400	ug/kg	59
Methylene chloride	ND	280	ug/kg	110
Methylcyclohexane	ND	1400	ug/kg	6.5
4-Methyl-2-pentanone	ND	2800	ug/kg	12
Methyl tert-butyl ether	ND	280	ug/kg	11
Styrene	ND	57	ug/kg	32

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CONESTOGA-ROVERS & ASSOC., INC.

Client Sample ID: 8-17360-071504-DCR-117

GC/MS Volatiles

Lot-Sample #....: A4G160169-018 Work Order #....: GK79K1AA Matrix.....: SO

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>	<u>MDL</u>
1,1,2,2-Tetrachloroethane	ND	110	ug/kg	9.3
Tetrachloroethene	ND	57	ug/kg	10
Toluene	ND	110	ug/kg	10
1,2,4-Trichloro- benzene	ND	280	ug/kg	14
1,1,1-Trichloroethane	ND	57	ug/kg	11
1,1,2-Trichloroethane	ND	57	ug/kg	11
Trichloroethene	ND	57	ug/kg	14
Trichlorofluoromethane	ND	110	ug/kg	9.4
1,1,2-Trichloro- 1,2,2-trifluoroethane	ND	280	ug/kg	11
Vinyl chloride	ND	110	ug/kg	18
Xylenes (total)	ND	170	ug/kg	17

<u>SURROGATE</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>
Dibromofluoromethane	77	(59 - 138)
1,2-Dichloroethane-d4	86	(61 - 130)
Toluene-d8	100	(60 - 143)
4-Bromofluorobenzene	92	(47 - 158)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than RL.

CONESTOGA-ROVERS & ASSOC., INC.

Client Sample ID: S-17360-071504-DCR-118

GC/MS Volatiles

Lot-Sample #....: A4G160169-019 Work Order #....: GK79M1AA
 Date Sampled....: 07/15/04 11:30 Date Received...: 07/16/04
 Prep Date.....: 07/17/04 Analysis Date...: 07/20/04
 Prep Batch #....: 4203401
 Dilution Factor: 1.19
 % Moisture.....: 2.8

Matrix.....: SO

Initial Wgt/Vol: 4.2 g
 Method.....: SW846 8260B

Final Wgt/Vol...: 5 mL

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acetone	ND	920	ug/kg	120
Benzene	ND	61	ug/kg	7.8
Bromodichloromethane	ND	120	ug/kg	15
Bromoform	ND	120	ug/kg	16
Bromomethane	ND	310	ug/kg	31
2-Butanone	ND	920	ug/kg	60
Carbon disulfide	ND	310	ug/kg	24
Carbon tetrachloride	ND	61	ug/kg	15
Chlorobenzene	ND	61	ug/kg	7.7
Chloroethane	ND	310	ug/kg	80
Chloroform	ND	61	ug/kg	15
Chloromethane	ND	310	ug/kg	6.4
Cyclohexane	ND	1500	ug/kg	9.4
Dibromochloromethane	ND	61	ug/kg	8.4
1,2-Dibromo-3-chloro- propane	ND	310	ug/kg	73
1,2-Dibromoethane	ND	310	ug/kg	12
1,2-Dichlorobenzene	ND	120	ug/kg	21
1,3-Dichlorobenzene	ND	120	ug/kg	8.8
1,4-Dichlorobenzene	ND	120	ug/kg	9.7
Dichlorodifluoromethane	ND	120	ug/kg	6.6
1,1-Dichloroethane	ND	61	ug/kg	8.9
1,2-Dichloroethane	ND	61	ug/kg	11
1,1-Dichloroethene	ND	61	ug/kg	10
cis-1,2-Dichloroethene	ND	61	ug/kg	17
trans-1,2-Dichloroethene	ND	61	ug/kg	13
1,2-Dichloropropane	ND	61	ug/kg	9.1
cis-1,3-Dichloropropene	ND	61	ug/kg	6.7
trans-1,3-Dichloropropene	ND	61	ug/kg	6.6
Ethylbenzene	ND	61	ug/kg	8.3
2-Hexanone	ND	3100	ug/kg	29
Isopropylbenzene	ND	310	ug/kg	6.2
Methyl acetate	ND	1500	ug/kg	64
Methylene chloride	ND	310	ug/kg	120
Methylcyclohexane	ND	1500	ug/kg	7.0
4-Methyl-2-pentanone	ND	3100	ug/kg	13
Methyl tert-butyl ether	ND	310	ug/kg	12
Styrene	ND	61	ug/kg	34

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CONESTOGA-ROVERS & ASSOC., INC.

Client Sample ID: S-17360-071504-DCR-118

GC/MS Volatiles

Lot-Sample #....: A4G160169-019 Work Order #....: GK79M1AA Matrix.....: SO

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
1,1,2,2-Tetrachloroethane	ND	120	ug/kg	10
Tetrachloroethene	ND	61	ug/kg	11
Toluene	ND	120	ug/kg	11
1,2,4-Trichloro- benzene	ND	310	ug/kg	15
1,1,1-Trichloroethane	ND	61	ug/kg	12
1,1,2-Trichloroethane	ND	61	ug/kg	12
Trichloroethene	41 J	61	ug/kg	15
Trichlorofluoromethane	ND	120	ug/kg	10
1,1,2-Trichloro- 1,2,2-trifluoroethane	ND	310	ug/kg	12
Vinyl chloride	ND	120	ug/kg	20
Xylenes (total)	ND	180	ug/kg	18

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	79	(59 - 138)
1,2-Dichloroethane-d4	87	(61 - 130)
Toluene-d8	102	(60 - 143)
4-Bromofluorobenzene	93	(47 - 158)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than RL.

CONESTOGA-ROVERS & ASSOC., INC.

Client Sample ID: S-17360-071504-DCR-119

GC/MS Volatiles

Lot-Sample #....: A4G160169-020 Work Order #....: GK79P1AA Matrix.....: SO
 Date Sampled....: 07/15/04 11:40 Date Received...: 07/16/04
 Prep Date.....: 07/17/04 Analysis Date...: 07/20/04
 Prep Batch #....: 4203401
 Dilution Factor: 1.16 Initial Wgt/Vol: 4.3 g Final Wgt/Vol...: 5 mL
 % Moisture.....: 1.5 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING		
		LIMIT	UNITS	MDL
Acetone	ND	880	ug/kg	120
Benzene	ND	59	ug/kg	7.5
Bromodichloromethane	ND	120	ug/kg	14
Bromoform	ND	120	ug/kg	15
Bromomethane	ND	290	ug/kg	29
2-Butanone	ND	880	ug/kg	58
Carbon disulfide	ND	290	ug/kg	24
Carbon tetrachloride	ND	59	ug/kg	14
Chlorobenzene	ND	59	ug/kg	7.4
Chloroethane	ND	290	ug/kg	77
Chloroform	ND	59	ug/kg	14
Chloromethane	ND	290	ug/kg	6.1
Cyclohexane	ND	1400	ug/kg	9.1
Dibromochloromethane	ND	59	ug/kg	8.1
1,2-Dibromo-3-chloro-propane	ND	290	ug/kg	71
1,2-Dibromoethane	ND	290	ug/kg	12
1,2-Dichlorobenzene	ND	120	ug/kg	20
1,3-Dichlorobenzene	ND	120	ug/kg	8.5
1,4-Dichlorobenzene	ND	120	ug/kg	9.3
Dichlorodifluoromethane	ND	120	ug/kg	6.4
1,1-Dichloroethane	ND	59	ug/kg	8.6
1,2-Dichloroethane	ND	59	ug/kg	11
1,1-Dichloroethene	ND	59	ug/kg	9.8
cis-1,2-Dichloroethene	ND	59	ug/kg	16
trans-1,2-Dichloroethene	ND	59	ug/kg	13
1,2-Dichloropropane	ND	59	ug/kg	8.7
cis-1,3-Dichloropropene	ND	59	ug/kg	6.5
trans-1,3-Dichloropropene	ND	59	ug/kg	6.4
Ethylbenzene	ND	59	ug/kg	8.0
2-Hexanone	ND	2900	ug/kg	28
Isopropylbenzene	ND	290	ug/kg	6.0
Methyl acetate	ND	1400	ug/kg	61
Methylene chloride	ND	290	ug/kg	120
Methylcyclohexane	ND	1400	ug/kg	6.7
4-Methyl-2-pentanone	ND	2900	ug/kg	13
Methyl tert-butyl ether	ND	290	ug/kg	12
Styrene	ND	59	ug/kg	33

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CONESTOGA-ROVERS & ASSOC., INC.

Client Sample ID: S-17360-071504-DCR-119

GC/MS Volatiles

Lot-Sample #...: A4G160169-020 Work Order #...: GK79P1AA Matrix.....: 80

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>	<u>MDL</u>
1,1,2,2-Tetrachloroethane	ND	120	ug/kg	9.7
Tetrachloroethene	ND	59	ug/kg	11
Toluene	ND	120	ug/kg	11
1,2,4-Trichloro- benzene	ND	290	ug/kg	14
1,1,1-Trichloroethane	ND	59	ug/kg	11
1,1,2-Trichloroethane	ND	59	ug/kg	12
Trichloroethene	ND	59	ug/kg	14
Trichlorofluoromethane	ND	120	ug/kg	9.8
1,1,2-Trichloro- 1,2,2-trifluoroethane	ND	290	ug/kg	12
Vinyl chloride	ND	120	ug/kg	19
Xylenes (total)	ND	180	ug/kg	18

<u>SURROGATE</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>
Dibromofluoromethane	77	(59 - 138)
1,2-Dichloroethane-d4	89	(61 - 130)
Toluene-d8	102	(60 - 143)
4-Bromofluorobenzene	94	(47 - 158)

NOTE(S) :

Results and reporting limits have been adjusted for dry weight.

CONESTOGA-ROVERS & ASSOC., INC.

Client Sample ID: 8-17360-071504-DCR-120

GC/MS Volatiles

Lot-Sample #....: A4G160169-021 Work Order #....: GK79T1AA Matrix.....: SO
 Date Sampled....: 07/15/04 11:50 Date Received...: 07/16/04
 Prep Date.....: 07/17/04 Analysis Date...: 07/20/04
 Prep Batch #....: 4203401
 Dilution Factor: 1.04 Initial Wgt/Vol: 4.8 g Final Wgt/Vol...: 5 mL
 % Moisture.....: 2.6 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acetone	ND	800	ug/kg	110
Benzene	ND	53	ug/kg	6.8
Bromodichloromethane	ND	110	ug/kg	13
Bromoform	ND	110	ug/kg	14
Bromomethane	ND	270	ug/kg	27
2-Butanone	ND	800	ug/kg	52
Carbon disulfide	ND	270	ug/kg	21
Carbon tetrachloride	ND	53	ug/kg	13
Chlorobenzene	ND	53	ug/kg	6.7
Chloroethane	ND	270	ug/kg	69
Chloroform	ND	53	ug/kg	13
Chloromethane	ND	270	ug/kg	5.6
Cyclohexane	ND	1300	ug/kg	8.2
Dibromochloromethane	ND	53	ug/kg	7.4
1,2-Dibromo-3-chloro- propane	ND	270	ug/kg	64
1,2-Dibromoethane	ND	270	ug/kg	11
1,2-Dichlorobenzene	ND	110	ug/kg	18
1,3-Dichlorobenzene	ND	110	ug/kg	7.7
1,4-Dichlorobenzene	ND	110	ug/kg	8.4
Dichlorodifluoromethane	ND	110	ug/kg	5.8
1,1-Dichloroethane	ND	53	ug/kg	7.8
1,2-Dichloroethane	ND	53	ug/kg	9.9
1,1-Dichloroethene	ND	53	ug/kg	8.9
cis-1,2-Dichloroethene	ND	53	ug/kg	15
trans-1,2-Dichloroethene	ND	53	ug/kg	12
1,2-Dichloropropane	ND	53	ug/kg	7.9
cis-1,3-Dichloropropene	ND	53	ug/kg	5.9
trans-1,3-Dichloropropene	ND	53	ug/kg	5.8
Ethylbenzene	ND	53	ug/kg	7.3
2-Hexanone	ND	2700	ug/kg	26
Isopropylbenzene	ND	270	ug/kg	5.4
Methyl acetate	ND	1300	ug/kg	56
Methylene chloride	ND	270	ug/kg	110
Methylcyclohexane	ND	1300	ug/kg	6.1
4-Methyl-2-pentanone	ND	2700	ug/kg	12
Methyl tert-butyl ether	ND	270	ug/kg	11
Styrene	ND	53	ug/kg	30

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CONESTOGA-ROVERS & ASSOC., INC.

Client Sample ID: S-17360-071504-DCR-120

GC/MS Volatiles

Lot-Sample #....: A4G160169-021 Work Order #....: GK79T1AA Matrix.....: SO

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
1,1,2,2-Tetrachloroethane	ND	110	ug/kg	8.8
Tetrachloroethene	ND	53	ug/kg	9.6
Toluene	ND	110	ug/kg	9.7
1,2,4-Trichloro- benzene	ND	270	ug/kg	13
1,1,1-Trichloroethane	ND	53	ug/kg	10
1,1,2-Trichloroethane	ND	53	ug/kg	11
Trichloroethene	ND	53	ug/kg	13
Trichlorofluoromethane	ND	110	ug/kg	8.9
1,1,2-Trichloro- 1,2,2-trifluoroethane	ND	270	ug/kg	11
Vinyl chloride	ND	110	ug/kg	17
Xylenes (total)	ND	160	ug/kg	16

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	74	(59 - 138)
1,2-Dichloroethane-d4	84	(61 - 130)
Toluene-d8	96	(60 - 143)
4-Bromofluorobenzene	87	(47 - 158)

NOTE (S):

Results and reporting limits have been adjusted for dry weight.

CONESTOGA-ROVERS & ASSOC., INC.

Client Sample ID: S-17360-071504-DCR-121

GC/MS Volatiles

Lot-Sample #....: A4G160169-022 Work Order #....: GK79W1AA Matrix.....: SO
 Date Sampled....: 07/15/04 12:00 Date Received...: 07/16/04
 Prep Date.....: 07/17/04 Analysis Date...: 07/20/04
 Prep Batch #....: 4203401
 Dilution Factor: 1.02 Initial Wgt/Vol: 4.9 g Final Wgt/Vol...: 5 mL
 % Moisture.....: 4.6 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acetone	ND	800	ug/kg	110
Benzene	ND	53	ug/kg	6.8
Bromodichloromethane	ND	110	ug/kg	13
Bromoform	ND	110	ug/kg	14
Bromomethane	ND	270	ug/kg	27
2-Butanone	ND	800	ug/kg	52
Carbon disulfide	ND	270	ug/kg	21
Carbon tetrachloride	ND	53	ug/kg	13
Chlorobenzene	ND	53	ug/kg	6.7
Chloroethane	ND	270	ug/kg	69
Chloroform	ND	53	ug/kg	13
Chloromethane	23 J	270	ug/kg	5.6
Cyclohexane	ND	1300	ug/kg	8.2
Dibromochloromethane	ND	53	ug/kg	7.4
1,2-Dibromo-3-chloro- propane	ND	270	ug/kg	64
1,2-Dibromoethane	ND	270	ug/kg	11
1,2-Dichlorobenzene	ND	110	ug/kg	18
1,3-Dichlorobenzene	ND	110	ug/kg	7.7
1,4-Dichlorobenzene	ND	110	ug/kg	8.4
Dichlorodifluoromethane	ND	110	ug/kg	5.8
1,1-Dichloroethane	ND	53	ug/kg	7.8
1,2-Dichloroethane	ND	53	ug/kg	9.9
1,1-Dichloroethene	ND	53	ug/kg	8.9
cis-1,2-Dichloroethene	ND	53	ug/kg	15
trans-1,2-Dichloroethene	ND	53	ug/kg	12
1,2-Dichloropropane	ND	53	ug/kg	7.9
cis-1,3-Dichloropropene	ND	53	ug/kg	5.9
trans-1,3-Dichloropropene	ND	53	ug/kg	5.8
Ethylbenzene	ND	53	ug/kg	7.3
2-Hexanone	ND	2700	ug/kg	26
Isopropylbenzene	ND	270	ug/kg	5.4
Methyl acetate	ND	1300	ug/kg	56
Methylene chloride	ND	270	ug/kg	110
Methylcyclohexane	ND	1300	ug/kg	6.1
4-Methyl-2-pentanone	ND	2700	ug/kg	12
Methyl tert-butyl ether	ND	270	ug/kg	11
Styrene	ND	53	ug/kg	30

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CONESTOGA-ROVERS & ASSOC., INC.

Client Sample ID: S-17360-071504-DCR-121

GC/MS Volatiles

Lot-Sample #....: A4G160169-022 Work Order #....: GK79W1AA Matrix.....: SO

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
1,1,2,2-Tetrachloroethane	ND	110	ug/kg	8.8
Tetrachloroethene	ND	53	ug/kg	9.6
Toluene	ND	110	ug/kg	9.7
1,2,4-Trichloro- benzene	ND	270	ug/kg	13
1,1,1-Trichloroethane	ND	53	ug/kg	10
1,1,2-Trichloroethane	ND	53	ug/kg	11
Trichloroethene	18 J	53	ug/kg	13
Trichlorofluoromethane	ND	110	ug/kg	8.9
1,1,2-Trichloro- 1,2,2-trifluoroethane	ND	270	ug/kg	11
Vinyl chloride	ND	110	ug/kg	17
Xylenes (total)	ND	160	ug/kg	16

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	78	(59 - 138)
1,2-Dichloroethane-d4	85	(61 - 130)
Toluene-d8	97	(60 - 143)
4-Bromofluorobenzene	90	(47 - 158)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than RL.

CONESTOGA-ROVERS & ASSOC., INC.

Client Sample ID: S-17360-071504-DCR-122

GC/MS Volatiles

Lot-Sample #....: A4G160169-023 Work Order #....: GK7911AA Matrix.....: SO
 Date Sampled....: 07/15/04 12:35 Date Received...: 07/16/04
 Prep Date.....: 07/17/04 Analysis Date...: 07/20/04
 Prep Batch #....: 4203401
 Dilution Factor: 1.11 Initial Wgt/Vol: 4.5 g Final Wgt/Vol...: 5 mL
 % Moisture.....: 5.4 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acetone	ND	880	ug/kg	120
Benzene	ND	59	ug/kg	7.5
Bromodichloromethane	ND	120	ug/kg	14
Bromoform	ND	120	ug/kg	15
Bromomethane	ND	290	ug/kg	29
2-Butanone	ND	880	ug/kg	57
Carbon disulfide	ND	290	ug/kg	23
Carbon tetrachloride	ND	59	ug/kg	14
Chlorobenzene	ND	59	ug/kg	7.4
Chloroethane	ND	290	ug/kg	76
Chloroform	ND	59	ug/kg	14
Chloromethane	ND	290	ug/kg	6.1
Cyclohexane	ND	1400	ug/kg	9.0
Dibromochloromethane	ND	59	ug/kg	8.1
1,2-Dibromo-3-chloro- propane	ND	290	ug/kg	70
1,2-Dibromoethane	ND	290	ug/kg	12
1,2-Dichlorobenzene	ND	120	ug/kg	20
1,3-Dichlorobenzene	ND	120	ug/kg	8.4
1,4-Dichlorobenzene	ND	120	ug/kg	9.3
Dichlorodifluoromethane	ND	120	ug/kg	6.3
1,1-Dichloroethane	ND	59	ug/kg	8.6
1,2-Dichloroethane	ND	59	ug/kg	11
1,1-Dichloroethene	ND	59	ug/kg	9.7
cis-1,2-Dichloroethene	ND	59	ug/kg	16
trans-1,2-Dichloroethene	ND	59	ug/kg	13
1,2-Dichloropropane	ND	59	ug/kg	8.7
cis-1,3-Dichloropropene	ND	59	ug/kg	6.5
trans-1,3-Dichloropropene	ND	59	ug/kg	6.3
Ethylbenzene	ND	59	ug/kg	8.0
2-Hexanone	ND	2900	ug/kg	28
Isopropylbenzene	ND	290	ug/kg	6.0
Methyl acetate	ND	1400	ug/kg	61
Methylene chloride	ND	290	ug/kg	120
Methylcyclohexane	39 J	1400	ug/kg	6.7
4-Methyl-2-pentanone	ND	2900	ug/kg	13
Methyl tert-butyl ether	ND	290	ug/kg	12
Styrene	ND	59	ug/kg	33

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CONESTOGA-ROVERS & ASSOC., INC.

