246100800
BRR/LUST
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Rec.
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FOURTH QUARTER 1996 GROUND-WATER QUALITY MONITORING REPORT AND SITE CLOSURE REQUEST

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

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

April 4, 1997

Northern Environmental℠
Hydrologists • Engineers • Geologists

1214 West Venture Court
Mequon, WI 53092
414-241-3133
Fax 414-241-8222
1-800-776-7140

April 4, 1997
(CLW131246)

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

RE: Ground-Water Quality Monitoring Report and Site Closure Request, 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 final round of the Wisconsin Department of Natural Resources (WDNR)-approved four rounds 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 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 that described the investigation and presented the results (Northern Environmental, 1994). The 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 soil was 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. Elevated concentrations of DRO are present in soil beneath the power plant 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 Chapter NR 140, Wisconsin Administrative Code enforcement standards (ES). Benzene concentrations above the NR 140, Wis. Adm. Code 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). Three quarterly reports have been prepared and submitted to the WDNR. This letter describes the fourth quarter ground-water quality monitoring.

Methods Of Investigation

Ground-water samples were collected from the four monitoring wells on December 6, 1996. Before purging and sampling the monitoring wells, the depth to water in each well was measured to evaluate ground-water flow direction. The depth to water measurements were converted to elevations relative to a site datum. The monitoring wells were purged before sampling in accordance with WDNR requirements (NR 141, Wis. Adm. Code).

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 into appropriate sample containers using new bottom-emptying devices. The samples were preserved with hydrochloric acid, labeled, and chilled until delivery to 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 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 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 reports and the associated chain-of-custody record are provided in Attachment A.

Summary Of Findings

DRO and VOCs were not detected in monitoring wells MW400 and MW500. DRO was present in the ground-water samples from MW200 and MW300. Tetrachloroethene, trichlorethene, and 1,2-dibromoethane concentrations exceeded the ES in MW200. Tetrachloroethene and benzene concentrations exceeded the PAL but were below the ES in MW300. 1,2-dibromoethane and vinyl chloride concentrations exceeded the ES in MW300. All other VOCs were either not detected or were below their respective PALs. Ground-water sample laboratory analysis results are summarized in Table 1. Tetrachlorothene and trichloroethene concentrations are graphed versus time for MW200 in Figure 3.

December 6, 1996 water table conditions are depicted in Figure 2. Ground-water flow was predominantly eastward across the Property under an approximate hydraulic gradient of 0.01 foot per foot. Water table elevation data is summarized in Table 2. Figure 3 also graphs ground-water elevation in MW200 over time.

Impact Assessment

As described in previous reports, a high capacity municipal water supply well (Cedarburg Well #1) is present approximately 200 feet northeast of the Property. The geologic and construction log for this well were presented in an earlier report (Northern Environmental, 1995) and are presented again in Appendix B. Based on well logs and construction information, this well is cased with 10-inch steel casing to 718 feet depth. The casing extends through the Niagara Formation and the underlying Maquoketa Shale (approximately 200 feet thick). The well produces water from the underlying dolomite and sandstones. Total depth of the well is over 1200 feet.

Well construction and depth, and the presence of approximately 200 feet of low permeability shale should inhibit contaminants from the site from impacting this well. Nonetheless, various chlorinated solvents including trichloroethene and others not detected in shallow ground-water at the Property, have been detected in samples from this well. The source of these contaminants is currently unknown.

The City of Cedarburg periodically monitors the water quality in this well as required by the Safe Drinking Water Act. The water quality monitoring results for March, June, September, and December 1996 for this well are included in Attachment C.

Conclusions And Recommendations

Benzene, tetrachloroethene, trichloroethene, 1,2-dibromoethane, and vinyl chloride were present in monitoring wells MW200 and/or MW300 above the ES or the PAL. With the exception of 1,2-dibromoethane and vinyl chloride, which were detected for the first time in MW300, the results are generally consistent with previous water quality monitoring. While some VOCs (mainly tetra- and trichloroethene) are above the ES, the concentrations are not exceedingly high and, in some cases, are only slightly above the ES. Contaminant concentrations vary over a narrow range and are not increasing. In addition, the contaminant plume does not appear to be spreading downgradient. Therefore, the Cedarburg Light and Water Commission requests that the WDNR consider this case for closure.

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/lmh
Enclosures

c: Ms. Kaye Vance, Cook and Franke, S.C.
Mr. John Feeney, Wisconsin Department of Natural Resources

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.

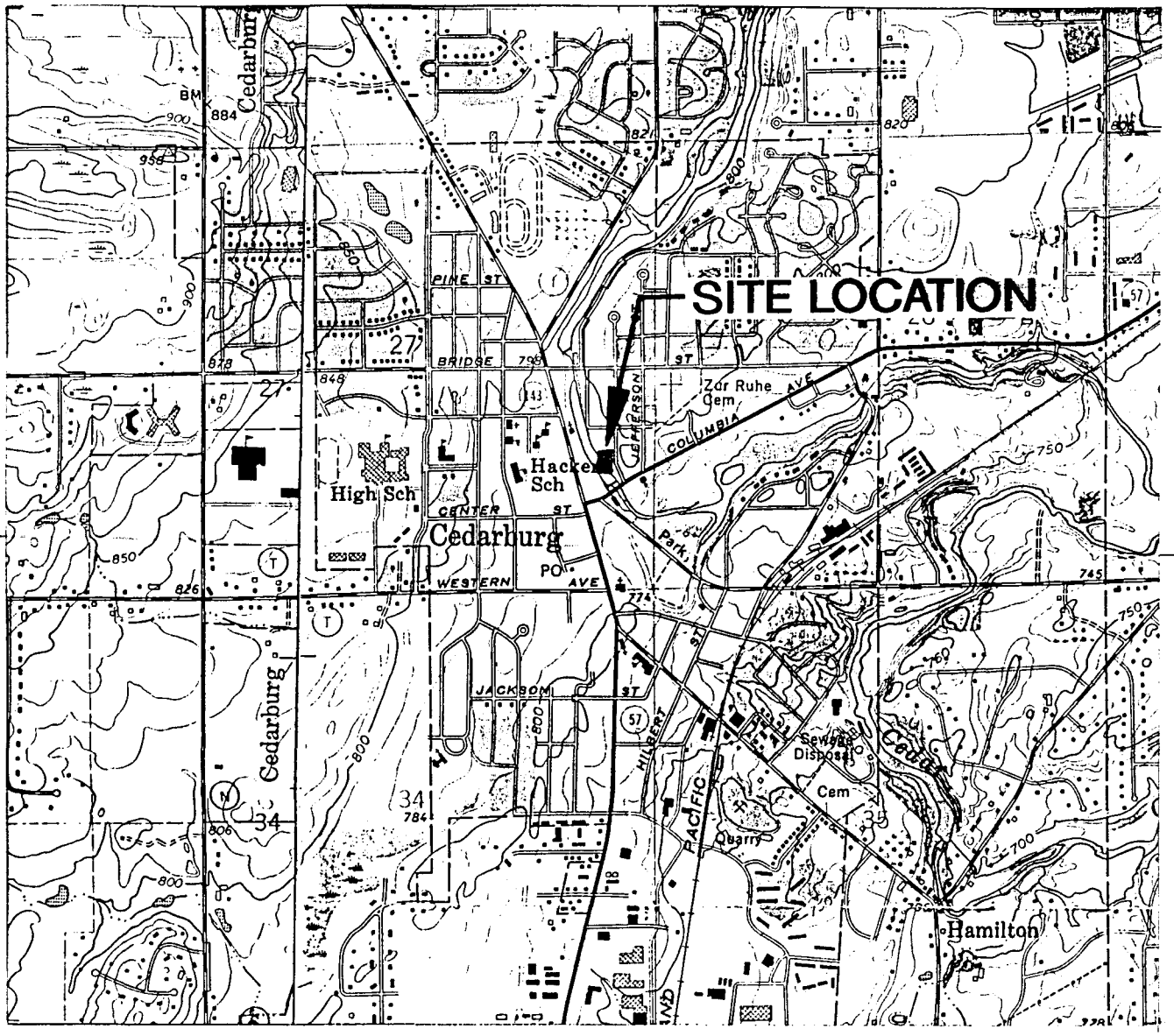
Northern Environmental Technologies, Incorporated, "Site Investigation Results, Former Power Plant, W61 N617 Mequon Avenue, Cedarburg, Wisconsin," April 15, 1994.

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, September 1995.

FIGURES



SCALE 1" = 2000'

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

CONTOUR INTERVAL 10 FEET

NATIONAL GEODETIC VERTICAL DATUM OF 1929

QUADRANGLE LOCATION

N

BASE MAP SOURCE: USGS WISCONSIN 7.5 MINUTE TOPOGRAPHIC SERIES, CEDARBURG AND FIVE CORNERS, WISCONSIN, 1971

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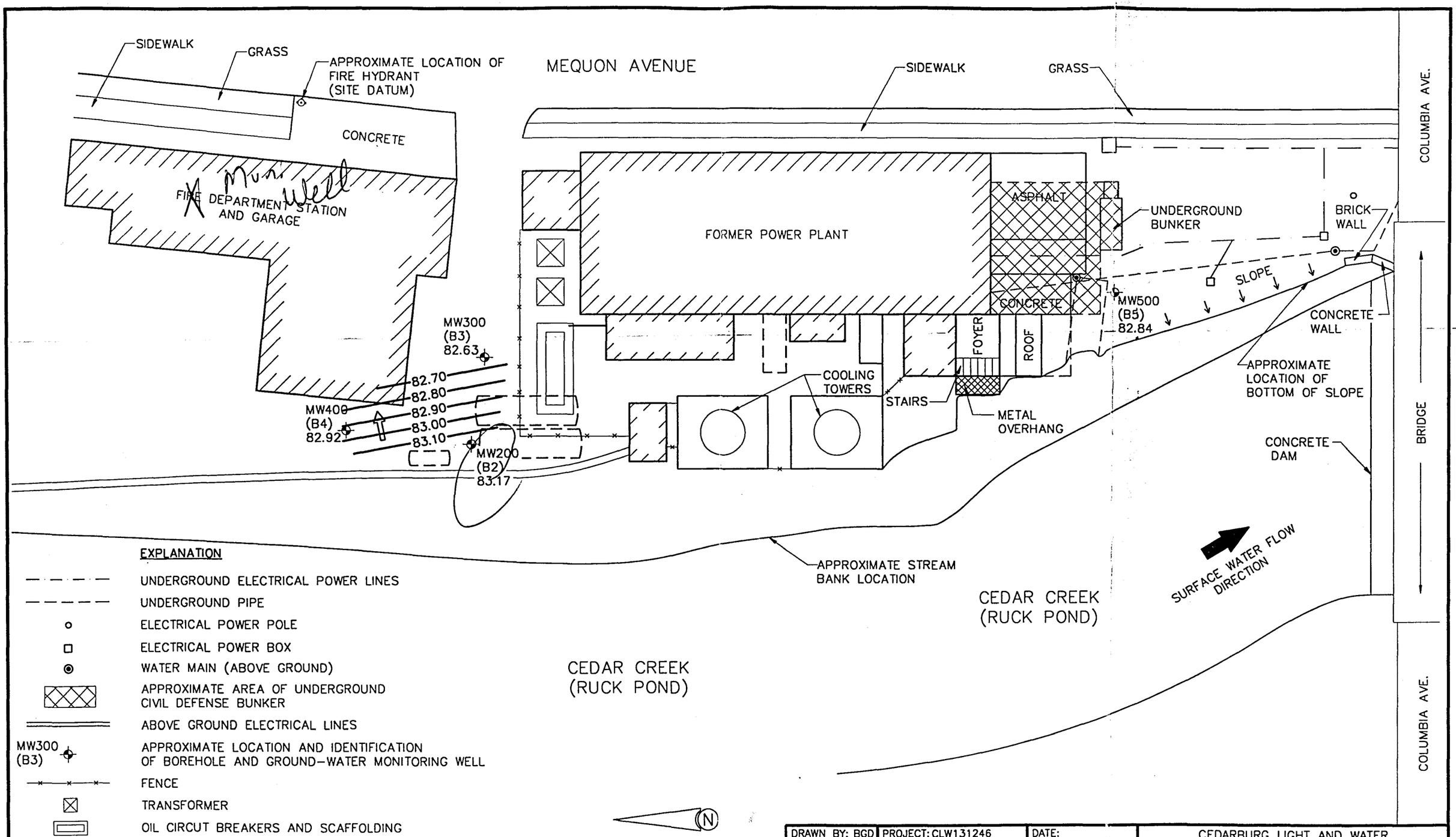
CEDARBURG LIGHT & WATER COMMISSION
CEDARBURG, WISCONSIN

SITE LOCATION AND LOCAL TOPOGRAPHY

K:\CAD\NET\DWG\CLW31246\1246FIG1

FIGURE 1



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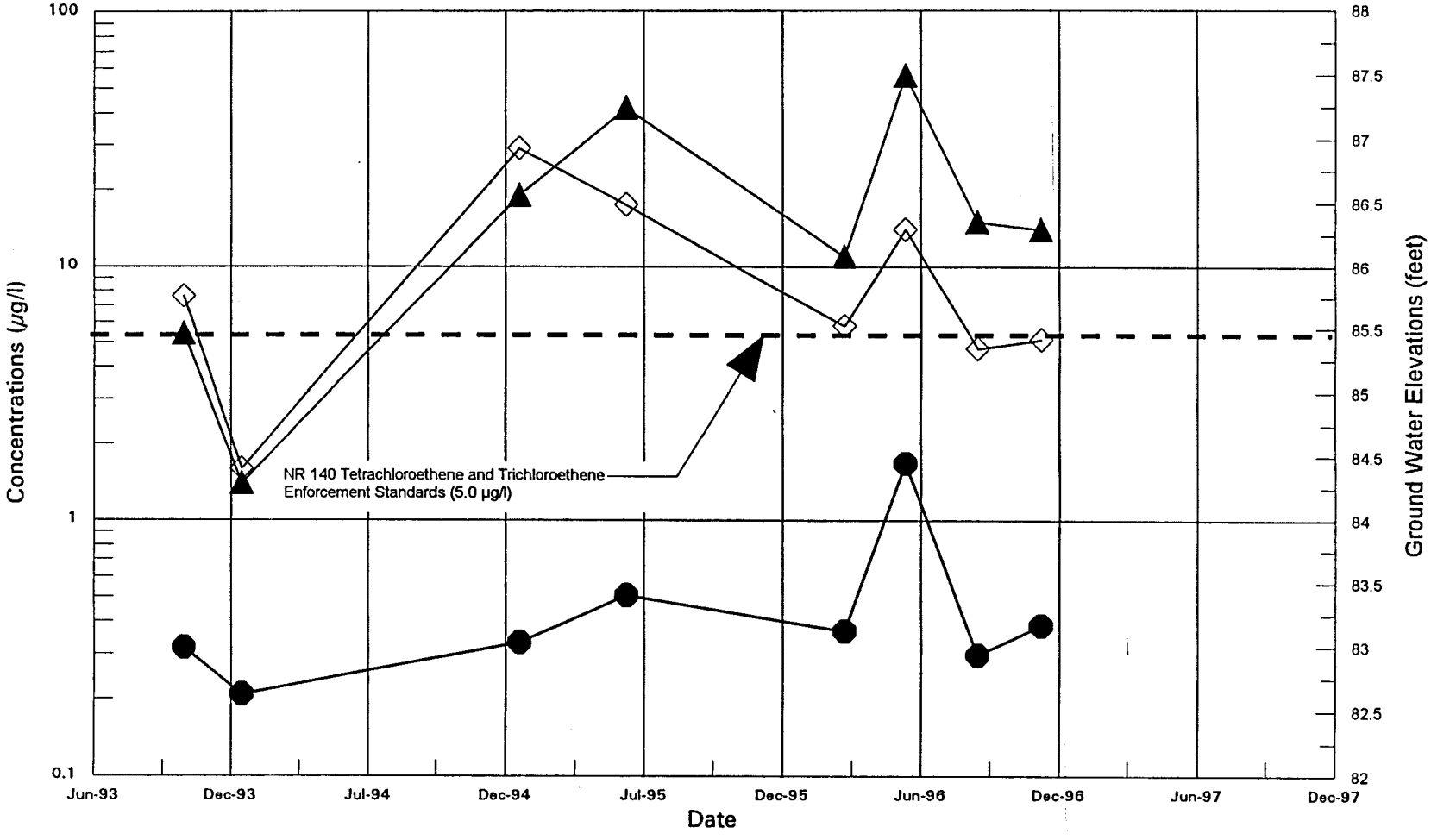
CEDARBURG LIGHT AND WATER
CEDARBURG, WISCONSIN

SITE LAYOUT AND GROUND-WATER ELEVATION CONTOURS, DECEMBER 6, 1996

FIGURE 2

Monitoring Well MW200: Tetrachloroethene and Trichloroethene Concentrations and Ground Water Elevations
Cedarburg Light and Water Former Power Plant



Note: µg/l = micrograms per liter

Figure 3

TABLES

Table 1 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	1,2 Dibromo-ethane	Vinyl Chloride
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	<0.08	<0.54
	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	<0.08	<0.54
	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	<0.08	<0.54
	*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	<0.08	<0.54
	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	<0.08	<0.54
	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	<0.08	<0.54
	*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	<0.08	<0.54
	06/10/96	270	NA	0.27	<0.32	<0.69	<1.23	<0.22	<0.45	6.2	5.9	6.9	<0.41	56	14	<0.57	<0.57	0.43	2.8	NA	0.14	<0.54
	*06/10/96	NA	NA	0.29	<0.32	<0.69	<1.23	<0.22	<0.45	6.8	5.9	6.8	<0.41	51	14	<0.57	<0.57	0.51	2.8	NA	0.13	<0.54
	09/13/96	350	NA	0.48	<0.32	<0.69	<1.23	<0.22	<0.45	2.6	4.7	3.9	<0.41	15	4.7	<0.57	<0.57	0.93	0.97	NA	0.16	1.7
	*09/13/96	NA	NA	0.52	<0.32	<0.69	<1.23	<0.22	<0.45	2.6	4.9	4.1	<0.41	15	4.8	<0.57	<0.57	0.73	1.0	NA	0.12	1.8
	12/06/96	400	NA	<0.26	<0.32	<0.69	<0.42	<0.22	< 0.45	1.2	4.5	3.5	1.1	14	5.1	<0.57	<0.57	NA	1.1	NA	<0.08	<0.54
	*12/06/96		NA	<0.26	<0.32	<0.69	<0.42	<0.22	< 0.45	1.1	4.7	3.5	<0.41	14	5.4	<0.57	<0.57	0.76	1.1	NA	0.15	<0.54
MW300	10/28/93	<100	<100	1.2	NA	1.5	<2.5	NA	<2.0	3.3	5.0	3.4	<2.0	3.9	<1.0	<1.0	<1.0	<1.0	NA	NA	2	<0.08	<0.54
	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	<0.08	<0.54
	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	<0.08	<0.54
	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	<0.08	<0.54
	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	<0.08	<0.54
	06/10/96	<100	NA	0.41	<0.32	<0.69	<1.23	<0.22	<0.45	1.3	0.75	0.75	1.7	2.1	0.45	<0.57	<0.57	0.12	<0.63	NA	<0.08	<0.54
	09/13/96	<100	NA	0.34	<0.32	<0.69	<1.23	<0.22	<0.45	1.5	0.63	0.59	0.56	3.2	0.49	<0.57	<0.57	0.14	<0.63	NA	<0.08	<0.54
	12/06/96	170	NA	0.59	<0.32	<0.69	<0.42	<0.22	< 0.45	18	1	0.46	1.2	2	<0.18	<0.57	<0.57	0.32	<0.63	NA	0.12	0.71
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	<0.08	<0.54
	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	<0.08	<0.54
	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	<0.08	<0.54
	06/08/95	<100	NA	<.26	<.32	<.69	<1.23	0.33	<.45	<.5	<.27	<.29	<.41	<.56	<.18	<.57	<.57	<.11	<.63	2	<0.08	<0.54
	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	<0.08	<0.54
	06/10/96	<100	NA	<0.28	<0.32	<0.69	<1.23	<0.22	<0.45	<0.5	<0.27	<0.29	<0.41	<0.56	<0.18	<0.57	<0.57	<0.11	<0.63	NA	<0.08	<0.54
	09/13/96	<100	NA	<0.26	<0.32	<0.69	<1.23	<0.22	<0.45	<0.5	<0.27	<0.29	<0.41	0.68	<0.18	<0.57	<0.57	<0.11	<0.63	NA	<0.08	<0.54
	12/06/96	<100	NA	<0.26	<0.32	<0.69	<0.42	<0.22	< 0.45	< 0.5	<0.27	<0.29	<0.41	<0.56	<0.18	<0.57	<0.57	<0.11	<0.63	NA	<0.08	<0.54
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	<0.08	<0.54
	06/08/95	<100	NA	<.26	<.32	<.69	<1.23	<.22	<.45	<.5	<.27	<.29	<.41	<.56	<.18	<.57	<.57	<.11	<.63	2	<0.08	<0.54
	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	<0.08	<0.54
	06/10/96	<100	NA	<0.28	<0.32	<0.69	<1.23	<0.22	<0.45	<0.5	<0.27	<0.29	<0.41	<0.56	<0.18	<0.57	<0.57	<0.11	<0.63	NA	<0.08	<0.54
	09/13/96	<100	NA	<0.28	<0.32	<0.69	<1.23	<0.22	<0.45	<0.5	<0.27	<0.29	<0.41	<0.56	<0.18	<0.57	<0.57	<0.11	<0.63	NA	<0.08	<0.54
	12/06/96	<100	NA	<0.26	<0.32	<0.69	<0.42	<0.22	< 0.45	< 0.5	<0.27	<0.29	<0.41	<0.56	<0.18	<0.57	<0.57	<0.11	<0.63	NA	<0.08	<0.54
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	<0.08	<0.54
	06/08/95	NA	NA	<.26	<.32	<.69	<1.23	<.22	<.45	<.5	<.27	<.29	<.41	<.56	<.18	<.57	<.57	<.11	<.63	NA	<0.08	<0.54
	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	<0.08	<0.54
	06/10/96	<100	NA	<0.28	<0.32	<0.69	<1.23	<0.22	<0.45	<0.5	<0.27	<0.29	<0.41	<0.56	<0.18	<0.57	<0.57	<0.11	<0.63	NA	<0.08	<0.54
Trip Blank	06/10/96	<100	NA	<0.28	<0.32	<0.69	<1.23	<0.22	<0.45	<0.5	<0.27	<0.29	<0.41	<0.56	<0.18	<0.57	<0.57	<0.11	<0.63	NA	<0.08	<0.54
	12/06/96		NA	<0.26	<0.32	<0.69	<0.42	<0.22	< 0.45	< 0.5	<0.27	<0.29	<0.41	<0.56	<0.18	<0.57	<0.57	<0.11	<0.63	NA	<0.08	<0.54
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	0.05	0.2
WDNR NR 140 Preventive Action Limit (PAL)		NS	NS	0.5	140	68.6	124	12	NS	80	85	7	8	0.5	0.5	NS	NS	60	40	1.5	0.005	0.02

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

CLW131246.1246t6-1
April 4, 1997

ATTACHMENT A

LABORATORY REPORTS AND ASSOCIATED CHAIN-OF-CUSTODY RECORD

U.S. Oil Co., Inc.

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

Report Date: 17-Dec-96

Project #: CLW131246
Project : Cedarburg
Sample ID: MW200
Lab Code: 5015353A
Sample Type: Water
Sample Date: 06-Dec-96

Test	Result	MDL	PQL	Unit	pH	Date Ext/Digested	Date Analyzed:	Analyzed By:	QC Code
MODIFIED DRO WDNR SEP 95	400	30	96	UG/L	2.1	13-Dec-96	13-Dec-96	C. Rotar	1

MDL = Method Detection Limit

PQL = Practical Quantitation Limit

QC SUMMARY

CODE:

1 All laboratory QC requirements were met for this sample.

Authorized Signature

U.S. Oil Co., Inc.

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

Report Date: 17-Dec-96
Analyzed By: K. Brahmsteadt

Project #: CLW131246
Project : Cedarburg
Sample ID: MW200
Lab Code: 5015353A
Sample Type: Water
Sample Date: 06-Dec-96
Date Analyzed: 12-Dec-96

ANALYTE	RESULT	MDL UG/L	PQL UG/L
Benzene	< 0.26	0.082	0.26
Bromobenzene	< 0.24	0.075	0.24
Bromodichlorometha	< 0.11	0.035	0.11
n-Butylbenzene	< 0.45	0.14	0.45
sec-Butylbenzene	0.5	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	1.2	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
Dibromochlorometha	< 0.09	0.028	0.09
1,2-Dichlorobenzene	0.73	0.035	0.11
1,3-Dichlorobenzene	< 0.83	0.23	0.83
1,4-Dichlorobenzene	0.16	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	4.5	0.084	0.27
cis 1,2-Dichloroethene	3.5	0.092	0.29
trans-1,2-Dichloroethene	< 0.23	0.072	0.23
1,2-Dichloropropan	< 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
1,2-Dibromoethane	< 0.08	0.025	0.08
Hexachlorobutadien	< 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	1.1	0.13	0.41
n-Propylbenzene	< 0.41	0.13	0.41
1,1,2,2-Tetrachloroethane	< 0.31	0.099	0.31
Tetrachloroethene	14	0.17	0.56
Toluene	< 0.69	0.22	0.69
1,2,3-Trichlorobenzene	< 1	0.31	1.1
1,2,4-Trichlorobenze	< 0.91	0.26	0.91
1,1,1-Trichloroethane	1.1	0.2	0.63
1,1,2-Trichloroethane	< 0.17	0.055	0.17
Trichloroethene	5.1	0.055	0.18
Trichlorofluoromet	< 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	114	% Rec.
1,4-Dichlorobutane Surrogate	101	% Rec.
Sample pH	1.5	

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

GC #8W

Authorized Signature

U.S. Oil Co., Inc.

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: 18-Dec-96
Sample ID: MW200 Lab Code: 5015353A

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	P	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	P	P	P	P	P	P
Chloroform	P	P	P	P	P	P	P
Chloromethane	P	F	F	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	F	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	F	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	F	P	P	P	P
2,2-Dichloropropane	P	P	P	F	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	P	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	F	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	F	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

U.S. Oil Co., Inc.

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

Report Date: 18-Dec-96

Project #: CLW131246
Project : Cedarburg
Sample ID: MW300
Lab Code: 5015353B
Sample Type: Water
Sample Date: 06-Dec-96

Test	Result	MDL	PQL	Unit	pH	Date Ext/Digested	Date Analyzed:	Analyzed By:	QC Code
MODIFIED DRO WDNR SEP 95	170	30	96	UG/L	2.1	13-Dec-96	13-Dec-96	C. Rotar	1

MDL = Method Detection Limit

PQL = Practical Quantitation Limit

QC SUMMARY

CODE:

1 All laboratory QC requirements were met for this sample.

Authorized Signature

U.S. Oil Co., Inc.

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

Report Date: 17-Dec-96
Analyzed By: K. Brahmsteadt

Project #: CLW131246
Project : Cedarburg
Sample ID: MW300
Lab Code: 5015353B
Sample Type: Water
Sample Date: 06-Dec-96
Date Analyzed: 12-Dec-96

ANALYTE	RESULT	MDL UG/L	PQL UG/L
Benzene	0.59	0.082	0.26
Bromobenzene	< 0.24	0.075	0.24
Bromodichlorometha	< 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	1.8	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
Dibromochlorometha	< 0.09	0.028	0.09
1,2-Dichlorobenzene	0.32	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	0.084	0.27
cis 1,2-Dichloroethene	0.46	0.092	0.29
trans-1,2-Dichloroethene	< 0.23	0.072	0.23
1,2-Dichloropropan	< 0.15	0.046	0.15
1,3-DCP, Tetrachloroethene	< 0.56	0.17	0.56

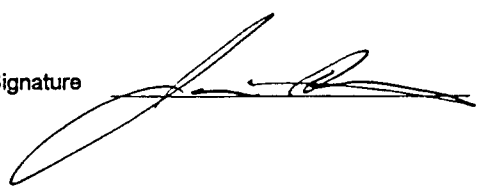
ANALYTE	RESULT	MDL UG/L	PQL UG/L
2,2-Dichloropropane	< 1	0.63	2.2
Di-isopropyl Ether	< 0.38	0.12	0.38
Ethylbenzene	< 0.32	0.1	0.32
1,2-Dibromoethane	0.12	0.025	0.08
Hexachlorobutadien	< 0.35	0.11	0.35
Isopropylbenzene	< 0.36	0.11	0.36
p-Isopropyltoluene	< 0.46	0.15	0.46
Methylene Chloride	< 4	0.29	0.91
MTBE	< 0.22	0.069	0.22
Naphthalene	1.2	0.13	0.41
n-Propylbenzene	< 0.41	0.13	0.41
1,1,2,2-Tetrachloroethane	< 0.31	0.099	0.31
Tetrachloroethene	2	0.17	0.56
Toluene	< 0.69	0.22	0.69
1,2,3-Trichlorobenzene	< 1	0.31	1.1
1,2,4-Trichlorobenze	< 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
Trichlorofluoromet	< 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	0.71	0.17	0.54
m&p-Xylene	< 0.9	0.28	0.9
o-Xylene	< 0.33	0.1	0.33

Fluorobenzene Surrogate	112	% Rec.
1,4-Dichlorobutane Surrogate	105	% Rec.
Sample pH	1.5	

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

GC #8W

Authorized Signature



U.S. Oil Co., Inc.

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: 18-Dec-96
Sample ID: MW300 Lab Code: 5015353B

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	P	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	P	P	P	P	P	P
Chloroform	P	P	P	P	P	P	P
Chloromethane	P	F	F	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	F	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	F	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	F	P	P	P	P
2,2-Dichloropropane	P	P	P	F	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	P	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	F	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	F	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

U.S. Oil Co., Inc.

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

Report Date: 17-Dec-96

Project #: CLW131246
Project : Cedarburg
Sample ID: MW400
Lab Code: 5015353C
Sample Type: Water
Sample Date: 06-Dec-96

Test	Result	MDL	PQL	Unit	pH	Date Ext/Digested	Date Analyzed:	Analyzed By:	QC Code
MODIFIED DRO WDNR SEP 95	< 100	30	96	UG/L	2.1	13-Dec-96	13-Dec-96	C. Rotar	1

MDL = Method Detection Limit

PQL = Practical Quantitation Limit

QC SUMMARY

CODE:

1 All laboratory QC requirements were met for this sample.

Authorized Signature

U.S. Oil Co., Inc.

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

Report Date: 17-Dec-96
Analyzed By: K. Brahmsteadt

Project #: CLW131246
Project : Cedarburg
Sample ID: MW400
Lab Code: 5015353C
Sample Type: Water
Sample Date: 06-Dec-96
Date Analyzed: 12-Dec-96

ANALYTE	RESULT	MDL UG/L	PQL UG/L
Benzene	< 0.26	0.082	0.26
Bromobenzene	< 0.24	0.075	0.24
Bromodichlorometha	0.27	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	0.69	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
Dibromochlorometha	0.25	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-Dichloropropan	< 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
1,2-Dibromoethane	< 0.08	0.025	0.08
Hexachlorobutadien	< 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-Trichlorobenze	< 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
Trichlorofluoromet	< 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	116	% Rec.
1,4-Dichlorobutane Surrogate	97	% Rec.
Sample pH	1.5	

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

GC #8W

Authorized Signature

U.S. Oil Co., Inc.

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: 18-Dec-96
Sample ID: MW400 Lab Code: 5015353C

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	P	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	P	P	P	P	P	P
Chloroform	P	P	P	P	P	P	P
Chloromethane	P	F	F	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	F	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	F	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	F	P	P	P	P
2,2-Dichloropropane	P	P	P	F	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	P	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	F	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	F	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

U.S. Oil Co., Inc.

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

Report Date: 18-Dec-96

Project #: CLW131246
Project : Cedarburg
Sample ID: MW500
Lab Code: 5015353D
Sample Type: Water
Sample Date: 06-Dec-96

Test	Result	MDL	PQL	Unit	pH	Date Ext/Digested	Date Analyzed:	Analyzed By:	QC Code
MODIFIED DRO WDNR SEP 95	< 100	30	96	UG/L	2.2	13-Dec-96	13-Dec-96	C. Rotar	1

MDL = Method Detection Limit

PQL = Practical Quantitation Limit

QC SUMMARY

CODE:

1 All laboratory QC requirements were met for this sample.

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U.S. Oil Co., Inc.

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

Report Date: 18-Dec-96
Analyzed By: K. Brahmsteadt

Project #: CLW131246
Project : Cedarburg
Sample ID: MW500
Lab Code: 5015353D
Sample Type: Water
Sample Date: 06-Dec-96
Date Analyzed: 12-Dec-96

ANALYTE	RESULT	MDL UG/L	PQL UG/L
Benzene	< 0.26	0.082	0.26
Bromobenzene	< 0.24	0.075	0.24
Bromodichlorometha	< 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
Dibromochlorometha	< 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-Dichloropropan	< 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
1,2-Dibromoethane	< 0.08	0.025	0.08
Hexachlorobutadien	< 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-Trichlorobenze	< 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
Trichlorofluoromet	< 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	117	% Rec.
1,4-Dichlorobutane Surrogate	99	% Rec.
Sample pH	1.5	

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

GC #8W

Authorized Signature

U.S. Oil Co., Inc.

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: 18-Dec-96
Sample ID: MW500 Lab Code: 5015353D

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	P	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	P	P	P	P	P	P
Chloroform	P	P	P	P	P	P	P
Chloromethane	P	F	F	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	F	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	F	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	F	P	P	P	P
2,2-Dichloropropane	P	P	P	F	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	P	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	F	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	F	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

U.S. Oil Co., Inc.

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

Report Date: 17-Dec-96
Analyzed By: K. Brahmsteadt

Project #: CLW131246
Project : Cedarburg
Sample ID: Dup 1246
Lab Code: 5015353E
Sample Type: Water
Sample Date: 06-Dec-96
Date Analyzed: 12-Dec-96

ANALYTE	RESULT	MDL UG/L	PQL UG/L
Benzene	< 0.26	0.082	0.26
Bromobenzene	< 0.24	0.075	0.24
Bromodichlorometha	< 0.11	0.035	0.11
n-Butylbenzene	< 0.45	0.14	0.45
sec-Butylbenzene	0.62	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	1.1	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
Dibromochlorometha	0.099	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	0.16	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	4.7	0.084	0.27
cis 1,2-Dichloroethene	3.5	0.092	0.29
trans-1,2-Dichloroethene	< 0.23	0.072	0.23
1,2-Dichloropropan	< 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
1,2-Dibromoethane	0.15	0.025	0.08
Hexachlorobutadien	< 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	14	0.17	0.56
Toluene	< 0.69	0.22	0.69
1,2,3-Trichlorobenzene	< 1	0.31	1.1
1,2,4-Trichlorobenze	< 0.91	0.26	0.91
1,1,1-Trichloroethane	1.1	0.2	0.63
1,1,2-Trichloroethane	< 0.17	0.055	0.17
Trichloroethene	5.4	0.055	0.18
Trichlorofluoromet	< 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	115 % Rec.
1,4-Dichlorobutane Surrogate	100 % Rec.
Sample pH	1.5

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

GC #8W

Authorized Signature

U.S. Oil Co., Inc.

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: 18-Dec-96
Sample ID: Dup 1246 Lab Code: 5015353E

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	P	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	P	P	P	P	P	P
Chloroform	P	P	P	P	P	P	P
Chloromethane	P	F	F	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	F	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	F	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	F	P	P	P	P
2,2-Dichloropropane	P	P	P	F	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	P	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	F	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	F	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

U.S. Oil Co., Inc.

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

Report Date: 17-Dec-96
Analyzed By: K. Brahmsteadt

Project #: CLW131246
Project : Cedarburg
Sample ID: Trip
Lab Code: 5015353F
Sample Type: Water
Sample Date: 06-Dec-96
Date Analyzed: 12-Dec-96

ANALYTE	RESULT	MDL UG/L	PQL UG/L
Benzene	< 0.26	0.082	0.26
Bromobenzene	< 0.24	0.075	0.24
Bromodichlorometha	< 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
Dibromochlorometha	< 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-Dichloropropan	< 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
1,2-Dibromoethane	< 0.08	0.025	0.08
Hexachlorobutadien	< 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-Trichlorobenze	< 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
Trichlorofluoromet	< 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	117	% Rec.
1,4-Dichlorobutane Surrogate	96	% Rec.
Sample pH	1.5	

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

GC #8W

Authorized Signature

U.S. Oil Co., Inc.

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: 18-Dec-96
Sample ID: Trip Lab Code: 5015353F

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	P	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	P	P	P	P	P	P
Chloroform	P	P	P	P	P	P	P
Chloromethane	P	F	F	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	F	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	F	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	F	P	P	P	P
2,2-Dichloropropane	P	P	P	F	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	P	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	F	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	F	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

CHAIN OF CUSTODY RECORD REQUEST FOR ANALYSIS

No: 7134

Northern Environmental℠

☒ 1214 W. Venture Ct. 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

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

☐ 330 South 4th Avenue Park Falls, WI 54552 715-762-1544 FAX 715-762-1844

☐ 324 East Main Street Waupun, WI 53963 414-324-8600 FAX 414-324-3023

☐ 749 Lakewood Lane Marquette, MI 49855 906-249-4300 FAX 906-249-4311

Check office originating request

5015353

Project No: CLW131246 Task No: 700

Project Location: (city) Cedarburg

Project Manager: Gary Graham

Sampler: (name) Joe Federl

Sampler: (signature) Joe Federl

Sampling Date(s): 12-6-96

Reports to be Sent to: Gary Graham

Laboratory: U.S. Oil

Wisconsin DNR Certification #: 145027660

Laboratory Contact: Jim Stevens

Price Quote:

TURNAROUND TIME REQUIRED

☒ Normal ☐ Rush

Date Needed _____

Sample Integrity - To be completed by receiving lab

Seal intact upon receipt ☒ yes ☐ no

Method of Shipment USPS

Contents Temperature ambient °C Refrigerator No: _____

ANALYSES REQUESTED

Lab ID No.	Sample No.	Collection Date	Collection Time	No. of Containers, Size & Type	Description Water	Description Soil	Description Other	Preservative	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
5015353A	MW200	12-6	1253	1-L, 3-40ml	X			HCl ICE	X				X		
B	MW300		1243		X				X				X		
C	MW400		1228		X				X				X		
D	MW500		1236		X				X				X		
E	Dup 1246		1253		X								X		
F	Trip	—	—	—	X			—					X		

Packed for Shipping by: Joe Federl

Shipment Date: 12-10-96

Comments:

Relinquished By:	Date:	Relinquished By:	Date:	Relinquished By:	Date:
Joe Federl	12-10-96	Leo Thelen	12/10/96		
Company: Northern Environ	Time:	Company: US Oil	Time: 4:45 PM	Company:	Time:
Received By: Leo Thelen	Date: 12/10/96	Received By:	Date:	Received By: K Schroeder	Date: 12/10/96
Company: U.S. Oil	Time: 10:30	Company:	Time:	Company: US Oil	Time: 5:00

ATTACHMENT B

CEDARBURG MUNICIPAL SUPPLY WELL #1
GEOLOGICAL AND CONSTRUCTION LOG

WATERWORKS WELL, CEDARBURG, WIS.

W. G. Kirchoffer, Engineer
W. L. Thorne Co., Contractors
Samples examined by F. T. Thwaites. U.W. Nos. 70045-70285
Elevation ~~790'~~ 792'
SE¼, NE¼, SE¼, SEc. 27, T. 10N., R. 21E.

DRIFT	12	0-12		Surface, no sample
		12-125		Dolomite, light brownish gray
		125-150		Dolomite, white
		150-155		Dolomite, bluish gray
CLINTON & NIAGARA		155-325		Dolomite, white
		325-335		Dolomite, gray; chert, white
		335-350		Dolomite, light gray
		350-365		Dolomite, gray; chert, white
		365-400		Dolomite, light gray
		400-410		Dolomite, light gray; chert, white
		410-425		Dolomite, light gray
		425-440		Dolomite, light gray; chert, white
		440-455		Dolomite, dark gray, shaley
		455-475		Dolomite, gray to white, in part shaley
		475-480		Shale, brownish red; chert, white
		480-500		Dolomite, very light pinkish gray
		500-505		Dolomite, gray
	498	505-510		Dolomite, dark gray, shaley
RICHMOND (Cincinnati)		510-520		Shale, blue, calcareous
		520-525		Dolomite, bluish gray, shaley
		525-630		Shale, bluish gray, calcareous
		630-635		Shale, brownish gray, calcareous
	195	635-705		Shale, bluish gray, calcareous
EV. . . & GALENA		705-815		Dolomite, gray
		815-820		Dolomite, mixed gray and light blue
		820-830		Dolomite, gray
		830-865		Dolomite, mixed light blue and gray

12" hole

16" pipe

718'-8"

CEDARBURG 2

PLATT-				
		865-890		Dolomite, gray
		890-905		Dolomite, bluish gray and gray
		905-915		Dolomite, gray
	215	915-920		Dolomite, gray, sandy
ST. PETER		920-930		Sandstone, medium, gray, calcareous
		930-1090		Sandstone, medium to fine, light gray
		1090-1100		Sandstone, medium to fine, light gray; shale, gray
	205	1100-1125		Sandstone, medium, white
EAU CLAIRE		1125-1135		Sandstone, fine to very fine, gray
		1135-1145		Sandstone, very fine, very hard, non-calcareous
		1145-1210		Sandstone, medium to fine, gray to light pink
	85			

k 10⁻⁶ hole

ATTACHMENT C

CEDARBURG MUNICIPAL SUPPLY WELL #1
1996 WATER QUALITY MONITORING RESULTS

m Completed Form To:
ter Supply Section

VOLATILE ORGANIC ANALYSES
FROM COMMERCIAL LABORATORIES

FORM: 3300-218

ct n I: To be completed by the Department of Natural Resources

m Name: CEDARBURG L & W COMMISSION City: CEDARBURG

PWS ID#: 24601082 County Code: 46 Route Code: WS20

te Well No: Entry Point ID: 001 WI Unique Well No: BG643

mp Point Description: COLLECT SAMLPE AFTER RESERVOIR ASSOC. WITH WELL 1

stem Type:
- X (MC) Municipal Community
- ___ (OC) OTM Community
- ___ (NN) Nontransient Noncommunity
- ___ (TN) Transient Noncommunity

Source Code:
- ___ W Well
- XX E Entry Point
- ___ D Distribution

Sample Type:
- XX D (SDWA) Compliance Sample
- ___ C (SDWA) Confirmation ___ - ___ - ___ (Initial Sample Date)
- ___ W Raw Water Sample
- ___ I Investigation Sample

l sample by: 03 - 31 - 96 **Return results to DNR by:** 04 - 10 - 96

ction II: To be completed by SAMPLER

a e Collection Date: 03 - 06 - 96 Sample Collection Time: 08 : 30

Sa le Point Address: WEST 61 NORTH 623 MEQUON STREET

Sample Point Descrip: SAMPLE FAUCET AFTER RESERVOIR

Fir initial and
Last Name of Sampler: D - HINTZ

ec n !!!: To be completed by LABORATORY OFFICIAL. Report analytical results on back.

oratory Number: 99976690 Laboratory Name: Environmental Health Laboratories

ate Sample eceived: 03 - 07 - 96 Time Sample Received: 10 : 30 Laboratory Sample ID: 207787

ignature of eceiving Lab Official: Date Reported: 03 - 12 - 96

ndition of mple Upon Receipt: Iced

ection IV: To be completed by WATER SUPPLY SYSTEM OFFICIAL after analysis has been done.

certify that I have personally examined and am familiar with the information submitted on this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true and accurate, and complete. I also certify that the values being submitted are the actual values found in the sample; no values have been modified or changed in any manner.

Signature: Dennis R. Hintz Title: WATER SUPT

Date Signed: 3-20-96

2
ev. 09/93

This page to be completed by WATER SUPPLY SYSTEM OFFICIAL or laboratory performing analysis.

