

GROUND-WATER QUALITY UPDATE

**FORMER CEDARBURG LIGHT AND
WATER COMMISSION POWER PLANT
W61 N617 MEQUON AVENUE
CEDARBURG, WISCONSIN**

**(WDNR FID #246100800 ERR-LUST)
(PECFA CLAIM #53012-2017-17)**

July 16, 1996

July 16, 1996
(CLW131246)

Mr. Dale Lythjohan
Cedarburg Light and Water Commission
N30 W5926 Lincoln Boulevard
Post Office Box 767
Cedarburg, Wisconsin 53012

RE: Ground-Water Quality Update, Former Cedarburg Light and Water Commission Power Plant, W61 N617 Mequon Avenue, Cedarburg, Wisconsin (WDNR FID #246100800 ERR-LUST) (PECFA Claim #53012-2017-17)

Dear Mr. Lythjohan:

Northern Environmental Technologies, Incorporated (Northern Environmental) completed the first round of quarterly ground-water quality monitoring at the former Cedarburg Light and Water Commission Power Plant, W61 N617 Mequon Avenue, Cedarburg, Wisconsin (the Property). The Property is located in the Southeast Quarter of the Northeast Quarter of Section 27, Township 10 North, Range 21 East in Ozaukee County, Wisconsin (latitude 43 degrees, 18 minutes, 22 seconds north, longitude 87 degrees, 59 minutes, 40 seconds west) (Figure 1) (USGS, 1976).

BACKGROUND INFORMATION

The Property was formerly an electrical generating plant owned and operated by the Cedarburg Light and Water Commission. Two 20,000-gallon capacity diesel fuel underground storage tanks (USTs) were reportedly cleaned and abandoned in place at the Property during April 1986. One 1000-gallon gasoline/diesel UST was also cleaned, removed, and disposed at that time. A closure assessment was not required when the USTs were decommissioned.

During 1993, the Cedarburg Light and Water Commission retained Northern Environmental to drill and sample boreholes on the Property as part of an environmental assessment (Northern Environmental, 1993). Diesel range organics (DRO) and gasoline range organics (GRO) were detected in soil samples. Northern Environmental completed a site investigation during April 1994. Contaminated ground water was discovered. A report was prepared describing the investigation and presenting the results (Northern Environmental, 1994). The Wisconsin Department of Natural Resources (WDNR) requested that an additional monitoring well be installed south of the Power Plant. The well (MW500) was drilled and installed during

December 1994. No DRO or petroleum volatile organic compounds (PVOCs) were detected in the soil sample collected from the monitoring well borehole. No volatile organic compounds (VOCs) or DRO were detected in water from the new well.

In an unrelated remedial action, Mercury Marine, Incorporated removed polychlorinated biphenyl-contaminated sediments from Ruck Pond during 1994. DRO-contaminated soils were discovered in stream bank excavations abutting the Property. The WDNR and Cedarburg Light and Water Commission were notified. Northern Environmental collected soil samples from the excavations to assess the extent of contamination. The soil samples were laboratory analyzed for DRO and PVOCs. High concentrations of DRO are present in soil beneath the cooling towers on the bank of Ruck Pond.

Additional ground-water quality monitoring was performed during January and June 1995. Ground-water samples from MW200 contained trichloroethene and tetrachloroethene above the WDNR water quality enforcement standards (ES). Benzene concentrations above the preventive action limit (PAL) were detected in samples from MW300. A report was prepared describing the excavation sampling and additional ground-water monitoring (Northern Environmental, 1995).

The WDNR approved long-term ground-water monitoring as an appropriate remedial response (Vance, 1996). The WDNR requested that the monitoring wells be sampled quarterly for one year with sampling frequency reduced to once per year thereafter depending on results (Vance, 1996). This letter describes the first round of quarterly ground-water quality sampling.

METHODS OF INVESTIGATION

Ground-water samples were collected from the four monitoring wells on March 21, 1996. The monitoring wells were purged before sampling in accordance with WDNR requirements (NR 141, Wis. Adm. Code). Before purging and sampling the monitoring wells, Northern Environmental personnel measured the depth to water in each well to evaluate ground-water flow direction. The depth to water measurements were converted to elevations relative to a site datum. Water table elevation data is summarized in Table 1. A contour map of the March 21, 1996 water table data is shown in Figure 2.

Ground-water samples were collected by gently lowering new bottom-filling disposable polyethylene bailers into the wells until the bailer was completely submerged. Water samples were transferred from the bailers using new bottom-emptying devices into appropriate sample containers. Samples were immediately preserved with hydrochloric acid, labeled, and placed on ice in a cooler and were maintained chilled until delivery to the U.S. Analytical Laboratory (Combined Locks, Wisconsin) (WDNR Certification #445027660) for analysis. The ground-water samples were laboratory analyzed for DRO using the WDNR Modified Method and VOCs using Environmental Protection Agency Method 8021.

Quality assurance/quality control (QA/QC) samples were also collected in accordance with WDNR guidelines. QA/QC samples consisted of one trip blank, one field blank, and one duplicate sample. The trip blank (labeled "Trip Blank") was obtained from the laboratory and accompanied the investigative samples throughout the chain-of-custody. The field blank (sample labeled FB-1246) was prepared with laboratory-grade deionized water using the same

techniques and equipment as the investigative samples. The duplicate sample (sample labeled Dup-1246) was collected from MW200. QA/QC samples were analyzed for VOCs using the before mentioned method. Ground-water sample laboratory analysis results are summarized in Table 2. Ground-water sample laboratory reports and the associated chain-of-custody record are provided in Attachment A.

SUMMARY OF FINDINGS

GRO and VOCs were not detected above the laboratory detection limit in monitoring wells MW400 and MW500. Water from monitoring well MW300 contained benzene and tetrachloroethene concentrations above their respective Chapter NR 140, Wisconsin Administrative Code (NR 140, Wis. Adm. Code) PALs. Tetrachloroethene and trichloroethene contamination exceeded the NR 140, Wis. Adm. Code ES in MW200. All other VOCs were either not detected or were below their respective PALs.

Water table elevation data is summarized in Table 1. Figure 2 depicts water table conditions on March 21, 1996. Ground-water flow was predominantly eastward across the Property under an approximate hydraulic gradient of 0.02 foot per foot. This data suggests that water from Cedar Creek can seasonally recharge the local water table.

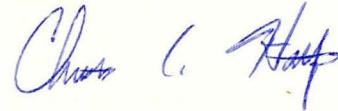
CONCLUSIONS AND RECOMMENDATIONS

DRO, benzene, tetrachloroethane, and trichloroethylene were present in monitoring wells MW200 and MW300. Ground-water quality during this round of sampling is generally consistent with previous results. The next round of sampling will be performed in late June or early July 1996.

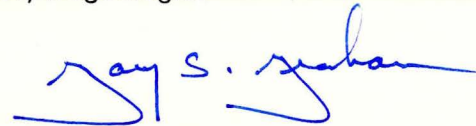
The results of this study are based upon professional interpretation of the information available to Northern Environmental given site conditions and the time and budget constraints of this project. Northern Environmental does not warrant that this report represents an exhaustive study of all possible impacts at the study area. The items investigated as part of this investigation do represent the most likely sources of environmental impacts associated with the described UST systems, and are consequently believed to adequately address WDNR requirements and the needs of the client at the present time.

We trust this information meets your needs. Please feel free to contact us if you have any questions or comments.

Sincerely,
**Northern Environmental
Technologies, Incorporated**



Christopher C. Hatfield
Hydrogeologist



Gary S. Graham
Senior Project Manager

CCH/cmt
Enclosures
cc: Kaye Vance (Cook and Franke, S.C.)

REFERENCES

Northern Environmental Technologies, Incorporated, "Phase I Environmental Site Assessment, Cedarburg Light and Water Commission Former Power Plant, W61 N617 Mequon Avenue, Cedarburg, Wisconsin," February 4, 1993.

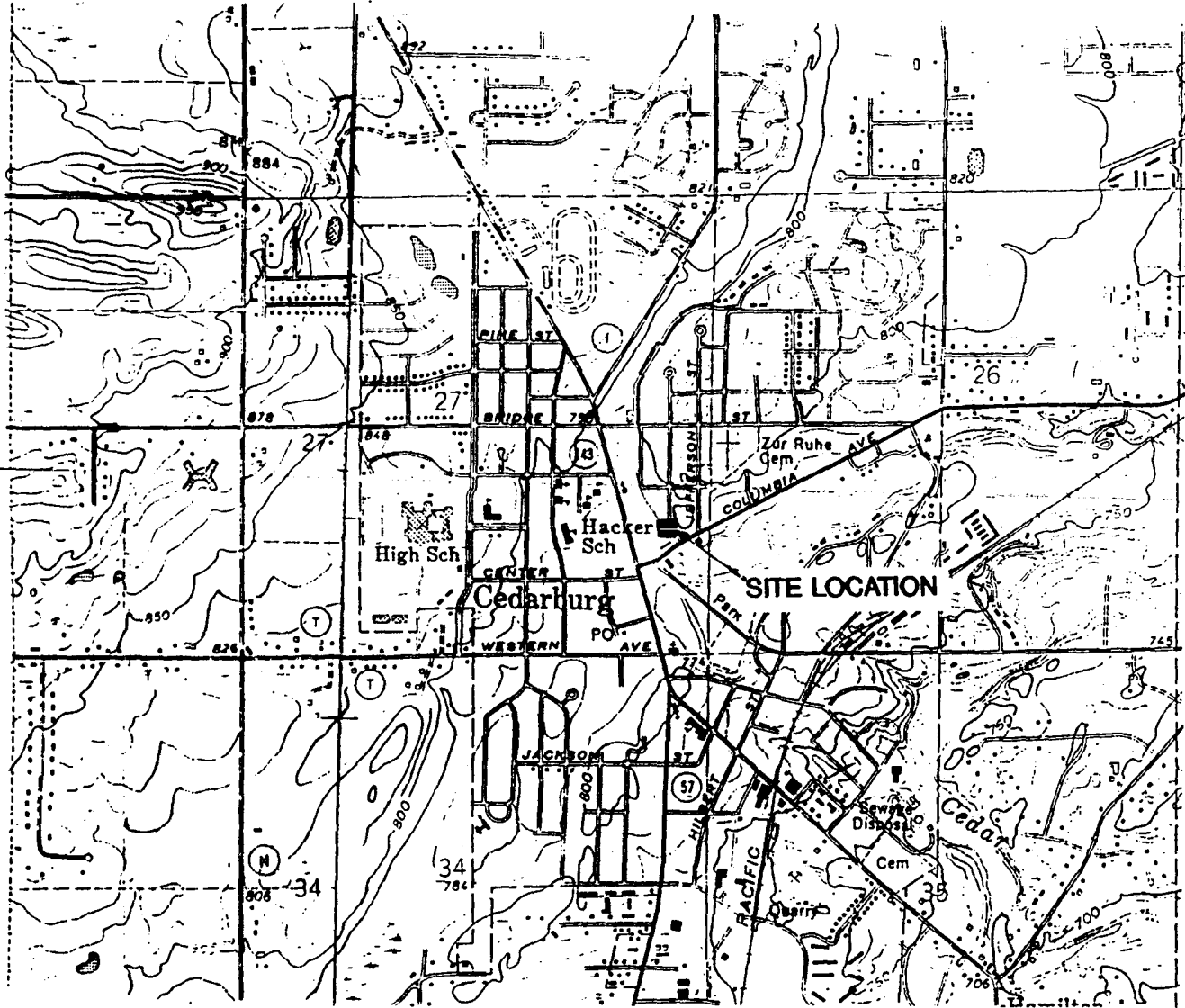
Northern Environmental Technologies, Incorporated, "Site Investigation Results, Former Cedarburg Light and Water Commission Power Plant, W61 N617 Mequon Avenue, Cedarburg, Wisconsin," October 19, 1995.

