

**GEOTECHNOLOGY, INC.**  
 ENGINEERING AND ENVIRONMENTAL SERVICES  
 SAINT LOUIS • KANSAS CITY • INDIANAPOLIS

97904

May 7, 1996

Mr. Thomas Pollihan  
 Kellwood Company  
 600 Kellwood Parkway  
 Chesterfield, Missouri 63017

Site: New Haven PWS  
 ID #: MD 981720246  
 Break: 1.3  
 Other: Geotechnology, Inc.  
5-7-96

1632.06.4127.07

**R E C E I V E D**

MAY 10 1996

Reference: Quarterly Groundwater Sampling - Second Quarter, 1996  
 Kellwood-Metalcraft Enterprises Site  
 New Haven, Missouri

HAZARDOUS WASTE PROGRAM  
 MISSOURI DEPARTMENT OF  
 NATURAL RESOURCES

Dear Mr. Pollihan:

Please find enclosed analytical data for the water samples collected for the referenced project. This sampling is required as part of the MDNR-Kellwood Agreement dated April 14, 1994 and was completed in accordance with our Proposal P4761.00.4120 dated July 25, 1994.

Monitoring Wells MW-101, -102, and -103, were purged and sampled on April 11, 1996 in accordance with standard industry practices. A water sample was also obtained from the City of New Haven Well #3. The interceptor trench did not contain adequate water for sampling. The water samples were submitted to GTEL Environmental Laboratories, Inc. for analyses of volatile organics by EPA Method 8240. None of the parameters were detected in the samples, except for methylene chloride in the sample from MW-101. Methylene chloride was also detected in the laboratory blank sample and is a common laboratory contaminant. The data from this quarter and the previous quarter are summarized in Table 1. Presented in the Appendix is the analytical laboratory report which includes the method blank results and other QA/QC data.

We trust that this is the information you require. Should you have any questions or comments, please contact me at 997-7440.

Very truly yours,  
 GEOTECHNOLOGY, INC.

*Douglas W. Lambert*

Douglas W. Lambert, R.P.G.  
 Associate

KJH/DWL/RBP:kjh/tlp

Enclosure: Table 1 - Summary of Analytical Data  
 Appendix - Analytical Laboratory Report



S00089065  
 SUPERFUND RECORDS

cc: Mr. Mike Struckoff; MDNR  
 Ms. Barbara Behrens; Gallop, Johnson & Neuman, Attorneys at Law  
 Ms. Karen Northrup; MDNR

REPORTE\1632062Q.96

**TABLE 1**  
**QUARTERLY WATER SAMPLING SUMMARY**  
**KELLWOOD METALCRAFT ENTERPRISES SITE**  
**APRIL 11, 1996**

	Volatile Organic Analyses <sup>1</sup> (µg/l)	
	01/16/96	04/11/96
MW-101	ND <sup>2</sup>	Methylene Chloride 5.2 (B) <sup>3</sup>
MW-102	ND	ND
MW-103	ND	ND
City Well	ND	ND
Trench	Tetrachloroethane 4.200 Trichloroethene 6.4 cis-1,2-Dichloroethene 15	Not sampled <sup>4</sup>

- <sup>1</sup> U.S. EPA Method 8240.  
<sup>2</sup> Not Detected.  
<sup>3</sup> (B) Parameter identified in laboratory blank.  
<sup>4</sup> Interceptor trench did not contain adequate water.

**APPENDIX**

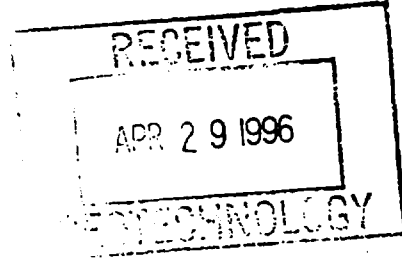
**ANALYTICAL LABORATORY REPORT**

# NEI/GTEL

ENVIRONMENTAL  
LABORATORIES, INC.

**Midwest Region**

4211 May Avenue  
Wichita, KS 67209  
(316) 945-2624  
(800) 633-7936  
(316) 945-0506 (FAX)



April 25, 1996

Doug Lambert  
GEOTECHNOLOGY INC.  
2258 Grissom Dr.  
St. Louis, MO 63146

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RE: GTEL Client ID:	GTN01GTN01
Login Number:	W6040277
Project ID (number):	1632.06.4127.06
Project ID (name):	KELLWOOD-METALCRAFT ENTERPRISE/ST LOUIS/MO

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Dear Doug Lambert:

Enclosed please find the analytical results for the samples received by GTEL Environmental Laboratories, Inc. on 04/12/96.