Client Sample ID: S-17360-071504-DCR-122

GC/MS Volatiles

Lot-Sample #....: A4G160169-023 Work Order #....: GK7911AA Matrix.....: SO

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
1,1,2,2-Tetrachloroethane	ND	120	ug/kg	9.6
Tetrachloroethene	ND	59	ug/kg	11
Toluene	21 J	120	ug/kg	11
1,2,4-Trichloro- benzene	ND	290	ug/kg	14
1,1,1-Trichloroethane	ND	59	ug/kg	11
1,1,2-Trichloroethane	ND	59	ug/kg	12
Trichloroethene	2000	59	ug/kg	14
Trichlorofluoromethane	ND	120	ug/kg	9.7
1,1,2-Trichloro- 1,2,2-trifluoroethane	ND	290	ug/kg	12
Vinyl chloride	ND	120	ug/kg	19
Xylenes (total)	38 J	180	ug/kg	18
SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS		
Dibromofluoromethane	78	(59 - 138)		
1,2-Dichloroethane-d4	87	(61 - 130)		
Toluene-d8	100	(60 - 143)		
4-Bromofluorobenzene	91	(47 - 158)		

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than RL.

CONESTOGA-ROVERS & ASSOC., INC.

Client Sample ID: S-17360-071504-DCR-123

GC/MS Volatiles

Lot-Sample #....: A4G160169-024 Work Order #....: GK7931AA Matrix.....: SO
 Date Sampled....: 07/15/04 12:40 Date Received...: 07/16/04
 Prep Date.....: 07/17/04 Analysis Date...: 07/21/04
 Prep Batch #....: 4203412
 Dilution Factor: 1.09 Initial Wgt/Vol: 4.6 g Final Wgt/Vol...: 5 mL
 % Moisture.....: 3.1 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acetone	ND	840	ug/kg	110
Benzene	ND	56	ug/kg	7.2
Bromodichloromethane	ND	110	ug/kg	14
Bromoform	ND	110	ug/kg	15
Bromomethane	ND	280	ug/kg	28
2-Butanone	ND	840	ug/kg	55
Carbon disulfide	ND	280	ug/kg	23
Carbon tetrachloride	ND	56	ug/kg	14
Chlorobenzene	ND	56	ug/kg	7.1
Chloroethane	ND	280	ug/kg	73
Chloroform	ND	56	ug/kg	14
Chloromethane	ND	280	ug/kg	5.9
Cyclohexane	ND	1400	ug/kg	8.7
Dibromochloromethane	ND	56	ug/kg	7.8
1,2-Dibromo-3-chloro- propane	ND	280	ug/kg	68
1,2-Dibromoethane	ND	280	ug/kg	11
1,2-Dichlorobenzene	ND	110	ug/kg	19
1,3-Dichlorobenzene	ND	110	ug/kg	8.1
1,4-Dichlorobenzene	ND	110	ug/kg	8.9
Dichlorodifluoromethane	ND	110	ug/kg	6.1
1,1-Dichloroethane	ND	56	ug/kg	8.2
1,2-Dichloroethane	ND	56	ug/kg	10
1,1-Dichloroethene	ND	56	ug/kg	9.3
cis-1,2-Dichloroethene	ND	56	ug/kg	16
trans-1,2-Dichloroethene	ND	56	ug/kg	12
1,2-Dichloropropane	ND	56	ug/kg	8.3
cis-1,3-Dichloropropene	ND	56	ug/kg	6.2
trans-1,3-Dichloropropene	ND	56	ug/kg	6.1
Ethylbenzene	ND	56	ug/kg	7.7
2-Hexanone	ND	2800	ug/kg	27
Isopropylbenzene	ND	280	ug/kg	5.7
Methyl acetate	ND	1400	ug/kg	59
Methylene chloride	ND	280	ug/kg	110
Methylcyclohexane	ND	1400	ug/kg	6.4
4-Methyl-2-pentanone	ND	2800	ug/kg	12
Methyl tert-butyl ether	ND	280	ug/kg	11
Styrene	ND	56	ug/kg	32

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CONESTOGA-ROVERS & ASSOC., INC.

Client Sample ID: S-17360-071504-DCR-123

GC/MS Volatiles

Lot-Sample #....: A4G160169-024 Work Order #....: GK7931AA Matrix.....: SO

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
1,1,2,2-Tetrachloroethane	ND	110	ug/kg	9.2
Tetrachloroethene	ND	56	ug/kg	10
Toluene	ND	110	ug/kg	10
1,2,4-Trichloro- benzene	ND	280	ug/kg	14
1,1,1-Trichloroethane	ND	56	ug/kg	11
1,1,2-Trichloroethane	ND	56	ug/kg	11
Trichloroethene	ND	56	ug/kg	14
Trichlorofluoromethane	ND	110	ug/kg	9.3
1,1,2-Trichloro- 1,2,2-trifluoroethane	ND	280	ug/kg	11
Vinyl chloride	ND	110	ug/kg	18
Xylenes (total)	ND	170	ug/kg	17

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	84	(59 - 138)
1,2-Dichloroethane-d4	89	(61 - 130)
Toluene-d8	102	(60 - 143)
4-Bromofluorobenzene	94	(47 - 158)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

CONESTOGA-ROVERS & ASSOC., INC.

Client Sample ID: S-17360-071504-DCR-124

GC/MS Volatiles

Lot-Sample #....: A4G160169-025 Work Order #....: GK7951AA Matrix.....: 80
 Date Sampled....: 07/15/04 12:45 Date Received...: 07/16/04
 Prep Date.....: 07/17/04 Analysis Date...: 07/21/04
 Prep Batch #....: 4203412
 Dilution Factor: 1.11 Initial Wgt/Vol: 4.5 g Final Wgt/Vol...: 5 mL
 % Moisture.....: 1.9 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acetone	ND	850	ug/kg	110
Benzene	ND	57	ug/kg	7.2
Bromodichloromethane	ND	110	ug/kg	14
Bromoform	ND	110	ug/kg	15
Bromomethane	ND	280	ug/kg	28
2-Butanone	ND	850	ug/kg	55
Carbon disulfide	ND	280	ug/kg	23
Carbon tetrachloride	ND	57	ug/kg	14
Chlorobenzene	ND	57	ug/kg	7.1
Chloroethane	ND	280	ug/kg	74
Chloroform	ND	57	ug/kg	14
Chloromethane	24 J,B	280	ug/kg	5.9
Cyclohexane	ND	1400	ug/kg	8.7
Dibromochloromethane	ND	57	ug/kg	7.8
1,2-Dibromo-3-chloro- propane	ND	280	ug/kg	68
1,2-Dibromoethane	ND	280	ug/kg	11
1,2-Dichlorobenzene	ND	110	ug/kg	19
1,3-Dichlorobenzene	ND	110	ug/kg	8.1
1,4-Dichlorobenzene	ND	110	ug/kg	8.9
Dichlorodifluoromethane	ND	110	ug/kg	6.1
1,1-Dichloroethane	ND	57	ug/kg	8.3
1,2-Dichloroethane	ND	57	ug/kg	11
1,1-Dichloroethene	ND	57	ug/kg	9.4
cis-1,2-Dichloroethene	ND	57	ug/kg	16
trans-1,2-Dichloroethene	ND	57	ug/kg	12
1,2-Dichloropropane	ND	57	ug/kg	8.4
cis-1,3-Dichloropropene	ND	57	ug/kg	6.2
trans-1,3-Dichloropropene	ND	57	ug/kg	6.1
Ethylbenzene	ND	57	ug/kg	7.7
2-Hexanone	ND	2800	ug/kg	27
Isopropylbenzene	ND	280	ug/kg	5.8
Methyl acetate	ND	1400	ug/kg	59
Methylene chloride	ND	280	ug/kg	110
Methylcyclohexane	ND	1400	ug/kg	6.5
4-Methyl-2-pentanone	ND	2800	ug/kg	12
Methyl tert-butyl ether	ND	280	ug/kg	11
Styrene	ND	57	ug/kg	32

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CONESTOGA-ROVERS & ASSOC., INC.

Client Sample ID: S-17360-071504-DCR-124

GC/MS Volatiles

Lot-Sample #....: A4G160169-025 Work Order #....: GK7951AA Matrix.....: SO

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>	<u>MDL</u>
1,1,2,2-Tetrachloroethane	ND	110	ug/kg	9.3
Tetrachloroethene	ND	57	ug/kg	10
Toluene	ND	110	ug/kg	10
1,2,4-Trichloro- benzene	ND	280	ug/kg	14
1,1,1-Trichloroethane	ND	57	ug/kg	11
1,1,2-Trichloroethane	ND	57	ug/kg	11
Trichloroethene	ND	57	ug/kg	14
Trichlorofluoromethane	ND	110	ug/kg	9.4
1,1,2-Trichloro- 1,2,2-trifluoroethane	ND	280	ug/kg	11
Vinyl chloride	ND	110	ug/kg	18
Xylenes (total)	ND	170	ug/kg	17

<u>SURROGATE</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>
Dibromofluoromethane	83	(59 - 138)
1,2-Dichloroethane-d4	91	(61 - 130)
Toluene-d8	103	(60 - 143)
4-Bromofluorobenzene	94	(47 - 158)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than RL.

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

CONESTOGA-ROVERS & ASSOC., INC.

Client Sample ID: S-17360-071504-DCR-125

GC/MS Volatiles

Lot-Sample #....: A4G160169-026 Work Order #....: GK7981AA Matrix.....: SO
 Date Sampled....: 07/15/04 12:50 Date Received...: 07/16/04
 Prep Date.....: 07/17/04 Analysis Date...: 07/21/04
 Prep Batch #....: 4203412
 Dilution Factor: 1.14 Initial Wgt/Vol: 4.4 g Final Wgt/Vol...: 5 mL
 % Moisture.....: 1.9 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acetone	ND	870	ug/kg	120
Benzene	ND	58	ug/kg	7.4
Bromodichloromethane	ND	120	ug/kg	14
Bromoform	ND	120	ug/kg	15
Bromomethane	ND	290	ug/kg	29
2-Butanone	ND	870	ug/kg	57
Carbon disulfide	ND	290	ug/kg	23
Carbon tetrachloride	ND	58	ug/kg	14
Chlorobenzene	ND	58	ug/kg	7.3
Chloroethane	ND	290	ug/kg	76
Chloroform	ND	58	ug/kg	14
Chloromethane	ND	290	ug/kg	6.0
Cyclohexane	ND	1400	ug/kg	8.9
Dibromochloromethane	ND	58	ug/kg	8.0
1,2-Dibromo-3-chloro- propane	ND	290	ug/kg	70
1,2-Dibromoethane	ND	290	ug/kg	12
1,2-Dichlorobenzene	ND	120	ug/kg	20
1,3-Dichlorobenzene	ND	120	ug/kg	8.4
1,4-Dichlorobenzene	ND	120	ug/kg	9.2
Dichlorodifluoromethane	ND	120	ug/kg	6.3
1,1-Dichloroethane	ND	58	ug/kg	8.5
1,2-Dichloroethane	ND	58	ug/kg	11
1,1-Dichloroethene	ND	58	ug/kg	9.6
cis-1,2-Dichloroethene	ND	58	ug/kg	16
trans-1,2-Dichloroethene	ND	58	ug/kg	13
1,2-Dichloropropane	ND	58	ug/kg	8.6
cis-1,3-Dichloropropene	ND	58	ug/kg	6.4
trans-1,3-Dichloropropene	ND	58	ug/kg	6.3
Ethylbenzene	ND	58	ug/kg	7.9
2-Hexanone	ND	2900	ug/kg	28
Isopropylbenzene	ND	290	ug/kg	5.9
Methyl acetate	ND	1400	ug/kg	60
Methylene chloride	ND	290	ug/kg	120
Methylcyclohexane	ND	1400	ug/kg	6.6
4-Methyl-2-pentanone	ND	2900	ug/kg	13
Methyl tert-butyl ether	ND	290	ug/kg	12
Styrene	ND	58	ug/kg	33

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CONESTOGA-ROVERS & ASSOC., INC.

Client Sample ID: S-17360-071504-DCR-125

GC/MS Volatiles

Lot-Sample #....: A4G160169-026 Work Order #....: GK7981AA Matrix.....: SO

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
1,1,2,2-Tetrachloroethane	ND	120	ug/kg	9.5
Tetrachloroethene	ND	58	ug/kg	10
Toluene	ND	120	ug/kg	11
1,2,4-Trichloro- benzene	ND	290	ug/kg	14
1,1,1-Trichloroethane	ND	58	ug/kg	11
1,1,2-Trichloroethane	ND	58	ug/kg	12
Trichloroethene	ND	58	ug/kg	14
Trichlorofluoromethane	ND	120	ug/kg	9.6
1,1,2-Trichloro- 1,2,2-trifluoroethane	ND	290	ug/kg	12
Vinyl chloride	ND	120	ug/kg	19
Xylenes (total)	ND	170	ug/kg	17

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	84	(59 - 138)
1,2-Dichloroethane-d4	90	(61 - 130)
Toluene-d8	105	(60 - 143)
4-Bromofluorobenzene	99	(47 - 158)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

CONESTOGA-ROVERS & ASSOC., INC.

Client Sample ID: S-17360-071504-DCR-126

GC/MS Volatiles

Lot-Sample #....: A4G160169-027 Work Order #....: GK8AD1AA Matrix.....: SO
 Date Sampled....: 07/15/04 13:30 Date Received...: 07/16/04
 Prep Date.....: 07/17/04 Analysis Date...: 07/22/04
 Prep Batch #....: 4203412
 Dilution Factor: 1.16 Initial Wgt/Vol: 4.3 g Final Wgt/Vol...: 5 mL
 % Moisture.....: 2.3 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acetone	ND	890	ug/kg	120
Benzene	ND	59	ug/kg	7.6
Bromodichloromethane	ND	120	ug/kg	14
Bromoform	ND	120	ug/kg	15
Bromomethane	ND	300	ug/kg	30
2-Butanone	ND	890	ug/kg	58
Carbon disulfide	ND	300	ug/kg	24
Carbon tetrachloride	ND	59	ug/kg	14
Chlorobenzene	ND	59	ug/kg	7.5
Chloroethane	ND	300	ug/kg	77
Chloroform	ND	59	ug/kg	14
Chloromethane	ND	300	ug/kg	6.2
Cyclohexane	ND	1400	ug/kg	9.1
Dibromochloromethane	ND	59	ug/kg	8.2
1,2-Dibromo-3-chloro- propane	ND	300	ug/kg	71
1,2-Dibromoethane	ND	300	ug/kg	12
1,2-Dichlorobenzene	ND	120	ug/kg	20
1,3-Dichlorobenzene	ND	120	ug/kg	8.5
1,4-Dichlorobenzene	ND	120	ug/kg	9.4
Dichlorodifluoromethane	ND	120	ug/kg	6.4
1,1-Dichloroethane	ND	59	ug/kg	8.7
1,2-Dichloroethane	ND	59	ug/kg	11
1,1-Dichloroethene	ND	59	ug/kg	9.9
cis-1,2-Dichloroethene	ND	59	ug/kg	17
trans-1,2-Dichloroethene	ND	59	ug/kg	13
1,2-Dichloropropane	ND	59	ug/kg	8.8
cis-1,3-Dichloropropene	ND	59	ug/kg	6.5
trans-1,3-Dichloropropene	ND	59	ug/kg	6.4
Ethylbenzene	ND	59	ug/kg	8.1
2-Hexanone	ND	3000	ug/kg	28
Isopropylbenzene	ND	300	ug/kg	6.1
Methyl acetate	ND	1400	ug/kg	62
Methylene chloride	ND	300	ug/kg	120
Methylcyclohexane	ND	1400	ug/kg	6.8
4-Methyl-2-pentanone	ND	3000	ug/kg	13
Methyl tert-butyl ether	ND	300	ug/kg	12
Styrene	ND	59	ug/kg	33

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CONESTOGA-ROVERS & ASSOC., INC.

Client Sample ID: S-17360-071504-DCR-126

GC/MS Volatiles

Lot-Sample #....: A4G160169-027 Work Order #....: GK8AD1AA Matrix.....: SO

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
1,1,2,2-Tetrachloroethane	ND	120	ug/kg	9.7
Tetrachloroethene	ND	59	ug/kg	11
Toluene	ND	120	ug/kg	11
1,2,4-Trichloro- benzene	30 J	300	ug/kg	14
1,1,1-Trichloroethane	ND	59	ug/kg	11
1,1,2-Trichloroethane	ND	59	ug/kg	12
Trichloroethene	ND	59	ug/kg	14
Trichlorofluoromethane	ND	120	ug/kg	9.9
1,1,2-Trichloro- 1,2,2-trifluoroethane	ND	300	ug/kg	12
Vinyl chloride	ND	120	ug/kg	19
Xylenes (total)	ND	180	ug/kg	18

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	90	(59 - 138)
1,2-Dichloroethane-d4	91	(61 - 130)
Toluene-d8	108	(60 - 143)
4-Bromofluorobenzene	96	(47 - 158)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than RL.

CONESTOGA-ROVERS & ASSOC., INC.