Northern Environmental Technologies, Incorporated, "Site Investigation Results, Former Power Plant, W61 N617 Mequon Avenue, Cedarburg, Wisconsin," April 15, 1994.

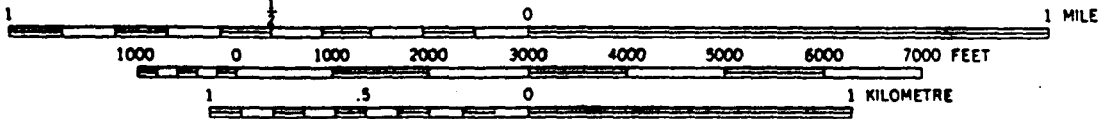
United States Geological Survey, *Cedarburg, Wisconsin, 7.5 Minute Quadrangle Topographic Map*, 1959, Photorevised 1971 and 1976.

Vance, Kaye (Cedarburg City Attorney), letter to John Feeney (Wisconsin Department of Natural Resources), February 13, 1996.

Wisconsin Department of Natural Resources, "Ground-Water Monitoring Well Requirements," *Wisconsin Administrative Code*, Chapter NR 141, June 1991.



SCALE 1:24 000



CONTOUR INTERVAL 10 FEET
NATIONAL GEODETIC VERTICAL DATUM OF 1929



N



QUADRANGLE LOCATION

BASE MAP SOURCE: USGS CEDARBURG AND FIVE CORNERS, WI 7.5 MIN QUADRANGLE

REV	PROJECT: CLW131246	DATE 07/16/98	<p>CEDARBURG LIGHT & WATER COMMISSION CEDARBURG, WISCONSIN</p>
<p>THIS DRAWING AND ALL INFORMATION CONTAINED THEREON IS THE PROPERTY OF NORTHERN ENVIRONMENTAL INCORPORATED AND SHALL NOT BE COPIED OR USED EXCEPT FOR THE PURPOSE FOR WHICH IT IS EXPRESSLY FURNISHED. THE DRAWING AND ANY COPIES THEREOF SHALL BE RETURNED TO THE DRAWER ON DEMAND.</p>			
<p>▲ Northern Environmental Hydrologists • Engineers • Geologists</p>			<p>SITE LOCATION AND LOCAL TOPOGRAPHY</p>

FIGURE 1

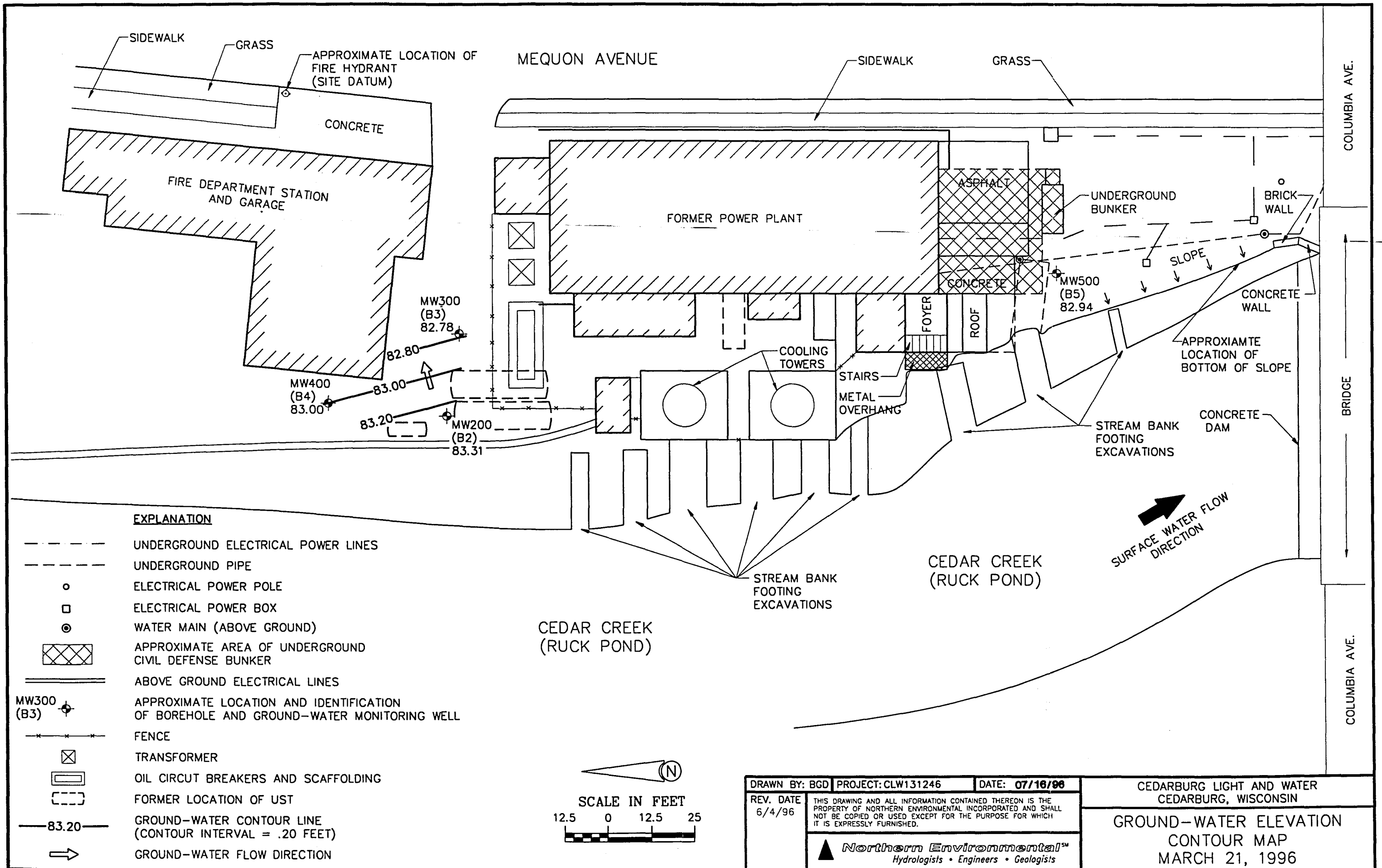


FIGURE 2

Table 1 Ground-Water Elevation Data, Former Power Plant, Cedarburg, Wisconsin

Well ID	Elevation Ground Surface (feet)	Elevation of Reference Point* (feet)	Date	Depth to Water Below Reference Point* (feet)	Water Table Elevation (feet)
MW200	96.46	95.94	10/18/93	12.71	83.23
			10/25/93	12.78	83.16
			10/28/93	12.94	83.00
			01/07/94	13.30	82.64
			02/14/94	14.21	81.73
			12/28/94	13.02	82.92
			01/18/95	12.90	83.04
			06/08/95	12.53	83.41
MW300	97.22	96.54	03/21/96	12.81	83.13
			10/18/93	14.02	82.52
			10/25/93	14.01	82.53
			10/28/93	13.98	82.56
			01/07/94	14.41	82.13
			02/14/94	15.16	81.38
			12/28/94	14.01	82.53
			01/18/95	12.91	83.63
MW400	95.56	95.28	06/08/95	13.42	83.12
			03/21/96	13.76	82.78
			10/18/93	12.60	82.68
			10/25/93	12.58	82.70
			10/28/93	12.55	82.73
			01/07/94	12.87	82.41
			02/14/94	13.62	81.66
			12/28/94	12.50	82.78
MW500	95.53**	95.56	01/18/95	12.38	82.90
			06/08/95	12.03	83.25
			03/21/96	12.28	83.00
			12/28/94	12.54	83.02
			01/03/95	12.42	83.14
			01/18/95	12.42	83.14
			06/08/95	12.62	82.94
			03/21/96	12.62	82.94

NOTE: Elevations are referenced to site datum

* = Reference point is the top of the monitoring well casing

** = Elevation of top of protective metal casing

CLW131246.1246T3-1

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Table 2 Ground-Water Analysis Results, Former Power Plant, Cedarburg, Wisconsin

Well I.D.	Date	Concentrations of Detected Analytes (µg/l)																		
		DRO	GRO	Benzene	Ethyl-benzene	Toluene	Total Xylenes	MTBE	n-butyl-benzene	chloro-ethane	1,1-Dichloro-ethane	cis-1,2-Di-chloro-ethene	Naphthalene	Tetra-chloro-ethene	Trichloro-ethene	1,2,4-Tri-methyl-benzene	1,3,5-Tri-methyl-benzene	1,2-Dichloro-benzene	1,1,1-Trichloro-ethane	Lead
MW200	10/28/93	720	110	<0.6	<1.0	35	5.6	<1.0	6.1	23	7.4	3.5	5.7	5.4	7.6	5.7	3.2	<1.0	<0.2	17
	01/13/94	<5.0	<10.0	<0.6	<1.0	2.4	1.8	<1.0	3.0	26	3.6	1.2	7.1	1.4	1.6	2.1	1.5	1.6	<0.2	22
	01/18/95	2000	28	<2.0	<1.0	<1.0	<2.0	<1.0	<2.0	2.2	4.9	22	0.44	19	29	<2.0	<2.0	0.19	4.9	4
	*01/18/95	NA	NA	0.28	<1.0	<1.0	<2.5	<1.0	<2.0	3.1	4.1	22	<2.0	20	30	<1.0	<1.0	<1.0	5.0	NA
	06/08/95	810	NA	<.26	<.32	<.69	<1.23	.46	<.45	9.4	6.6	8.4	<.41	42	17.5	<.57	<.57	.33	2.9	<1
	03/21/96	510	NA	0.28	<0.32	<0.69	<1.23	0.29	<0.45	6.1	4.1	5.5	<0.41	11	5.8	<0.57	<0.57	0.69	0.65	NA
	*03/21/96	NA	NA	0.28	<0.32	<0.69	<1.23	0.34	0.69	6.6	4.0	4.8	0.68	9.5	5.1	<0.57	<0.57	0.76	<0.63	NA
MW300	10/28/93	<100	<100	1.2		1.5	<2.5		<2.0	3.3	5.0	3.4	<2.0	3.9	<1.0	<1.0	<1.0			2
	01/13/94	<5.0	<10.0	1.3	<1.0	<1.0	<2.5	<1.0	<2.0	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.2	<1.0
	01/18/95	150	<11.0	0.80	<1.0	<1.0	<2.5	<1.0	<2.0	2.3	1.1	0.90	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.2	1.0
	06/08/95	<100	NA	0.36	<.32	<.69	<1.23	<.22	<.45	0.93	0.9	0.67	<.41	1.82	0.33	<.57	<.57	<.11	<.63	1.0
	03/21/96	400	NA	1.1	<0.32	<0.69	0.62	<0.22	<0.45	3.9	<0.37	0.32	4.9	1.5	<0.18	<0.57	<0.57	0.31	<0.63	NA
MW400	10/28/93	<100	<100	<0.6	<1.0	<1.0	<2.5	<1.0	<2.0	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.2	<1.0
	01/13/94	<5.0	<10.0	<0.6	<1.0	<1.0	<2.5	<1.0	<2.0	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.2	<1.0
	01/18/95	120	<11.0	<0.6	<1.0	<1.0	<2.5	<1.0	<2.0	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.2	1.0
	06/08/95	<100	NA	<.26	<.32	<.69	<1.23	0.33	<.45	<.5	<.27	<.29	<.41	<.56	<.18	<.57	<.57	<.11	<.63	2
	03/21/96	<100	NA	<0.26	<0.32	<0.69	<1.23	<0.22	<0.45	<0.5	<0.37	<0.29	<0.41	<0.56	<0.18	<0.57	<0.57	<0.11	<0.63	NA
MW500	01/18/95	<100	<11	<0.6	<1.0	<1.0	<2.5	<1.0	<2.0	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.2	<1.0
	06/08/95	<100	NA	<.26	<.32	<.69	<1.23	<.22	<.45	<.5	<.27	<.29	<.41	<.56	<.18	<.57	<.57	<.11	<.63	2
	03/21/96	<100	NA	<0.26	<0.32	<0.69	<1.23	<0.22	<0.45	<0.5	<0.37	<0.29	<0.41	<0.56	<0.18	<0.57	<0.57	<0.11	<0.63	NA
Field Blank	01/18/95	NA	NA	<0.6	<1.0	<1.0	<2.5	<1.0	<2.0	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.2	NA
	06/08/95	NA	NA	<.26	<.32	<.69	<1.23	<.22	<.45	<.5	<.27	<.29	<.41	<.56	<.18	<.57	<.57	<.11	<.63	NA
	03/21/96	NA	NA	<0.26	<0.32	<0.69	<1.23	<0.22	<0.45	<0.5	<0.37	<0.29	<0.41	<0.56	<0.18	<0.57	<0.57	<0.11	<0.63	NA
WDNR NR 140 Enforcement Standard (ES)		NS	NS	5	700	343	620	60	NS	400	850	70	40	5	5	NS	NS	600	200	15
WDNR NR 140 Preventive Action Limit (PAL)		NS	NS	0.5	140	68.6	.24	12	NS	80	85	7	8	0.5	0.5	NS	NS	60	40	1.5

NOTE:

Only those VOCs detected are summarized in this table

µg/l = micrograms per liter

DRO = diesel range organics

GRO = gasoline range organics

MTBE = methyl-tertiary-butyl-ether

NA = not analyzed

* = duplicate sample

<x = analyte not detected to the laboratory detection limit of x

NS = no water quality standard

XXX = Wisconsin Administrative Code NR 140 Preventive Action Limit (PAL) Exceedance

XXX = Wisconsin Administrative Code NR 140 Enforcement Standard (ES) Exceedance

ATTACHMENT A
LABORATORY REPORTS AND
ASSOCIATED CHAIN-OF-CUSTODY RECORD

Analytical Laboratory

 1090 Kennedy Ave. Kimberly, WI 54136
 414-735-8295

WI DNR Certified Lab #445027660

Method 8021 Volatile Organic Compounds

 Gary Graham
 Northern Environmental
 1214 W Venture Court
 Mequon, WI 53092

 Project #: CLW131246
 Project : Cedarburg
 Sample ID: Dup-1246
 Lab Code: 5012802G
 Sample Type: Water
 Sample Date: 21-Mar-96
 Date Analyzed: 28-Mar-96

 Report Date: 29-Mar-96
 Analyzed By: R. Everson


ANALYTE	RESULT	MDL UG/L	PQL UG/L
Benzene	0.28	0.082	0.26
Bromobenzene	< 0.24	0.075	0.24
Bromodichloromethane	< 0.11	0.035	0.11
n-Butylbenzene	0.69	0.14	0.45
sec-Butylbenzene	2.0	0.15	0.49
tert-Butylbenzene	< 0.4	0.12	0.4
Carbon Tetrachloride	< 0.5	0.16	0.5
Chlorobenzene	< 0.27	0.086	0.27
Chloroethane	6.6	0.39	1.3
Chloroform	< 0.22	0.07	0.22
Chloromethane	< 1	0.88	3.1
2-Chlorotoluene	< 0.65	0.21	0.65
4-Chlorotoluene	< 0.19	0.06	0.19
1,2-Dibromo-3-Chloropropane	< 1	0.83	2.7
Dibromochloromethane	< 0.09	0.028	0.09
1,2-Dichlorobenzene	0.76	0.035	0.11
1,3-Dichlorobenzene	< 0.83	0.23	0.83
1,4-Dichlorobenzene	< 0.13	0.039	0.13
Dichlorodifluoromethane	< 5.4	1.7	5.4
1,1-Dichloroethene	< 0.37	0.12	0.37
1,2-Dichloroethane	< 0.86	0.27	0.86
1,1-Dichloroethane	4.0	0.084	0.27
cis 1,2-Dichloroethene	4.8	0.092	0.29
trans-1,2-dichloroethene	< 0.23	0.072	0.23
1,2-Dichloropropane	< 0.15	0.046	0.15
1,3-DCP, Tetrachloroethene	< 0.56	0.17	0.56

ANALYTE	RESULT	MDL UG/L	PQL UG/L
2,2-Dichloropropane	< 1	0.63	2.2
Di-isopropyl Ether	< 0.38	0.12	0.38
Ethylbenzene	< 0.32	0.1	0.32
EDB (1,2-Dibromoethane)	< 0.08	0.025	0.08
Hexachlorobutadiene	< 0.35	0.11	0.35
Isopropylbenzene	< 0.36	0.11	0.36
p-Isopropyltoluene	0.50	0.15	0.46
Methylene Chloride	< 4	0.29	0.91
MTBE	0.34	0.069	0.22
Naphthalene	0.68	0.13	0.41
n-Propylbenzene	< 0.41	0.13	0.41
1,1,2,2-Tetrachloroethane	< 0.31	0.099	0.31
Tetrachloroethene	9.5	0.17	0.56
Toluene	< 0.69	0.22	0.69
1,2,3-Trichlorobenzene	< 1	0.31	1.1
1,2,4-Trichlorobenzene	< 0.91	0.26	0.91
1,1,1-Trichloroethane	< 0.63	0.2	0.63
1,1,2-Trichloroethane	< 0.17	0.055	0.17
Trichloroethene	5.1	0.055	0.18
Trichlorofluoromethane	< 1.4	1.4	4.4
1,2,4-Trimethylbenzene	< 0.57	0.18	0.57
1,3,5-Trimethylbenzene	< 0.57	0.18	0.57
Vinyl Chloride	< 0.54	0.17	0.54
m&p-Xylene	< 0.9	0.28	0.9
o-Xylene	< 0.33	0.1	0.33

 Fluorobenzene Surrogate 98 % Rec.
 1,4-Dichlorobutane Surrogate 107 % Rec.
 Sample pH 1.4

 MDL = Method Detection Limit
 PQL = Practical Quantitation Limit
 NA = Not Applicable

Authorized Signature



Analytical Laboratory

 1090 Kennedy Ave. Kimberly, WI 54136
 414-735-8295

WI DNR Certified Lab #445027660

QC Summary
Method 8021 Volatile Organic Compounds

 Project #: CLW131246 Report Date: 29-Mar-96
 Sample ID: Dup-1246 Lab Code: 5012802G

ANALYTE	INITIAL	KNOWN	MATRIX	REPLICATE	BLANK	PID	HALL
	CALIBRATION	STANDARD	SPIKE	SPIKE		SURROGATE	SURROGATE
Benzene	P	P	P	P	P	P	P
Bromobenzene	P	P	F	P	P	P	P
Bromodichloromethane	P	P	P	P	P	P	P
n-Butylbenzene	P	P	P	P	P	P	P
sec-Butylbenzene	P	P	P	P	P	P	P
tert-Butylbenzene	P	P	P	P	P	P	P
Carbon Tetrachloride	P	P	P	P	P	P	P
Chlorobenzene	P	P	P	P	P	P	P
Chloroethane	P	F	F	P	P	P	P
Chloroform	P	P	P	P	P	P	P
Chloromethane	P	F	P	P	P	P	P
2-Chlorotoluene	P	P	P	P	P	P	P
4-Chlorotoluene	P	P	P	P	P	P	P
1,2-Dibromo-3-Chloropropane	P	P	P	P	P	P	P
Dibromochloromethane	P	P	P	P	P	P	P
1,2-Dichlorobenzene	P	P	P	P	P	P	P
1,3-Dichlorobenzene	P	P	P	P	P	P	P
1,4-Dichlorobenzene	P	P	P	P	P	P	P
Dichlorodifluoromethane	P	F	P	P	P	P	P
1,1-Dichloroethane	P	P	P	P	P	P	P
1,2-Dichloroethane	P	P	P	P	P	P	P
1,1-Dichloroethene	P	P	P	P	P	P	P
cis-1,2-Dichloroethene	P	P	P	P	P	P	P
trans-1,2-Dichloroethene	P	P	P	P	P	P	P
1,2-Dichloropropane	P	P	P	P	P	P	P
1,3-Dichloropropane	P	P	P	P	P	P	P
2,2-Dichloropropane	P	F	F	P	P	P	P
Di-Isopropyl Ether	P	P	P	P	P	P	P
Ethylbenzene	P	P	P	P	P	P	P
EDB (1,2-Dibromoethane)	P	P	P	P	P	P	P
Hexachlorobutadiene	P	P	P	P	P	P	P
Isopropylbenzene	P	P	P	P	P	P	P
p-Isopropyltoluene	P	P	P	P	P	P	P
Methylene Chloride	P	F	P	P	P	P	P
MTBE	P	P	P	P	P	P	P
Naphthalene	P	P	P	P	P	P	P
n-Propylbenzene	P	P	P	P	P	P	P
1,1,2,2-Tetrachloroethane	P	P	P	P	P	P	P
Tetrachloroethene	P	P	P	P	P	P	P
Toluene	P	P	P	P	P	P	P
1,2,3-Trichlorobenzene	P	P	P	P	P	P	P
1,2,4-Trichlorobenzene	P	P	P	P	P	P	P
1,1,1-Trichloroethane	P	P	P	P	P	P	P
1,1,2-Trichloroethane	P	P	P	P	P	P	P
Trichloroethene	P	P	P	P	P	P	P
Trichlorofluoromethane	P	P	P	P	P	P	P
1,2,4-Trimethylbenzene	P	P	P	P	P	P	P
1,3,5-Trimethylbenzene	P	P	P	P	P	P	P
Vinyl Chloride	P	P	P	P	P	P	P
m & p-Xylene	P	P	P	P	P	P	P
o-Xylene	P	P	P	P	P	P	P

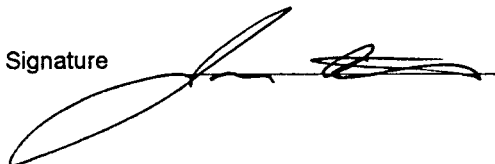
P = Passed QC limits.

F = Failed QC limits.

NA = Not Applicable

VOC analysis detected unidentified peaks.

Authorized Signature



Northern Environmental™

CHAIN OF CUSTODY RECORD

Page 1 of 1

1214 W. Venture Court
Mequon, WI 53092
414-241-3133
FAX 414-241-8222

372 West County Road D
New Brighton, MN 55112
612-635-9100
FAX 612-635-0643

952 Circle Drive
Green Bay, WI 54304
414-592-8400
FAX 414-592-8444

REQUEST FOR ANALYSIS

No 5785

Check office originating request

502802

Project No: <u>CLW131246</u>		Task No:		Laboratory: <u>U.S. OIL</u>			Sample Integrity - To be completed by receiving lab Seal intact upon receipt <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No								
Project Location: (city) <u>Cedarburg</u>		Wisconsin DNR Certification #: <u>445027660</u>			Method of Shipment <u>Dunham</u>										
Project Manager: <u>GSG</u>		Laboratory Contact: <u>Jim Stevens</u>			Contents Temperature <u>Ice</u> °C Refrigerator No: _____										
Sampler (name): <u>Tom Diehl / Joe Federl</u>		Price Quote: <u>N/A</u>			ANALYSES REQUESTED										
Sampler (signature): <u>Tom Diehl</u>		TURNAROUND TIME REQUIRED <input checked="" type="checkbox"/> Normal <input type="checkbox"/> Rush			DRO (WI Modified Method) _____ GRO (WI Modified Method) _____ BETX (EPA Method 8020) _____ PVOC (EPA Method 8020) _____ VOC (EPA Method 8021) _____ PAH (EPA Method _____) _____ Pb (EPA Method _____) _____										
Sampling Date(s): <u>21 Mar 96</u>											Date Needed				
Reports to be Sent to: <u>Gary Graham</u>															
Lab ID No.	Sample No.	Collection		No. of Containers, Size and Type	Description			Preservative	DRO	GRO	BETX	PVOC	VOC	PAH	Pb
		Date	Time		Water	Soil	Other								
<u>1000JA</u>	<u>F.B-1246</u>	<u>21 Mar</u>	<u>1355</u>	<u>2-40mls</u>	<u>X</u>			<u>Ha</u>					<u>X</u>		
	<u>B Trip Blank</u>	<u>21 Mar</u>	<u>—</u>	<u>2-40mls</u>	<u>X</u>			<u>Hcl</u>					<u>X</u>		
	<u>C MW500</u>	<u>21 Mar</u>		<u>3-40ml / 1 liter</u>	<u>X</u>			<u>Ha</u>	<u>X</u>				<u>X</u>		
	<u>D MW400</u>	<u>21 Mar</u>		<u>3-40ml / 1 liter</u>	<u>X</u>			<u>Ha</u>	<u>X</u>				<u>X</u>		
	<u>E MW300</u>	<u>21 Mar</u>		<u>3-40ml / 1 liter</u>	<u>X</u>			<u>Ha</u>	<u>X</u>				<u>X</u>		
	<u>F MW200</u>	<u>21 Mar</u>		<u>3-40ml / 1 liter</u>	<u>X</u>			<u>Hcl</u>	<u>X</u>				<u>X</u>		
	<u>G Dup-1246</u>	<u>21 Mar</u>		<u>2-40 ml</u>	<u>X</u>			<u>Hcl</u>					<u>X</u>		
Packed for Shipping by: <u>Tom Diehl</u>		Comments:													
Shipment Date: <u>21 Mar 96</u>															
Relinquished By: <u>TMD</u>		Date: <u>21 Mar 96</u>		Relinquished By: <u>R.S.</u>		Date: <u>3-21-96</u>		Relinquished By: <u>[Signature]</u>		Date: <u>3-22-96</u>		Relinquished By: <u>[Signature]</u>		Date: <u>0755</u>	
Company: <u>NET</u>		Time:		Company:		Time:		Company: <u>Dunham</u>		Time:		Company: <u>[Signature]</u>		Time:	
Received By: <u>R.S.</u>		Date: <u>3-21-96</u>		Received By:		Date:		Received By: <u>[Signature]</u>		Date: <u>3-22-96</u>		Received By: <u>[Signature]</u>		Date: <u>755 AM</u>	
Company: <u>DUNHAM</u>		Time: <u>4:15</u>		Company:		Time:		Company: <u>U.S. OIL</u>		Time:		Company:		Time:	

Analytical Laboratory

 1090 Kennedy Ave. Kimberly, WI 54136
 414-735-8295

WI DNR Certified Lab #445027660

Method 8021 Volatile Organic Compounds

 Gary Graham
 Northern Environmental
 1214 W Venture Court
 Mequon, WI 53092

 Project #: CLW131246
 Project : Cedarburg
 Sample ID: MW200
 Lab Code: 5012802F
 Sample Type: Water
 Sample Date: 21-Mar-96
 Date Analyzed: 28-Mar-96

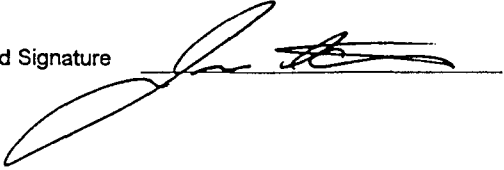
 Report Date: 29-Mar-96
 Analyzed By: R. Everson

ANALYTE	RESULT	MDL UG/L	PQL UG/L
Benzene	0.28	0.082	0.26
Bromobenzene	< 0.24	0.075	0.24
Bromodichloromethane	< 0.11	0.035	0.11
n-Butylbenzene	< 0.45	0.14	0.45
sec-Butylbenzene	0.91	0.15	0.49
tert-Butylbenzene	< 0.4	0.12	0.4
Carbon Tetrachloride	< 0.5	0.16	0.5
Chlorobenzene	< 0.27	0.086	0.27
Chloroethane	6.1	0.39	1.3
Chloroform	< 0.22	0.07	0.22
Chloromethane	< 1	0.88	3.1
2-Chlorotoluene	< 0.65	0.21	0.65
4-Chlorotoluene	< 0.19	0.06	0.19
1,2-Dibromo-3-Chloropropane	< 1	0.83	2.7
Dibromochloromethane	< 0.09	0.028	0.09
1,2-Dichlorobenzene	0.69	0.035	0.11
1,3-Dichlorobenzene	< 0.83	0.23	0.83
1,4-Dichlorobenzene	< 0.13	0.039	0.13
Dichlorodifluoromethane	< 5.4	1.7	5.4
1,1-Dichloroethene	< 0.37	0.12	0.37
1,2-Dichloroethane	< 0.86	0.27	0.86
1,1-Dichloroethane	4.1	0.084	0.27
cis-1,2-Dichloroethene	5.5	0.092	0.29
trans-1,2-dichloroethene	< 0.23	0.072	0.23
1,2-Dichloropropane	< 0.15	0.046	0.15
1,3-DCP, Tetrachloroethene	< 0.56	0.17	0.56

ANALYTE	RESULT	MDL UG/L	PQL UG/L
2,2-Dichloropropane	< 1	0.63	2.2
Di-isopropyl Ether	< 0.38	0.12	0.38
Ethylbenzene	< 0.32	0.1	0.32
EDB (1,2-Dibromoethane)	< 0.08	0.025	0.08
Hexachlorobutadiene	< 0.35	0.11	0.35
Isopropylbenzene	< 0.36	0.11	0.36
p-Isopropyltoluene	< 0.46	0.15	0.46
Methylene Chloride	< 4	0.29	0.91
MTBE	0.29	0.069	0.22
Naphthalene	< 0.41	0.13	0.41
n-Propylbenzene	< 0.41	0.13	0.41
1,1,2,2-Tetrachloroethane	< 0.31	0.099	0.31
Tetrachloroethene	11	0.17	0.56
Toluene	< 0.69	0.22	0.69
1,2,3-Trichlorobenzene	< 1	0.31	1.1
1,2,4-Trichlorobenzene	< 0.91	0.26	0.91
1,1,1-Trichloroethane	0.65	0.2	0.63
1,1,2-Trichloroethane	< 0.17	0.055	0.17
Trichloroethene	5.8	0.055	0.18
Trichlorofluoromethane	< 1.4	1.4	4.4
1,2,4-Trimethylbenzene	< 0.57	0.18	0.57
1,3,5-Trimethylbenzene	< 0.57	0.18	0.57
Vinyl Chloride	< 0.54	0.17	0.54
m&p-Xylene	< 0.9	0.28	0.9
o-Xylene	< 0.33	0.1	0.33

 Fluorobenzene Surrogate 97 % Rec.
 1,4-Dichlorobutane Surrogate 106 % Rec.
 Sample pH 1.4

 MDL = Method Detection Limit
 PQL = Practical Quantitation Limit
 NA = Not Applicable

 Authorized Signature
 



Analytical Laboratory

1090 Kennedy Ave. Kimberly, WI 54136
414-735-8295

WI DNR Certified Lab #445027660

Gary Graham
Northern Environmental
1214 W Venture Court
Mequon, WI 53092

Project #: CLW131246
Project : Cedarburg
Sample ID: MW200
Lab Code: 5012802F
Sample Type: Water
Sample Date: 21-Mar-96

Report Date: 29-Mar-96

Test	Result	MDL	PQL	Unit	pH	Date Ext/Digested	Date Analyzed:	Analyzed By:	QC Code
MODIFIED DRO WDNR JULY 93	510	17	55	UG/L	0.0	26-Mar-96	27-Mar-96	C. Rotar	1

MDL = Method Detection Limit

PQL = Practical Quantitation Limit

ND = Compound Not Detected

QC SUMMARY

CODE:

1 All laboratory QC requirements were met for this sample.

Authorized Signature

Analytical Laboratory

 1090 Kennedy Ave. Kimberly, WI 54136
 414-735-8295

WI DNR Certified Lab #445027660

QC Summary
Method 8021 Volatile Organic Compounds

 Project #: CLW131246 Report Date: 29-Mar-96
 Sample ID: MW200 Lab Code: 5012802F

ANALYTE	INITIAL CALIBRATION	KNOWN STANDARD	MATRIX SPIKE	REPLICATE SPIKE	BLANK	PID SURROGATE	HALL SURROGATE
Benzene	P	P	P	P	P	P	P
Bromobenzene	P	P	F	P	P	P	P
Bromodichloromethane	P	P	P	P	P	P	P
n-Butylbenzene	P	P	P	P	P	P	P
sec-Butylbenzene	P	P	P	P	P	P	P
tert-Butylbenzene	P	P	P	P	P	P	P
Carbon Tetrachloride	P	P	P	P	P	P	P
Chlorobenzene	P	P	P	P	P	P	P
Chloroethane	P	F	F	P	P	P	P
Chloroform	P	P	P	P	P	P	P
Chloromethane	P	F	P	P	P	P	P
2-Chlorotoluene	P	P	P	P	P	P	P
4-Chlorotoluene	P	P	P	P	P	P	P
1,2-Dibromo-3-Chloropropane	P	P	P	P	P	P	P
Dibromochloromethane	P	P	P	P	P	P	P
1,2-Dichlorobenzene	P	P	P	P	P	P	P
1,3-Dichlorobenzene	P	P	P	P	P	P	P
1,4-Dichlorobenzene	P	P	P	P	P	P	P
Dichlorodifluoromethane	P	F	P	P	P	P	P
1,1-Dichloroethane	P	P	P	P	P	P	P
1,2-Dichloroethane	P	P	P	P	P	P	P
1,1-Dichloroethene	P	P	P	P	P	P	P
cis-1,2-Dichloroethene	P	P	P	P	P	P	P
trans-1,2-Dichloroethene	P	P	P	P	P	P	P
1,2-Dichloropropane	P	P	P	P	P	P	P
1,3-Dichloropropane	P	P	P	P	P	P	P
2,2-Dichloropropane	P	F	F	P	P	P	P
D-Isopropyl Ether	P	P	P	P	P	P	P
Ethylbenzene	P	P	P	P	P	P	P
EDB (1,2-Dibromoethane)	P	P	P	P	P	P	P
Hexachlorobutadiene	P	P	P	P	P	P	P
Isopropylbenzene	P	P	P	P	P	P	P
p-Isopropyltoluene	P	P	P	P	P	P	P
Methylene Chloride	P	F	P	P	P	P	P
MTBE	P	P	P	P	P	P	P
Naphthalene	P	P	P	P	P	P	P
n-Propylbenzene	P	P	P	P	P	P	P
1,1,2,2-Tetrachloroethane	P	P	P	P	P	P	P
Tetrachloroethene	P	P	P	P	P	P	P
Toluene	P	P	P	P	P	P	P
1,2,3-Trichlorobenzene	P	P	P	P	P	P	P
1,2,4-Trichlorobenzene	P	P	P	P	P	P	P
1,1,1-Trichloroethane	P	P	P	P	P	P	P
1,1,2-Trichloroethane	P	P	P	P	P	P	P
Trichloroethene	P	P	P	P	P	P	P
Trichlorofluoromethane	P	P	P	P	P	P	P
1,2,4-Trimethylbenzene	P	P	P	P	P	P	P
1,3,5-Trimethylbenzene	P	P	P	P	P	P	P
Vinyl Chloride	P	P	P	P	P	P	P
m & p-Xylene	P	P	P	P	P	P	P
o-Xylene	P	P	P	P	P	P	P

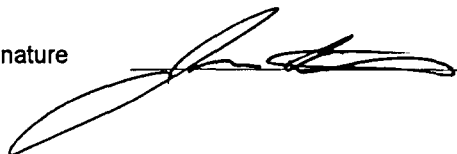
P = Passed QC limits.

F = Failed QC limits.

NA = Not Applicable

VOC analysis detected unidentified peaks.

Authorized Signature



Analytical Laboratory

 1090 Kennedy Ave. Kimberly, WI 54136
 414-735-8295

WI DNR Certified Lab #445027660

Method 8021 Volatile Organic Compounds

 Gary Graham
 Northern Environmental
 1214 W Venture Court
 Mequon, WI 53092

 Project #: CLW131246
 Project : Cedarburg
 Sample ID: FIB-1246
 Lab Code: 5012802A
 Sample Type: Water
 Sample Date: 21-Mar-96
 Date Analyzed: 27-Mar-96

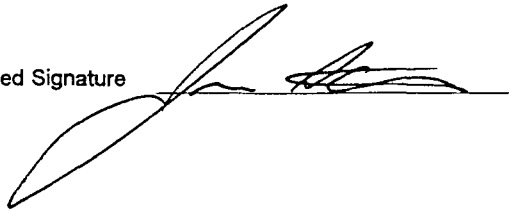
 Report Date: 29-Mar-96
 Analyzed By: R. Everson

ANALYTE	RESULT	MDL UG/L	PQL UG/L
Benzene	< 0.26	0.082	0.26
Bromobenzene	< 0.24	0.075	0.24
Bromodichloromethane	< 0.11	0.035	0.11
n-Butylbenzene	< 0.45	0.14	0.45
sec-Butylbenzene	< 0.49	0.15	0.49
tert-Butylbenzene	< 0.4	0.12	0.4
Carbon Tetrachloride	< 0.5	0.16	0.5
Chlorobenzene	< 0.27	0.086	0.27
Chloroethane	< 0.5	0.39	1.3
Chloroform	< 0.22	0.07	0.22
Chloromethane	< 1	0.88	3.1
2-Chlorotoluene	< 0.65	0.21	0.65
4-Chlorotoluene	< 0.19	0.06	0.19
1,2-Dibromo-3-Chloropropane	< 1	0.83	2.7
Dibromochloromethane	< 0.09	0.028	0.09
1,2-Dichlorobenzene	< 0.11	0.035	0.11
1,3-Dichlorobenzene	< 0.83	0.23	0.83
1,4-Dichlorobenzene	< 0.13	0.039	0.13
Dichlorodifluoromethane	< 5.4	1.7	5.4
1,1-Dichloroethene	< 0.37	0.12	0.37
1,2-Dichloroethane	< 0.86	0.27	0.86
1,1-Dichloroethane	< 0.27	0.084	0.27
cis 1,2-Dichloroethene	< 0.29	0.092	0.29
trans-1,2-dichloroethene	< 0.23	0.072	0.23
1,2-Dichloropropane	< 0.15	0.046	0.15
1,3-DCP, Tetrachloroethene	< 0.56	0.17	0.56

ANALYTE	RESULT	MDL UG/L	PQL UG/L
2,2-Dichloropropane	< 1	0.63	2.2
Di-isopropyl Ether	< 0.38	0.12	0.38
Ethylbenzene	< 0.32	0.1	0.32
EDB (1,2-Dibromoethane)	< 0.08	0.025	0.08
Hexachlorobutadiene	< 0.35	0.11	0.35
Isopropylbenzene	< 0.36	0.11	0.36
p-Isopropyltoluene	< 0.46	0.15	0.46
Methylene Chloride	< 4	0.29	0.91
MTBE	< 0.22	0.069	0.22
Naphthalene	< 0.41	0.13	0.41
n-Propylbenzene	< 0.41	0.13	0.41
1,1,2,2-Tetrachloroethane	< 0.31	0.099	0.31
Tetrachloroethene	< 0.56	0.17	0.56
Toluene	< 0.69	0.22	0.69
1,2,3-Trichlorobenzene	< 1	0.31	1.1
1,2,4-Trichlorobenzene	< 0.91	0.26	0.91
1,1,1-Trichloroethane	< 0.63	0.2	0.63
1,1,2-Trichloroethane	< 0.17	0.055	0.17
Trichloroethene	< 0.18	0.055	0.18
Trichlorofluoromethane	< 1.4	1.4	4.4
1,2,4-Trimethylbenzene	< 0.57	0.18	0.57
1,3,5-Trimethylbenzene	< 0.57	0.18	0.57
Vinyl Chloride	< 0.54	0.17	0.54
m&p-Xylene	< 0.9	0.28	0.9
o-Xylene	< 0.33	0.1	0.33

 MDL = Method Detection Limit
 PQL = Practical Quantitation Limit
 NA = Not Applicable

 Fluorobenzene Surrogate 98 % Rec.
 1,4-Dichlorobutane Surrogate 105 % Rec.
 Sample pH 1.4

 Authorized Signature
 

Analytical Laboratory

 1090 Kennedy Ave. Kimberly, WI 54136
 414-735-8295

WI DNR Certified Lab #445027660

QC Summary
Method 8021 Volatile Organic Compounds

 Project #: CLW131246 Report Date: 29-Mar-96
 Sample ID: FIB-1246 Lab Code: 5012802A

ANALYTE	INITIAL	KNOWN	MATRIX	REPLICATE	BLANK	PID	HALL
	CALIBRATION	STANDARD	SPIKE	SPIKE		SURROGATE	SURROGATE
Benzene	P	P	P	P	P	P	P
Bromobenzene	P	P	F	P	P	P	P
Bromodichloromethane	P	P	P	P	P	P	P
n-Butylbenzene	P	P	P	P	P	P	P
sec-Butylbenzene	P	P	P	P	P	P	P
tert-Butylbenzene	P	P	P	P	P	P	P
Carbon Tetrachloride	P	P	P	P	P	P	P
Chlorobenzene	P	P	P	P	P	P	P
Chloroethane	P	F	F	P	P	P	P
Chloroform	P	P	P	P	P	P	P
Chloromethane	P	F	P	P	P	P	P
2-Chlorotoluene	P	P	P	P	P	P	P
4-Chlorotoluene	P	P	P	P	P	P	P
1,2-Dibromo-3-Chloropropane	P	P	P	P	P	P	P
Dibromochloromethane	P	P	P	P	P	P	P
1,2-Dichlorobenzene	P	P	P	P	P	P	P
1,3-Dichlorobenzene	P	P	P	P	P	P	P
1,4-Dichlorobenzene	P	P	P	P	P	P	P
Dichlorodifluoromethane	P	F	P	P	P	P	P
1,1-Dichloroethane	P	P	P	P	P	P	P
1,2-Dichloroethane	P	P	P	P	P	P	P
1,1-Dichloroethene	P	P	P	P	P	P	P
cis-1,2-Dichloroethene	P	P	P	P	P	P	P
trans-1,2-Dichloroethene	P	P	P	P	P	P	P
1,2-Dichloropropane	P	P	P	P	P	P	P
1,3-Dichloropropane	P	P	P	P	P	P	P
2,2-Dichloropropane	P	F	F	P	P	P	P
Di-Isopropyl Ether	P	P	P	P	P	P	P
Ethylbenzene	P	P	P	P	P	P	P
EDB (1,2-Dibromoethane)	P	P	P	P	P	P	P
Hexachlorobutadiene	P	P	P	P	P	P	P
Isopropylbenzene	P	P	P	P	P	P	P
p-Isopropyltoluene	P	P	P	P	P	P	P
Methylene Chloride	P	F	P	P	P	P	P
MTBE	P	P	P	P	P	P	P
Naphthalene	P	P	P	P	P	P	P
n-Propylbenzene	P	P	P	P	P	P	P
1,1,2,2-Tetrachloroethane	P	P	P	P	P	P	P
Tetrachloroethene	P	P	P	P	P	P	P
Toluene	P	P	P	P	P	P	P
1,2,3-Trichlorobenzene	P	P	P	P	P	P	P
1,2,4-Trichlorobenzene	P	P	P	P	P	P	P
1,1,1-Trichloroethane	P	P	P	P	P	P	P
1,1,2-Trichloroethane	P	P	P	P	P	P	P
Trichloroethene	P	P	P	P	P	P	P
Trichlorofluoromethane	P	P	P	P	P	P	P
1,2,4-Trimethylbenzene	P	P	P	P	P	P	P
1,3,5-Trimethylbenzene	P	P	P	P	P	P	P
Vinyl Chloride	P	P	P	P	P	P	P
m & p-Xylene	P	P	P	P	P	P	P
o-Xylene	P	P	P	P	P	P	P

P = Passed QC limits.

F = Failed QC limits.

NA = Not Applicable

VOC analysis detected unidentified peaks.

Authorized Signature



Analytical Laboratory

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 414-735-8295

WI DNR Certified Lab #445027660

Method 8021 Volatile Organic Compounds

 Gary Graham
 Northern Environmental
 1214 W Venture Court
 Mequon, WI 53092

 Project #: CLW131246
 Project : Cedarburg
 Sample ID: Trip Blank
 Lab Code: 5012802B
 Sample Type: Water
 Sample Date: 21-Mar-96
 Date Analyzed: 27-Mar-96

 Report Date: 29-Mar-96
 Analyzed By: R. Everson

ANALYTE	RESULT	MDL UG/L	PQL UG/L
Benzene	< 0.26	0.082	0.26
Bromobenzene	< 0.24	0.075	0.24
Bromodichloromethane	< 0.11	0.035	0.11
n-Butylbenzene	< 0.45	0.14	0.45
sec-Butylbenzene	< 0.49	0.15	0.49
tert-Butylbenzene	< 0.4	0.12	0.4
Carbon Tetrachloride	< 0.5	0.16	0.5
Chlorobenzene	< 0.27	0.086	0.27
Chloroethane	< 0.5	0.39	1.3
Chloroform	< 0.22	0.07	0.22
Chloromethane	< 1	0.88	3.1
2-Chlorotoluene	< 0.65	0.21	0.65
4-Chlorotoluene	< 0.19	0.06	0.19
1,2-Dibromo-3-Chloropropane	< 1	0.83	2.7
Dibromochloromethane	< 0.09	0.028	0.09
1,2-Dichlorobenzene	< 0.11	0.035	0.11
1,3-Dichlorobenzene	< 0.83	0.23	0.83
1,4-Dichlorobenzene	< 0.13	0.039	0.13
Dichlorodifluoromethane	< 5.4	1.7	5.4
1,1-Dichloroethene	< 0.37	0.12	0.37
1,2-Dichloroethane	< 0.86	0.27	0.86
1,1-Dichloroethane	< 0.27	0.084	0.27
cis 1,2-Dichloroethene	< 0.29	0.092	0.29
trans-1,2-dichloroethene	< 0.23	0.072	0.23
1,2-Dichloropropane	< 0.15	0.046	0.15
1,3-DCP, Tetrachloroethene	< 0.56	0.17	0.56

ANALYTE	RESULT	MDL UG/L	PQL UG/L
2,2-Dichloropropane	< 1	0.63	2.2
Di-isopropyl Ether	< 0.38	0.12	0.38
Ethylbenzene	< 0.32	0.1	0.32
EDB (1,2-Dibromoethane)	< 0.08	0.025	0.08
Hexachlorobutadiene	< 0.35	0.11	0.35
Isopropylbenzene	< 0.36	0.11	0.36
p-Isopropyltoluene	< 0.46	0.15	0.46
Methylene Chloride	< 4	0.29	0.91
MTBE	< 0.22	0.069	0.22
Naphthalene	< 0.41	0.13	0.41
n-Propylbenzene	< 0.41	0.13	0.41
1,1,2,2-Tetrachloroethane	< 0.31	0.099	0.31
Tetrachloroethene	< 0.56	0.17	0.56
Toluene	< 0.69	0.22	0.69
1,2,3-Trichlorobenzene	< 1	0.31	1.1
1,2,4-Trichlorobenzene	< 0.91	0.26	0.91
1,1,1-Trichloroethane	< 0.63	0.2	0.63
1,1,2-Trichloroethane	< 0.17	0.055	0.17
Trichloroethene	< 0.18	0.055	0.18
Trichlorofluoromethane	< 1.4	1.4	4.4
1,2,4-Trimethylbenzene	< 0.57	0.18	0.57
1,3,5-Trimethylbenzene	< 0.57	0.18	0.57
Vinyl Chloride	< 0.54	0.17	0.54
m&p-Xylene	< 0.9	0.28	0.9
o-Xylene	< 0.33	0.1	0.33

 MDL = Method Detection Limit
 PQL = Practical Quantitation Limit
 NA = Not Applicable

 Fluorobenzene Surrogate 98 % Rec.
 1,4-Dichlorobutane Surrogate 106 % Rec.
 Sample pH 1.4

Authorized Signature



Analytical Laboratory

 1090 Kennedy Ave. Kimberly, WI 54136
 414-735-8295

WI DNR Certified Lab #445027660

QC Summary
Method 8021 Volatile Organic Compounds

 Project #: CLW131246 Report Date: 29-Mar-96
 Sample ID: Trip Blank Lab Code: 5012802B

ANALYTE	INITIAL CALIBRATION	KNOWN STANDARD	MATRIX SPIKE	REPLICATE SPIKE	BLANK	PID SURROGATE	HALL SURROGATE
Benzene	P	P	P	P	P	P	P
Bromobenzene	P	P	F	P	P	P	P
Bromodichloromethane	P	P	P	P	P	P	P
n-Butylbenzene	P	P	P	P	P	P	P
sec-Butylbenzene	P	P	P	P	P	P	P
tert-Butylbenzene	P	P	P	P	P	P	P
Carbon Tetrachloride	P	P	P	P	P	P	P
Chlorobenzene	P	P	P	P	P	P	P
Chloroethane	P	F	F	P	P	P	P
Chloroform	P	P	P	P	P	P	P
Chloromethane	P	F	P	P	P	P	P
2-Chlorotoluene	P	P	P	P	P	P	P
4-Chlorotoluene	P	P	P	P	P	P	P
1,2-Dibromo-3-Chloropropane	P	P	P	P	P	P	P
Dibromochloromethane	P	P	P	P	P	P	P
1,2-Dichlorobenzene	P	P	P	P	P	P	P
1,3-Dichlorobenzene	P	P	P	P	P	P	P
1,4-Dichlorobenzene	P	P	P	P	P	P	P
Dichlorodifluoromethane	P	F	P	P	P	P	P
1,1-Dichloroethane	P	P	P	P	P	P	P
1,2-Dichloroethane	P	P	P	P	P	P	P
1,1-Dichloroethene	P	P	P	P	P	P	P
cis-1,2-Dichloroethene	P	P	P	P	P	P	P
trans-1,2-Dichloroethene	P	P	P	P	P	P	P
1,2-Dichloropropane	P	P	P	P	P	P	P
1,3-Dichloropropane	P	P	P	P	P	P	P
2,2-Dichloropropane	P	F	F	P	P	P	P
Di-Isopropyl Ether	P	P	P	P	P	P	P
Ethylbenzene	P	P	P	P	P	P	P
EDB (1,2-Dibromoethane)	P	P	P	P	P	P	P
Hexachlorobutadiene	P	P	P	P	P	P	P
Isopropylbenzene	P	P	P	P	P	P	P
p-Isopropyltoluene	P	P	P	P	P	P	P
Methylene Chloride	P	F	P	P	P	P	P
MTBE	P	P	P	P	P	P	P
Naphthalene	P	P	P	P	P	P	P
n-Propylbenzene	P	P	P	P	P	P	P
1,1,2,2-Tetrachloroethane	P	P	P	P	P	P	P
Tetrachloroethene	P	P	P	P	P	P	P
Toluene	P	P	P	P	P	P	P
1,2,3-Trichlorobenzene	P	P	P	P	P	P	P
1,2,4-Trichlorobenzene	P	P	P	P	P	P	P
1,1,1-Trichloroethane	P	P	P	P	P	P	P
1,1,2-Trichloroethane	P	P	P	P	P	P	P
Trichloroethene	P	P	P	P	P	P	P
Trichlorofluoromethane	P	P	P	P	P	P	P
1,2,4-Trimethylbenzene	P	P	P	P	P	P	P
1,3,5-Trimethylbenzene	P	P	P	P	P	P	P
Vinyl Chloride	P	P	P	P	P	P	P
m & p-Xylene	P	P	P	P	P	P	P
o-Xylene	P	P	P	P	P	P	P

P = Passed QC limits.

F = Failed QC limits.

NA = Not Applicable

VOC analysis detected unidentified peaks.

Authorized Signature



Analytical Laboratory

 1090 Kennedy Ave. Kimberly, WI 54136
 414-735-8295

WI DNR Certified Lab #445027660

 Gary Graham
 Northern Environmental
 1214 W Venture Court
 Mequon, WI 53092

 Project #: CLW131246
 Project : Cedarburg
 Sample ID: MW500
 Lab Code: 5012802C
 Sample Type: Water
 Sample Date: 21-Mar-96

Report Date: 29-Mar-96

Test	Result	MDL	PQL	Unit	pH	Date Ext/Digested	Date Analyzed:	Analyzed By:	QC Code
MODIFIED DRO WDNR JULY 93	< 100	17	55	UG/L	0.0	26-Mar-96	27-Mar-96	C. Rotar	1

MDL = Method Detection Limit

PQL = Practical Quantitation Limit

ND = Compound Not Detected

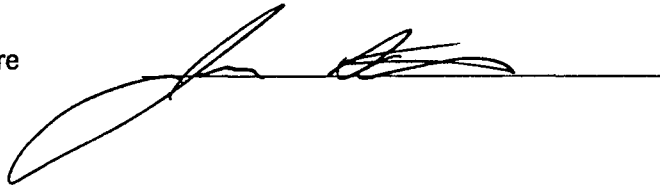
QC SUMMARY

CODE:

1

All laboratory QC requirements were met for this sample.

Authorized Signature



Analytical Laboratory

 1090 Kennedy Ave. Kimberly, WI 54136
 414-735-8295

WI DNR Certified Lab #445027660

Method 8021 Volatile Organic Compounds

 Gary Graham
 Northern Environmental
 1214 W Venture Court
 Mequon, WI 53092

 Project #: CLW131246
 Project : Cedarburg
 Sample ID: MW500
 Lab Code: 5012802C
 Sample Type: Water
 Sample Date: 21-Mar-96
 Date Analyzed: 28-Mar-96

 Report Date: 29-Mar-96
 Analyzed By: R. Everson

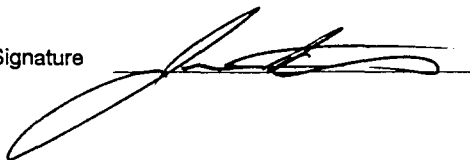
ANALYTE	RESULT	MDL UG/L	PQL UG/L
Benzene	< 0.26	0.082	0.26
Bromobenzene	< 0.24	0.075	0.24
Bromodichloromethane	< 0.11	0.035	0.11
n-Butylbenzene	< 0.45	0.14	0.45
sec-Butylbenzene	< 0.49	0.15	0.49
tert-Butylbenzene	< 0.4	0.12	0.4
Carbon Tetrachloride	< 0.5	0.16	0.5
Chlorobenzene	< 0.27	0.086	0.27
Chloroethane	< 0.5	0.39	1.3
Chloroform	< 0.22	0.07	0.22
Chloromethane	< 1	0.88	3.1
2-Chlorotoluene	< 0.65	0.21	0.65
4-Chlorotoluene	< 0.19	0.06	0.19
1,2-Dibromo-3-Chloropropane	< 1	0.83	2.7
Dibromochloromethane	< 0.09	0.028	0.09
1,2-Dichlorobenzene	< 0.11	0.035	0.11
1,3-Dichlorobenzene	< 0.83	0.23	0.83
1,4-Dichlorobenzene	< 0.13	0.039	0.13
Dichlorodifluoromethane	< 5.4	1.7	5.4
1,1-Dichloroethene	< 0.37	0.12	0.37
1,2-Dichloroethane	< 0.86	0.27	0.86
1,1-Dichloroethane	< 0.27	0.084	0.27
cis 1,2-Dichloroethene	< 0.29	0.092	0.29
trans-1,2-dichloroethene	< 0.23	0.072	0.23
1,2-Dichloropropane	< 0.15	0.046	0.15
1,3-DCP, Tetrachloroethene	< 0.56	0.17	0.56

ANALYTE	RESULT	MDL UG/L	PQL UG/L
2,2-Dichloropropane	< 1	0.63	2.2
Di-isopropyl Ether	< 0.38	0.12	0.38
Ethylbenzene	< 0.32	0.1	0.32
EDB (1,2-Dibromoethane)	< 0.08	0.025	0.08
Hexachlorobutadiene	< 0.35	0.11	0.35
Isopropylbenzene	< 0.36	0.11	0.36
p-Isopropyltoluene	< 0.46	0.15	0.46
Methylene Chloride	< 4	0.29	0.91
MTBE	< 0.22	0.069	0.22
Naphthalene	< 0.41	0.13	0.41
n-Propylbenzene	< 0.41	0.13	0.41
1,1,2,2-Tetrachloroethane	< 0.31	0.099	0.31
Tetrachloroethene	< 0.56	0.17	0.56
Toluene	< 0.69	0.22	0.69
1,2,3-Trichlorobenzene	< 1	0.31	1.1
1,2,4-Trichlorobenzene	< 0.91	0.26	0.91
1,1,1-Trichloroethane	< 0.63	0.2	0.63
1,1,2-Trichloroethane	< 0.17	0.055	0.17
Trichloroethene	< 0.18	0.055	0.18
Trichlorofluoromethane	< 1.4	1.4	4.4
1,2,4-Trimethylbenzene	< 0.57	0.18	0.57
1,3,5-Trimethylbenzene	< 0.57	0.18	0.57
Vinyl Chloride	< 0.54	0.17	0.54
m&p-Xylene	< 0.9	0.28	0.9
o-Xylene	< 0.33	0.1	0.33

 MDL = Method Detection Limit
 PQL = Practical Quantitation Limit
 NA = Not Applicable

 Fluorobenzene Surrogate 98 % Rec.
 1,4-Dichlorobutane Surrogate 106 % Rec.
 Sample pH 1.5

Authorized Signature



Analytical Laboratory

 1090 Kennedy Ave. Kimberly, WI 54136
 414-735-8295

WI DNR Certified Lab #445027660

QC Summary
Method 8021 Volatile Organic Compounds

 Project #: CLW131246 Report Date: 29-Mar-96
 Sample ID: MW500 Lab Code: 5012802C

ANALYTE	INITIAL	KNOWN	MATRIX	REPLICATE	BLANK	PID	HALL
	CALIBRATION	STANDARD	SPIKE	SPIKE		SURROGATE	SURROGATE
Benzene	P	P	P	P	P	P	P
Bromobenzene	P	P	F	P	P	P	P
Bromodichloromethane	P	P	P	P	P	P	P
n-Butylbenzene	P	P	P	P	P	P	P
sec-Butylbenzene	P	P	P	P	P	P	P
tert-Butylbenzene	P	P	P	P	P	P	P
Carbon Tetrachloride	P	P	P	P	P	P	P
Chlorobenzene	P	P	P	P	P	P	P
Chloroethane	P	F	F	P	P	P	P
Chloroform	P	P	P	P	P	P	P
Chloromethane	P	F	P	P	P	P	P
2-Chlorotoluene	P	P	P	P	P	P	P
4-Chlorotoluene	P	P	P	P	P	P	P
1,2-Dibromo-3-Chloropropane	P	P	P	P	P	P	P
Dibromochloromethane	P	P	P	P	P	P	P
1,2-Dichlorobenzene	P	P	P	P	P	P	P
1,3-Dichlorobenzene	P	P	P	P	P	P	P
1,4-Dichlorobenzene	P	P	P	P	P	P	P
Dichlorodifluoromethane	P	F	P	P	P	P	P
1,1-Dichloroethane	P	P	P	P	P	P	P
1,2-Dichloroethane	P	P	P	P	P	P	P
1,1-Dichloroethene	P	P	P	P	P	P	P
cis-1,2-Dichloroethene	P	P	P	P	P	P	P
trans-1,2-Dichloroethene	P	P	P	P	P	P	P
1,2-Dichloropropane	P	P	P	P	P	P	P
1,3-Dichloropropane	P	P	P	P	P	P	P
2,2-Dichloropropane	P	F	F	P	P	P	P
Di-Isopropyl Ether	P	P	P	P	P	P	P
Ethylbenzene	P	P	P	P	P	P	P
EDB (1,2-Dibromoethane)	P	P	P	P	P	P	P
Hexachlorobutadiene	P	P	P	P	P	P	P
Isopropylbenzene	P	P	P	P	P	P	P
p-Isopropyltoluene	P	P	P	P	P	P	P
Methylene Chloride	P	F	P	P	P	P	P
MTBE	P	P	P	P	P	P	P
Naphthalene	P	P	P	P	P	P	P
n-Propylbenzene	P	P	P	P	P	P	P
1,1,2,2-Tetrachloroethane	P	P	P	P	P	P	P
Tetrachloroethene	P	P	P	P	P	P	P
Toluene	P	P	P	P	P	P	P
1,2,3-Trichlorobenzene	P	P	P	P	P	P	P
1,2,4-Trichlorobenzene	P	P	P	P	P	P	P
1,1,1-Trichloroethane	P	P	P	P	P	P	P
1,1,2-Trichloroethane	P	P	P	P	P	P	P
Trichloroethene	P	P	P	P	P	P	P
Trichlorofluoromethane	P	P	P	P	P	P	P
1,2,4-Trimethylbenzene	P	P	P	P	P	P	P
1,3,5-Trimethylbenzene	P	P	P	P	P	P	P
Vinyl Chloride	P	P	P	P	P	P	P
m & p-Xylene	P	P	P	P	P	P	P
o-Xylene	P	P	P	P	P	P	P

P = Passed QC limits.

F = Failed QC limits.

NA = Not Applicable

VOC analysis detected unidentified peaks.

Authorized Signature



Analytical Laboratory

 1090 Kennedy Ave. Kimberly, WI 54136
 414-735-8295

WI DNR Certified Lab #445027660

 Gary Graham
 Northern Environmental
 1214 W Venture Court
 Mequon, WI 53092

 Project #: CLW131246
 Project : Cedarburg
 Sample ID: MW400
 Lab Code: 5012802D
 Sample Type: Water
 Sample Date: 21-Mar-96

Report Date: 29-Mar-96

Test	Result	MDL	PQL	Unit	pH	Date Ext/Digested	Date Analyzed:	Analyzed By:	QC Code
MODIFIED DRO WDNR JULY 93	< 100	17	55	UG/L	0.0	26-Mar-96	27-Mar-96	C. Rotar	1

MDL = Method Detection Limit

PQL = Practical Quantitation Limit

ND = Compound Not Detected

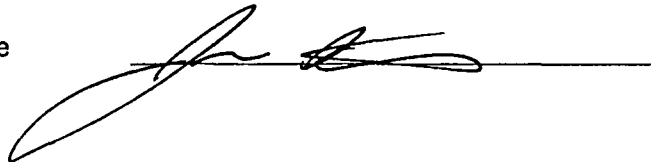
QC SUMMARY

CODE:

1

All laboratory QC requirements were met for this sample.

Authorized Signature



Analytical Laboratory

1090 Kennedy Ave. Kimberly, WI 54136
414-735-8295

WI DNR Certified Lab #445027660

Method 8021 Volatile Organic Compounds

Gary Graham
Northern Environmental
1214 W Venture Court
Mequon, WI 53092

Project #: CLW131246
Project : Cedarburg
Sample ID: MW400
Lab Code: 5012802D
Sample Type: Water
Sample Date: 21-Mar-96
Date Analyzed: 28-Mar-96

Report Date: 29-Mar-96
Analyzed By: R. Everson

ANALYTE	RESULT	MDL UG/L	PQL UG/L
Benzene	< 0.26	0.082	0.26
Bromobenzene	< 0.24	0.075	0.24
Bromodichloromethane	< 0.11	0.035	0.11
n-Butylbenzene	< 0.45	0.14	0.45
sec-Butylbenzene	< 0.49	0.15	0.49
tert-Butylbenzene	< 0.4	0.12	0.4
Carbon Tetrachloride	< 0.5	0.16	0.5
Chlorobenzene	< 0.27	0.086	0.27
Chloroethane	< 0.5	0.39	1.3
Chloroform	< 0.22	0.07	0.22
Chloromethane	< 1	0.88	3.1
2-Chlorotoluene	< 0.65	0.21	0.65
4-Chlorotoluene	< 0.19	0.06	0.19
1,2-Dibromo-3-Chloropropane	< 1	0.83	2.7
Dibromochloromethane	< 0.09	0.028	0.09
1,2-Dichlorobenzene	< 0.11	0.035	0.11
1,3-Dichlorobenzene	< 0.83	0.23	0.83
1,4-Dichlorobenzene	< 0.13	0.039	0.13
Dichlorodifluoromethane	< 5.4	1.7	5.4
1,1-Dichloroethene	< 0.37	0.12	0.37
1,2-Dichloroethane	< 0.86	0.27	0.86
1,1-Dichloroethane	< 0.27	0.084	0.27
cis 1,2-Dichloroethene	0.35	0.092	0.29
trans-1,2-dichloroethene	< 0.23	0.072	0.23
1,2-Dichloropropane	< 0.15	0.046	0.15
1,3-DCP, Tetrachloroethene	< 0.56	0.17	0.56

ANALYTE	RESULT	MDL UG/L	PQL UG/L
2,2-Dichloropropane	< 1	0.63	2.2
Di-isopropyl Ether	< 0.38	0.12	0.38
Ethylbenzene	< 0.32	0.1	0.32
EDB (1,2-Dibromoethane)	< 0.08	0.025	0.08
Hexachlorobutadiene	< 0.35	0.11	0.35
Isopropylbenzene	< 0.36	0.11	0.36
p-Isopropyltoluene	< 0.46	0.15	0.46
Methylene Chloride	< 4	0.29	0.91
MTBE	< 0.22	0.069	0.22
Naphthalene	< 0.41	0.13	0.41
n-Propylbenzene	< 0.41	0.13	0.41
1,1,2,2-Tetrachloroethane	< 0.31	0.099	0.31
Tetrachloroethene	< 0.56	0.17	0.56
Toluene	< 0.69	0.22	0.69
1,2,3-Trichlorobenzene	< 1	0.31	1.1
1,2,4-Trichlorobenzene	< 0.91	0.26	0.91
1,1,1-Trichloroethane	< 0.63	0.2	0.63
1,1,2-Trichloroethane	< 0.17	0.055	0.17
Trichloroethene	< 0.18	0.055	0.18
Trichlorofluoromethane	< 1.4	1.4	4.4
1,2,4-Trimethylbenzene	< 0.57	0.18	0.57
1,3,5-Trimethylbenzene	< 0.57	0.18	0.57
Vinyl Chloride	< 0.54	0.17	0.54
m&p-Xylene	< 0.9	0.28	0.9
o-Xylene	< 0.33	0.1	0.33

MDL = Method Detection Limit
PQL = Practical Quantitation Limit
NA = Not Applicable

Fluorobenzene Surrogate 98 % Rec.
1,4-Dichlorobutane Surrogate 105 % Rec.
Sample pH 1.5

Authorized Signature



Analytical Laboratory

 1090 Kennedy Ave. Kimberly, WI 54136
 414-735-8295

WI DNR Certified Lab #445027660

QC Summary'
Method 8021 Volatile Organic Compounds

 Project #: CLW131246 Report Date: 29-Mar-96
 Sample ID: MW400 Lab Code: 5012802D

ANALYTE	INITIAL CALIBRATION	KNOWN STANDARD	MATRIX SPIKE	REPLICATE SPIKE	BLANK	PID SURROGATE	HALL SURROGATE
Benzene	P	P	P	P	P	P	P
Bromobenzene	P	P	F	P	P	P	P
Bromodichloromethane	P	P	P	P	P	P	P
n-Butylbenzene	P	P	P	P	P	P	P
sec-Butylbenzene	P	P	P	P	P	P	P
tert-Butylbenzene	P	P	P	P	P	P	P
Carbon Tetrachloride	P	P	P	P	P	P	P
Chlorobenzene	P	P	P	P	P	P	P
Chloroethane	P	F	F	P	P	P	P
Chloroform	P	P	P	P	P	P	P
Chloromethane	P	F	P	P	P	P	P
2-Chlorotoluene	P	P	P	P	P	P	P
4-Chlorotoluene	P	P	P	P	P	P	P
1,2-Dibromo-3-Chloropropane	P	P	P	P	P	P	P
Dibromochloromethane	P	P	P	P	P	P	P
1,2-Dichlorobenzene	P	P	P	P	P	P	P
1,3-Dichlorobenzene	P	P	P	P	P	P	P
1,4-Dichlorobenzene	P	P	P	P	P	P	P
Dichlorodifluoromethane	P	F	P	P	P	P	P
1,1-Dichloroethane	P	P	P	P	P	P	P
1,2-Dichloroethane	P	P	P	P	P	P	P
1,1-Dichloroethene	P	P	P	P	P	P	P
cis-1,2-Dichloroethene	P	P	P	P	P	P	P
trans-1,2-Dichloroethene	P	P	P	P	P	P	P
1,2-Dichloropropane	P	P	P	P	P	P	P
1,3-Dichloropropane	P	P	P	P	P	P	P
2,2-Dichloropropane	P	F	F	P	P	P	P
Di-Isopropyl Ether	P	P	P	P	P	P	P
Ethylbenzene	P	P	P	P	P	P	P
EDB (1,2-Dibromoethane)	P	P	P	P	P	P	P
Hexachlorobutadiene	P	P	P	P	P	P	P
Isopropylbenzene	P	P	P	P	P	P	P
p-Isopropyltoluene	P	P	P	P	P	P	P
Methylene Chloride	P	F	P	P	P	P	P
MTBE	P	P	P	P	P	P	P
Naphthalene	P	P	P	P	P	P	P
n-Propylbenzene	P	P	P	P	P	P	P
1,1,2,2-Tetrachloroethane	P	P	P	P	P	P	P
Tetrachloroethene	P	P	P	P	P	P	P
Toluene	P	P	P	P	P	P	P
1,2,3-Trichlorobenzene	P	P	P	P	P	P	P
1,2,4-Trichlorobenzene	P	P	P	P	P	P	P
1,1,1-Trichloroethane	P	P	P	P	P	P	P
1,1,2-Trichloroethane	P	P	P	P	P	P	P
Trichloroethene	P	P	P	P	P	P	P
Trichlorofluoromethane	P	P	P	P	P	P	P
1,2,4-Trimethylbenzene	P	P	P	P	P	P	P
1,3,5-Trimethylbenzene	P	P	P	P	P	P	P
Vinyl Chloride	P	P	P	P	P	P	P
m & p-Xylene	P	P	P	P	P	P	P
o-Xylene	P	P	P	P	P	P	P

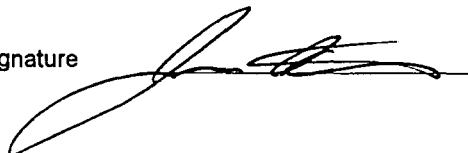
P = Passed QC limits.

F = Failed QC limits.

NA = Not Applicable

VOC analysis detected unidentified peaks.

Authorized Signature





Analytical Laboratory

1090 Kennedy Ave. Kimberly, WI 54136
414-735-8295

WI DNR Certified Lab #445027660

Gary Graham
Northern Environmental
1214 W Venture Court
Mequon, WI 53092

Project #: CLW131246
Project : Cedarburg
Sample ID: MW300
Lab Code: 5012802E
Sample Type: Water
Sample Date: 21-Mar-96

Report Date: 29-Mar-96

Test	Result	MDL	PQL	Unit	pH	Date Ext/Digested	Date Analyzed:	Analyzed By:	QC Code
MODIFIED DRO WDNR JULY 93	400	17	55	UG/L	0.0	26-Mar-96	27-Mar-96	C. Rotar	1

MDL = Method Detection Limit

PQL = Practical Quantitation Limit

ND = Compound Not Detected

QC SUMMARY

CODE:

1 All laboratory QC requirements were met for this sample.

Authorized Signature

Analytical Laboratory

 1090 Kennedy Ave. Kimberly, WI 54136
 414-735-8295

WI DNR Certified Lab #445027660

Method 8021 Volatile Organic Compounds

 Gary Graham
 Northern Environmental
 1214 W Venture Court
 Mequon, WI 53092

 Project #: CLW131246
 Project : Cedarburg
 Sample ID: MW300
 Lab Code: 5012802E
 Sample Type: Water
 Sample Date: 21-Mar-96
 Date Analyzed: 28-Mar-96

 Report Date: 29-Mar-96
 Analyzed By: R. Everson

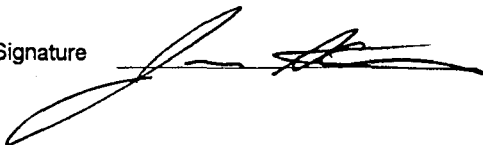
ANALYTE	RESULT	MDL UG/L	PQL UG/L
Benzene	1.1	0.082	0.26
Bromobenzene	< 0.24	0.075	0.24
Bromodichloromethane	< 0.11	0.035	0.11
n-Butylbenzene	< 0.45	0.14	0.45
sec-Butylbenzene	< 0.49	0.15	0.49
tert-Butylbenzene	< 0.4	0.12	0.4
Carbon Tetrachloride	< 0.5	0.16	0.5
Chlorobenzene	< 0.27	0.086	0.27
Chloroethane	3.9	0.39	1.3
Chloroform	< 0.22	0.07	0.22
Chloromethane	< 1	0.88	3.1
2-Chlorotoluene	< 0.65	0.21	0.65
4-Chlorotoluene	< 0.19	0.06	0.19
1,2-Dibromo-3-Chloropropane	< 1	0.83	2.7
Dibromochloromethane	< 0.09	0.028	0.09
1,2-Dichlorobenzene	0.31	0.035	0.11
1,3-Dichlorobenzene	< 0.83	0.23	0.83
1,4-Dichlorobenzene	< 0.13	0.039	0.13
Dichlorodifluoromethane	< 5.4	1.7	5.4
1,1-Dichloroethene	< 0.37	0.12	0.37
1,2-Dichloroethane	< 0.86	0.27	0.86
1,1-Dichloroethane	1.3	0.084	0.27
cis 1,2-Dichloroethene	0.32	0.092	0.29
trans-1,2-dichloroethene	< 0.23	0.072	0.23
1,2-Dichloropropane	< 0.15	0.046	0.15
1,3-DCP, Tetrachloroethene	< 0.56	0.17	0.56

ANALYTE	RESULT	MDL UG/L	PQL UG/L
2,2-Dichloropropane	< 1	0.63	2.2
Di-isopropyl Ether	< 0.38	0.12	0.38
Ethylbenzene	< 0.32	0.1	0.32
EDB (1,2-Dibromoethane)	< 0.08	0.025	0.08
Hexachlorobutadiene	< 0.35	0.11	0.35
Isopropylbenzene	< 0.36	0.11	0.36
p-Isopropyltoluene	< 0.46	0.15	0.46
Methylene Chloride	< 4	0.29	0.91
MTBE	< 0.22	0.069	0.22
Naphthalene	4.9	0.13	0.41
n-Propylbenzene	< 0.41	0.13	0.41
1,1,2,2-Tetrachloroethane	< 0.31	0.099	0.31
Tetrachloroethene	1.5	0.17	0.56
Toluene	< 0.69	0.22	0.69
1,2,3-Trichlorobenzene	< 1	0.31	1.1
1,2,4-Trichlorobenzene	< 0.91	0.26	0.91
1,1,1-Trichloroethane	< 0.63	0.2	0.63
1,1,2-Trichloroethane	< 0.17	0.055	0.17
Trichloroethene	< 0.18	0.055	0.18
Trichlorofluoromethane	< 1.4	1.4	4.4
1,2,4-Trimethylbenzene	< 0.57	0.18	0.57
1,3,5-Trimethylbenzene	< 0.57	0.18	0.57
Vinyl Chloride	< 0.54	0.17	0.54
m&p-Xylene	< 0.9	0.28	0.9
o-Xylene	0.62	0.1	0.33

 Fluorobenzene Surrogate 98 % Rec.
 1,4-Dichlorobutane Surrogate 106 % Rec.
 Sample pH 1.5

 MDL = Method Detection Limit
 PQL = Practical Quantitation Limit
 NA = Not Applicable

Authorized Signature



Analytical Laboratory

 1090 Kennedy Ave. Kimberly, WI 54136
 414-735-8295

WI DNR Certified Lab #445027660

QC Summary
Method 8021 Volatile Organic Compounds

 Project #: CLW131246 Report Date: 29-Mar-96
 Sample ID: MW300 Lab Code: 5012802E

ANALYTE	INITIAL	KNOWN	MATRIX	REPLICATE	BLANK	PID	HALL
	CALIBRATION	STANDARD	SPIKE	SPIKE		SURROGATE	SURROGATE
Benzene	P	P	P	P	P	P	P
Bromobenzene	P	P	F	P	P	P	P
Bromodichloromethane	P	P	P	P	P	P	P
n-Butylbenzene	P	P	P	P	P	P	P
sec-Butylbenzene	P	P	P	P	P	P	P
tert-Butylbenzene	P	P	P	P	P	P	P
Carbon Tetrachloride	P	P	P	P	P	P	P
Chlorobenzene	P	P	P	P	P	P	P
Chloroethane	P	F	F	P	P	P	P
Chloroform	P	P	P	P	P	P	P
Chloromethane	P	F	P	P	P	P	P
2-Chlorotoluene	P	P	P	P	P	P	P
4-Chlorotoluene	P	P	P	P	P	P	P
1,2-Dibromo-3-Chloropropane	P	P	P	P	P	P	P
Dibromochloromethane	P	P	P	P	P	P	P
1,2-Dichlorobenzene	P	P	P	P	P	P	P
1,3-Dichlorobenzene	P	P	P	P	P	P	P
1,4-Dichlorobenzene	P	P	P	P	P	P	P
Dichlorodifluoromethane	P	F	P	P	P	P	P
1,1-Dichloroethane	P	P	P	P	P	P	P
1,2-Dichloroethane	P	P	P	P	P	P	P
1,1-Dichloroethene	P	P	P	P	P	P	P
cis-1,2-Dichloroethene	P	P	P	P	P	P	P
trans-1,2-Dichloroethene	P	P	P	P	P	P	P
1,2-Dichloropropane	P	P	P	P	P	P	P
1,3-Dichloropropane	P	P	P	P	P	P	P
2,2-Dichloropropane	P	F	F	P	P	P	P
Di-Isopropyl Ether	P	P	P	P	P	P	P
Ethylbenzene	P	P	P	P	P	P	P
EDB (1,2-Dibromoethane)	P	P	P	P	P	P	P
Hexachlorobutadiene	P	P	P	P	P	P	P
Isopropylbenzene	P	P	P	P	P	P	P
p-Isopropyltoluene	P	P	P	P	P	P	P
Methylene Chloride	P	F	P	P	P	P	P
MTBE	P	P	P	P	P	P	P
Naphthalene	P	P	P	P	P	P	P
n-Propylbenzene	P	P	P	P	P	P	P
1,1,2,2-Tetrachloroethane	P	P	P	P	P	P	P
Tetrachloroethene	P	P	P	P	P	P	P
Toluene	P	P	P	P	P	P	P
1,2,3-Trichlorobenzene	P	P	P	P	P	P	P
1,2,4-Trichlorobenzene	P	P	P	P	P	P	P
1,1,1-Trichloroethane	P	P	P	P	P	P	P
1,1,2-Trichloroethane	P	P	P	P	P	P	P
Trichloroethene	P	P	P	P	P	P	P
Trichlorofluoromethane	P	P	P	P	P	P	P
1,2,4-Trimethylbenzene	P	P	P	P	P	P	P
1,3,5-Trimethylbenzene	P	P	P	P	P	P	P
Vinyl Chloride	P	P	P	P	P	P	P
m & p-Xylene	P	P	P	P	P	P	P
o-Xylene	P	P	P	P	P	P	P

P = Passed QC limits.

F = Failed QC limits.

NA = Not Applicable

VOC analysis detected unidentified peaks.

Authorized Signature