A formal Quality Assurance/Quality Control (QA/QC) program is maintained by GTEL, which is designed to meet or exceed the EPA requirements. Analytical work for this project met QA/QC criteria unless otherwise stated in the footnotes. This report is to be reproduced only in full.

NEI/GTEL is certified by the State of Kansas under Certification Numbers E-103, E-1113.

If you have any questions regarding this analysis, or if we can be of further assistance, please call our Customer Service Representative.

Sincerely,  
GTEL Environmental Laboratories, Inc.

Terry R. Loucks  
Laboratory Director

ANALYTICAL RESULTS  
Volatile Organics

GTEL Client ID: GTN01GTN01  
 L. Number: W6040277  
 Project ID (number): 1632.06.4127.06  
 Project ID (name): KELLWOOD-METALCRAFT ENTERPRISE/ST LOUIS/MO

Method: EPA 8240  
 Matrix: Aqueous

GTEL Sample Number	W6040277-01	W6040277-02	W6040277-03	W6040277-04
Client ID	MW-101	MW-102	MW-103	CITY WELL
Date Sampled	04/11/96	04/11/96	04/11/96	04/11/96
Date Analyzed	04/19/96	04/19/96	04/19/96	04/19/96
Dilution Factor	1.00	1.00	1.00	1.00

Analyte	Reporting		Concentration:			
	Limit	Units				
Chloromethane	10.	ug/L	< 10.	< 10.	< 10.	< 10.
Bromomethane	10.	ug/L	< 10.	< 10.	< 10.	< 10.
Vinyl chloride	10.	ug/L	< 10.	< 10.	< 10.	< 10.
Chloroethane	10.	ug/L	< 10.	< 10.	< 10.	< 10.
Methylene chloride	5.0	ug/L	5.2	< 5.0	< 5.0	< 5.0
Acetone	20.	ug/L	< 20.	< 20.	< 20.	< 20.
Carbon disulfide	5.0	ug/L	< 5.0	< 5.0	< 5.0	< 5.0
1,1-Dichloroethene	5.0	ug/L	< 5.0	< 5.0	< 5.0	< 5.0
1,1-Dichloroethane	5.0	ug/L	< 5.0	< 5.0	< 5.0	< 5.0
cis-1,2-Dichloroethene	5.0	ug/L	< 5.0	< 5.0	< 5.0	< 5.0
trans-1,2-Dichloroethene	5.0	ug/L	< 5.0	< 5.0	< 5.0	< 5.0
Chloroform	5.0	ug/L	< 5.0	< 5.0	< 5.0	< 5.0
1,2-Dichloroethane	5.0	ug/L	< 5.0	< 5.0	< 5.0	< 5.0
2-Pentanone	20.	ug/L	< 20.	< 20.	< 20.	< 20.
1,1,1-Trichloroethane	5.0	ug/L	< 5.0	< 5.0	< 5.0	< 5.0
Carbon tetrachloride	5.0	ug/L	< 5.0	< 5.0	< 5.0	< 5.0
Vinyl acetate	20.	ug/L	< 20.	< 20.	< 20.	< 20.
Bromodichloromethane	5.0	ug/L	< 5.0	< 5.0	< 5.0	< 5.0
1,2-Dichloropropane	5.0	ug/L	< 5.0	< 5.0	< 5.0	< 5.0
cis-1,3-Dichloropropene	5.0	ug/L	< 5.0	< 5.0	< 5.0	< 5.0
Trichloroethene	5.0	ug/L	< 5.0	< 5.0	< 5.0	< 5.0
Dibromochloromethane	5.0	ug/L	< 5.0	< 5.0	< 5.0	< 5.0
1,1,2-Trichloroethane	5.0	ug/L	< 5.0	< 5.0	< 5.0	< 5.0
Benzene	5.0	ug/L	< 5.0	< 5.0	< 5.0	< 5.0
2-Chloroethylvinyl ether	10.	ug/L	< 10.	< 10.	< 10.	< 10.
trans-1,3-Dichloropropene	5.0	ug/L	< 5.0	< 5.0	< 5.0	< 5.0
Bromoform	5.0	ug/L	< 5.0	< 5.0	< 5.0	< 5.0
4-Methyl-2-pentanone	20.	ug/L	< 20.	< 20.	< 20.	< 20.
2-Hexanone	20.	ug/L	< 20.	< 20.	< 20.	< 20.
Tetrachloroethene	5.0	ug/L	< 5.0	< 5.0	< 5.0	< 5.0
1,1,2,2-Tetrachloroethane	5.0	ug/L	< 5.0	< 5.0	< 5.0	< 5.0
Toluene	5.0	ug/L	< 5.0	< 5.0	< 5.0	< 5.0
Chlorobenzene	5.0	ug/L	< 5.0	< 5.0	< 5.0	< 5.0
Ethylbenzene	5.0	ug/L	< 5.0	< 5.0	< 5.0	< 5.0
Styrene	5.0	ug/L	< 5.0	< 5.0	< 5.0	< 5.0
Xylenes (total)	5.0	ug/L	< 5.0	< 5.0	< 5.0	< 5.0
1,2-Dichlorobenzene	10.	ug/L	< 10.	< 10.	< 10.	< 10.
1,3-Dichlorobenzene	10.	ug/L	< 10.	< 10.	< 10.	< 10.
1,4-Dichlorobenzene	10.	ug/L	< 10.	< 10.	< 10.	< 10.