Client Sample ID: S-17360-071504-DCR-127

GC/MS Volatiles

Lot-Sample #....: A4G160169-028 Work Order #....: GK8AE1AA Matrix.....: SO
 Date Sampled....: 07/15/04 13:35 Date Received...: 07/16/04
 Prep Date.....: 07/17/04 Analysis Date...: 07/21/04
 Prep Batch #....: 4203412
 Dilution Factor: 1.11 Initial Wgt/Vol: 4.5 g Final Wgt/Vol...: 5 mL
 % Moisture.....: 4.2 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING		
		LIMIT	UNITS	MDL
Acetone	ND	870	ug/kg	110
Benzene	ND	58	ug/kg	7.4
Bromodichloromethane	ND	120	ug/kg	14
Bromoform	ND	120	ug/kg	15
Bromomethane	ND	290	ug/kg	29
2-Butanone	ND	870	ug/kg	57
Carbon disulfide	ND	290	ug/kg	23
Carbon tetrachloride	ND	58	ug/kg	14
Chlorobenzene	ND	58	ug/kg	7.3
Chloroethane	ND	290	ug/kg	75
Chloroform	ND	58	ug/kg	14
Chloromethane	ND	290	ug/kg	6.0
Cyclohexane	ND	1400	ug/kg	8.9
Dibromochloromethane	ND	58	ug/kg	8.0
1,2-Dibromo-3-chloro-propane	ND	290	ug/kg	69
1,2-Dibromoethane	ND	290	ug/kg	11
1,2-Dichlorobenzene	ND	120	ug/kg	20
1,3-Dichlorobenzene	ND	120	ug/kg	8.3
1,4-Dichlorobenzene	ND	120	ug/kg	9.2
Dichlorodifluoromethane	ND	120	ug/kg	6.3
1,1-Dichloroethane	ND	58	ug/kg	8.5
1,2-Dichloroethane	ND	58	ug/kg	11
1,1-Dichloroethene	ND	58	ug/kg	9.6
cis-1,2-Dichloroethene	ND	58	ug/kg	16
trans-1,2-Dichloroethene	ND	58	ug/kg	13
1,2-Dichloropropane	ND	58	ug/kg	8.6
cis-1,3-Dichloropropene	ND	58	ug/kg	6.4
trans-1,3-Dichloropropene	ND	58	ug/kg	6.3
Ethylbenzene	ND	58	ug/kg	7.9
2-Hexanone	ND	2900	ug/kg	28
Isopropylbenzene	ND	290	ug/kg	5.9
Methyl acetate	ND	1400	ug/kg	60
Methylene chloride	ND	290	ug/kg	110
Methylcyclohexane	ND	1400	ug/kg	6.6
4-Methyl-2-pentanone	ND	2900	ug/kg	13
Methyl tert-butyl ether	ND	290	ug/kg	12
Styrene	ND	58	ug/kg	32

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CONESTOGA-ROVERS & ASSOC., INC.

Client Sample ID: S-17360-071504-DCR-127

GC/MS Volatiles

Lot-Sample #....: A4G160169-028 Work Order #....: GK8AE1AA Matrix.....: SO

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
1,1,2,2-Tetrachloroethane	ND	120	ug/kg	9.5
Tetrachloroethene	ND	58	ug/kg	10
Toluene	ND	120	ug/kg	11
1,2,4-Trichloro- benzene	ND	290	ug/kg	14
1,1,1-Trichloroethane	ND	58	ug/kg	11
1,1,2-Trichloroethane	ND	58	ug/kg	11
Trichloroethene	ND	58	ug/kg	14
Trichlorofluoromethane	ND	120	ug/kg	9.6
1,1,2-Trichloro- 1,2,2-trifluoroethane	ND	290	ug/kg	12
Vinyl chloride	ND	120	ug/kg	19
Xylenes (total)	ND	170	ug/kg	17
 SURROGATE	 PERCENT RECOVERY	 RECOVERY LIMITS		
Dibromofluoromethane	76	(59 - 138)		
1,2-Dichloroethane-d4	83	(61 - 130)		
Toluene-d8	99	(60 - 143)		
4-Bromofluorobenzene	88	(47 - 158)		

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

CONESTOGA-ROVERS & ASSOC., INC.

Client Sample ID: 8-17360-071504-DCR-128

GC/MS Volatiles

Lot-Sample #....: A4G160169-029 Work Order #....: GK8AF1AA Matrix.....: SO
 Date Sampled....: 07/15/04 13:40 Date Received...: 07/16/04
 Prep Date.....: 07/17/04 Analysis Date...: 07/21/04
 Prep Batch #....: 4203412
 Dilution Factor: 1.14 Initial Wgt/Vol: 4.4 g Final Wgt/Vol...: 5 mL
 % Moisture.....: 2.5 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acetone	ND	880	ug/kg	120
Benzene	ND	58	ug/kg	7.5
Bromodichloromethane	ND	120	ug/kg	14
Bromoform	ND	120	ug/kg	15
Bromomethane	ND	290	ug/kg	29
2-Butanone	ND	880	ug/kg	57
Carbon disulfide	ND	290	ug/kg	23
Carbon tetrachloride	ND	58	ug/kg	14
Chlorobenzene	ND	58	ug/kg	7.4
Chloroethane	ND	290	ug/kg	76
Chloroform	ND	58	ug/kg	14
Chloromethane	19 J,B	290	ug/kg	6.1
Cyclohexane	ND	1400	ug/kg	9.0
Dibromochloromethane	ND	58	ug/kg	8.1
1,2-Dibromo-3-chloro- propane	ND	290	ug/kg	70
1,2-Dibromoethane	ND	290	ug/kg	12
1,2-Dichlorobenzene	ND	120	ug/kg	20
1,3-Dichlorobenzene	ND	120	ug/kg	8.4
1,4-Dichlorobenzene	ND	120	ug/kg	9.2
Dichlorodifluoromethane	ND	120	ug/kg	6.3
1,1-Dichloroethane	ND	58	ug/kg	8.5
1,2-Dichloroethane	ND	58	ug/kg	11
1,1-Dichloroethene	ND	58	ug/kg	9.7
cis-1,2-Dichloroethene	ND	58	ug/kg	16
trans-1,2-Dichloroethene	ND	58	ug/kg	13
1,2-Dichloropropane	ND	58	ug/kg	8.7
cis-1,3-Dichloropropene	ND	58	ug/kg	6.4
trans-1,3-Dichloropropene	ND	58	ug/kg	6.3
Ethylbenzene	ND	58	ug/kg	7.9
2-Hexanone	ND	2900	ug/kg	28
Isopropylbenzene	ND	290	ug/kg	6.0
Methyl acetate	ND	1400	ug/kg	61
Methylene chloride	ND	290	ug/kg	120
Methylcyclohexane	ND	1400	ug/kg	6.7
4-Methyl-2-pentanone	ND	2900	ug/kg	13
Methyl tert-butyl ether	ND	290	ug/kg	12
Styrene	ND	58	ug/kg	33

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CONESTOGA-ROVERS & ASSOC., INC.

Client Sample ID: S-17360-071504-DCR-128

GC/MS Volatiles

Lot-Sample #....: A4G160169-029 Work Order #....: GK8AF1AA Matrix.....: SO

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>	<u>MDL</u>
1,1,2,2-Tetrachloroethane	ND	120	ug/kg	9.6
Tetrachloroethene	ND	58	ug/kg	11
Toluene	ND	120	ug/kg	11
1,2,4-Trichloro- benzene	ND	290	ug/kg	14
1,1,1-Trichloroethane	ND	58	ug/kg	11
1,1,2-Trichloroethane	ND	58	ug/kg	12
Trichloroethene	16 J	58	ug/kg	14
Trichlorofluoromethane	ND	120	ug/kg	9.7
1,1,2-Trichloro- 1,2,2-trifluoroethane	ND	290	ug/kg	12
Vinyl chloride	ND	120	ug/kg	19
Xylenes (total)	ND	180	ug/kg	18

<u>SURROGATE</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>
Dibromofluoromethane	78	(59 - 138)
1,2-Dichloroethane-d4	86	(61 - 130)
Toluene-d8	100	(60 - 143)
4-Bromofluorobenzene	93	(47 - 158)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than RL.

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

CONESTOGA-ROVERS & ASSOC., INC.

Client Sample ID: S-17360-071504-DCR-129

GC/MS Volatiles

Lot-Sample #....: A4G160169-030 Work Order #....: GK8AG1AA Matrix.....: 80
 Date Sampled....: 07/15/04 13:45 Date Received...: 07/16/04
 Prep Date.....: 07/17/04 Analysis Date...: 07/21/04
 Prep Batch #....: 4203412
 Dilution Factor: 1.11 Initial Wgt/Vol: 4.5 g Final Wgt/Vol...: 5 mL
 % Moisture.....: 3.4 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acetone	ND	860	ug/kg	110
Benzene	ND	57	ug/kg	7.4
Bromodichloromethane	ND	110	ug/kg	14
Bromoform	ND	110	ug/kg	15
Bromomethane	ND	290	ug/kg	29
2-Butanone	ND	860	ug/kg	56
Carbon disulfide	ND	290	ug/kg	23
Carbon tetrachloride	ND	57	ug/kg	14
Chlorobenzene	ND	57	ug/kg	7.2
Chloroethane	ND	290	ug/kg	75
Chloroform	ND	57	ug/kg	14
Chloromethane	ND	290	ug/kg	6.0
Cyclohexane	ND	1400	ug/kg	8.8
Dibromochloromethane	ND	57	ug/kg	7.9
1,2-Dibromo-3-chloro- propane	ND	290	ug/kg	69
1,2-Dibromoethane	ND	290	ug/kg	11
1,2-Dichlorobenzene	ND	110	ug/kg	20
1,3-Dichlorobenzene	ND	110	ug/kg	8.3
1,4-Dichlorobenzene	ND	110	ug/kg	9.1
Dichlorodifluoromethane	ND	110	ug/kg	6.2
1,1-Dichloroethane	ND	57	ug/kg	8.4
1,2-Dichloroethane	ND	57	ug/kg	11
1,1-Dichloroethene	ND	57	ug/kg	9.5
cis-1,2-Dichloroethene	ND	57	ug/kg	16
trans-1,2-Dichloroethene	ND	57	ug/kg	13
1,2-Dichloropropane	ND	57	ug/kg	8.5
cis-1,3-Dichloropropene	ND	57	ug/kg	6.3
trans-1,3-Dichloropropene	ND	57	ug/kg	6.2
Ethylbenzene	ND	57	ug/kg	7.8
2-Hexanone	ND	2900	ug/kg	28
Isopropylbenzene	ND	290	ug/kg	5.9
Methyl acetate	ND	1400	ug/kg	60
Methylene chloride	ND	290	ug/kg	110
Methylcyclohexane	ND	1400	ug/kg	6.5
4-Methyl-2-pentanone	ND	2900	ug/kg	13
Methyl tert-butyl ether	ND	290	ug/kg	11
Styrene	ND	57	ug/kg	32

(Continued on next page)

CONESTOGA-ROVERS & ASSOC., INC.

Client Sample ID: S-17360-071504-DCR-129

GC/MS Volatiles

Lot-Sample #...: A4G160169-030 Work Order #...: GK8AG1AA Matrix.....: SO

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
1,1,2,2-Tetrachloroethane	ND	110	ug/kg	9.4
Tetrachloroethene	ND	57	ug/kg	10
Toluene	ND	110	ug/kg	10
1,2,4-Trichloro- benzene	ND	290	ug/kg	14
1,1,1-Trichloroethane	ND	57	ug/kg	11
1,1,2-Trichloroethane	ND	57	ug/kg	11
Trichloroethene	14 J	57	ug/kg	14
Trichlorofluoromethane	ND	110	ug/kg	9.5
1,1,2-Trichloro- 1,2,2-trifluoroethane	ND	290	ug/kg	11
Vinyl chloride	ND	110	ug/kg	18
Xylenes (total)	ND	170	ug/kg	17

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	72	(59 - 138)
1,2-Dichloroethane-d4	81	(61 - 130)
Toluene-d8	98	(60 - 143)
4-Bromofluorobenzene	88	(47 - 158)

NOTE(S) :

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than RL.

CONESTOGA-ROVERS & ASSOC., INC.

Client Sample ID: S-17360-071504-DCR-130

GC/MS Volatiles

Lot-Sample #....: A4G160169-031 Work Order #....: GK8AH1AA Matrix.....: SO
 Date Sampled....: 07/15/04 13:50 Date Received...: 07/16/04
 Prep Date.....: 07/17/04 Analysis Date...: 07/21/04
 Prep Batch #....: 4203412
 Dilution Factor: 1.47 Initial Wgt/Vol: 3.4 g Final Wgt/Vol...: 5 mL
 % Moisture.....: 2.4 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acetone	ND	1100	ug/kg	150
Benzene	ND	75	ug/kg	9.6
Bromodichloromethane	ND	150	ug/kg	18
Bromoform	ND	150	ug/kg	20
Bromomethane	ND	380	ug/kg	38
2-Butanone	ND	1100	ug/kg	74
Carbon disulfide	ND	380	ug/kg	30
Carbon tetrachloride	ND	75	ug/kg	18
Chlorobenzene	ND	75	ug/kg	9.5
Chloroethane	ND	380	ug/kg	98
Chloroform	ND	75	ug/kg	18
Chloromethane	ND	380	ug/kg	7.8
Cyclohexane	ND	1800	ug/kg	12
Dibromochloromethane	ND	75	ug/kg	10
1,2-Dibromo-3-chloro- propane	ND	380	ug/kg	90
1,2-Dibromoethane	ND	380	ug/kg	15
1,2-Dichlorobenzene	ND	150	ug/kg	26
1,3-Dichlorobenzene	ND	150	ug/kg	11
1,4-Dichlorobenzene	ND	150	ug/kg	12
Dichlorodifluoromethane	ND	150	ug/kg	8.1
1,1-Dichloroethane	ND	75	ug/kg	11
1,2-Dichloroethane	ND	75	ug/kg	14
1,1-Dichloroethene	ND	75	ug/kg	12
cis-1,2-Dichloroethene	ND	75	ug/kg	21
trans-1,2-Dichloroethene	ND	75	ug/kg	17
1,2-Dichloropropane	ND	75	ug/kg	11
cis-1,3-Dichloropropene	ND	75	ug/kg	8.3
trans-1,3-Dichloropropene	ND	75	ug/kg	8.1
Ethylbenzene	ND	75	ug/kg	10
2-Hexanone	ND	3800	ug/kg	36
Isopropylbenzene	ND	380	ug/kg	7.7
Methyl acetate	ND	1800	ug/kg	78
Methylene chloride	ND	380	ug/kg	150
Methylcyclohexane	ND	1800	ug/kg	8.6
4-Methyl-2-pentanone	ND	3800	ug/kg	17
Methyl tert-butyl ether	ND	380	ug/kg	15
Styrene	ND	75	ug/kg	42

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CONESTOGA-ROVERS & ASSOC., INC.

Client Sample ID: S-17360-071504-DCR-130

GC/MS Volatiles

Lot-Sample #....: A4G160169-031 Work Order #....: GK8AH1AA Matrix.....: SO

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
1,1,2,2-Tetrachloroethane	ND	150	ug/kg	12
Tetrachloroethene	ND	75	ug/kg	14
Toluene	ND	150	ug/kg	14
1,2,4-Trichloro- benzene	ND	380	ug/kg	18
1,1,1-Trichloroethane	ND	75	ug/kg	14
1,1,2-Trichloroethane	ND	75	ug/kg	15
Trichloroethene	ND	75	ug/kg	18
Trichlorofluoromethane	ND	150	ug/kg	12
1,1,2-Trichloro- 1,2,2-trifluoroethane	ND	380	ug/kg	15
Vinyl chloride	ND	150	ug/kg	24
Xylenes (total)	ND	230	ug/kg	23

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	79	(59 - 138)
1,2-Dichloroethane-d4	89	(61 - 130)
Toluene-d8	107	(60 - 143)
4-Bromofluorobenzene	97	(47 - 158)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

CONESTOGA-ROVERS & ASSOC., INC.

Client Sample ID: S-17360-071504-DCR-131

GC/MS Volatiles

Lot-Sample #....: A4G160169-032 Work Order #....: GK8AJ1AA Matrix.....: 80
 Date Sampled....: 07/15/04 14:00 Date Received...: 07/16/04
 Prep Date.....: 07/17/04 Analysis Date...: 07/21/04
 Prep Batch #....: 4203412
 Dilution Factor: 1.02 Initial Wgt/Vol: 4.9 g Final Wgt/Vol...: 5 mL
 % Moisture.....: 2.0 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING		
		LIMIT	UNITS	MDL
Acetone	ND	780	ug/kg	100
Benzene	ND	52	ug/kg	6.7
Bromodichloromethane	ND	100	ug/kg	12
Bromoform	ND	100	ug/kg	14
Bromomethane	ND	260	ug/kg	26
2-Butanone	ND	780	ug/kg	51
Carbon disulfide	ND	260	ug/kg	21
Carbon tetrachloride	ND	52	ug/kg	12
Chlorobenzene	ND	52	ug/kg	6.6
Chloroethane	ND	260	ug/kg	68
Chloroform	ND	52	ug/kg	12
Chloromethane	ND	260	ug/kg	5.4
Cyclohexane	ND	1200	ug/kg	8.0
Dibromochloromethane	ND	52	ug/kg	7.2
1,2-Dibromo-3-chloro- propane	ND	260	ug/kg	62
1,2-Dibromoethane	ND	260	ug/kg	10
1,2-Dichlorobenzene	ND	100	ug/kg	18
1,3-Dichlorobenzene	ND	100	ug/kg	7.5
1,4-Dichlorobenzene	ND	100	ug/kg	8.2
Dichlorodifluoromethane	ND	100	ug/kg	5.6
1,1-Dichloroethane	ND	52	ug/kg	7.6
1,2-Dichloroethane	ND	52	ug/kg	9.7
1,1-Dichloroethene	ND	52	ug/kg	8.6
cis-1,2-Dichloroethene	ND	52	ug/kg	15
trans-1,2-Dichloroethene	ND	52	ug/kg	11
1,2-Dichloropropane	ND	52	ug/kg	7.7
cis-1,3-Dichloropropene	ND	52	ug/kg	5.7
trans-1,3-Dichloropropene	ND	52	ug/kg	5.6
Ethylbenzene	ND	52	ug/kg	7.1
2-Hexanone	ND	2600	ug/kg	25
Isopropylbenzene	ND	260	ug/kg	5.3
Methyl acetate	ND	1200	ug/kg	54
Methylene chloride	ND	260	ug/kg	100
Methylcyclohexane	ND	1200	ug/kg	5.9
4-Methyl-2-pentanone	ND	2600	ug/kg	11
Methyl tert-butyl ether	ND	260	ug/kg	10
Styrene	ND	52	ug/kg	29

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CONESTOGA-ROVERS & ASSOC., INC.

Client Sample ID: S-17360-071504-DCR-131

GC/MS Volatiles

Lot-Sample #....: A4G160169-032 Work Order #....: GK8AJ1AA Matrix.....: SO

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
1,1,2,2-Tetrachloroethane	ND	100	ug/kg	8.5
Tetrachloroethene	ND	52	ug/kg	9.4
Toluene	ND	100	ug/kg	9.5
1,2,4-Trichloro- benzene	ND	260	ug/kg	12
1,1,1-Trichloroethane	ND	52	ug/kg	9.9
1,1,2-Trichloroethane	ND	52	ug/kg	10
Trichloroethene	ND	52	ug/kg	12
Trichlorofluoromethane	ND	100	ug/kg	8.6
1,1,2-Trichloro- 1,2,2-trifluoroethane	ND	260	ug/kg	10
Vinyl chloride	ND	100	ug/kg	17
Xylenes (total)	ND	160	ug/kg	16

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	71	(59 - 138)
1,2-Dichloroethane-d4	81	(61 - 130)
Toluene-d8	96	(60 - 143)
4-Bromofluorobenzene	87	(47 - 158)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

CONESTOGA-ROVERS & ASSOC., INC.

Client Sample ID: S-17360-071504-DCR-132

GC/MS Volatiles

Lot-Sample #....: A4G160169-033 Work Order #....: GK8AK1AA Matrix.....: SO
 Date Sampled....: 07/15/04 14:10 Date Received...: 07/16/04
 Prep Date.....: 07/17/04 Analysis Date...: 07/21/04
 Prep Batch #....: 4203412
 Dilution Factor: 1.02 Initial Wgt/Vol: 4.9 g Final Wgt/Vol...: 5 mL
 % Moisture.....: 13 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acetone	ND	880	ug/kg	120
Benzene	ND	59	ug/kg	7.5
Bromodichloromethane	ND	120	ug/kg	14
Bromoform	ND	120	ug/kg	15
Bromomethane	ND	290	ug/kg	29
2-Butanone	ND	880	ug/kg	57
Carbon disulfide	ND	290	ug/kg	23
Carbon tetrachloride	ND	59	ug/kg	14
Chlorobenzene	ND	59	ug/kg	7.4
Chloroethane	ND	290	ug/kg	76
Chloroform	ND	59	ug/kg	14
Chloromethane	ND	290	ug/kg	6.1
Cyclohexane	ND	1400	ug/kg	9.0
Dibromochloromethane	ND	59	ug/kg	8.1
1,2-Dibromo-3-chloro- propane	ND	290	ug/kg	70
1,2-Dibromoethane	ND	290	ug/kg	12
1,2-Dichlorobenzene	ND	120	ug/kg	20
1,3-Dichlorobenzene	ND	120	ug/kg	8.4
1,4-Dichlorobenzene	ND	120	ug/kg	9.2
Dichlorodifluoromethane	ND	120	ug/kg	6.3
1,1-Dichloroethane	ND	59	ug/kg	8.5
1,2-Dichloroethane	ND	59	ug/kg	11
1,1-Dichloroethene	ND	59	ug/kg	9.7
cis-1,2-Dichloroethene	ND	59	ug/kg	16
trans-1,2-Dichloroethene	ND	59	ug/kg	13
1,2-Dichloropropane	ND	59	ug/kg	8.7
cis-1,3-Dichloropropene	ND	59	ug/kg	6.4
trans-1,3-Dichloropropene	ND	59	ug/kg	6.3
Ethylbenzene	ND	59	ug/kg	8.0
2-Hexanone	ND	2900	ug/kg	28
Isopropylbenzene	ND	290	ug/kg	6.0
Methyl acetate	ND	1400	ug/kg	61
Methylene chloride	ND	290	ug/kg	120
Methylcyclohexane	ND	1400	ug/kg	6.7
4-Methyl-2-pentanone	ND	2900	ug/kg	13
Methyl tert-butyl ether	ND	290	ug/kg	12
Styrene	ND	59	ug/kg	33

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CONESTOGA-ROVERS & ASSOC., INC.

Client Sample ID: S-17360-071504-DCR-132

GC/MS Volatiles

Lot-Sample #....: A4G160169-033 Work Order #....: GK8AK1AA Matrix.....: SO

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
1,1,2,2-Tetrachloroethane	ND	120	ug/kg	9.6
Tetrachloroethene	ND	59	ug/kg	11
Toluene	ND	120	ug/kg	11
1,2,4-Trichloro- benzene	ND	290	ug/kg	14
1,1,1-Trichloroethane	ND	59	ug/kg	11
1,1,2-Trichloroethane	ND	59	ug/kg	12
Trichloroethene	ND	59	ug/kg	14
Trichlorofluoromethane	ND	120	ug/kg	9.7
1,1,2-Trichloro- 1,2,2-trifluoroethane	ND	290	ug/kg	12
Vinyl chloride	ND	120	ug/kg	19
Xylenes (total)	ND	180	ug/kg	18

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	74	(59 - 138)
1,2-Dichloroethane-d4	83	(61 - 130)
Toluene-d8	95	(60 - 143)
4-Bromofluorobenzene	89	(47 - 158)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #....: A4G160169
MB Lot-Sample #: A4G210000-401

Work Order #....: GLJEG1AA

Matrix.....: SOLID

Analysis Date...: 07/20/04
Dilution Factor: 1

Prep Date.....: 07/17/04

Final Wgt/Vol...: 5 mL

Prep Batch #....: 4203401

Initial Wgt/Vol: 5 g

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Acetone	ND	750	ug/kg	SW846 8260B
Benzene	ND	50	ug/kg	SW846 8260B
Bromodichloromethane	ND	100	ug/kg	SW846 8260B
Bromoform	ND	100	ug/kg	SW846 8260B
Bromomethane	ND	250	ug/kg	SW846 8260B
2-Butanone	ND	750	ug/kg	SW846 8260B
Carbon disulfide	ND	250	ug/kg	SW846 8260B
Carbon tetrachloride	ND	50	ug/kg	SW846 8260B
Chlorobenzene	ND	50	ug/kg	SW846 8260B
Chloroethane	ND	250	ug/kg	SW846 8260B
Chloroform	ND	50	ug/kg	SW846 8260B
Chloromethane	ND	250	ug/kg	SW846 8260B
Cyclohexane	ND	1200	ug/kg	SW846 8260B
Dibromochloromethane	ND	50	ug/kg	SW846 8260B
1,2-Dibromo-3-chloro- propane	ND	250	ug/kg	SW846 8260B
1,2-Dibromoethane	ND	250	ug/kg	SW846 8260B
1,2-Dichlorobenzene	ND	100	ug/kg	SW846 8260B
1,3-Dichlorobenzene	ND	100	ug/kg	SW846 8260B
1,4-Dichlorobenzene	ND	100	ug/kg	SW846 8260B
Dichlorodifluoromethane	ND	100	ug/kg	SW846 8260B
1,1-Dichloroethane	ND	50	ug/kg	SW846 8260B
1,2-Dichloroethane	ND	50	ug/kg	SW846 8260B
1,1-Dichloroethene	ND	50	ug/kg	SW846 8260B
cis-1,2-Dichloroethene	ND	50	ug/kg	SW846 8260B
trans-1,2-Dichloroethene	ND	50	ug/kg	SW846 8260B
1,2-Dichloropropane	ND	50	ug/kg	SW846 8260B
cis-1,3-Dichloropropene	ND	50	ug/kg	SW846 8260B
trans-1,3-Dichloropropene	ND	50	ug/kg	SW846 8260B
Ethylbenzene	ND	50	ug/kg	SW846 8260B
2-Hexanone	ND	2500	ug/kg	SW846 8260B
Isopropylbenzene	ND	250	ug/kg	SW846 8260B
Methyl acetate	ND	1200	ug/kg	SW846 8260B
Methylene chloride	ND	250	ug/kg	SW846 8260B
Methylcyclohexane	ND	1200	ug/kg	SW846 8260B
4-Methyl-2-pentanone	ND	2500	ug/kg	SW846 8260B
Methyl tert-butyl ether	ND	250	ug/kg	SW846 8260B
Styrene	ND	50	ug/kg	SW846 8260B
1,1,2,2-Tetrachloroethane	ND	100	ug/kg	SW846 8260B
Tetrachloroethene	ND	50	ug/kg	SW846 8260B
Toluene	ND	100	ug/kg	SW846 8260B

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METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #....: A4G160169

Work Order #....: GLJEG1AA

Matrix.....: SOLID

PARAMETER	RESULT	REPORTING		METHOD
		LIMIT	UNITS	
1,2,4-Trichloro-benzene	ND	250	ug/kg	SW846 8260B
1,1,1-Trichloroethane	ND	50	ug/kg	SW846 8260B
1,1,2-Trichloroethane	ND	50	ug/kg	SW846 8260B
Trichloroethane	ND	50	ug/kg	SW846 8260B
Trichlorofluoromethane	ND	100	ug/kg	SW846 8260B
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	250	ug/kg	SW846 8260B
Vinyl chloride	ND	100	ug/kg	SW846 8260B
Xylenes (total)	ND	150	ug/kg	SW846 8260B

<u>SURROGATE</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>
Dibromofluoromethane	87	(59 - 138)
1,2-Dichloroethane-d4	92	(61 - 130)
Toluene-d8	105	(60 - 143)
4-Bromofluorobenzene	97	(47 - 158)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #....: A4G160169
MB Lot-Sample #: A4G210000-412

Work Order #....: GLJFE1AA

Matrix.....: SOLID

Analysis Date...: 07/21/04
Dilution Factor: 1

Prep Date.....: 07/17/04

Final Wgt/Vol...: 5 mL

Prep Batch #....: 4203412

Initial Wgt/Vol: 5 g

PARAMETER	RESULT	REPORTING		METHOD
		LIMIT	UNITS	
Acetone	ND	750	ug/kg	SW846 8260B
Benzene	ND	50	ug/kg	SW846 8260B
Bromodichloromethane	ND	100	ug/kg	SW846 8260B
Bromoform	ND	100	ug/kg	SW846 8260B
Bromomethane	ND	250	ug/kg	SW846 8260B
2-Butanone	ND	750	ug/kg	SW846 8260B
Carbon disulfide	ND	250	ug/kg	SW846 8260B
Carbon tetrachloride	ND	50	ug/kg	SW846 8260B
Chlorobenzene	ND	50	ug/kg	SW846 8260B
Chloroethane	ND	250	ug/kg	SW846 8260B
Chloroform	ND	50	ug/kg	SW846 8260B
Chloromethane	21 J	250	ug/kg	SW846 8260B
Cyclohexane	ND	1200	ug/kg	SW846 8260B
Vibromochloromethane	ND	50	ug/kg	SW846 8260B
1,2-Dibromo-3-chloro-propane	ND	250	ug/kg	SW846 8260B
1,2-Dibromoethane	ND	250	ug/kg	SW846 8260B
1,2-Dichlorobenzene	ND	100	ug/kg	SW846 8260B
1,3-Dichlorobenzene	ND	100	ug/kg	SW846 8260B
1,4-Dichlorobenzene	ND	100	ug/kg	SW846 8260B
Dichlorodifluoromethane	ND	100	ug/kg	SW846 8260B
1,1-Dichloroethane	ND	50	ug/kg	SW846 8260B
1,2-Dichloroethane	ND	50	ug/kg	SW846 8260B
1,1-Dichloroethane	ND	50	ug/kg	SW846 8260B
cis-1,2-Dichloroethene	ND	50	ug/kg	SW846 8260B
trans-1,2-Dichloroethene	ND	50	ug/kg	SW846 8260B
1,2-Dichloropropane	ND	50	ug/kg	SW846 8260B
cis-1,3-Dichloropropene	ND	50	ug/kg	SW846 8260B
trans-1,3-Dichloropropene	ND	50	ug/kg	SW846 8260B
Ethylbenzene	ND	50	ug/kg	SW846 8260B
2-Hexanone	ND	2500	ug/kg	SW846 8260B
Isopropylbenzene	ND	250	ug/kg	SW846 8260B
Methyl acetate	ND	1200	ug/kg	SW846 8260B
Methylene chloride	ND	250	ug/kg	SW846 8260B
Methylcyclohexane	ND	1200	ug/kg	SW846 8260B
4-Methyl-2-pentanone	ND	2500	ug/kg	SW846 8260B
Methyl tert-butyl ether	ND	250	ug/kg	SW846 8260B
Styrene	ND	50	ug/kg	SW846 8260B
1,1,2,2-Tetrachloroethane	ND	100	ug/kg	SW846 8260B
Tetrachloroethene	ND	50	ug/kg	SW846 8260B
luene	ND	100	ug/kg	SW846 8260B

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METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #....: A4G160169

Work Order #....: GLJFE1AA

Matrix.....: SOLID

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>	<u>METHOD</u>
1,2,4-Trichloro- benzene	ND	250	ug/kg	SW846 8260B
1,1,1-Trichloroethane	ND	50	ug/kg	SW846 8260B
1,1,2-Trichloroethane	ND	50	ug/kg	SW846 8260B
Trichloroethene	ND	50	ug/kg	SW846 8260B
Trichlorofluoromethane	ND	100	ug/kg	SW846 8260B
1,1,2-Trichloro- 1,2,2-trifluoroethane	ND	250	ug/kg	SW846 8260B
Vinyl chloride	ND	100	ug/kg	SW846 8260B
Xylenes (total)	ND	150	ug/kg	SW846 8260B

<u>SURROGATE</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>
Dibromofluoromethane	85	(59 - 138)
1,2-Dichloroethane-d4	91	(61 - 130)
Toluene-d8	106	(60 - 143)
4-Bromofluorobenzene	98	(47 - 158)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

J Estimated result. Result is less than RL.

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #....: A4G160169
MB Lot-Sample #: A4G210000-414

Work Order #....: GLJF51AA

Matrix.....: SOLID

Analysis Date...: 07/21/04
Dilution Factor: 1

Prep Date.....: 07/16/04
Prep Batch #....: 4203414
Initial Wgt/Vol: 25 g

Final Wgt/Vol...: 25 mL

PARAMETER	RESULT	REPORTING			METHOD
		LIMIT	UNITS		
Acetone	ND	750	ug/kg	SW846	8260B
Benzene	ND	50	ug/kg	SW846	8260B
Bromodichloromethane	ND	100	ug/kg	SW846	8260B
Bromoform	ND	100	ug/kg	SW846	8260B
Bromomethane	ND	250	ug/kg	SW846	8260B
2-Butanone	ND	750	ug/kg	SW846	8260B
Carbon disulfide	ND	250	ug/kg	SW846	8260B
Carbon tetrachloride	ND	50	ug/kg	SW846	8260B
Chlorobenzene	ND	50	ug/kg	SW846	8260B
Chloroethane	ND	250	ug/kg	SW846	8260B
Chloroform	ND	50	ug/kg	SW846	8260B
Chloromethane	15 J	250	ug/kg	SW846	8260B
Cyclohexane	ND	1200	ug/kg	SW846	8260B
Dibromochloromethane	ND	50	ug/kg	SW846	8260B
,2-Dibromo-3-chloro-propane	ND	250	ug/kg	SW846	8260B
1,2-Dibromoethane	ND	250	ug/kg	SW846	8260B
1,2-Dichlorobenzene	ND	100	ug/kg	SW846	8260B
1,3-Dichlorobenzene	ND	100	ug/kg	SW846	8260B
1,4-Dichlorobenzene	ND	100	ug/kg	SW846	8260B
Dichlorodifluoromethane	ND	100	ug/kg	SW846	8260B
1,1-Dichloroethane	ND	50	ug/kg	SW846	8260B
1,2-Dichloroethane	ND	50	ug/kg	SW846	8260B
1,1-Dichloroethene	ND	50	ug/kg	SW846	8260B
cis-1,2-Dichloroethene	ND	50	ug/kg	SW846	8260B
trans-1,2-Dichloroethene	ND	50	ug/kg	SW846	8260B
1,2-Dichloropropane	ND	50	ug/kg	SW846	8260B
cis-1,3-Dichloropropene	ND	50	ug/kg	SW846	8260B
trans-1,3-Dichloropropene	ND	50	ug/kg	SW846	8260B
Ethylbenzene	ND	50	ug/kg	SW846	8260B
2-Hexanone	ND	2500	ug/kg	SW846	8260B
Isopropylbenzene	ND	250	ug/kg	SW846	8260B
Methyl acetate	ND	1200	ug/kg	SW846	8260B
Methylene chloride	ND	250	ug/kg	SW846	8260B
Methylcyclohexane	ND	1200	ug/kg	SW846	8260B
4-Methyl-2-pentanone	ND	2500	ug/kg	SW846	8260B
Methyl tert-butyl ether	ND	250	ug/kg	SW846	8260B
Styrene	ND	50	ug/kg	SW846	8260B
1,1,2,2-Tetrachloroethane	ND	100	ug/kg	SW846	8260B
Tetrachloroethene	ND	50	ug/kg	SW846	8260B
luene	ND	100	ug/kg	SW846	8260B

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METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A4G160169

Work Order #...: GLJF51AA

Matrix.....: SOLID

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>	<u>METHOD</u>
1,2,4-Trichloro- benzene	13 J	250	ug/kg	SW846 8260B
1,1,1-Trichloroethane	ND	50	ug/kg	SW846 8260B
1,1,2-Trichloroethane	ND	50	ug/kg	SW846 8260B
Trichloroethene	ND	50	ug/kg	SW846 8260B
Trichlorofluoromethane	ND	100	ug/kg	SW846 8260B
1,1,2-Trichloro- 1,2,2-trifluoroethane	ND	250	ug/kg	SW846 8260B
Vinyl chloride	ND	100	ug/kg	SW846 8260B
Xylenes (total)	ND	150	ug/kg	SW846 8260B
<u>SURROGATE</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>		
Dibromofluoromethane	82	(59 - 138)		
1,2-Dichloroethane-d4	87	(61 - 130)		
Toluene-d8	99	(60 - 143)		
4-Bromofluorobenzene	91	(47 - 158)		

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

J Estimated result. Result is less than RL.

LABORATORY CONTROL SAMPLE DATA REPORT

GC/MS Volatiles

Client Lot #....: A4G160169 Work Order #....: GLJEG1AC-LCS Matrix.....: SOLID
 LCS Lot-Sample#: A4G210000-401 GLJEG1AD-LCSD
 Prep Date.....: 07/17/04 Analysis Date...: 07/20/04
 Prep Batch #....: 4203401
 Dilution Factor: 1 Final Wgt/Vol...: 5 mL
 Initial Wgt/Vol: 5 g

<u>PARAMETER</u>	<u>SPIKE AMOUNT</u>	<u>MEASURED AMOUNT</u>	<u>UNITS</u>	<u>PERCENT RECOVERY</u>	<u>RPD</u>	<u>METHOD</u>
Benzene	200	180	ug/kg	92		SW846 8260B
	200	180	ug/kg	92	0.49	SW846 8260B
Chlorobenzene	200	200	ug/kg	98		SW846 8260B
	200	190	ug/kg	97	0.68	SW846 8260B
1,1-Dichloroethene	200	190	ug/kg	96		SW846 8260B
	200	180	ug/kg	91	5.0	SW846 8260B
Toluene	200	200	ug/kg	100		SW846 8260B
	200	200	ug/kg	99	1.6	SW846 8260B
Trichloroethene	200	200	ug/kg	100		SW846 8260B
	200	190	ug/kg	97	3.7	SW846 8260B

<u>SURROGATE</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>
Dibromofluoromethane	96	(59 - 138)
	90	(59 - 138)
1,2-Dichloroethane-d4	95	(61 - 130)
	89	(61 - 130)
Toluene-d8	106	(60 - 143)
	105	(60 - 143)
4-Bromofluorobenzene	101	(47 - 158)
	98	(47 - 158)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.
 Bold print denotes control parameters

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #....: A4G160169 Work Order #....: GLJEG1AC-LCS Matrix.....: SOLID
 LCS Lot-Sample#: A4G210000-401 GLJEG1AD-LCSD
 Prep Date.....: 07/17/04 Analysis Date...: 07/20/04
 Prep Batch #....: 4203401
 Dilution Factor: 1 Final Wgt/Vol...: 5 mL
 Initial Wgt/Vol: 5 g

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
Benzene	92	(75 - 129)			SW846 8260B
	92	(75 - 129)	0.49	(0-20)	SW846 8260B
Chlorobenzene	98	(75 - 127)			SW846 8260B
	97	(75 - 127)	0.68	(0-22)	SW846 8260B
1,1-Dichloroethene	96	(55 - 142)			SW846 8260B
	91	(55 - 142)	5.0	(0-27)	SW846 8260B
Toluene	100	(71 - 130)			SW846 8260B
	99	(71 - 130)	1.6	(0-24)	SW846 8260B
Trichloroethene	100	(70 - 131)			SW846 8260B
	97	(70 - 131)	3.7	(0-23)	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	96	(59 - 138)
	90	(59 - 138)
1,2-Dichloroethane-d4	95	(61 - 130)
	89	(61 - 130)
Toluene-d8	106	(60 - 143)
	105	(60 - 143)
4-Bromofluorobenzene	101	(47 - 158)
	98	(47 - 158)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.
 Bold print denotes control parameters

LABORATORY CONTROL SAMPLE DATA REPORT

GC/MS Volatiles

Client Lot #....: A4G160169 Work Order #....: GLJFELAC-LCS Matrix.....: SOLID
 LCS Lot-Sample#: A4G210000-412 GLJFELAD-LCSD
 Prep Date.....: 07/17/04 Analysis Date...: 07/21/04
 Prep Batch #....: 4203412
 Dilution Factor: 1 Final Wgt/Vol...: 5 mL
 Initial Wgt/Vol: 5 g

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	RPD	METHOD
Benzene	200	180	ug/kg	90		SW846 8260B
	200	180	ug/kg	90	0.11	SW846 8260B
Chlorobenzene	200	190	ug/kg	94		SW846 8260B
	200	190	ug/kg	97	2.5	SW846 8260B
1,1-Dichloroethene	200	180	ug/kg	88		SW846 8260B
	200	170	ug/kg	87	0.96	SW846 8260B
Toluene	200	190	ug/kg	96		SW846 8260B
	200	200	ug/kg	98	2.3	SW846 8260B
Trichloroethene	200	200	ug/kg	98		SW846 8260B
	200	190	ug/kg	93	4.9	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	87	(59 - 138)
	85	(59 - 138)
1,2-Dichloroethane-d4	91	(61 - 130)
	89	(61 - 130)
Toluene-d8	103	(60 - 143)
	102	(60 - 143)
4-Bromofluorobenzene	97	(47 - 158)
	95	(47 - 158)

NOTE(S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.
 Bold print denotes control parameters

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #....: A4G160169 Work Order #....: GLJFE1AC-LCS Matrix.....: SOLID
 LCS Lot-Sample#: A4G210000-412 GLJFE1AD-LCSD
 Prep Date.....: 07/17/04 Analysis Date...: 07/21/04
 Prep Batch #....: 4203412
 Dilution Factor: 1 Final Wgt/Vol...: 5 mL
 Initial Wgt/Vol: 5 g

<u>PARAMETER</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>	<u>RPD</u>	<u>RPD LIMITS</u>	<u>METHOD</u>
Benzene	90	(75 - 129)			SW846 8260B
	90	(75 - 129)	0.11	(0-20)	SW846 8260B
Chlorobenzene	94	(75 - 127)			SW846 8260B
	97	(75 - 127)	2.5	(0-22)	SW846 8260B
1,1-Dichloroethene	88	(55 - 142)			SW846 8260B
	87	(55 - 142)	0.96	(0-27)	SW846 8260B
Toluene	96	(71 - 130)			SW846 8260B
	98	(71 - 130)	2.3	(0-24)	SW846 8260B
Trichloroethene	98	(70 - 131)			SW846 8260B
	93	(70 - 131)	4.9	(0-23)	SW846 8260B

<u>SURROGATE</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>
Dibromofluoromethane	87	(59 - 138)
	85	(59 - 138)
1,2-Dichloroethane-d4	91	(61 - 130)
	89	(61 - 130)
Toluene-d8	103	(60 - 143)
	102	(60 - 143)
4-Bromofluorobenzene	97	(47 - 158)
	95	(47 - 158)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE DATA REPORT

GC/MS Volatiles

Client Lot #....: A4G160169 Work Order #....: GLJF51AC-LCS Matrix.....: SOLID
 LCS Lot-Sample#: A4G210000-414 GLJF51AD-LCSD
 Prep Date.....: 07/16/04 Analysis Date...: 07/21/04
 Prep Batch #....: 4203414
 Dilution Factor: 1 Final Wgt/Vol...: 25 mL
 Initial Wgt/Vol: 25 g

<u>PARAMETER</u>	<u>SPIKE AMOUNT</u>	<u>MEASURED AMOUNT</u>	<u>UNITS</u>	<u>PERCENT RECOVERY</u>	<u>RPD</u>	<u>METHOD</u>
Benzene	200	180	ug/kg	92		SW846 8260B
	200	200	ug/kg	99	7.2	SW846 8260B
Chlorobenzene	200	190	ug/kg	97		SW846 8260B
	200	200	ug/kg	101	4.6	SW846 8260B
1,1-Dichloroethene	200	180	ug/kg	91		SW846 8260B
	200	190	ug/kg	96	5.8	SW846 8260B
Toluene	200	200	ug/kg	99		SW846 8260B
	200	210	ug/kg	103	3.7	SW846 8260B
Trichloroethene	200	180	ug/kg	92		SW846 8260B
	200	200	ug/kg	99	7.2	SW846 8260B

<u>SURROGATE</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>
Dibromofluoromethane	84	(59 - 138)
	86	(59 - 138)
1,2-Dichloroethane-d4	84	(61 - 130)
	89	(61 - 130)
Toluene-d8	95	(60 - 143)
	100	(60 - 143)
4-Bromofluorobenzene	90	(47 - 158)
	92	(47 - 158)

NOTE (S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #....: A4G160169 Work Order #....: GLJF51AC-LCS Matrix.....: SOLID
 LCS Lot-Sample#: A4G210000-414 GLJF51AD-LCSD
 Prep Date.....: 07/16/04 Analysis Date...: 07/21/04
 Prep Batch #....: 4203414
 Dilution Factor: 1 Final Wgt/Vol...: 25 mL
 Initial Wgt/Vol: 25 g

<u>PARAMETER</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>	<u>RPD</u>	<u>RPD LIMITS</u>	<u>METHOD</u>
Benzene	92	(75 - 129)			SW846 8260B
	99	(75 - 129)	7.2	(0-20)	SW846 8260B
Chlorobenzene	97	(75 - 127)			SW846 8260B
	101	(75 - 127)	4.6	(0-22)	SW846 8260B
1,1-Dichloroethene	91	(55 - 142)			SW846 8260B
	96	(55 - 142)	5.8	(0-27)	SW846 8260B
Toluene	99	(71 - 130)			SW846 8260B
	103	(71 - 130)	3.7	(0-24)	SW846 8260B
Trichloroethene	92	(70 - 131)			SW846 8260B
	99	(70 - 131)	7.2	(0-23)	SW846 8260B

<u>SURROGATE</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>
Dibromofluoromethane	84	(59 - 138)
	86	(59 - 138)
1,2-Dichloroethane-d4	84	(61 - 130)
	89	(61 - 130)
Toluene-d8	95	(60 - 143)
	100	(60 - 143)
4-Bromofluorobenzene	90	(47 - 158)
	92	(47 - 158)

NOTE (S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.
 Bold print denotes control parameters

GENERAL CHEMISTRY DATA

CONESTOGA-ROVERS & ASSOC., INC.

Client Sample ID: S-17360-071504-DCR-100

General Chemistry

Lot-Sample #....: A4G160169-001 Work Order #....: GK78C Matrix.....: SO
Date Sampled....: 07/15/04 08:00 Date Received...: 07/16/04
* Moisture.....: 4.9

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION- ANALYSIS DATE	PREP BATCH #
Percent Solids	95.1	10.0	%	NCANW 160.3 MOD	07/19-07/20/04	4201077
		Dilution Factor: 1		MDL.....: 10.0		

CONESTOGA-ROVERS & ASSOC., INC.

Client Sample ID: S-17360-071504-DCR-101

General Chemistry

Lot-Sample #...: A4G160169-002 Work Order #...: GK78G Matrix.....: SO
Date Sampled...: 07/15/04 08:05 Date Received...: 07/16/04
% Moisture.....: 2.5

<u>PARAMETER</u>	<u>RESULT</u>	<u>RL</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>PREP BATCH #</u>
Percent Solids	97.5	10.0	%	MCANW 160.3 MOD	07/19-07/20/04	4201077
		Dilution Factor: 1		MDL.....: 10.0		

CONESTOGA-ROVERS & ASSOC., INC.

Client Sample ID: S-17360-071504-DCR-102

General Chemistry

Lot-Sample #....: A4G160169-003 Work Order #....: GK78L Matrix.....: SO
Date Sampled....: 07/15/04 08:10 Date Received...: 07/16/04
% Moisture.....: 2.1

<u>PARAMETER</u>	<u>RESULT</u>	<u>RL</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>PREP BATCH #</u>
Percent Solids	97.9	10.0	%	MCANW 160.3 MOD	07/19-07/20/04	4201077
		Dilution Factor: 1		MDL.....: 10.0		

CONESTOGA-ROVERS & ASSOC., INC.

Client Sample ID: S-17360-071504-DCR-103

General Chemistry

Lot-Sample #....: A4G160169-004 Work Order #....: GK78N Matrix.....: SO
Date Sampled....: 07/15/04 08:20 Date Received...: 07/16/04
% Moisture.....: 2.5

<u>PARAMETER</u>	<u>RESULT</u>	<u>RL</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>PREP BATCH #</u>
Percent Solids	97.5	10.0	%	MCANN 160.3 MOD	07/19-07/20/04	4201077
		Dilution Factor: 1		MDL.....: 10.0		

CONESTOGA-ROVERS & ASSOC., INC.

Client Sample ID: S-17360-071504-DCR-104

General Chemistry

Lot-Sample #....: A4G160169-005 Work Order #....: GK78R Matrix.....: SO
Date Sampled....: 07/15/04 08:25 Date Received...: 07/16/04
% Moisture.....: 2.8

<u>PARAMETER</u>	<u>RESULT</u>	<u>RL</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>PREP BATCH #</u>
Percent Solids	97.2	10.0	%	MCANW 160.3 MOD	07/19-07/20/04	4201077
		Dilution Factor: 1		MDL.....: 10.0		

CONESTOGA-ROVERS & ASSOC., INC.

Client Sample ID: S-17360-071504-DCR-105

General Chemistry

Lot-Sample #....: A4G160169-006 Work Order #....: GK78W Matrix.....: SO
Date Sampled....: 07/15/04 08:30 Date Received...: 07/16/04
% Moisture.....: 2.0

<u>PARAMETER</u>	<u>RESULT</u>	<u>RL</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>PREP BATCH #</u>
Percent Solids	98.0	10.0	%	MCANN 160.3 MOD	07/19-07/20/04	4201077
		Dilution Factor: 1		MDL.....: 10.0		

CONESTOGA-ROVERS & ASSOC., INC.

Client Sample ID: S-17360-071504-DCR-106

General Chemistry

Lot-Sample #....: A4G160169-007 Work Order #....: GK78X Matrix.....: SO
Date Sampled....: 07/15/04 08:35 Date Received...: 07/16/04
% Moisture.....: 3.4

<u>PARAMETER</u>	<u>RESULT</u>	<u>RL</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>PREP BATCH #</u>
Percent Solids	96.6	10.0	%	MCANW 160.3 MOD	07/19-07/20/04	4201077
		Dilution Factor: 1		MDL.....: 10.0		

CONESTOGA-ROVERS & ASSOC., INC.

Client Sample ID: S-17360-071504-DCR-107

General Chemistry

Lot-Sample #...: A4G160169-008 Work Order #...: GK781 Matrix.....: SO
Date Sampled...: 07/15/04 08:40 Date Received...: 07/16/04
% Moisture.....: 2.3

<u>PARAMETER</u>	<u>RESULT</u>	<u>RL</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>PREP BATCH #</u>
Percent Solids	97.7	10.0	%	MCANW 160.3 MOD	07/19-07/20/04	4201077
		Dilution Factor: 1		MDL.....: 10.0		

CONESTOGA-ROVERS & ASSOC., INC.

Client Sample ID: S-17360-071504-DCR-108

General Chemistry

Lot-Sample #....: A4G160169-009 Work Order #....: GK783 Matrix.....: SO
Date Sampled....: 07/15/04 08:45 Date Received...: 07/16/04
% Moisture.....: 2.6

<u>PARAMETER</u>	<u>RESULT</u>	<u>RL</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>PREP BATCH #</u>
Percent Solids	97.4	10.0	%	MCANW 160.3 MOD	07/19-07/20/04	4201077
		Dilution Factor: 1		MDL.....: 10.0		

CONESTOGA-ROVERS & ASSOC., INC.

Client Sample ID: S-17360-071504-DCR-109

General Chemistry

Lot-Sample #....: A4G160169-010 Work Order #....: GK784 Matrix.....: SO
Date Sampled....: 07/15/04 08:55 Date Received...: 07/16/04
% Moisture.....: 3.0

<u>PARAMETER</u>	<u>RESULT</u>	<u>RL</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>PREP BATCH #</u>
Percent Solids	97.0	10.0	%	MCANW 160.3 MOD	07/19-07/20/04	4201078
		Dilution Factor: 1		MDL.....: 10.0		

CONESTOGA-ROVERS & ASSOC., INC.

Client Sample ID: S-17360-071504-DCR-110

General Chemistry

Lot-Sample #....: A4G160169-011 Work Order #....: GK786 Matrix.....: SO
Date Sampled....: 07/15/04 09:00 Date Received...: 07/16/04
% Moisture.....: 7.0

<u>PARAMETER</u>	<u>RESULT</u>	<u>RL</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>PREP BATCH #</u>
Percent Solids	93.0	10.0	%	MCANW 160.3 MOD	07/19-07/20/04	4201078
		Dilution Factor: 1		MDL.....: 10.0		

CONESTOGA-ROVERS & ASSOC., INC.

Client Sample ID: S-17360-071504-DCR-111

General Chemistry

Lot-Sample #....: A4G160169-012 Work Order #....: GK788 Matrix.....: SO
Date Sampled....: 07/15/04 10:50 Date Received...: 07/16/04
% Moisture.....: 5.7

<u>PARAMETER</u>	<u>RESULT</u>	<u>RL</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>PREP BATCH #</u>
Percent Solids	94.3	10.0	%	MCANN 160.3 MOD	07/19-07/20/04	4201078
		Dilution Factor: 1		MDL.....: 10.0		

CONESTOGA-ROVERS & ASSOC., INC.

Client Sample ID: S-17360-071504-DCR-112

General Chemistry

Lot-Sample #...: A4G160169-013 Work Order #...: GK789 Matrix.....: SO
Date Sampled...: 07/15/04 10:55 Date Received...: 07/16/04
% Moisture.....: 3.2

<u>PARAMETER</u>	<u>RESULT</u>	<u>RL</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>PREP BATCH #</u>
Percent Solids	96.8	10.0	%	MCAWW 160.3 MOD	07/19-07/20/04	4201078
		Dilution Factor: 1		MDL.....: 10.0		

CONESTOGA-ROVERS & ASSOC., INC.

Client Sample ID: S-17360-071504-DCR-113

General Chemistry

Lot-Sample #....: A4G160169-014 Work Order #....: GK79C Matrix.....: SO
Date Sampled....: 07/15/04 11:00 Date Received...: 07/16/04
% Moisture.....: 1.7

<u>PARAMETER</u>	<u>RESULT</u>	<u>RL</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>PREP BATCH #</u>
Percent Solids	98.3	10.0	%	MCANW 160.3 MOD	07/19-07/20/04	4201078
		Dilution Factor: 1		MDL.....: 10.0		

CONESTOGA-ROVERS & ASSOC., INC.

Client Sample ID: S-17360-071504-DCR-114

General Chemistry

Lot-Sample #...: A4G160169-015 Work Order #...: GK79D Matrix.....: SO
Date Sampled...: 07/15/04 11:05 Date Received...: 07/16/04
% Moisture.....: 1.9

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION- ANALYSIS DATE	PREP BATCH #
Percent Solids	98.1	10.0	%	MCANW 160.3 MOD	07/19-07/20/04	4201078
		Dilution Factor: 1		MDL.....: 10.0		

CONESTOGA-ROVERS & ASSOC., INC.

Client Sample ID: S-17360-071504-DCR-115

General Chemistry

Lot-Sample #....: A4G160169-016 Work Order #....: GK79H Matrix.....: SO
Date Sampled....: 07/15/04 11:10 Date Received...: 07/16/04
% Moisture.....: 2.9

<u>PARAMETER</u>	<u>RESULT</u>	<u>RL</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>PREP BATCH #</u>
Percent Solids	97.1	10.0	%	MCANW 160.3 MOD	07/19-07/20/04	4201078
		Dilution Factor: 1		MDL.....: 10.0		

CONESTOGA-ROVERS & ASSOC., INC.

Client Sample ID: S-17360-071504-DCR-116

General Chemistry

Lot-Sample #....: A4G160169-017 Work Order #....: GK79J Matrix.....: SO
Date Sampled....: 07/15/04 11:20 Date Received...: 07/16/04
* Moisture.....: 4.8

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION- ANALYSIS DATE	PREP BATCH #
Percent Solids	95.2	10.0	%	MCANW 160.3 MOD	07/19-07/20/04	4201078
		Dilution Factor: 1		MDL.....: 10.0		

CONESTOGA-ROVERS & ASSOC., INC.

Client Sample ID: S-17360-071504-DCR-117

General Chemistry

Lot-Sample #....: A4G160169-018 Work Order #....: GK79K Matrix.....: SO
Date Sampled....: 07/15/04 11:25 Date Received...: 07/16/04
% Moisture.....: 3.8

<u>PARAMETER</u>	<u>RESULT</u>	<u>RL</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION-</u>	<u>PREP</u>
					<u>ANALYSIS DATE</u>	<u>BATCH #</u>
Percent Solids	96.2	10.0	%	MCANW 160.3 MOD	07/19-07/20/04	4201078
			Dilution Factor: 1	MDL.....: 10.0		

CONESTOGA-ROVERS & ASSOC., INC.

Client Sample ID: S-17360-071504-DCR-118

General Chemistry

Lot-Sample #...: A4G160169-019 Work Order #...: GK79M Matrix.....: SO
Date Sampled...: 07/15/04 11:30 Date Received...: 07/16/04
* Moisture.....: 2.8

<u>PARAMETER</u>	<u>RESULT</u>	<u>RL</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>PREP BATCH #</u>
Percent Solids	97.2	10.0	%	MCANW 160.3 MOD	07/19-07/20/04	4201078
		Dilution Factor: 1		MDL.....: 10.0		

COMESTOGA-ROVERS & ASSOC., INC.

Client Sample ID: S-17360-071504-DCR-119

General Chemistry

Lot-Sample #....: A4G160169-020 Work Order #....: GK79P Matrix.....: SO
Date Sampled....: 07/15/04 11:40 Date Received...: 07/16/04
% Moisture.....: 1.5

<u>PARAMETER</u>	<u>RESULT</u>	<u>RL</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>PREP BATCH #</u>
Percent Solids	98.5	10.0	%	MCAWW 160.3 MOD	07/19-07/20/04	4201078
		Dilution Factor: 1		MDL.....: 10.0		

CONESTOGA-ROVERS & ASSOC., INC.

Client Sample ID: S-17360-071504-DCR-120

General Chemistry

Lot-Sample #...: A4G160169-021 Work Order #...: GK79T Matrix.....: SO
Date Sampled...: 07/15/04 11:50 Date Received...: 07/16/04
% Moisture.....: 2.6

<u>PARAMETER</u>	<u>RESULT</u>	<u>RL</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>PREP BATCH #</u>
Percent Solids	97.4	10.0	%	MCANW 160.3 MOD	07/19-07/20/04	4201078
		Dilution Factor: 1		MDL.....: 10.0		

CONESTOGA-ROVERS & ASSOC., INC.

Client Sample ID: S-17360-071504-DCR-121

General Chemistry

Lot-Sample #....: A4G160169-022 Work Order #....: GK79W Matrix.....: SO
Date Sampled....: 07/15/04 12:00 Date Received...: 07/16/04
% Moisture.....: 4.6

<u>PARAMETER</u>	<u>RESULT</u>	<u>RL</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>PREP BATCH #</u>
Percent Solids	95.5	10.0	%	MCANW 160.3 MOD	07/19-07/20/04	4201078
		Dilution Factor: 1		MDL.....: 10.0		

CONESTOGA-ROVERS & ASSOC., INC.

Client Sample ID: S-17360-071504-DCR-122

General Chemistry

Lot-Sample #....: A4G160169-023 Work Order #....: GK791 Matrix.....: SO
Date Sampled....: 07/15/04 12:35 Date Received...: 07/16/04
% Moisture.....: 5.4

<u>PARAMETER</u>	<u>RESULT</u>	<u>RL</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>PREP BATCH #</u>
Percent Solids	94.7	10.0	%	MCANW 160.3 MOD	07/19-07/20/04	4201078
		Dilution Factor: 1		MDL.....: 10.0		

CONESTOGA-ROVERS & ASSOC., INC.

Client Sample ID: S-17360-071504-DCR-123

General Chemistry

Lot-Sample #...: A4G160169-024 Work Order #...: GK793 Matrix.....: SO
Date Sampled...: 07/15/04 12:40 Date Received...: 07/16/04
% Moisture.....: 3.1

<u>PARAMETER</u>	<u>RESULT</u>	<u>RL</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>PREP BATCH #</u>
Percent Solids	96.9	10.0	%	MCANW 160.3 MOD	07/19-07/20/04	4201078
		Dilution Factor: 1		MDL.....: 10.0		

COMBESTOGA-ROVERS & ASSOC., INC.

Client Sample ID: S-17360-071504-DCR-124

General Chemistry

Lot-Sample #....: A4G160169-025 Work Order #....: GK795 Matrix.....: SO
Date Sampled....: 07/15/04 12:45 Date Received...: 07/16/04
% Moisture.....: 1.9

<u>PARAMETER</u>	<u>RESULT</u>	<u>RL</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>PREP BATCH #</u>
Percent Solids	98.1	10.0	%	MCANW 160.3 MOD	07/19-07/20/04	4201078
		Dilution Factor: 1		MDL.....: 10.0		

CONESTOGA-ROVERS & ASSOC., INC.

Client Sample ID: S-17360-071504-DCR-125

General Chemistry

Lot-Sample #...: A4G160169-026 Work Order #...: GK798 Matrix.....: SO
Date Sampled...: 07/15/04 12:50 Date Received...: 07/16/04
% Moisture.....: 1.9

<u>PARAMETER</u>	<u>RESULT</u>	<u>RL</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>PREP BATCH #</u>
Percent Solids	98.1	10.0	%	MCANW 160.3 MOD	07/19-07/20/04	4201078
		Dilution Factor: 1		MDL.....: 10.0		

CONESTOGA-ROVERS & ASSOC., INC.

Client Sample ID: S-17360-071504-DCR-126

General Chemistry

Lot-Sample #....: A4G160169-027 Work Order #....: GK8AD Matrix.....: SO
Date Sampled....: 07/15/04 13:30 Date Received...: 07/16/04
% Moisture.....: 2.3

<u>PARAMETER</u>	<u>RESULT</u>	<u>RL</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION-</u> <u>ANALYSIS DATE</u>	<u>PREP</u> <u>BATCH #</u>
Percent Solids	97.7	10.0	%	MCANW 160.3 MOD	07/19-07/20/04	4201078
		Dilution Factor: 1		MDL.....: 10.0		

CONESTOGA-ROVERS & ASSOC., INC.

Client Sample ID: S-17360-071504-DCR-127

General Chemistry

Lot-Sample #....: A4G160169-028 Work Order #....: GK8AE Matrix.....: SO
Date Sampled....: 07/15/04 13:35 Date Received...: 07/16/04
% Moisture.....: 4.2

<u>PARAMETER</u>	<u>RESULT</u>	<u>RL</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>PREP BATCH #</u>
Percent Solids	95.8	10.0	%	MCANW 160.3 MOD	07/19-07/20/04	4201078
		Dilution Factor: 1		MDL.....: 10.0		

CONESTOGA-ROVERS & ASSOC., INC.

Client Sample ID: S-17360-071504-DCR-128

General Chemistry

Lot-Sample #....: A4G160169-029 Work Order #....: GK8AF Matrix.....: SO
Date Sampled....: 07/15/04 13:40 Date Received...: 07/16/04
* Moisture.....: 2.5

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION- ANALYSIS DATE	PREP BATCH #
Percent Solids	97.5	10.0	%	MCANW 160.3 MOD	07/19-07/20/04	4201078
			Dilution Factor: 1	MDL.....: 10.0		

CONESTOGA-ROVERS & ASSOC., INC.

Client Sample ID: S-17360-071504-DCR-129

General Chemistry

Lot-Sample #....: A4G160169-030 Work Order #....: GK8AG Matrix.....: SO
Date Sampled....: 07/15/04 13:45 Date Received...: 07/16/04
% Moisture.....: 3.4

<u>PARAMETER</u>	<u>RESULT</u>	<u>RL</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>PREP BATCH #</u>
Percent Solids	96.7	10.0	%	MCANW 160.3 MOD	07/19-07/20/04	4201274
		Dilution Factor: 1		MDL.....: 10.0		

CONESTOGA-ROVERS & ASSOC., INC.

Client Sample ID: S-17360-071504-DCR-130

General Chemistry

Lot-Sample #....: A4G160169-031 Work Order #....: GK8AH Matrix.....: SO
Date Sampled....: 07/15/04 13:50 Date Received...: 07/16/04
% Moisture.....: 2.4

<u>PARAMETER</u>	<u>RESULT</u>	<u>RL</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>PREP BATCH #</u>
Percent Solids	97.6	10.0	%	MCAW 160.3 MOD	07/19-07/20/04	4201274
		Dilution Factor: 1		MDL.....: 10.0		

CONESTOGA-ROVERS & ASSOC., INC.

Client Sample ID: S-17360-071504-DCR-131

General Chemistry

Lot-Sample #...: A4G160169-032 Work Order #...: GK8AJ Matrix.....: SO
Date Sampled...: 07/15/04 14:00 Date Received...: 07/16/04
% Moisture.....: 2.0

<u>PARAMETER</u>	<u>RESULT</u>	<u>RL</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>PREP BATCH #</u>
Percent Solids	98.0	10.0	%	MCANW 160.3 MOD	07/19-07/20/04	4201274
		Dilution Factor: 1		MDL.....: 10.0		

CONESTOGA-ROVERS & ASSOC., INC.

Client Sample ID: S-17360-071504-DCR-132

General Chemistry

Lot-Sample #....: A4G160169-033 Work Order #....: GK8AK Matrix.....: SO
Date Sampled....: 07/15/04 14:10 Date Received...: 07/16/04
% Moisture.....: 13

<u>PARAMETER</u>	<u>RESULT</u>	<u>RL</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>PREP BATCH #</u>
Percent Solids	87.1	10.0	%	MCAWW 160.3 MOD	07/19-07/20/04	4201274
		Dilution Factor: 1		MDL.....: 10.0		

METHOD BLANK REPORT

General Chemistry

Client Lot #....: A4G160169

Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION- ANALYSIS DATE	PREP BATCH #
Percent Solids	ND	Work Order #: GLCVG1AA 10.0	%	MB Lot-Sample #: A4G190000-077 MCAWW 160.3 MOD	07/19-07/20/04	4201077
Dilution Factor: 1						
Percent Solids	ND	Work Order #: GLCVJ1AA 10.0	%	MB Lot-Sample #: A4G190000-078 MCAWW 160.3 MOD	07/19-07/20/04	4201078
Dilution Factor: 1						
Percent Solids	ND	Work Order #: GLDA31AA 10.0	%	MB Lot-Sample #: A4G190000-274 MCAWW 160.3 MOD	07/19-07/20/04	4201274
Dilution Factor: 1						

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

SAMPLE DUPLICATE EVALUATION REPORT

General Chemistry

Client Lot #....: A4G160169

Work Order #....: GK76W-SMP
GK76W-DUP

Matrix.....: SOLID

Date Sampled....: 07/15/04 12:05 Date Received...: 07/16/04

% Moisture.....: 5.4

PARAM	RESULT	DUPLICATE RESULT	UNITS	RPD	RPD LIMIT	METHOD	PREPARATION- ANALYSIS DATE	PREP BATCH #
Percent Solids	94.6	94.7	%	0.12	(0-20)	SD Lot-Sample #: A4G160162-016 MCAWW 160.3 MOD	07/19-07/20/04	4201077

Dilution Factor: 1

SAMPLE DUPLICATE EVALUATION REPORT

General Chemistry

Client Lot #....: A4G160169

Work Order #....: GK77E-SMP
GK77E-DUP

Matrix.....: SOLID

Date Sampled....: 07/15/04 14:45 Date Received...: 07/16/04

% Moisture.....: 21

PARAM	RESULT	DUPLICATE RESULT	UNITS	RPD	RPD LIMIT	METHOD	PREPARATION- ANALYSIS DATE	PREP BATCH #
Percent Solids	79.2	82.3	%	3.9	(0-20)	SD Lot-Sample #: A4G160162-024 MCAWW 160.3 MOD	07/19-07/20/04	4201077

Dilution Factor: 1

SAMPLE DUPLICATE EVALUATION REPORT

General Chemistry

Client Lot #....: A4G160169

Work Order #....: GK784-SMP

Matrix.....: SO

Date Sampled....: 07/15/04 08:55

GK784-DUP
Date Received...: 07/16/04

% Moisture.....: 3.0

PARAM	RESULT	DUPLICATE RESULT	UNITS	RPD	RPD LIMIT	METHOD	PREPARATION- ANALYSIS DATE	PREP BATCH #
Percent Solids	97.0	97.3	%	0.29	(0-20)	SD Lot-Sample #: A4G160169-010 MCAWW 160.3 MOD	07/19-07/20/04	4201078

Dilution Factor: 1

SAMPLE DUPLICATE EVALUATION REPORT

General Chemistry

Client Lot #....: A4G160169

Work Order #....: GK8AF-SMP
GK8AF-DUP

Matrix.....: SO

Date Sampled....: 07/15/04 13:40 Date Received...: 07/16/04

% Moisture.....: 2.5

PARAM RESULT	DUPLICATE RESULT	UNITS	RPD	RPD LIMIT	METHOD	PREPARATION- ANALYSIS DATE	PREP BATCH #
Percent Solids	97.5	%	0.37	(0-20)	SD Lot-Sample #: A4G160169-029 MCAWW 160.3 MOD	07/19-07/20/04	4201078

Dilution Factor: 1

SAMPLE DUPLICATE EVALUATION REPORT

General Chemistry

Client Lot #....: A4G160169

Work Order #....: GK6CC-SMP

Matrix.....: SOLID

Date Sampled....: 07/07/04

GK6CC-DUP

Date Received...: 07/15/04

% Moisture.....: 18

PARAM	RESULT	DUPLICATE RESULT	UNITS	RPD	RPD LIMIT	METHOD	PREPARATION- ANALYSIS DATE	PREP BATCH #
Percent Solids	81.8	81.0	%	0.99	(0-20)	SD Lot-Sample #: A4G150264-001	07/19-07/20/04	4201274
Dilution Factor: 1								

SAMPLE DUPLICATE EVALUATION REPORT

General Chemistry

Client Lot #....: A4G160169 Work Order #....: GK8AG-SMP Matrix.....: SO
 Date Sampled....: 07/15/04 13:45 Date Received...: 07/16/04
 % Moisture.....: 3.4

PARAM	RESULT	DUPLICATE RESULT	UNITS	RPD	RPD LIMIT	METHOD	PREPARATION- ANALYSIS DATE	PREP BATCH
Percent Solids	96.7	97.1	%	0.42	(0-20)	SD Lot-Sample #: A4G160169-030 MCAWW 160.3 MOD	07/19-07/20/04	420127

Dilution Factor: 1

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ANALYTICAL REPORT

PROJECT NO. 17360-10

GM-GRAND RAPIDS SSOW# E030008

Lot #: A5L060207

Paul Wiseman (PM)

Conestoga Rovers & Assoc., Inc
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SEVERN TRENT LABORATORIES, INC.

Denise D. Heckler
Project Manager

December 21, 2005

CASE NARRATIVE

A5L060207

The following report contains the analytical results for forty-two solid samples and one quality control sample submitted to STL North Canton by Conestoga-Rovers & Associates, Inc. from the GM-Grand Rapids SSOW# E030008 Site, project number 17360-10. The samples were received December 06, 2005, according to documented sample acceptance procedures.

STL utilizes USEPA approved methods in all analytical work. The samples presented in this report were analyzed for the parameter(s) listed on the analytical methods summary page in accordance with the method(s) indicated. A summary of QC data for these analyses is included at the back of the report.

STL North Canton attests to the validity of the laboratory data generated by STL facilities reported herein. All analyses performed by STL facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the applicable methods. STL's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

All solid sample results are reported on an "as received" basis unless otherwise indicated by a dry weight adjustment footnote at the bottom of the analytical report page. The list of parameters which are never reported on a dry weight basis is included on the Sample Summary.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

If you have any questions, please call the Project Manager, Denise D. Heckler, at 734-205-2535.

This report is sequentially paginated. The final page of the report is labeled as "END OF REPORT." The total number of pages in this report is 179.

SUPPLEMENTAL QC INFORMATION

SAMPLE RECEIVING

The temperatures of the coolers upon sample receipt were 1.2, 2.4, and 2.6°C.

CASE NARRATIVE (continued)

GC/MS VOLATILES

The sample(s) that contained concentrations of target analyte(s) at a reportable level in the associated Method Blank(s) were flagged with "B". All target analytes in the Method Blank must be below the reporting limit (RL) or the associated sample(s) must be ND with the exception of common laboratory contaminants.

The sample(s) that contain results between the MDL and the RL were flagged with "J". There is a possibility of false positive or mis-identification at these quantitation levels. In analytical methods requiring confirmation of the analyte reported, confirmation was performed only down to the standard reporting limit (SRL). The acceptance criteria for QC samples may not be met at these quantitation levels.

The client requested matrix spike/matrix spike duplicate for sample(s) SO-17360-120305-DCR-545 was not analyzed due to the spike being diluted out.

GENERAL CHEMISTRY

The analytical results met the requirements of the laboratory's QA/QC program.

QUALITY CONTROL ELEMENTS OF SW-846 METHODS

STL North Canton conducts a quality assurance/quality control (QA/QC) program designed to provide scientifically valid and legally defensible data. Toward this end, several types of quality control indicators are incorporated into the QA/QC program, which is described in detail in QA Policy, QA-003. These indicators are introduced into the sample testing process to provide a mechanism for the assessment of the analytical data.

QC BATCH

Environmental samples are taken through the testing process in groups called QUALITY CONTROL BATCHES (QC batches). A QC batch contains up to twenty environmental samples of a similar matrix (water, soil) that are processed using the same reagents and standards. STL North Canton requires that each environmental sample be associated with a QC batch.

Several quality control samples are included in each QC batch and are processed identically to the twenty environmental samples. These QC samples include a METHOD BLANK (MB), a LABORATORY CONTROL SAMPLE (LCS) and, where appropriate, a MATRIX SPIKE/MATRIX SPIKE DUPLICATE (MS/MSD) pair or a MATRIX SPIKE/SAMPLE DUPLICATE (MS/DU) pair. If there is insufficient sample to perform an MS/MSD or an MS/DU, then a LABORATORY CONTROL SAMPLE DUPLICATE (LCSD) is included in the QC batch.

LABORATORY CONTROL SAMPLE

The Laboratory Control Sample is a QC sample that is created by adding known concentrations of a full or partial set of target analytes to a matrix similar to that of the environmental samples in the QC batch. The LCS analyte recovery results are used to monitor the analytical process and provide evidence that the laboratory is performing the method within acceptable guidelines. All control analytes indicated by a bold type in the LCS must meet acceptance criteria. Failure to meet the established recovery guidelines requires the reparation and reanalysis of all samples in the QC batch. The only exception is that if the LCS recoveries are biased high and the associated sample is ND (non-detected) for the parameter(s) of interest, the batch is acceptable.

At times, a Laboratory Control Sample Duplicate (LCSD) is also included in the QC batch. An LCSD is a QC sample that is created and handled identically to the LCS. Analyte recovery data from the LCSD is assessed in the same way as that of the LCS. The LCSD recoveries, together with the LCS recoveries, are used to determine the reproducibility (precision) of the analytical system. Precision data are expressed as relative percent differences (RPDs). If the RPD fails for an LCS/LCSD and yet the recoveries are within acceptance criteria, the batch is still acceptable.

METHOD BLANK

The Method Blank is a QC sample consisting of all the reagents used in analyzing the environmental samples contained in the QC batch. Method Blank results are used to determine if interference or contamination in the analytical system could lead to the reporting of false positive data or elevated analyte concentrations. All target analytes must be below the reporting limits (RL) or the associated sample(s) must be ND except under the following circumstances:

- Common organic contaminants may be present at concentrations up to 5 times the reporting limits. Common metals contaminants may be present at concentrations up to 2 times the reporting limit, or the reported blank concentration must be twenty fold less than the concentration reported in the associated environmental samples. (See common laboratory contaminants listed below.)

<u>Volatile (GC or GC/MS)</u>	<u>Semivolatile (GC/MS)</u>	<u>Metals</u>
Methylene chloride	Phthalate Esters	Copper
Acetone		Iron
2-Butanone		Zinc
		Lead*

- *for analyses run on TJA Trace ICP, ICPMS or GFAA only*

QUALITY CONTROL ELEMENTS OF SW-846 METHODS (Continued)

- Organic blanks will be accepted if compounds detected in the blank are present in the associated samples at levels 10 times the blank level. Inorganic blanks will be accepted if elements detected in the blank are present in the associated samples at 20 times the blank level.
- Blanks will be accepted if the compounds/elements detected are not present in any of the associated environmental samples.

Failure to meet these Method Blank criteria requires the reparation and reanalysis of all samples in the QC batch.

MATRIX SPIKE/MATRIX SPIKE DUPLICATE

A Matrix Spike and a Matrix Spike Duplicate are a pair of environmental samples to which known concentrations of a full or partial set of target analytes are added. The MS/MSD results are determined in the same manner as the results of the environmental sample used to prepare the MS/MSD. The analyte recoveries and the relative percent differences (RPDs) of the recoveries are calculated and used to evaluate the effect of the sample matrix on the analytical results. Due to the potential variability of the matrix of each sample, the MS/MSD results may not have an immediate bearing on any samples except the one spiked; therefore, the associated batch MS/MSD may not reflect the same compounds as the samples contained in the analytical report. When these MS/MSD results fail to meet acceptance criteria, the data is evaluated. If the LCS is within acceptance criteria, the batch is considered acceptable. The acceptance criteria do not apply to samples that are diluted for organics if the native sample amount is 4x the concentration of the spike.

For certain methods, a Matrix Spike/Sample Duplicate (MS/DU) may be included in the QC batch in place of the MS/MSD. For the parameters (i.e. pH, ignitability) where it is not possible to prepare a spiked sample, a Sample Duplicate may be included in the QC batch. However, a Sample Duplicate is less likely to provide usable precision statistics depending on the likelihood of finding concentrations below the standard reporting limit. When the Sample Duplicate result fails to meet acceptance criteria, the data is evaluated.

SURROGATE COMPOUNDS

In addition to these batch-related QC indicators, each organic environmental and QC sample is spiked with surrogate compounds. Surrogates are organic chemicals that behave similarly to the analytes of interest and that are rarely present in the environment. Surrogate recoveries are used to monitor the individual performance of a sample in the analytical system.

If surrogate recoveries are biased high in the LCS, LCSD, or the Method Blank, and the associated sample(s) are ND, the batch is acceptable. Otherwise, if the LCS, LCSD, or Method Blank surrogate(s) fail to meet recovery criteria, the entire sample batch is reprep and reanalyzed. If the surrogate recoveries are outside criteria for environmental samples, the samples will be reprep and reanalyzed unless there is objective evidence of matrix interference or if the sample dilution is greater than the threshold outlined in the associated method SOP.

For the GC/MS BNA methods, the surrogate criterion is that two of the three surrogates for each fraction must meet acceptance criteria. The third surrogate must have a recovery of ten percent or greater.

For the Pesticide, PCB, and PAH methods, the surrogate criterion is that one of two surrogate compounds must meet acceptance criteria.

STL North Canton Certifications and Approvals:

California (#01144CA), Connecticut (#PH-0590), Florida (#E87225),
Illinois (#200004), Kansas (#E10336), Massachusetts (#M-OH048), Maryland (#272), Minnesota (#39-999-348), New Jersey (#OH001), New York (#10975), North Carolina (#39702), Ohio (#6090), OhioVAP (#CL0024), Rhode Island (#237), South Carolina (#92007001, #92007002, #92007003), Tennessee (#02903), Utah (#QUAN9), Virginia (#00011), West Virginia (#210), Wisconsin (#999518190), NAVY, ARMY, USDA Soil Permit, ACIL Seal of Excellence – Participating Lab Status Award (#82)



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EXECUTIVE SUMMARY - Detection Highlights

A5L060207

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
SO-17360-120305-DCR-508 12/03/05 09:10 001				
Acetone	110 J,B	650	ug/kg	SW846 8260B
Trichloroethene	1200	43	ug/kg	SW846 8260B
Percent Solids	96.5	10.0	%	MCAWW 160.3 MOD
SO-17360-120305-DCR-509 12/03/05 09:12 002				
Trichloroethene	740	55	ug/kg	SW846 8260B
Percent Solids	96.3	10.0	%	MCAWW 160.3 MOD
SO-17360-120305-DCR-510 12/03/05 09:15 003				
Acetone	150 J,B	630	ug/kg	SW846 8260B
Trichloroethene	74	42	ug/kg	SW846 8260B
Percent Solids	97.8	10.0	%	MCAWW 160.3 MOD
SO-17360-120305-DCR-511 12/03/05 09:17 004				
Acetone	120 J,B	720	ug/kg	SW846 8260B
Trichloroethene	25 J	48	ug/kg	SW846 8260B
Percent Solids	98.7	10.0	%	MCAWW 160.3 MOD
SO-17360-120305-DCR-512 12/03/05 09:20 005				
Acetone	140 J,B	630	ug/kg	SW846 8260B
Methyl acetate	80 J	1000	ug/kg	SW846 8260B
Trichloroethene	160	42	ug/kg	SW846 8260B
Percent Solids	98.7	10.0	%	MCAWW 160.3 MOD
SO-17360-120305-DCR-513 12/03/05 09:22 006				
Acetone	120 J,B	650	ug/kg	SW846 8260B
Percent Solids	97.6	10.0	%	MCAWW 160.3 MOD
SO-17360-120305-DCR-514 12/03/05 09:25 007				
Acetone	110 J,B	670	ug/kg	SW846 8260B
Trichloroethene	16 J	45	ug/kg	SW846 8260B
Percent Solids	98.0	10.0	%	MCAWW 160.3 MOD

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EXECUTIVE SUMMARY - Detection Highlights

A5L060207

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
SO-17360-120305-DCR-515 12/03/05 09:27 008				
Acetone	170 J,B	680	ug/kg	SW846 8260B
Trichloroethene	20 J	46	ug/kg	SW846 8260B
Percent Solids	96.6	10.0	%	MCAWW 160.3 MOD
SO-17360-120305-DCR-516 12/03/05 09:30 009				
Acetone	160 J,B	710	ug/kg	SW846 8260B
Trichloroethene	31 J	47	ug/kg	SW846 8260B
Percent Solids	92.5	10.0	%	MCAWW 160.3 MOD
SO-17360-120305-DCR-517 12/03/05 09:32 010				
Trichloroethene	17 J	38	ug/kg	SW846 8260B
Percent Solids	98.0	10.0	%	MCAWW 160.3 MOD
SO-17360-120305-DCR-518 12/03/05 09:35 011				
Acetone	110 J,B	660	ug/kg	SW846 8260B
Trichloroethene	20 J	44	ug/kg	SW846 8260B
Percent Solids	97.1	10.0	%	MCAWW 160.3 MOD
SO-17360-120305-DCR-519 12/03/05 09:55 012				
Acetone	110 J,B	650	ug/kg	SW846 8260B
Percent Solids	96.8	10.0	%	MCAWW 160.3 MOD
SO-17360-120305-DCR-520 12/03/05 09:57 013				
Acetone	120 J,B	640	ug/kg	SW846 8260B
Trichloroethene	39 J	42	ug/kg	SW846 8260B
Percent Solids	94.3	10.0	%	MCAWW 160.3 MOD
SO-17360-120305-DCR-521 12/03/05 09:59 014				
Acetone	100 J,B	630	ug/kg	SW846 8260B
Percent Solids	97.5	10.0	%	MCAWW 160.3 MOD
SO-17360-120305-DCR-522 12/03/05 10:00 015				
Acetone	180 J,B	660	ug/kg	SW846 8260B
Percent Solids	97.8	10.0	%	MCAWW 160.3 MOD

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EXECUTIVE SUMMARY - Detection Highlights

A5L060207

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
SO-17360-120305-DCR-523 12/03/05 10:02 016				
Acetone	100 J,B	600	ug/kg	SW846 8260B
Percent Solids	96.0	10.0	%	MCAWW 160.3 MOD
SO-17360-120305-DCR-524 12/03/05 10:05 017				
Acetone	120 J,B	700	ug/kg	SW846 8260B
Methyl acetate	1600	1100	ug/kg	SW846 8260B
Trichloroethene	99	46	ug/kg	SW846 8260B
Percent Solids	95.5	10.0	%	MCAWW 160.3 MOD
SO-17360-120305-DCR-525 12/03/05 10:07 018				
Acetone	130 J,B	680	ug/kg	SW846 8260B
Percent Solids	95.9	10.0	%	MCAWW 160.3 MOD
SO-17360-120305-DCR-526 12/03/05 10:10 019				
Percent Solids	97.3	10.0	%	MCAWW 160.3 MOD
SO-17360-120305-DCR-527 12/03/05 10:12 020				
Acetone	130 J,B	580	ug/kg	SW846 8260B
Percent Solids	96.4	10.0	%	MCAWW 160.3 MOD
SO-17360-120305-DCR-528 12/03/05 10:15 021				
Percent Solids	97.8	10.0	%	MCAWW 160.3 MOD
SO-17360-120305-DCR-529 12/03/05 10:25 022				
Trichloroethene	38 J	43	ug/kg	SW846 8260B
Percent Solids	96.9	10.0	%	MCAWW 160.3 MOD
SO-17360-120305-DCR-530 12/03/05 10:27 023				
Percent Solids	97.6	10.0	%	MCAWW 160.3 MOD
SO-17360-120305-DCR-531 12/03/05 10:30 024				
Percent Solids	96.9	10.0	%	MCAWW 160.3 MOD

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EXECUTIVE SUMMARY - Detection Highlights

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PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
SO-17360-120305-DCR-532 12/03/05 10:35 025				
Percent Solids	96.5	10.0	%	MCAWW 160.3 MOD
SO-17360-120305-DCR-533 12/03/05 10:37 026				
Percent Solids	90.7	10.0	%	MCAWW 160.3 MOD
SO-17360-120305-DCR-534 12/03/05 10:40 027				
Percent Solids	94.8	10.0	%	MCAWW 160.3 MOD
SO-17360-120305-DCR-535 12/03/05 10:42 028				
Percent Solids	92.8	10.0	%	MCAWW 160.3 MOD
SO-17360-120305-DCR-536 12/03/05 10:45 029				
Percent Solids	91.5	10.0	%	MCAWW 160.3 MOD
SO-17360-120305-DCR-537 12/03/05 10:47 030				
Methyl acetate	74 J	1000	ug/kg	SW846 8260B
Percent Solids	98.1	10.0	%	MCAWW 160.3 MOD
SO-17360-120305-DCR-538 12/03/05 10:50 031				
Percent Solids	98.0	10.0	%	MCAWW 160.3 MOD
SO-17360-120305-DCR-539 12/03/05 10:52 032				
Percent Solids	98.0	10.0	%	MCAWW 160.3 MOD
SO-17360-120305-DCR-540 12/03/05 11:00 033				
Trichloroethene	2100	44	ug/kg	SW846 8260B
Percent Solids	97.3	10.0	%	MCAWW 160.3 MOD
SO-17360-120305-DCR-541 12/03/05 11:02 034				
Trichloroethene	40 J	42	ug/kg	SW846 8260B
Percent Solids	97.8	10.0	%	MCAWW 160.3 MOD

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EXECUTIVE SUMMARY - Detection Highlights

A5L060207

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
SO-17360-120305-DCR-542 12/03/05 11:05 035				
Trichloroethene	14 J	44	ug/kg	SW846 8260B
Percent Solids	98.9	10.0	%	MCAWW 160.3 MOD
SO-17360-120305-DCR-543 12/03/05 11:10 036				
Trichloroethene	26 J	42	ug/kg	SW846 8260B
Percent Solids	98.2	10.0	%	MCAWW 160.3 MOD
SO-17360-120305-DCR-544 12/03/05 11:12 037				
Percent Solids	98.6	10.0	%	MCAWW 160.3 MOD
SO-17360-120305-DCR-545 12/03/05 11:15 038				
Methyl acetate	800 J	3300	ug/kg	SW846 8260B
Methylcyclohexane	35 J	3300	ug/kg	SW846 8260B
Trichloroethene	12000	140	ug/kg	SW846 8260B
Percent Solids	98.2	10.0	%	MCAWW 160.3 MOD
SO-17360-120305-DCR-546 12/03/05 11:20 039				
Trichloroethene	80	46	ug/kg	SW846 8260B
Percent Solids	96.2	10.0	%	MCAWW 160.3 MOD
SO-17360-120305-DCR-547 12/03/05 11:25 040				
Trichloroethene	59	42	ug/kg	SW846 8260B
Percent Solids	98.1	10.0	%	MCAWW 160.3 MOD
SO-17360-120305-DCR-548 12/03/05 11:27 041				
Trichloroethene	59	44	ug/kg	SW846 8260B
Percent Solids	98.6	10.0	%	MCAWW 160.3 MOD
SO-17360-120305-DCR-549 12/03/05 11:30 042				
Trichloroethene	17 J	44	ug/kg	SW846 8260B
Percent Solids	98.6	10.0	%	MCAWW 160.3 MOD

ANALYTICAL METHODS SUMMARY

A5L060207

<u>PARAMETER</u>	<u>ANALYTICAL METHOD</u>
Total Residue as Percent Solids	MCAWW 160.3 MOD
Volatile Organics by GC/MS	SW846 8260B

References:

- MCAWW "Methods for Chemical Analysis of Water and Wastes",
EPA-600/4-79-020, March 1983 and subsequent revisions.
- SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical
Methods", Third Edition, November 1986 and its updates.

SAMPLE SUMMARY

A5L060207

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
HRGN2	001	SO-17360-120305-DCR-508	12/03/05	09:10
HRGRD	002	SO-17360-120305-DCR-509	12/03/05	09:12
HRGRG	003	SO-17360-120305-DCR-510	12/03/05	09:15
HRGRJ	004	SO-17360-120305-DCR-511	12/03/05	09:17
HRGRL	005	SO-17360-120305-DCR-512	12/03/05	09:20
HRGRM	006	SO-17360-120305-DCR-513	12/03/05	09:22
HRGRP	007	SO-17360-120305-DCR-514	12/03/05	09:25
HRGRT	008	SO-17360-120305-DCR-515	12/03/05	09:27
HRGRW	009	SO-17360-120305-DCR-516	12/03/05	09:30
HRGRX	010	SO-17360-120305-DCR-517	12/03/05	09:32
HRGR7	011	SO-17360-120305-DCR-518	12/03/05	09:35
HRGTD	012	SO-17360-120305-DCR-519	12/03/05	09:55
HRGTG	013	SO-17360-120305-DCR-520	12/03/05	09:57
HRGTP	014	SO-17360-120305-DCR-521	12/03/05	09:59
HRGTT	015	SO-17360-120305-DCR-522	12/03/05	10:00
HRGTW	016	SO-17360-120305-DCR-523	12/03/05	10:02
HRGT1	017	SO-17360-120305-DCR-524	12/03/05	10:05
HRGT3	018	SO-17360-120305-DCR-525	12/03/05	10:07
HRGT7	019	SO-17360-120305-DCR-526	12/03/05	10:10
HRGT8	020	SO-17360-120305-DCR-527	12/03/05	10:12
HRGVA	021	SO-17360-120305-DCR-528	12/03/05	10:15
HRGVE	022	SO-17360-120305-DCR-529	12/03/05	10:25
HRGVJ	023	SO-17360-120305-DCR-530	12/03/05	10:27
HRGVL	024	SO-17360-120305-DCR-531	12/03/05	10:30
HRGVQ	025	SO-17360-120305-DCR-532	12/03/05	10:35
HRGVV	026	SO-17360-120305-DCR-533	12/03/05	10:37
HRGVX	027	SO-17360-120305-DCR-534	12/03/05	10:40
HRGV0	028	SO-17360-120305-DCR-535	12/03/05	10:42
HRGV3	029	SO-17360-120305-DCR-536	12/03/05	10:45
HRGWC	030	SO-17360-120305-DCR-537	12/03/05	10:47
HRGWF	031	SO-17360-120305-DCR-538	12/03/05	10:50
HRGWK	032	SO-17360-120305-DCR-539	12/03/05	10:52
HRGWP	033	SO-17360-120305-DCR-540	12/03/05	11:00
HRGWQ	034	SO-17360-120305-DCR-541	12/03/05	11:02
HRGWR	035	SO-17360-120305-DCR-542	12/03/05	11:05
HRGWW	036	SO-17360-120305-DCR-543	12/03/05	11:10

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SAMPLE SUMMARY

A5L060207

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
HRGW0	037	SO-17360-120305-DCR-544	12/03/05	11:12
HRGW2	038	SO-17360-120305-DCR-545	12/03/05	11:15
HRGW3	039	SO-17360-120305-DCR-546	12/03/05	11:20
HRGW6	040	SO-17360-120305-DCR-547	12/03/05	11:25
HRGW7	041	SO-17360-120305-DCR-548	12/03/05	11:27
HRGW8	042	SO-17360-120305-DCR-549	12/03/05	11:30
HRGXF	043	SO-17360-120305-DCR-550	12/03/05	11:35

NOTE (S) :

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

Conestoga-Rovers & Associates, Inc.

Client Sample ID: SO-17360-120305-DCR-508

GC/MS Volatiles

Lot-Sample #....: A5L060207-001 Work Order #....: HRGN21AC Matrix.....: SO
 Date Sampled....: 12/03/05 09:10 Date Received...: 12/06/05
 Prep Date.....: 12/07/05 Analysis Date...: 12/12/05
 Prep Batch #....: 5346611
 Dilution Factor: 1.04
 % Moisture.....: 3.5 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acetone	110 J,B	650	ug/kg	110
Benzene	ND	43	ug/kg	6.9
Bromodichloromethane	ND	86	ug/kg	13
Bromoform	ND	86	ug/kg	14
Bromomethane	ND	220	ug/kg	27
2-Butanone	ND	650	ug/kg	53
Carbon disulfide	ND	220	ug/kg	22
Carbon tetrachloride	ND	43	ug/kg	13
Chlorobenzene	ND	43	ug/kg	6.8
Chloroethane	ND	220	ug/kg	70
Chloroform	ND	43	ug/kg	13
Chloromethane	ND	220	ug/kg	5.6
Cyclohexane	ND	1000	ug/kg	8.3
Dibromochloromethane	ND	43	ug/kg	7.4
1,2-Dibromo-3-chloro- propane	ND	220	ug/kg	65
1,2-Dibromoethane	ND	220	ug/kg	11
1,2-Dichlorobenzene	ND	86	ug/kg	18
1,3-Dichlorobenzene	ND	86	ug/kg	7.8
1,4-Dichlorobenzene	ND	86	ug/kg	8.5
Dichlorodifluoromethane	ND	86	ug/kg	5.8
1,1-Dichloroethane	ND	43	ug/kg	7.9
1,2-Dichloroethane	ND	43	ug/kg	10
1,1-Dichloroethene	ND	43	ug/kg	8.9
cis-1,2-Dichloroethene	ND	43	ug/kg	15
trans-1,2-Dichloroethene	ND	43	ug/kg	12
1,2-Dichloropropane	ND	43	ug/kg	8.0
cis-1,3-Dichloropropene	ND	43	ug/kg	5.9
trans-1,3-Dichloropropene	ND	43	ug/kg	5.8
Ethylbenzene	ND	43	ug/kg	7.3
2-Hexanone	ND	2200	ug/kg	26
Isopropylbenzene	ND	220	ug/kg	5.5
Methyl acetate	ND	1000	ug/kg	56
Methylene chloride	ND	220	ug/kg	110
Methylcyclohexane	ND	1000	ug/kg	6.1
4-Methyl-2-pentanone	ND	2200	ug/kg	12
Methyl tert-butyl ether	ND	220	ug/kg	11
Styrene	ND	43	ug/kg	30

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Conestoga-Rovers & Associates, Inc.

Client Sample ID: SO-17360-120305-DCR-508

GC/MS Volatiles

Lot-Sample #....: A5L060207-001 Work Order #....: HRGN21AC Matrix.....: SO

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
1,1,2,2-Tetrachloroethane	ND	86	ug/kg	8.8
Tetrachloroethene	ND	43	ug/kg	9.7
Toluene	ND	86	ug/kg	9.8
1,2,4-Trichloro- benzene	ND	220	ug/kg	13
1,1,1-Trichloroethane	ND	43	ug/kg	10
1,1,2-Trichloroethane	ND	43	ug/kg	11
Trichloroethene	1200	43	ug/kg	13
Trichlorofluoromethane	ND	86	ug/kg	8.9
1,1,2-Trichloro- 1,2,2-trifluoroethane	ND	220	ug/kg	11
Vinyl chloride	ND	86	ug/kg	17
Xylenes (total)	ND	130	ug/kg	16

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	78	(59 - 138)
1,2-Dichloroethane-d4	81	(61 - 130)
Toluene-d8	90	(60 - 143)
4-Bromofluorobenzene	88	(47 - 158)

NOTE (S) :

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than RL.

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

Conestoga-Rovers & Associates, Inc.

Client Sample ID: SO-17360-120305-DCR-509

GC/MS Volatiles

Lot-Sample #....: A5L060207-002 Work Order #....: HRGRD1AC Matrix.....: SO
 Date Sampled....: 12/03/05 09:12 Date Received...: 12/06/05
 Prep Date.....: 12/07/05 Analysis Date...: 12/12/05
 Prep Batch #....: 5346611
 Dilution Factor: 1.33
 % Moisture.....: 3.7 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acetone	ND	830	ug/kg	140
Benzene	ND	55	ug/kg	8.8
Bromodichloromethane	ND	110	ug/kg	17
Bromoform	ND	110	ug/kg	18
Bromomethane	ND	280	ug/kg	35
2-Butanone	ND	830	ug/kg	68
Carbon disulfide	ND	280	ug/kg	28
Carbon tetrachloride	ND	55	ug/kg	17
Chlorobenzene	ND	55	ug/kg	8.7
Chloroethane	ND	280	ug/kg	90
Chloroform	ND	55	ug/kg	17
Chloromethane	ND	280	ug/kg	7.2
Cyclohexane	ND	1300	ug/kg	11
Dibromochloromethane	ND	55	ug/kg	9.5
1,2-Dibromo-3-chloro- propane	ND	280	ug/kg	83
1,2-Dibromoethane	ND	280	ug/kg	14
1,2-Dichlorobenzene	ND	110	ug/kg	23
1,3-Dichlorobenzene	ND	110	ug/kg	9.9
1,4-Dichlorobenzene	ND	110	ug/kg	11
Dichlorodifluoromethane	ND	110	ug/kg	7.5
1,1-Dichloroethane	ND	55	ug/kg	10
1,2-Dichloroethane	ND	55	ug/kg	13
1,1-Dichloroethene	ND	55	ug/kg	11
cis-1,2-Dichloroethene	ND	55	ug/kg	19
trans-1,2-Dichloroethene	ND	55	ug/kg	15
1,2-Dichloropropane	ND	55	ug/kg	10
cis-1,3-Dichloropropene	ND	55	ug/kg	7.6
trans-1,3-Dichloropropene	ND	55	ug/kg	7.5
Ethylbenzene	ND	55	ug/kg	9.4
2-Hexanone	ND	2800	ug/kg	33
Isopropylbenzene	ND	280	ug/kg	7.0
Methyl acetate	ND	1300	ug/kg	72
Methylene chloride	ND	280	ug/kg	140
Methylcyclohexane	ND	1300	ug/kg	7.9
4-Methyl-2-pentanone	ND	2800	ug/kg	15
Methyl tert-butyl ether	ND	280	ug/kg	14
Styrene	ND	55	ug/kg	39

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Conestoga-Rovers & Associates, Inc.

Client Sample ID: SO-17360-120305-DCR-509

GC/MS Volatiles

Lot-Sample #....: A5L060207-002 Work Order #....: HRGRD1AC Matrix.....: SO

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
1,1,2,2-Tetrachloroethane	ND	110	ug/kg	11
Tetrachloroethene	ND	55	ug/kg	12
Toluene	ND	110	ug/kg	13
1,2,4-Trichloro- benzene	ND	280	ug/kg	17
1,1,1-Trichloroethane	ND	55	ug/kg	13
1,1,2-Trichloroethane	ND	55	ug/kg	14
Trichloroethene	740	55	ug/kg	17
Trichlorofluoromethane	ND	110	ug/kg	11
1,1,2-Trichloro- 1,2,2-trifluoroethane	ND	280	ug/kg	14
Vinyl chloride	ND	110	ug/kg	22
Xylenes (total)	ND	170	ug/kg	21

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	74	(59 - 138)
1,2-Dichloroethane-d4	79	(61 - 130)
Toluene-d8	87	(60 - 143)
4-Bromofluorobenzene	79	(47 - 158)

NOTE (S) :

Results and reporting limits have been adjusted for dry weight.

Conestoga-Rovers & Associates, Inc.

Client Sample ID: SO-17360-120305-DCR-510

GC/MS Volatiles

Lot-Sample #....: A5L060207-003 Work Order #....: HRGRG1AC Matrix.....: SO
 Date Sampled....: 12/03/05 09:15 Date Received...: 12/06/05
 Prep Date.....: 12/07/05 Analysis Date...: 12/12/05
 Prep Batch #....: 5346611
 Dilution Factor: 1.02
 % Moisture.....: 2.2 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acetone	150 J,B	630	ug/kg	100
Benzene	ND	42	ug/kg	6.7
Bromodichloromethane	ND	83	ug/kg	13
Bromoform	ND	83	ug/kg	14
Bromomethane	ND	210	ug/kg	26
2-Butanone	ND	630	ug/kg	51
Carbon disulfide	ND	210	ug/kg	21
Carbon tetrachloride	ND	42	ug/kg	13
Chlorobenzene	ND	42	ug/kg	6.6
Chloroethane	ND	210	ug/kg	68
Chloroform	ND	42	ug/kg	13
Chloromethane	ND	210	ug/kg	5.4
Cyclohexane	ND	1000	ug/kg	8.0
Dibromochloromethane	ND	42	ug/kg	7.2
1,2-Dibromo-3-chloro- propane	ND	210	ug/kg	63
1,2-Dibromoethane	ND	210	ug/kg	10
1,2-Dichlorobenzene	ND	83	ug/kg	18
1,3-Dichlorobenzene	ND	83	ug/kg	7.5
1,4-Dichlorobenzene	ND	83	ug/kg	8.2
Dichlorodifluoromethane	ND	83	ug/kg	5.6
1,1-Dichloroethane	ND	42	ug/kg	7.6
1,2-Dichloroethane	ND	42	ug/kg	9.7
1,1-Dichloroethene	ND	42	ug/kg	8.7
cis-1,2-Dichloroethene	ND	42	ug/kg	15
trans-1,2-Dichloroethene	ND	42	ug/kg	11
1,2-Dichloropropane	ND	42	ug/kg	7.7
cis-1,3-Dichloropropene	ND	42	ug/kg	5.7
trans-1,3-Dichloropropene	ND	42	ug/kg	5.6
Ethylbenzene	ND	42	ug/kg	7.1
2-Hexanone	ND	2100	ug/kg	25
Isopropylbenzene	ND	210	ug/kg	5.3
Methyl acetate	ND	1000	ug/kg	54
Methylene chloride	ND	210	ug/kg	100
Methylcyclohexane	ND	1000	ug/kg	5.9
4-Methyl-2-pentanone	ND	2100	ug/kg	11
Methyl tert-butyl ether	ND	210	ug/kg	10
Styrene	ND	42	ug/kg	29

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Conestoga-Rovers & Associates, Inc.

Client Sample ID: SO-17360-120305-DCR-510

GC/MS Volatiles

Lot-Sample #....: A5L060207-003 Work Order #....: HRGRG1AC Matrix.....: SO

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
1,1,2,2-Tetrachloroethane	ND	83	ug/kg	8.6
Tetrachloroethene	ND	42	ug/kg	9.4
Toluene	ND	83	ug/kg	9.5
1,2,4-Trichloro- benzene	ND	210	ug/kg	13
1,1,1-Trichloroethane	ND	42	ug/kg	9.9
1,1,2-Trichloroethane	ND	42	ug/kg	10
Trichloroethene	74	42	ug/kg	13
Trichlorofluoromethane	ND	83	ug/kg	8.7
1,1,2-Trichloro- 1,2,2-trifluoroethane	ND	210	ug/kg	10
Vinyl chloride	ND	83	ug/kg	17
Xylenes (total)	ND	130	ug/kg	16

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	72	(59 - 138)
1,2-Dichloroethane-d4	76	(61 - 130)
Toluene-d8	83	(60 - 143)
4-Bromofluorobenzene	75	(47 - 158)

NOTE (S) :

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than RL.

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

Conestoga-Rovers & Associates, Inc.

Client Sample ID: SO-17360-120305-DCR-511

GC/MS Volatiles

Lot-Sample #....: A5L060207-004 Work Order #....: HRGRJ1AC Matrix.....: SO
 Date Sampled....: 12/03/05 09:17 Date Received...: 12/06/05
 Prep Date.....: 12/07/05 Analysis Date...: 12/12/05
 Prep Batch #....: 5346611
 Dilution Factor: 1.18
 % Moisture.....: 1.3 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acetone	120 J,B	720	ug/kg	120
Benzene	ND	48	ug/kg	7.6
Bromodichloromethane	ND	96	ug/kg	14
Bromoform	ND	96	ug/kg	16
Bromomethane	ND	240	ug/kg	30
2-Butanone	ND	720	ug/kg	59
Carbon disulfide	ND	240	ug/kg	24
Carbon tetrachloride	ND	48	ug/kg	14
Chlorobenzene	ND	48	ug/kg	7.5
Chloroethane	ND	240	ug/kg	78
Chloroform	ND	48	ug/kg	14
Chloromethane	ND	240	ug/kg	6.2
Cyclohexane	ND	1100	ug/kg	9.2
Dibromochloromethane	ND	48	ug/kg	8.2
1,2-Dibromo-3-chloro- propane	ND	240	ug/kg	72
1,2-Dibromoethane	ND	240	ug/kg	12
1,2-Dichlorobenzene	ND	96	ug/kg	20
1,3-Dichlorobenzene	ND	96	ug/kg	8.6
1,4-Dichlorobenzene	ND	96	ug/kg	9.4
Dichlorodifluoromethane	ND	96	ug/kg	6.5
1,1-Dichloroethane	ND	48	ug/kg	8.7
1,2-Dichloroethane	ND	48	ug/kg	11
1,1-Dichloroethene	ND	48	ug/kg	9.9
cis-1,2-Dichloroethene	ND	48	ug/kg	17
trans-1,2-Dichloroethene	ND	48	ug/kg	13
1,2-Dichloropropane	ND	48	ug/kg	8.8
cis-1,3-Dichloropropene	ND	48	ug/kg	6.6
trans-1,3-Dichloropropene	ND	48	ug/kg	6.5
Ethylbenzene	ND	48	ug/kg	8.1
2-Hexanone	ND	2400	ug/kg	29
Isopropylbenzene	ND	240	ug/kg	6.1
Methyl acetate	ND	1100	ug/kg	62
Methylene chloride	ND	240	ug/kg	120
Methylcyclohexane	ND	1100	ug/kg	6.8
4-Methyl-2-pentanone	ND	2400	ug/kg	13
Methyl tert-butyl ether	ND	240	ug/kg	12
Styrene	ND	48	ug/kg	33

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Conestoga-Rovers & Associates, Inc.

Client Sample ID: SO-17360-120305-DCR-511

GC/MS Volatiles

Lot-Sample #....: A5L060207-004 Work Order #....: HRGRJ1AC Matrix.....: SO

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
1,1,2,2-Tetrachloroethane	ND	96	ug/kg	9.8
Tetrachloroethene	ND	48	ug/kg	11
Toluene	ND	96	ug/kg	11
1,2,4-Trichloro- benzene	ND	240	ug/kg	14
1,1,1-Trichloroethane	ND	48	ug/kg	11
1,1,2-Trichloroethane	ND	48	ug/kg	12
Trichloroethene	25 J	48	ug/kg	14
Trichlorofluoromethane	ND	96	ug/kg	9.9
1,1,2-Trichloro- 1,2,2-trifluoroethane	ND	240	ug/kg	12
Vinyl chloride	ND	96	ug/kg	19
Xylenes (total)	ND	140	ug/kg	18

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	74	(59 - 138)
1,2-Dichloroethane-d4	78	(61 - 130)
Toluene-d8	85	(60 - 143)
4-Bromofluorobenzene	79	(47 - 158)

NOTE (S) :

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than RL.

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

Conestoga-Rovers & Associates, Inc.

Client Sample ID: SO-17360-120305-DCR-512

GC/MS Volatiles

Lot-Sample #....: A5L060207-005 Work Order #....: HRGRL1AC Matrix.....: SO
 Date Sampled....: 12/03/05 09:20 Date Received...: 12/06/05
 Prep Date.....: 12/07/05 Analysis Date...: 12/12/05
 Prep Batch #....: 5346611
 Dilution Factor: 1.04
 % Moisture.....: 1.3 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acetone	140 J,B	630	ug/kg	100
Benzene	ND	42	ug/kg	6.7
Bromodichloromethane	ND	84	ug/kg	13
Bromoform	ND	84	ug/kg	14
Bromomethane	ND	210	ug/kg	26
2-Butanone	ND	630	ug/kg	52
Carbon disulfide	ND	210	ug/kg	21
Carbon tetrachloride	ND	42	ug/kg	13
Chlorobenzene	ND	42	ug/kg	6.6
Chloroethane	ND	210	ug/kg	68
Chloroform	ND	42	ug/kg	13
Chloromethane	ND	210	ug/kg	5.5
Cyclohexane	ND	1000	ug/kg	8.1
Dibromochloromethane	ND	42	ug/kg	7.3
1,2-Dibromo-3-chloro- propane	ND	210	ug/kg	63
1,2-Dibromoethane	ND	210	ug/kg	10
1,2-Dichlorobenzene	ND	84	ug/kg	18
1,3-Dichlorobenzene	ND	84	ug/kg	7.6
1,4-Dichlorobenzene	ND	84	ug/kg	8.3
Dichlorodifluoromethane	ND	84	ug/kg	5.7
1,1-Dichloroethane	ND	42	ug/kg	7.7
1,2-Dichloroethane	ND	42	ug/kg	9.8
1,1-Dichloroethene	ND	42	ug/kg	8.7
cis-1,2-Dichloroethene	ND	42	ug/kg	15
trans-1,2-Dichloroethene	ND	42	ug/kg	12
1,2-Dichloropropane	ND	42	ug/kg	7.8
cis-1,3-Dichloropropene	ND	42	ug/kg	5.8
trans-1,3-Dichloropropene	ND	42	ug/kg	5.7
Ethylbenzene	ND	42	ug/kg	7.2
2-Hexanone	ND	2100	ug/kg	25
Isopropylbenzene	ND	210	ug/kg	5.4
Methyl acetate	80 J	1000	ug/kg	55
Methylene chloride	ND	210	ug/kg	100
Methylcyclohexane	ND	1000	ug/kg	6.0
4-Methyl-2-pentanone	ND	2100	ug/kg	12
Methyl tert-butyl ether	ND	210	ug/kg	11
Styrene	ND	42	ug/kg	30

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Conestoga-Rovers & Associates, Inc.

Client Sample ID: SO-17360-120305-DCR-512

GC/MS Volatiles

Lot-Sample #....: A5L060207-005 Work Order #....: HRGRL1AC Matrix.....: SO

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
1,1,2,2-Tetrachloroethane	ND	84	ug/kg	8.6
Tetrachloroethene	ND	42	ug/kg	9.5
Toluene	ND	84	ug/kg	9.6
1,2,4-Trichloro- benzene	ND	210	ug/kg	13
1,1,1-Trichloroethane	ND	42	ug/kg	10
1,1,2-Trichloroethane	ND	42	ug/kg	10
Trichloroethene	160	42	ug/kg	13
Trichlorofluoromethane	ND	84	ug/kg	8.7
1,1,2-Trichloro- 1,2,2-trifluoroethane	ND	210	ug/kg	11
Vinyl chloride	ND	84	ug/kg	17
Xylenes (total)	ND	130	ug/kg	16

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	76	(59 - 138)
1,2-Dichloroethane-d4	80	(61 - 130)
Toluene-d8	87	(60 - 143)
4-Bromofluorobenzene	80	(47 - 158)

NOTE (S) :

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than RL.

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

Conestoga-Rovers & Associates, Inc.

Client Sample ID: SO-17360-120305-DCR-513

GC/MS Volatiles

Lot-Sample #....: A5L060207-006 Work Order #....: HRGRM1AC Matrix.....: SO
 Date Sampled....: 12/03/05 09:22 Date Received...: 12/06/05
 Prep Date.....: 12/07/05 Analysis Date...: 12/12/05
 Prep Batch #....: 5346611
 Dilution Factor: 1.06
 % Moisture.....: 2.4 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acetone	120 J,B	650	ug/kg	110
Benzene	ND	43	ug/kg	7.0
Bromodichloromethane	ND	87	ug/kg	13
Bromoform	ND	87	ug/kg	14
Bromomethane	ND	220	ug/kg	27
2-Butanone	ND	650	ug/kg	53
Carbon disulfide	ND	220	ug/kg	22
Carbon tetrachloride	ND	43	ug/kg	13
Chlorobenzene	ND	43	ug/kg	6.8
Chloroethane	ND	220	ug/kg	71
Chloroform	ND	43	ug/kg	13
Chloromethane	ND	220	ug/kg	5.7
Cyclohexane	ND	1000	ug/kg	8.4
Dibromochloromethane	ND	43	ug/kg	7.5
1,2-Dibromo-3-chloro- propane	ND	220	ug/kg	65
1,2-Dibromoethane	ND	220	ug/kg	11
1,2-Dichlorobenzene	ND	87	ug/kg	18
1,3-Dichlorobenzene	ND	87	ug/kg	7.8
1,4-Dichlorobenzene	ND	87	ug/kg	8.6
Dichlorodifluoromethane	ND	87	ug/kg	5.9
1,1-Dichloroethane	ND	43	ug/kg	7.9
1,2-Dichloroethane	ND	43	ug/kg	10
1,1-Dichloroethene	ND	43	ug/kg	9.0
cis-1,2-Dichloroethene	ND	43	ug/kg	15
trans-1,2-Dichloroethene	ND	43	ug/kg	12
1,2-Dichloropropane	ND	43	ug/kg	8.0
cis-1,3-Dichloropropene	ND	43	ug/kg	6.0
trans-1,3-Dichloropropene	ND	43	ug/kg	5.9
Ethylbenzene	ND	43	ug/kg	7.4
2-Hexanone	ND	2200	ug/kg	26
Isopropylbenzene	ND	220	ug/kg	5.5
Methyl acetate	ND	1000	ug/kg	57
Methylene chloride	ND	220	ug/kg	110
Methylcyclohexane	ND	1000	ug/kg	6.2
4-Methyl-2-pentanone	ND	2200	ug/kg	12
Methyl tert-butyl ether	ND	220	ug/kg	11
Styrene	ND	43	ug/kg	30

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Conestoga-Rovers & Associates, Inc.

Client Sample ID: SO-17360-120305-DCR-513

GC/MS Volatiles

Lot-Sample #....: A5L060207-006 Work Order #....: HRGRM1AC Matrix.....: SO

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
1,1,2,2-Tetrachloroethane	ND	87	ug/kg	8.9
Tetrachloroethene	ND	43	ug/kg	9.8
Toluene	ND	87	ug/kg	9.9
1,2,4-Trichloro- benzene	ND	220	ug/kg	13
1,1,1-Trichloroethane	ND	43	ug/kg	10
1,1,2-Trichloroethane	ND	43	ug/kg	11
Trichloroethene	ND	43	ug/kg	13
Trichlorofluoromethane	ND	87	ug/kg	9.0
1,1,2-Trichloro- 1,2,2-trifluoroethane	ND	220	ug/kg	11
Vinyl chloride	ND	87	ug/kg	17
Xylenes (total)	ND	130	ug/kg	16
SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS		
Dibromofluoromethane	71	(59 - 138)		
1,2-Dichloroethane-d4	77	(61 - 130)		
Toluene-d8	83	(60 - 143)		
4-Bromofluorobenzene	78	(47 - 158)		

NOTE (S) :

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than RL.

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.