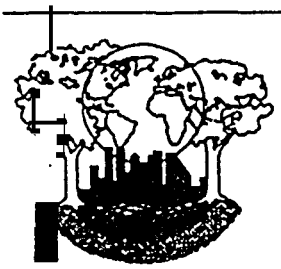
Storet Code		Parameter	SDWA Method	MDL *	Results	MCL	Units
34235	X	Benzene	524.2	0.5	< 0.5	5	ug/L
81555	X	Bromobenzene	524.2	0.2	< 0.2	---	ug/L
32101	X	Bromodichloromethane	524.2	0.1	**0.6**	---	ug/L
32104	X	Bromoform	524.2	0.1	**0.5**	---	ug/L
34413	X	Bromomethane	524.2	0.5	< 0.5	---	ug/L
32102	X	Carbon Tetrachloride	524.2	0.1	< 0.1	5	ug/L
34301	X	Chlorobenzene	524.2	0.2	< 0.2	100	ug/L
34311	X	Chloroethane	524.2	0.5	< 0.5	---	ug/L
32106	X	Chloroform	524.2	0.1	**0.3**	---	ug/L
34418	X	Chloromethane	524.2	0.5	< 0.5	---	ug/L
77275	X	2-Chlorotoluene (o-)	524.2	0.2	< 0.2	---	ug/L
77277	X	4-Chlorotoluene (p-)	524.2	0.2	< 0.2	---	ug/L
32105	X	Dibromochloromethane	524.2	0.1	**1.0**	---	ug/L
77596	X	Dibromomethane	524.2	0.1	< 0.1	---	ug/L
34566	X	1,3-Dichlorobenzene (m-)	524.2	0.1	< 0.1	---	ug/L
34536	X	1,2-Dichlorobenzene (o-)	524.2	0.1	< 0.1	600	ug/L
34571	X	1,4-Dichlorobenzene (p-)	524.2	0.1	< 0.1	75	ug/L
34496	X	1,1 Dichloroethane	524.2	0.1	< 0.1	---	ug/L
34531	X	1,2 Dichloroethane	524.2	0.1	< 0.1	5	ug/L
34501	X	1,1 Dichloroethylene	524.2	0.2	< 0.2	7	ug/L
77093	X	1,2 Dichloroethylene, cis	524.2	0.1	< 0.1	70	ug/L
34546	X	1,2 Dichloroethylene, trans	524.2	0.1	< 0.1	100	ug/L
34423	X	Dichloromethane	524.2	0.5	< 0.5	5	ug/L
34541	X	1,2 Dichloropropane	524.2	0.1	< 0.1	5	ug/L
77173	X	1,3 Dichloropropane	524.2	0.1	< 0.1	---	ug/L
77170	X	2,2 Dichloropropane	524.2	0.2	< 0.2	---	ug/L
77168	X	1,1 Dichloropropene	524.2	0.1	< 0.1	---	ug/L
34562	X	1,3 Dichloropropene	524.2	0.1	< 0.1	---	ug/L
34371	X	Ethylbenzene	524.2	0.1	< 0.1	700	ug/L
77128	X	Styrene	524.2	0.2	< 0.2	100	ug/L
77562	X	1,1,1,2 - Tetrachloroethane	524.2	0.1	< 0.1	---	ug/L
34516	X	1,1,2,2 - Tetrachloroethane	524.2	0.1	< 0.1	---	ug/L
34475	X	Tetrachloroethylene	524.2	0.2	< 0.2	5	ug/L
34481	X	Toluene	524.2	0.5	< 0.5	1000	ug/L
34551	X	1,2,4-Trichlorobenzene	524.2	0.2	< 0.2	70	ug/L
34506	X	1,1,1 - Trichloroethane	524.2	0.1	< 0.1	200	ug/L
34511	X	1,1,2 - Trichloroethane	524.2	0.1	< 0.1	5	ug/L
39180	X	Trichloroethylene	524.2	0.1	**0.4**	5	ug/L
77443	X	1,2,3 - Trichloropropane	524.2	0.2	< 0.2	---	ug/L
39175	X	Vinyl Chloride	524.2	0.2	< 0.2	2	ug/L
79274	X	Xylenes, Total	524.2	0.2	< 0.2	10000	ug/L

HL has demonstrated it can achieve these report limits in reagent water, but can not document them in all sample matrices.

Sample: SAMPLE FAUCET AFTER RESERVOIR Report #: 207787-95(87)

REPORT SUMMARY

Bromoform, bromodichloromethane, chloroform, dibromochloromethane and trichloroethylene were detected in the sample submitted for analysis at the concentrations indicated, which are all less than their current respective MCLs. None of the other analytes included in the detailed parameter list were detected in the sample submitted for analysis. Other compounds detected: 1,1,2-Trichlorotrifluoroethane at a concentration of 0.5 ug/L. There is no MCL for this parameter.



Laboratory Name: Environmental Health Laboratories Laboratory ID Number: 99976690

We appreciate the opportunity to provide you with this analysis. If you have any questions concerning this report, please do not hesitate to call us at (219) 233-4777.

Reviewed By: _____ Date: 3-14-96

Finalized By: _____ Date: 3-14-96

Completed Form to: District Office Headquarters / Supply Section

VOLATILE ORGANIC ANALYSES FROM COMMERCIAL LABORATORIES

2nd Quarter VOCs

FORM: 3300-218

Section I: To be completed by the Department of Natural Resources

System Name: CEDARBURG L & W COMMISSION City: CEDARBURG

PWS ID#: 24601082 County Code: 46 Route Code: WS20

System Well No: Entry Point ID: 001 WI Unique Well No: BG643

Sample Point Description: COLLECT SAMPLE AFTER RESERVOIR ASSOC. WITH WELL 1

System Type:
- XX (MC) Municipal Community
- ___ (OC) OTM Community
- ___ (NN) Nontransient Noncommunity
- ___ (TN) Transient Noncommunity

Source Code:
- ___ W Well
- XX E Entry Point
- ___ D Distribution

Sample Type:
- XX D (SDWA) Compliance Sample
- ___ C (SDWA) Confirmation ___ - ___ - ___ (Initial Sample Date)
- ___ W Raw Water Sample
- ___ I Investigation Sample

Collect sample by: 06 - 30 - 96 **Return results to DNR by: 07 - 10 - 96**

Section II: To be completed by SAMPLER

Sample Collection Date: 06 - 17 - 96 Sample Collection Time: 09 : 00

Sample Point Address: W61 N623 MEQUON STREET

Sample Point Descrip: SAMPLE FAUCET AT PUMP HEAD BEFORE RESERVOIR

First Initial and Last Name of Sampler: D - HINTZ

Section III: To be completed by LABORATORY OFFICIAL. Report analytical results on back.

Laboratory Number: 99976690 Laboratory Name: Environmental Health Laboratories

Date Sample Received: 06 - 18 - 96 Time Sample Received: 09 : 00 Laboratory Sample ID: 220642

Signature of Receiving Lab Official: G Mueller MD Date Reported: 07 - 11 - 96

Condition of Sample Upon Receipt: Iced

Section IV: To be completed by WATER SUPPLY SYSTEM OFFICIAL after analysis has been done.

I certify that I have personally examined and am familiar with the information submitted on this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true and accurate, and complete. I also certify that the values being submitted are the actual values found in the sample; no values have been modified or changed in any manner.

Signature: Dennis R. Hintz Title: WATER SUPT.

Date Signed: 7/10/96

5241 Rev. 09/93

This page to be completed by WATER SUPPLY SYSTEM OFFICIAL or laboratory performing analysis.

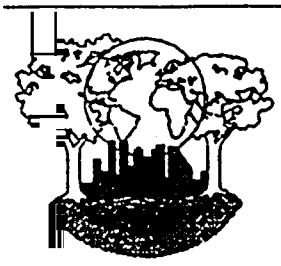
Storet Code		Parameter	SDWA Method	MDL *	Results	MCL	Units
34235	X	Benzene	524.2	0.5	< 0.5	5	ug/L
81555	X	Bromobenzene	524.2	0.2	< 0.2	---	ug/L
32101	X	Bromodichloromethane	524.2	0.1	< 0.1	---	ug/L
32104	X	Bromoform	524.2	0.1	< 0.1	---	ug/L
34413	X	Bromomethane	524.2	0.5	< 0.5	---	ug/L
32102	X	Carbon Tetrachloride	524.2	0.1	< 0.1	5	ug/L
34301	X	Chlorobenzene	524.2	0.2	< 0.2	100	ug/L
34311	X	Chloroethane	524.2	0.5	< 0.5	---	ug/L
32106	X	Chloroform	524.2	0.1	< 0.1	---	ug/L
34418	X	Chloromethane	524.2	0.5	< 0.5	---	ug/L
77275	X	2-Chlorotoluene (o-)	524.2	0.2	< 0.2	---	ug/L
77277	X	4-Chlorotoluene (p-)	524.2	0.2	< 0.2	---	ug/L
32105	X	Dibromochloromethane	524.2	0.1	< 0.1	---	ug/L
77596	X	Dibromomethane	524.2	0.1	< 0.1	---	ug/L
34566	X	1,3-Dichlorobenzene (m-)	524.2	0.1	< 0.1	---	ug/L
34536	X	1,2-Dichlorobenzene (o-)	524.2	0.1	< 0.1	600	ug/L
34571	X	1,4-Dichlorobenzene (p-)	524.2	0.1	< 0.1	75	ug/L
34496	X	1,1 Dichloroethane	524.2	0.1	< 0.1	---	ug/L
34531	X	1,2 Dichloroethane	524.2	0.1	< 0.1	5	ug/L
34501	X	1,1 Dichloroethylene	524.2	0.2	< 0.2	7	ug/L
77093	X	1,2 Dichloroethylene, cis	524.2	0.1	< 0.1	70	ug/L
34546	X	1,2 Dichloroethylene, trans	524.2	0.1	< 0.1	100	ug/L
34423	X	Dichloromethane	524.2	0.5	< 0.5	5	ug/L
34541	X	1,2 Dichloropropane	524.2	0.1	< 0.1	5	ug/L
77173	X	1,3 Dichloropropane	524.2	0.1	< 0.1	---	ug/L
77170	X	2,2 Dichloropropane	524.2	0.2	< 0.2	---	ug/L
77168	X	1,1 Dichloropropene	524.2	0.1	< 0.1	---	ug/L
34562	X	1,3 Dichloropropene	524.2	0.1	< 0.1	---	ug/L
34371	X	Ethylbenzene	524.2	0.1	< 0.1	700	ug/L
77128	X	Styrene	524.2	0.2	< 0.2	100	ug/L
77562	X	1,1,1,2 - Tetrachloroethane	524.2	0.1	< 0.1	---	ug/L
34516	X	1,1,2,2 - Tetrachloroethane	524.2	0.1	< 0.1	---	ug/L
34475	X	Tetrachloroethylene	524.2	0.2	< 0.2	5	ug/L
34481	X	Toluene	524.2	0.5	< 0.5	1000	ug/L
34551	X	1,2,4-Trichlorobenzene	524.2	0.2	< 0.2	70	ug/L
34506	X	1,1,1 - Trichloroethane	524.2	0.1	< 0.1	200	ug/L
34511	X	1,1,2 - Trichloroethane	524.2	0.1	< 0.1	5	ug/L
39180	X	Trichloroethylene	524.2	0.1	0.3	5	ug/L
77443	X	1,2,3 - Trichloropropane	524.2	0.2	< 0.2	---	ug/L
39175	X	Vinyl Chloride	524.2	0.2	< 0.2	2	ug/L
79724	X	Xylenes, Total	524.2	0.2	< 0.2	10000	ug/L

* EHL has demonstrated it can achieve these report limits in reagent water, but can not document them in all sample matrices.

Sample: SAMPLE FAUCET AT PUMP HEAD BEFORE RESERVOIR Report #: 220638-46(42)

REPORT SUMMARY

Trichloroethylene was detected in the sample submitted for analysis at a concentration of 0.3 ug/L, which is less than the current MCL of 5 ug/L. None of the other VOCs included in the detailed parameter list were detected in the sample submitted for analysis.



Laboratory Name: Environmental Health Laboratories Laboratory ID Number: 99976690

We appreciate the opportunity to provide you with this analysis. If you have any questions concerning this report, please do not hesitate to call us at (219) 233-4777.

Reviewed By: Matthew Hartz Date: 07-12-96

Finalized By: John E. Deuce III Date: 7/12/96.

tu Completed Form To:
District Office Headquarters
ter Supply Section

VOLATILE ORGANIC ANALYSES
FROM COMMERCIAL LABORATORIES

FORM: 3300-218

ction I: To be completed by the Department of Natural Resources

ys n Name: CEDARBURG LIGHT & WATER COMMISSION City: CEDARBURG

PWS ID#: 24601082 County Code: 46 Route Code: WS20

te Well No: Entry Point ID: 001 WI Unique Well No: BG643

m Point Description: COLLECT SAMPLE AFTER RESERVOIR ASSOCIATED WITH WELL 1

s n Type:
- X (MC) Municipal Community
- ___ (OC) OTM Community
- ___ (NN) Nontransient Noncommunity
- ___ (TN) Transient Noncommunity

Source Code:
- ___ W Well
- XX E Entry Point
- ___ D Distribution

Sample Type:
- XX D (SDWA) Compliance Sample
- ___ C (SDWA) Confirmation ___ - ___ - ___ (Initial Sample Date)
- ___ W Raw Water Sample
- ___ I Investigation Sample

Int sample by: 09 - 30 - 96 **Return results to DNR by:** 10 - 10 - 96

ction II: To be completed by SAMPLER

ample Collection Date: 09 - 17 - 96 Sample Collection Time: 10 : 45

Sple Point Address: WEST 61 NORTH 623 MEQUON STREET

Sample Point Descrip: SAMPLE FAUCET AT PUMP HEAD BEFORE RESERVOIR

First Initial and Last Name of Sampler: D - FREEMAN

ection III: To be completed by LABORATORY OFFICIAL. Report analytical results on back.

oratory Number: 99976690 Laboratory Name: Environmental Health Laboratories

ate Sample ec ed: 09 - 18 - 96 Time Sample Received: 09 : 30 Laboratory Sample ID: 233294

ignature of ec ing Lab Official: S L D Swanson Date Reported: 09 - 26 - 96

ondition of am Upon Receipt: Iced

ection IV: To be completed by WATER SUPPLY SYSTEM OFFICIAL after analysis has been done.

ce that I have personally examined and am familiar with the information submitted on this document and all attachments and that, as on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true and ccurate, and complete. I also certify that the values being submitted are the actual values found in the sample; no values have been o d or changed in any manner.

Signature: Dennis Klintz Title: SUPT.

52 Date Signed: 10/4/96

ev: 09/93

Well #1

Site: SAMPLE FAUCET AT PUMP HEAD BEFORE RESERVOIR Report #: 233294-98(94)

This page to be completed by WATER SUPPLY SYSTEM OFFICIAL or laboratory performing analysis.

Storet Code		Parameter	SDWA Method	MDL *	Results	MCL	Units
4235	X	Benzene	524.2	0.5	< 0.5	5	ug/L
81555	X	Bromobenzene	524.2	0.2	< 0.2	---	ug/L
2101	X	Bromodichloromethane	524.2	0.1	< 0.1	---	ug/L
2104	X	Bromoform	524.2	0.1	< 0.1	---	ug/L
34413	X	Bromomethane	524.2	0.5	< 0.5	---	ug/L
2102	X	Carbon Tetrachloride	524.2	0.1	< 0.1	5	ug/L
4301	X	Chlorobenzene	524.2	0.2	< 0.2	100	ug/L
34311	X	Chloroethane	524.2	0.5	< 0.5	---	ug/L
2106	X	Chloroform	524.2	0.1	< 0.1	---	ug/L
4418	X	Chloromethane	524.2	0.5	< 0.5	---	ug/L
77275	X	2-Chlorotoluene (o-)	524.2	0.2	< 0.2	---	ug/L
77277	X	4-Chlorotoluene (p-)	524.2	0.2	< 0.2	---	ug/L
2105	X	Dibromochloromethane	524.2	0.1	< 0.1	---	ug/L
77596	X	Dibromomethane	524.2	0.1	< 0.1	---	ug/L
34566	X	1,3-Dichlorobenzene (m-)	524.2	0.1	< 0.1	---	ug/L
4536	X	1,2-Dichlorobenzene (o-)	524.2	0.1	< 0.1	600	ug/L
34571	X	1,4-Dichlorobenzene (p-)	524.2	0.1	< 0.1	75	ug/L
34496	X	1,1 Dichloroethane	524.2	0.1	**0.5**	---	ug/L
4531	X	1,2 Dichloroethane	524.2	0.1	< 0.1	5	ug/L
4501	X	1,1 Dichloroethylene	524.2	0.2	**0.2**	7	ug/L
77093	X	1,2 Dichloroethylene, cis	524.2	0.1	**0.3**	70	ug/L
4546	X	1,2 Dichloroethylene, trans	524.2	0.1	< 0.1	100	ug/L
4423	X	Dichloromethane	524.2	0.5	< 0.5	5	ug/L
34541	X	1,2 Dichloropropane	524.2	0.1	< 0.1	5	ug/L
7173	X	1,3 Dichloropropane	524.2	0.1	< 0.1	---	ug/L
7170	X	2,2 Dichloropropane	524.2	0.2	< 0.2	---	ug/L
77168	X	1,1 Dichloropropene	524.2	0.1	< 0.1	---	ug/L
4562	X	1,3 Dichloropropene	524.2	0.1	< 0.1	---	ug/L
4371	X	Ethylbenzene	524.2	0.1	< 0.1	700	ug/L
77128	X	Styrene	524.2	0.2	< 0.2	100	ug/L
7562	X	1,1,1,2 - Tetrachloroethane	524.2	0.1	< 0.1	---	ug/L
4516	X	1,1,2,2 - Tetrachloroethane	524.2	0.1	< 0.1	---	ug/L
34475	X	Tetrachloroethylene	524.2	0.2	< 0.2	5	ug/L
4481	X	Toluene	524.2	0.5	< 0.5	1000	ug/L
4551	X	1,2,4-Trichlorobenzene	524.2	0.2	< 0.2	70	ug/L
34506	X	1,1,1 - Trichloroethane	524.2	0.1	**0.8**	200	ug/L
4511	X	1,1,2 - Trichloroethane	524.2	0.1	< 0.1	5	ug/L
9180	X	Trichloroethylene	524.2	0.1	**1.7**	5	ug/L
77443	X	1,2,3 - Trichloropropane	524.2	0.2	< 0.2	---	ug/L
9175	X	Vinyl Chloride	524.2	0.2	< 0.2	0.2	ug/L
9724	X	Xylenes, Total	524.2	0.2	< 0.2	10000	ug/L

* FHL has demonstrated it can achieve these report limits in reagent water, but can not document them in all sample matrices.

SAMPLE FAUCET AT PUMP HEAD BEFORE RESERVOIR Report #: 233294-98(94)

REPORT SUMMARY

1,1-Dichloroethylene, cis-1,2-dichloroethylene, 1,1,1-trichloroethane and trichloroethylene were detected in the sample submitted for analysis at the concentrations indicated, which are all less than their current respective MCLs. 1,1-Dichloroethane was also detected in the sample submitted for analysis at a concentration of 0.5 ug/L. There is no MCL for this parameter. None of the other VOCs included in the detailed parameter list were detected in the sample submitted for analysis. Other compounds detected: 1,1,2-Trichlorotrifluoroethane at a concentration of 0.5 ug/L. There is no MCL for this parameter.

Laboratory Name: Environmental Health Laboratories Laboratory ID Number: 99976690

We appreciate the opportunity to provide you with this analysis. If you have any questions concerning this report, please do not hesitate to call us at (219) 233-4777.

Reviewed By: _____ Date: 9-30-96

Finalized By: _____ Date: 10-1-96

[redacted] of Natural Resources
[redacted] of Water Supply
.O. Box 7921
[redacted]n, WI 53707

VOLATILE ORGANIC ANALYSES FROM COMMERCIAL LABORATORIES

FORM: 3300-218

ection I: To be completed by the Department of Natural Resources

S[redacted]tem Name: CEDARBURG L & W COMMISSION City: CEDARBURG

PWS ID#: 24601082 County Code: 46 Route Code: WS20

[redacted]ystem Well No: _____ Entry Point ID: 001 WI Unique Well No: BG643

[redacted]ample Point Description: COLLECT SAMPLE AFTER RESERVOIR ASSOC. WITH WELL 1

[redacted]y[redacted]m Type:
- X (MC) Municipal Community
- _____ (OC) OTM Community
- [redacted] (NN) Nontransient Noncommunity
- _____ (TN) Transient Noncommunity

Source Code:
- _____ W Well
- XX E Entry Point
- _____ D Distribution

Sample Type:
- XX D (SDWA) Compliance Sample
- _____ C (SDWA) Confirmation ___ - ___ - ___ (Initial Sample Date)
- _____ W Raw Water Sample
- _____ I Investigation Sample

C[redacted]ct sample by: 12 - 31 - 96 Return results to DNR by: 01 - 10 - 97

Se[redacted]ion II: To be completed by SAMPLER

Sample Collection Date: 12 - 10 - 96 Sample Collection Time: 08 : 15

[redacted]ample Point Address: WEST 61 NORTH 623 MEQUON STREET

Sample Point Descrip: SAMPLE FAUCET AFTER RESERVOIR

[redacted]st Initial and
Last Name of Sampler: D. - HINTZ

Section III: To be completed by LABORATORY OFFICIAL. Report analytical results on back.

Laboratory ID [redacted]umber: 99976690 Laboratory Name: Environmental Health Laboratories

Date Sample Re[redacted]ived: 12 - 11 - 96 Time Sample Received: 09 : 30 Laboratory Sample ID: 243414

Signature of Re[redacted]iving Lab Official: Donna Martin Date Reported: 12 - 19 - 96

Condition of S[redacted]ple Upon Receipt: Iced

Section IV: To be completed by WATER SUPPLY SYSTEM OFFICIAL after analysis has been done.

I [redacted]rtify that I have personally examined and am familiar with the information submitted on this document and all attachments and that, b[redacted]d on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true and accurate, and complete. I also certify that the values being submitted are the actual values found in the sample; no values have been m[redacted]ified or changed in any manner.

Signature: Dennis R. Hintz Title: WATER SUPT.

F[redacted] Date Signed: 12/22/96

Rev: 09/93

This page to be completed by WATER SUPPLY SYSTEM OFFICIAL or laboratory performing analysis.

Storet Code		Parameter	SDWA Method	MDL *	Results	MCL	Units
34235	X	Benzene	524.2	0.5	< 0.5	5	ug/L
81555	X	Bromobenzene	524.2	0.2	< 0.2	---	ug/L
32101	X	Bromodichloromethane	524.2	0.1	**0.4**	---	ug/L
32104	X	Bromoform	524.2	0.1	**0.5**	---	ug/L
34413	X	Bromomethane	524.2	0.5	< 0.5	---	ug/L
32102	X	Carbon Tetrachloride	524.2	0.1	< 0.1	5	ug/L
34301	X	Chlorobenzene	524.2	0.2	< 0.2	100	ug/L
34311	X	Chloroethane	524.2	0.5	< 0.5	---	ug/L
32106	X	Chloroform	524.2	0.1	**0.2**	---	ug/L
24418	X	Chloromethane	524.2	0.5	< 0.5	---	ug/L
77275	X	2-Chlorotoluene (o-)	524.2	0.2	< 0.2	---	ug/L
77277	X	4-Chlorotoluene (p-)	524.2	0.2	< 0.2	---	ug/L
32105	X	Dibromochloromethane	524.2	0.1	**0.9**	---	ug/L
77596	X	Dibromomethane	524.2	0.1	< 0.1	---	ug/L
34566	X	1,3-Dichlorobenzene (m-)	524.2	0.1	< 0.1	---	ug/L
34536	X	1,2-Dichlorobenzene (o-)	524.2	0.1	< 0.1	600	ug/L
34571	X	1,4-Dichlorobenzene (p-)	524.2	0.1	< 0.1	75	ug/L
34496	X	1,1 Dichloroethane	524.2	0.1	**0.1**	---	ug/L
34531	X	1,2 Dichloroethane	524.2	0.1	< 0.1	5	ug/L
34501	X	1,1 Dichloroethylene	524.2	0.2	< 0.2	7	ug/L
77093	X	1,2 Dichloroethylene, cis	524.2	0.1	**0.2**	70	ug/L
34546	X	1,2 Dichloroethylene, trans	524.2	0.1	< 0.1	100	ug/L
34423	X	Dichloromethane	524.2	0.5	< 0.5	5	ug/L
34541	X	1,2 Dichloropropane	524.2	0.1	< 0.1	5	ug/L
77173	X	1,3 Dichloropropane	524.2	0.1	< 0.1	---	ug/L
77170	X	2,2 Dichloropropane	524.2	0.2	< 0.2	---	ug/L
77168	X	1,1 Dichloropropene	524.2	0.1	< 0.1	---	ug/L
34562	X	1,3 Dichloropropene	524.2	0.1	< 0.1	---	ug/L
34371	X	Ethylbenzene	524.2	0.1	< 0.1	700	ug/L
77128	X	Styrene	524.2	0.2	< 0.2	100	ug/L
77562	X	1,1,1,2 - Tetrachloroethane	524.2	0.1	< 0.1	---	ug/L
34516	X	1,1,2,2 - Tetrachloroethane	524.2	0.1	< 0.1	---	ug/L
34475	X	Tetrachloroethylene	524.2	0.2	< 0.2	5	ug/L
34481	X	Toluene	524.2	0.5	< 0.5	1000	ug/L
34551	X	1,2,4-Trichlorobenzene	524.2	0.2	< 0.2	70	ug/L
34506	X	1,1,1 - Trichloroethane	524.2	0.1	**0.2**	200	ug/L
34511	X	1,1,2 - Trichloroethane	524.2	0.1	< 0.1	5	ug/L
39180	X	Trichloroethylene	524.2	0.1	**0.6**	5	ug/L
77443	X	1,2,3 - Trichloropropane	524.2	0.2	< 0.2	---	ug/L
39175	X	Vinyl Chloride	524.2	0.2	< 0.2	0.2	ug/L
79724	X	Xylenes, Total	524.2	0.2	< 0.2	10000	ug/L

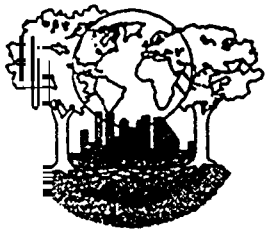
* FHL has demonstrated it can achieve these report limits in reagent water, but can not document them in all sample matrices.

Analysis Date/Time: 12/12/96 15:05

Si SAMPLE FAUCET AFTER RESERVOIR Report #: 243413-16(14)

REPORT SUMMARY

Bromodichloromethane, bromoform, chloroform, dibromochloromethane, cis-1,2-dichloroethylene, 1,1,1-trichloroethane and trichloroethylene were detected in the sample submitted for analysis at the concentrations indicated, which are all less than their current respective MCLs. 1,1-Dichloroethane was also detected in the sample submitted for analysis at a concentration of 0.1 ug/L. There is no MCL for this parameter. None of the other VOCs included in the detailed parameter list were detected in the sample submitted for analysis.



Laboratory Name: Environmental Health Laboratories Laboratory ID Number: 99976690

W appreciate the opportunity to provide you with this analysis. If you have any questions concerning this report, please do not hesitate to call us at (219) 233-4777.

R ewed By: _____ Date: 12-20-96

F lized By: _____ Date: 12/20/96