Wichita, KS

W6040277

ANALYTICAL RESULTS  
Volatile Organics

GTEL Client ID: GTN01GTN01  
Lumber Number: W6040277  
Project ID (number): 1632.06.4127.06  
Project ID (name): KELLWOOD-METALCRAFT ENTERPRISE/ST LOUIS/MO

Method: EPA 8240  
Matrix: Aqueous

GTEL Sample Number	W6040277-01	W6040277-02	W6040277-03	W6040277-04
Client ID	MW-101	MW-102	MW-103	CITY WELL
Date Sampled	04/11/96	04/11/96	04/11/96	04/11/96
Date Analyzed	04/19/96	04/19/96	04/19/96	04/19/96
Dilution Factor	1.00	1.00	1.00	1.00

Analyte	Reporting Limit	Units	Concentration:
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Notes:

Dilution Factor:

Dilution factor indicates the adjustments made for sample dilution.

EPA 8240:

"Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition including Update 1.

W6040277-01:

Methylene chloride is a common laboratory contaminant.

GTEL Client ID: GTN01GTN01  
Login Number: W6040277  
Pro ID (number): 1632.06.4127.06  
Project ID (name): KELLWOOD-METALCRAFT ENTERPRISE/ST LOUIS/MO

QUALITY CONTROL RESULTS

Volatile Organics  
Method: EPA 8240  
Matrix: Aqueous

Conformance/Non-Conformance Summary

(X = Requirements Met \* = See Comments -- = Not Required NA = Not Applicable)

Conformance Item	Volatile Organics	Semi-Volatile Organics	Inorganics (MT, WC)
GC/MS Tune	--	--	NA
Initial Calibration	--	--	--
Continuing Calibration	--	--	--
Surrogate Recovery	X	--	NA
Holding Time	X	--	--
Method Accuracy	X	--	--
Method Precision	--	--	--
Blank Contamination	*	--	--

Comments:

GTEL Client ID: GTN01GTN01  
 Login Number: W6040277  
 Proj ID (number): 1632.06.4127.06  
 Project ID (name): KELLWOOD-METALCRAFT ENTERPRISE/ST LOUIS/MO

QUALITY CONTROL RESULTS

Volatile Organics  
 Method: EPA 8240  
 Matrix: Aqueous

Surrogate Results

QC Batch No.	Reference	Sample ID	DCA-D4	TOL-D8	4-BFB
Method: EPA 8240 Acceptability Limits:			76-114%	88-110%	86-115%
041996JK-1	BW041996AFN1	Method Blank Water	96.4	98.0	105.
041996JK-2	LW041996AFN1	Laboratory Control	97.4	102.	102.
041996JK-3	LW041996AFN1	LCS Water Duplicat	102.	102.	96.1
041996JK-4	BW042296AFN1	Method Blank Water	102.	97.2	104.
041996JK-7	BW042396AFN1	Method Blank Water	95.5	100.	107.
--	04027701	MW-101	98.6	99.5	98.5
--	04027702	MW-102	99.4	100.	99.7
--	04027703	MW-103	99.0	99.5	98.2
--	04027704	CITY WELL	95.1	99.3	97.6

Notes:  
 \*: Indicates values outside of acceptability limits. See Nonconformance Summary.



GTEL Client ID: GTN01GTN01  
 Login Number: W6040277  
 Project ID (number): 1632.06.4127.06  
 Project ID (name): KELLWOOD-METALCRAFT ENTERPRISE/ST LOUIS/MO

QUALITY CONTROL RESULTS

Volatile Organics  
 Method: EPA 8240  
 Matrix: Aqueous

Method Blank Results

Analyte	QC Batch No:	041996JK-1	041996JK-4	041996JK-7
	Date Analyzed:	19-APR-96	22-APR-96	23-APR-96
	Method: EPA 8240	Concentration: ug/L		
Chloromethane	< 10.0	< 10.0	< 10.0	< 10.0
Bromomethane	< 10.0	< 10.0	< 10.0	< 10.0
Vinyl chloride	< 10.0	< 10.0	< 10.0	< 10.0
Chloroethane	< 10.0	< 10.0	< 10.0	< 10.0
Ethylene chloride	4.22*	< 5.00	< 5.00	< 5.00
Acetone	< 20.0	< 20.0	< 20.0	< 20.0
Carbon disulfide	< 5.00	< 5.00	< 5.00	< 5.00
1,1-Dichloroethene	< 5.00	< 5.00	< 5.00	< 5.00
1,1-Dichloroethane	< 5.00	< 5.00	< 5.00	< 5.00
cis-1,2-Dichloroethene	< 5.00	< 5.00	< 5.00	< 5.00
trans-1,2-Dichloroethene	< 5.00	< 5.00	< 5.00	< 5.00
Chloroform	< 5.00	< 5.00	< 5.00	< 5.00
1,2-Dichloroethane	< 5.00	< 5.00	< 5.00	< 5.00
2-Butanone	< 20.0	< 20.0	< 20.0	< 20.0
1,1,1-Trichloroethane	< 5.00	< 5.00	< 5.00	< 5.00
Carbon tetrachloride	< 5.00	< 5.00	< 5.00	< 5.00
Vinyl acetate	< 20.0	< 20.0	< 20.0	< 20.0
Bromochloromethane	< 5.00	< 5.00	< 5.00	< 5.00
1,2-Dibromopropane	< 5.00	< 5.00	< 5.00	< 5.00
cis-1,3-Dichloropropene	< 5.00	< 5.00	< 5.00	< 5.00
Trichloroethene	< 5.00	< 5.00	< 5.00	< 5.00
Dibromochloromethane	< 5.00	< 5.00	< 5.00	< 5.00
1,1,2-Trichloroethane	< 5.00	< 5.00	< 5.00	< 5.00
Benzene	< 5.00	< 5.00	< 5.00	< 5.00
2-Chloroethyl vinyl ether	< 10.0	< 10.0	< 10.0	< 10.0
trans-1,3-Dichloropropene	< 5.00	< 5.00	< 5.00	< 5.00
Bromoform	< 5.00	< 5.00	< 5.00	< 5.00
4-Methyl-2-pentanone	< 20.0	< 20.0	< 20.0	< 20.0
2-Hexanone	< 20.0	< 20.0	< 20.0	< 20.0
Tetrachloroethene	< 5.00	< 5.00	< 5.00	< 5.00
1,1,2,2-Tetrachloroethane	< 5.00	< 5.00	< 5.00	< 5.00
Toluene	< 5.00	< 5.00	< 5.00	< 5.00
Chlorobenzene	< 5.00	< 5.00	< 5.00	< 5.00
Ethylbenzene	< 5.00	< 5.00	< 5.00	< 5.00
Styrene	< 5.00	< 5.00	< 5.00	< 5.00
Xylenes (Total)	< 5.00	< 5.00	< 5.00	< 5.00
1,2-Dichlorobenzene	< 10.0	< 10.0	< 10.0	< 10.0
1,3-Dichlorobenzene	< 10.0	< 10.0	< 10.0	< 10.0
1,4-Dichlorobenzene	< 10.0	< 10.0	< 10.0	< 10.0

Notes:

GTEL Client ID: GTN01GTN01  
 Login Number: W6040277  
 Project ID (number): 1632.06.4127.06  
 Project ID (name): KELLWOOD-METALCRAFT ENTERPRISE/ST LOUIS/MO

QUALITY CONTROL RESULTS

Volatile Organics  
 Method: EPA 8240  
 Matrix: Aqueous

Laboratory Control Sample (LCS) and Laboratory Control Duplicate Results

Analyte	Spike Amount	LCS Concentration	LCS Recovery, %	LCS Duplicate Concentration	LCS Duplicate Recovery, %	RPD, %	Acceptability Limits	
							RPD, %	Recovery, %
EPA 8240		Units: ug/L		QC Batch: 041996JK-3				
1,1-Dichloroethene	50.0	56.8	114	54.8	110	3.57	14	61-145%
Trichloroethene	50.0	48.6	97.2	47.9	95.8	1.45	14	71-120%
Benzene	50.0	40.0	80.0	40.8	81.6	1.98	11	76-127%
Toluene	50.0	43.0	86.0	43.4	86.8	0.926	13	76-125%
Chlorobenzene	50.0	49.6	99.2	48.9	97.8	1.42	13	75-130%

Notes:

