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Engineers • Architects • Planners • Surveyors • Scientists

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June 12, 1996

Mr. Chris Saari Wisconsin Department of Natural Resources P.O. Box 125 6250 South Ranger Road Brule, WI 54820-0125



Re: Site Investigation and Remedial Action Options Report for the Quearm Oil Leaking Underground Storage Tank Site, Ashland, Wisconsin WDNR UID No. 03-02-000975

Dear Mr. Saari:

On behalf of Mr. Fred Gygi, Mid-State Associates, Inc. (MSA) is submitting the subject site's Site Investigation and Remedial Action Options Report to satisfy the submittal requirements of s. NR 716.15 and s. NR 722.13, Wis. Adm. Code. The site is located at 105 W. 6th Street, Ashland, Wisconsin.

Please call me if you have any questions regarding this submittal.

Sincerely,

MID-STATE ASSOCIATES, INC.

Brian J. Hegge

Project Manager

BJH:ab Enc. cc: Fred Gygi, Ironwood, MI Janine Dobson, Park Falls, WI

212365SI.DNR

Site Investigation and Remedial Action Options Report

Quearm Oil Leaking Underground Storage Tank (LUST) Site 105 W. 6th Street Ashland, Wisconsin

MSA Project No. 212365 WDNR File No. 03-02-000975 PECFA Claim File No. 54806-1649-05

Prepared for: Quearm Oil Company Ashland, Wisconsin 54806

Prepared by: Mid-State Associates, Inc. Rhinelander, WI 54501

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Site Investigation and Remedial Action Options Report

Quearm Oil Leaking Underground Storage Tank (LUST) Site 105 W. 6th Street Ashland, Wisconsin

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SUBMITTAL CERTIFICATION

The conclusions and recommendations presented in this report are the professional opinions of Mid-State Associates, Inc. (MSA). These opinions are based upon currently accepted hydrogeologic, scientific, and engineering professional practices at this time and location. As a result, MSA does not guarantee nor warranty these opinions as to the potential environmental liability associated with this property.

The findings, conclusions, and opinions contained in this report are intended for exclusive use by the Quearm Oil Company and are applicable only to the Quearm Oil Company leaking underground storage tank (LUST) project. MSA has no obligations to other persons nor organizations who may use or rely upon this information.

I, John Sager, hereby certify that I am a hydrogeologist as that term is defined in s. NR 712.03(1), Wis. Adm. Code, and that, to the best of my knowledge, all of the information contained in this document is correct, and the document was prepared in compliance with all applicable requirements in chs. NR 700 to 726, Wis. Adm. Code.

Report Prepared by: 14 IN John Sager

Project Hydrogeologist

<u>6/7/96</u> Date

"I, D. Joseph Wessley, hereby certify that I am a registered professional engineer in the State of Wisconsin, registered in accordance with the requirements of ch. A-E 4, Wis. Adm. Code; that this document has been prepared in accordance with the Rules of Professional Conduct in ch. A-E 8, Wis. Adm. Code; and that, to the best of my knowledge, all information contained in this document is correct and the document was prepared in compliance with all applicable requirements in chs. NR 700 to 726, Wis. Adm. Code."

Report Reviewed by:

seph Wesslig , June 6, 1996

Senior Project Engineer, P.E. No. E-24575



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EXECUTIVE SUMMARY

A site investigation was conducted between January 1996 and April 1996 at the Quearm Oil Company leaking underground storage tank (LUST) site in Ashland, Wisconsin. During the investigation, nine Geoprobe[®] soil borings were completed and soil samples were collected for field screening and laboratory analysis.

As part of the site investigation, soil samples were collected for laboratory analysis from each of the Geoprobe[®] soil borings. Gasoline range organics (GRO) were detected at a concentration exceeding the Wis. Adm. Code Chapter NR 720 Generic Residual Contaminant Levels (GRCLs) for petroleum contamination in soil collected from boring GP-9 (1,740 mg/Kg) and GP-4 (5,800 mg/Kg). Volatile organic compounds (VOCs) were detected in concentrations exceeding the NR 720 GRCLs in soil samples collected from borings GP-1, GP-3, GP-4, and GP-9.

The soil at the site is composed of red clay. Groundwater was not encountered during the investigation.

The area of soil contamination is located in the immediate area surrounding the former underground storage tank (UST) basin and the southern pump island and piping run. Contamination extends to approximately 10 feet below grade at the former UST location and 7 feet below grade at the southern pump island. Approximately 250 yards of soil in the UST area are contaminated above the GRCLs.

Three remedial alternatives were evaluated for this site: (1) soil excavation with off-site biotreatment; (2) soil excavation with off-site asphalt incorporation; and (3) soil excavation with on-site thermal desorption. The economic analysis indicates that Alternative 1 is the most practical and cost effective method to restore the site and, therefore, the recommended remedial action.

INTRODUCTION

This report presents the results of a site investigation conducted by Mid-State Associates, Inc. (MSA) at the Quearm Oil Company leaking underground storage tank (LUST) site. The site is at 105 West 6th Street, Ashland, Ashland County, Wisconsin 54806. The site investigation was requested by the Wisconsin Department of Natural Resources (WDNR) to satisfy the requirements of Sec. 144.76 of the Wisconsin Statutes, and has been prepared in accordance with s. NR 716.15, Wis. Adm. Code.

The site is operated as a retail fuel sales facility. Petroleum contamination was discovered on November 14, 1995, during the removal of two 1,000-gallon underground storage tanks (USTs).

MSA conducted a site investigation between January 1996 and April 1996. The site investigation consisted of advancing nine Geoprobe[®] soil borings. The investigation was performed to define the nature and extent of petroleum hydrocarbon impacts vertically and laterally in the soil and, if applicable, groundwater.

This document also represents the results of the Remedial Action Options (RAO) report associated with the release of petroleum hydrocarbons at the site from the UST system. The RAO report provides alternatives for the remediation of a past petroleum release along with a recommended alternative in accordance with s. NR 722.13, Wis. Adm. Code. Approval of the RAO report by the WDNR and the Wisconsin Department of Industry, Labor and Human Relations (DILHR) is a prerequisite for proceeding with the final design and implementation of the proposed remedial action and obtaining reimbursement from the Wisconsin Petroleum Environmental Cleanup Fund Act (PECFA) program.

BACKGROUND INFORMATION

Pertinent information regarding the site contact person, site location, and site description is given in the Facility Description Abstract (Table 1).

TABLE 1FACILITY DESCRIPTION ABSTRACTQUEARM OIL LUST SITE, ASHLAND, WI

Responsible Party:	Quearm Oil Company 105 W. 6th Street Ashland, WI 54806
Contact Person:	Mr. Fred Gygi Quearm Oil Company 631 E. McLeod Avenue Ironwood, MI 49938 (906) 932-8088
Site Location:	105 W. 6th Street Ashland, WI 54806 SE ¹ / ₄ , SW ¹ / ₄ , Sw ¹ / ₄ , Section 33, Township 48 North, Range 4 West Ashland County
Site Description:	The site is operated as a retail fuel sales facility. Two 1,000-gallon gasoline USTs were formerly located approximately 4 feet west of the main building on site. The two 1,000-gallon gasoline USTs were closed by removal on November 14, 1995. Seven aboveground storage tanks (ASTs) are located on the western portion of the property. A site investigation was conducted in the AST area between August 1992 and May 1993 by Ayres and Associates, Inc.
MSA Contact Person:	John Sager, Project Hydrogeologist and Brian Hegge, Project Manager (715) 362-3244

SITE HISTORY

The site has historically been used as a retail fuel sales facility.

PREVIOUS SITE WORK

Two 1,000-gallon gasoline USTs were formerly located approximately 4 feet west of the main building in a single tank basin. The two USTs were closed by removal on November 14, 1995. The UST Closure Report prepared by MSA documenting the UST removal activities was previously submitted to the WDNR on December 29, 1995.

A petroleum-product release of unknown volume was identified at the site during the UST removal. The WDNR was subsequently notified of the petroleum-product release to the subsurface and has required an investigation to determine the extent of the petroleum impacts to the site. The project location, site layout, and UST area detail are shown on Figures 1, 2, and 3, respectively.

OTHER KNOWN AND POTENTIAL SOURCES OF PETROLEUM CONTAMINATION IN THE AREA

A release of petroleum product from the ASTs west of the building was confirmed by Ayres and Associates, Inc. in 1992 to 1993 during a site investigation of the AST area (Ayres & Associates, Inc., 1993). A gas station/mini-mart is located directly east of the site, across Ellis Avenue. No other sources nor potential sources of petroleum contamination are known to exist in the area.

TOPOGRAPHY AND HYDROLOGY

The information presented below was obtained from the 1964 United States Geological Survey (USGS) Ashland West and Ashland East Quadrangle 7.5-minute series quadrangle map (Figure 1) and from data collected during the site investigation. According to regional geologic references (Young and Skinner, 1974), the site is in the Lake Superior Hydrogeologic Basin. Lake Superior is located approximately 2,300 feet northwest of the site. The approximate mean surface elevation of Lake Superior is 602 feet National Geodetic Vertical Datum of 1929 (NGVD). Surface elevations of the site are at an approximate elevation of 670 feet NGVD. The land surface in Ashland slopes gently toward Lake Superior. Land surface near the USTs and building is relatively level.

GEOLOGY AND HYDROGEOLOGY

Unconsolidated Quaternary-age glacial outwash deposits in the vicinity of the site range from 0 to 250 feet thick and consist primarily of red-to-yellow clay overlying stratified sand and gravel deposits. Glacial deposits near the site are greater than 80 to 100 feet thick based on water well records obtained from the Wisconsin Geological and Natural History Survey (WGNHS). A summary of the water well construction reports and geologic logs of wells within 1,200 feet of the site are presented in Table 2. Copies of the logs and reports are contained in Appendix A. The majority of the potable water wells in the area use the Quaternary-age deposits (water-bearing sands and gravels) below surface clay deposits as the principal aquifer.

Soil at the site consists of red clay to the depth investigated. Soil samples from soil borings GP-1 and GP-2 were analyzed for grain size analysis by Central Wisconsin Engineers, Inc. Grain size distribution tests results are included in Appendix B. The soil samples were classified as sandy clay, containing approximately 75% clay and 25% sand. Pea-gravel was encountered in the former piping runs and medium-grained sand in the former UST basin.

Regional groundwater information shows that groundwater in the Ashland area flows northwest toward Lake Superior. Based on previous site investigation activities conducted in the AST area, the depth to groundwater is approximately 4 to 18 feet below ground surface. Groundwater was reported to have been in sand lenses within the clay. Groundwater was not encountered during the UST area site investigation. Hydraulic conductivity of the clay soils is estimated to be 1×10^{-6} through 1×10^{-9} cm/sec based on the results of the grain size analysis.

SAMPLING METHODS AND DOCUMENTATION

This section presents the methods used during the field investigation to determine the extent of the petroleum contamination in the soil and groundwater at this site. This section also outlines the methods used to analyze the soil and groundwater samples collected in the field.

SOIL SAMPLING METHODS

Soil samples were obtained using a 1-inch-diameter Geoprobe[®] soil sampling device (GP-1 through GP-9). Upon retrieving the soil sample from the split spoon, samples for laboratory analysis were immediately collected in clean, laboratory-supplied, glass jars. Soil sampling and preservation procedures are documented in Appendix C. At each boring, after soil sampling for laboratory analysis was complete, a sample for headspace analysis was transferred from the split spoon or auger to new, quart-size, Ziploc[®] bags. The bags were filled approximately one-half full, shaken, and placed aside, out of direct sunlight.

Headspace samples were analyzed upon completion of drilling and sampling of the individual boreholes. The organic vapor concentration was determined by inserting the probe on the Thermo Environmental Model 580B Organic Vapor Monitor (OVM) (11.7 electron volt lamp) through a small opening made in the top of the bag. Appendix D describes the headspace screening procedures in detail. In general, a soil sample was collected for laboratory analysis from the sample interval with elevated OVM readings and/or the bottom of the borings. Samples were collected and analyzed to characterize and define the petroleum impacts; thus, both suspected contaminated samples and suspected clean samples were submitted for analysis.

Soil samples were described in the field using the Unified Soil Classification System (ASTM D2487). Soil boring logs were compiled, including sample intervals, descriptions, recovery, and OVM concentrations. Soil samples collected from the soil borings were analyzed for:

- Gasoline range organics (GRO), using WDNR Modified GRO Method;
- Volatile organic compounds (VOCs), Using EPA Method 8021; and
- Lead.

The Geoprobe[®] drilling rods and soil sampling equipment were decontaminated between each sample with a soap (Alconox) and water wash followed by a water rinse.

DOCUMENTATION

Soil boring logs and borehole abandonment reports are in Appendix E. Laboratory reports for soil samples, including chain of custody records, are in Appendix F.

SITE INVESTIGATION RESULTS

FIELD INVESTIGATION

The site investigation defined the nature and extent of petroleum contamination to the soil in the UST area.

Fieldwork conducted on January 17, 1996, consisted of advancing nine soil borings (GP-1 through GP-9) to approximately 6 to 14 feet below grade using Geoprobe[®] soil boring techniques. The soil borings were installed surrounding the UST area, and along the piping runs and pump islands. The locations of the soil borings are illustrated on Figure 4. Figures 5 and 6 present north-to-south and east-to-west hydrogeologic cross sections of the site illustrating the stratigraphy of the unconsolidated material encountered during the drilling. Soil at the site consists of red clay to the depth drilled. Intermittent sand and gravel lenses were encountered in some borings. Groundwater was not encountered during the investigation.

SOIL INVESTIGATION AND CHEMISTRY

Field organic vapor analyses and analytical soil sample results are presented in Tables 3 and 4, respectively. Soil boring locations are presented in Figure 4. The highest contamination of GRO and VOCs was detected along the former piping run and pump island south of the USTs, and in the former UST basin. Contamination above the Wis. Adm. Code NR 720 Generic Residual Contaminant Levels (GRCLs) was detected in soil borings GP-1, GP-3, GP-4, and GP-9.

DISCUSSION OF SITE INVESTIGATION ACTIVITIES

EXTENT OF PETROLEUM CONTAMINATION TO SOIL

Figures 5 and 6 illustrate the extent of petroleum contamination in cross sections A-A' and B-B', respectively. Soil sample analytical and headspace results are displayed along the borings. Figure 7 illustrates the estimated horizontal extent of petroleum contamination detected in the soil that is greater than the NR 720 GRCLs.

Petroleum contaminated soil extends from the area of the UST basin along the southern piping run and beneath the southern pump island at boring GP-9. Contamination at GP-9 appears to extend to approximately 7 feet below grade. Samples collected from GP-8 did not detect contamination. It appears that this contamination is isolated to the area surrounding the western end of the pump island. Petroleum contamination was also detected at the north end of the eastern pump island. However, analysis of samples from GP-7 did not detect contamination greater than the NR 720 GRCLs. Benzene concentrations greater than the GRCLs were detected in GP-3 at 8 to 10 feet.

PETROLEUM CONTAMINATION PATHWAY AND MIGRATION ANALYSIS

Underground sewer and water lines run parallel to Sixth Street and Ellis Avenue within the right-ofway (see Figure 2). A sanitary sewer lateral runs north-south through the property approximately 60 feet west of the building. Overhead electric and telephone lines run east-west along Sixth Street. Overhead electric services the building. Underground telephone runs from the utility pole west of the building on Sixth Street northeast to the building. None of the utilities lie within the area of contamination from the USTs. The utilities are not expected to have acted as contaminant migration pathways.

CONCLUSIONS OF THE SITE INVESTIGATION

The results of the site investigation provide the following conclusions:

GEOLOGY AND HYDROGEOLOGY

- The subsurface materials consist of dense red clay to the depth drilled (6 to 14 feet below grade).
- Groundwater was not detected during the UST site investigation.

NATURE AND EXTENT OF PETROLEUM CONTAMINATION

- Soil contamination is greatest along the southern piping run and pump island. Soil is also contaminated within the former UST basin. Analysis of soil samples from GP-9 detected soil contamination greater than the GRCLs to 10 feet below grade. Approximately 250 yards of soil is contaminated above the GRCLs.
- Based upon the site investigation, the vertical and lateral extent of petroleum contamination to the soil has been defined.

REMEDIAL ACTION OPTIONS ANALYSIS

This site requires remediation of petroleum contaminated soil. This section of the report describes the technologies that could potentially be used to achieve the remedial objectives. The applicability of each technology with regard to this site is discussed, then applicable technologies are subjected to a comparative technical feasibility and cost analysis whereby the most feasible alternative is selected. Finally, the selected alternative is presented.

APPLICABLE REMEDIAL TECHNOLOGIES

Passive Bioremediation

Passive bioremediation relies on natural processes such as biodegradation, diffusion, and dilution to mitigate contamination in unsaturated soil. This option requires minimal capital costs but often requires an extended period of time before the contaminant concentrations drop below regulatory standards. This option generally requires extensive long-term monitoring, thereby increasing the final cost.

Soil at the site consists of tight red clay. Hydraulic conductivity of clay soils generally falls well below 1×10^{-5} cm/sec (Freeze and Cherry, 1979). The WDNR guidance on bioremediation recommends a hydraulic conductivity of greater than 1×10^{-5} cm/sec for bioremediation to be an effective remedial action option. The high levels of soil contamination along the piping runs and pump island combined with the low conductivity would not make bioremediation a feasible remedial action option.

WDNR guidance also states that natural biodegradation is not a viable remedial option at sites with soil contamination exceeding 500 mg/Kg of GRO. The maximum GRO concentrations detected at this site during the closure assessment (5,800 mg/Kg) exceed the guidance value. Therefore, passive bioremediation alone is not an applicable technology for this site.

Excavation and Disposal/treatment

Excavation is frequently used to remove petroleum contaminated soil when readily accessible by a back-hoe or other appropriate heavy machinery. The excavation at this site is not anticipated to be performed in the immediate vicinity of surface obstacles.

Once the contaminated soil is removed from the subsurface, on-site or off-site treatment and disposal would follow. Cost effective disposal options that will be evaluated include off-site asphalt incorporation, off-site bio-treatment, and on-site thermal desorption unit.

Off-site Bio-treatment

Under this alternative, the source of contamination is removed and bioremediated off-site. Petroleum-contaminated soil is placed in a bioremediation cell and nutrients are added to promote biological breakdown of the petroleum hydrocarbons. The cell is typically engineered with vacuum and air inlet piping to control vapors and provide oxygen for aerobic microorganisms.

On-site Thermal Desorption

Under this alternative, the source of contamination is removed and thermally treated in a rotating oven to volatilize the contaminants, which are then destroyed by an afterburner located on the stack. The treated soils are usually placed back on-site as treated backfill, thereby reducing the costs associated with obtaining additional fill material. Petroleum hydrocarbons are easily treated using thermal desorption. However, soils that contain clays and silts require special handling and may generate treated soil that is not acceptable backfill material. In addition, the efficiency of soil desorption units is significantly reduced and production costs are higher with silty and clayey soils. The thermal desorption treatment option is available as either mobile (on-site) or fixed (off-site asphalt plants) units.

REMEDIAL ACTION ALTERNATIVES

The applicable remedial technologies described previously were assembled into three remedial action alternatives that could effectively achieve the remedial objectives for this site. This section includes a description of the preliminary design for each system. The three alternatives are as follows:

- Alternative 1: Soil Excavation with Off-site Bio-Treatment
- Alternative 2: Soil Excavation with Off-site Asphalt Incorporation
- Alternative 3: Soil Excavation with On-site Thermal Desorption

Alternative 1: Soil Excavation With Off-site Bio-treatment

Removal of the contaminated soil by excavation appears feasible at this site because of the relatively shallow depth of contamination (assumed to be less than 12 feet) and the small volume anticipated (approximately 250 yards of contaminated soil). Additional soil may need to be removed (overburden and unstable sidewall material) during excavation of the contaminated soil. The contaminated soil will be treated at a WDNR-approved bio-treatment facility. Segregated, non-contaminated soil and clean imported soil would be used to fill the excavation. It is assumed that

this alternative would provide immediate site remediation, thereby eliminating operation and maintenance costs.

Alternative 2: Soil Excavation With Off-site Asphalt Incorporation

On-site excavation, segregating, and backfilling activities in Alternative 2 would be similar to those of Alternative 1. However, disposal of the contaminated soil would be made to a WDNR-approved off-site asphalt incorporation facility. It is assumed that this alternative would provide immediate site remediation, thereby eliminating operation and maintenance costs.

Alternative 3: Soil Excavation And Onsite Thermal Desorption

On-site excavation, segregating, and backfilling activities in Alternative 3 would be similar to those of Alternative 1. However, the contaminated soil would be treated onsite with a thermal desorption unit and placed back into the excavation. It is assumed that this alternative would provide immediate site remediation, thereby eliminating operation and maintenance costs.

Compliance With Environmental Laws And Standards

All three options are expected to provide compliance with soil cleanup standards for petroleum contamination. The excavation of the petroleum contaminated soils is expected to result in compliance after the excavation is completed.

Economic Analysis

The total monetary cost of a remedial action includes all perceived costs associated with that alternative. The cost estimates presented in this report have been prepared for guidance in project evaluation and implementation from information available at the time of this report. The final project costs will depend on actual labor and material costs, competitive market conditions, final project scope, implementation schedule, and other variable factors. As a result, the final project costs will likely vary from the estimates presented herein.

Estimated costs for each of the remaining alternatives are summarized in Table 5.

The following assumptions have been made in preparing these cost estimates:

- The volume of contaminated soil is 250 cubic yards;
- Contaminated soil extends from the surface to approximately 10 to 12 feet below grade. Minimal uncontaminated soil will need excavation to access contaminated soil;
- The excavation will extend to 10 to 12 feet below grade;

- Soil samples will be collected from the excavation side walls and base to confirm that the contaminated soil has been removed around the former UST basin. Soil samples will also be collected from the excavation base along the former piping runs and pump islands to confirm contaminated soil removal; and
- Excavation and treatment/disposal costs are estimates reflective of current market prices.

RECOMMENDED REMEDIAL ACTION

The recommended option for soil remediation at this site is Alternative 1: Soil Excavation with Offsite Bio-Treatment. This option has the lowest overall estimated cost of the three alternatives evaluated.

ESTIMATED IMPLEMENTATION COSTS

The estimated implementation costs for the excavation and off-site bioremediation of petroleum contaminated soils at the Quearm Oil Company site are:

\$38,200
<u>24,800</u>
\$63,000
<u>6,100</u>
\$6,100
\$69,100

ESTIMATED COMPLIANCE TIME

If excavation removes all soil contaminated in excess of the desired cleanup levels, the remediation will be completed at that time. If, after excavation, contaminated soil must naturally remediate, additional time and monitoring might be required.

PERFORMANCE MEASUREMENT

Remediation at the Quearm Oil Company site would be evaluated by soil analysis at the time of excavation. If continued bioremediation is required after excavation, passive remediation may require additional soils analysis.

REFERENCES

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Mid-State Associates, Inc. (1995). Underground Storage Tank Closure Assessment Report -Quearm Oil Company.

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Wisconsin Department of Natural Resources (1993). Release News (Vol. 3, No. 1).

Wisconsin Department of Natural Resources (1995). Wisconsin Administrative Code, 1994 (Chapters NR 700 - NR 736).

Young, H.L. and Skinner, E.L. (1974) Water Resources of Wisconsin Lake Superior Basin. Geological and Natural History Survey Hydrogeologic Investigations Atlas HA-524. University of Wisconsin Extension. **FIGURES**







ELLIS AVE.





ELLIS AVE.









TABLES

TABLE 1FACILITY DESCRIPTION ABSTRACTQUEARM OIL LUST SITE, ASHLAND, WI

Responsible Party:	Quearm Oil Company 105 W. 6th Street Ashland, WI 54806
Contact Person:	Mr. Fred Gygi Quearm Oil Company 631 E. McLeod Avenue Ironwood, MI 49938 (906) 932-8088
Site Location:	105 W. 6th Street Ashland, WI 54806 SE ¹ /4, SW ¹ /4, SW ¹ /4, Section 33, Township 48 North, Range 4 West Ashland County
Site Description:	The site is operated as a retail fuel sales facility. Two 1,000-gallon gasoline USTs were formerly located approximately 4 feet west of the main building on site. The two 1,000-gallon gasoline USTs were closed by removal on November 14, 1995. Seven aboveground storage tanks (ASTs) are located on the western portion of the property. A site investigation was conducted in the AST area between August 1992 and May 1993 by Ayres and Associates, Inc.
MSA Contact Person:	John Sager, Project Hydrogeologist and Brian Hegge, Project Manager (715) 362-3244

TABLE 2 WATER WELL SURVEY QUEARM OIL COMPANY, ASHLAND, WI

Well/Log Identification No./Name	Year Well Installed	Depth of Well (feet)	Depth to Ground water (feet)	Elevation in Mean Sea Level (feet)	Yield (gpm)	Draw- down (feet)	Specific Capacity (gpm/ft)	Aquifer	Use	Comments
Northern States Power Co. NE1/4, NW1/4, Sec. 5, T47N, R4W	1987	183	Flowing 21 GPM	nm	4			Q	Commercial Boiler	Artesian
Pioneer Creamery Co. 909 2nd Street W.	1939	188	18	nm	40	82	.48	Q	Commercial	
Reiss Coal Co. 6th Avenue W., Front St.	1948	81	Flowing 50 GPM	nm	50				Commercial	Artesian
St. Joseph Hospital	1942	112	48	nm	90					
Wisconsin Bell #1 NW1/4, SW1/4, Sec. 33, T48N, R4W	1985	130	nm	nm	50	7	7.14	Q	Cooling Water	
Wisconsin Bell #2 Same location as well #1	1985	128	33	nm	50	7	7.14	Q	Cooling Water	

nm = not measured nor available

Q = Quaternar Age glacial sediments (stratified sand/gravel and with some silt and clay) PC = Precambrian Age granitic bedrock

TABLE 3 FIELD ORGANIC VAPOR ANALYSIS GEOPROBE® SOIL BORINGS QUEARM OIL COMPANY, ASHLAND, WI JANUARY 17, 1996

SOIL BORING	GP-1	GP-2	GP-3	GP-4	GP-5	GP-6	GP-7	GP-8	GP-9
DEPTH (ft)									
2-4	12.8	0.0	1.3*	721*	0.0	0.0	7.9*	0.0	189*
4-6	9.6*	0.0	0.8	251	0.0	0.0*	0.0*	2.4*	3.5
6-8	0.0	0.0	0.3	37	0.0*	EOB	EOB	0.0	1.3*
8-10	0.0	0.0*	1.9*	NR	NR			0.0	EOB
10-12	0.0*	0.0	0.2	1.8*	0.0			EOB	
12-14	0.0	EOB	EOB	EOB	EOB				
	EOB								

All values are expressed as parts per million (ppm) PID units.

* = Laboratory sample analyzed

Blank = Interval not sampled

EOB = End of boring

NR = No sample recovery

TABLE 4
ANALYTICAL SOIL RESULTS: GEOPROBE BORINGS
QUEARM OIL COMPANY, ASHLAND, WI
JANUARY 17, 1996

IDENTIFICATION	GI	P-1	GP-2	GI	P-3	GF	-4	GP-5	GP-6	GI	-7	GP-8	GI	P-9	0.014
SAMPLE DEPTH (feet)	4-6	10-12	10-12	2-4	8-10	2-4	10-12	6-8	4-6	2-4	4-6	4-6	2-4	6-8	SOIL GRCL
ANALYTE															
GRO (mg/Kg)	103					5,800				26.4			I,740		250
Lead (mg/Kg)		:							-	1					
PVOCs (µg/Kg)															
Benzene					186	-				-				45.6	5.5
n-Butylbenzene	7,700	I		1	-+	89,100			-	409			103,000	289	
sec-Butylbenzene	488			-		-				576	-		5,820		
tert-Butylbenzene	151			1						234					
Ethylbenzene	139			1		32,000				98	-		16,100	44.6	2,900
Isopropylbenzene	163			1		-			1	145			3,450		
Isopropyl Ether						6,800	-								
p-Isopropyltoluene	232			-		-		-		167		-			
Methyl tert-butylether				-				1	-	-		-			
Naphthalene	1,020					22,700			-	388			39,400	135	
n-Propylbenzene	452			-		9,520	-4		1	222	-		16,400	75.6	
Toluene			**					:				1	4,520		1,500
1,2,4-Trimethylbenzene	9,890		••			262,000		•		221			175,000		
1,3,5-Trimethylbenzene	4,100					98,000				111			58,400	106	
m- & p-Xylene	813					233,000							103,000		4,100
o-Xylene & styrene	437	49.4	54.6	32.9	41.2	141,000	33.4	34.3	27.7		57.2		51,500	26.8	

GRCL = Wisconsin Administrative Code NR 720 Generic Residual Contaminant Levels (GRCL)

-- = Parameter analyzed but not detected above method detection limits (MDLs) MDLs are presented on analytical reports in Appendix E. Shaded = GRCL exceedence

TABLE 5REMEDIAL OPTIONS COST ANALYSIS SUMMARYQUEARM OIL COMPANY, ASHLAND, WISCONSIN

	Alterr	native 1	Altern	ative 2	Alternative 3		
	Excavation/O	ff-Site BioPile	Excavation/Asph	alt Incorporation	Excavation/Onsite Thermal		
	Commodities	Consulting	Commodities	Consulting	Commodities	Consulting	
Capital Costs							
Excavation	\$18,700		\$18,700		\$18,700		
Disposal Samples	\$1,100		\$1,100		\$1,100		
Soil Disposal/Treatment	\$18,400		\$23,000		\$25,300		
Specifications		\$11,000		\$11,000		\$11,000	
Construction Inspect. & Sampling		\$13,800		\$13,800		\$13,800	
Closure Costs							
Closure Report		\$6,100		\$6,100		\$6,100	
Subtotal	\$38,200	\$30,900	\$42,800	\$30,900	\$45,100	\$30,900	
Total Cost (Commodity & Consulting)		\$69,100		\$73,700		\$76,000	

APPENDIX A

WATER SUPPLY WELL LOGS
Departr P	State o ment o Private Bo	of Wisc f Natur Water 1	onsin ral Resourc Supply	ces			Whi	ite Copy	NO	TE: - D:	ivision's	Copy	/		W] Fo	ELL (rm 33	CONS7 00-15	[RU	CTOR	'S RE Ro	POR 17. 2-7	Г '9
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-421	747	7/V/ · 144 Se	ction or G	ov't. Lo	t /	Section	l Townst		ge in	ige 3. Na	AME (ST	<u> 4 6 1</u>		$\underline{\mathbf{O}}$				
2. LOCA	TION	N	E'ly N	<u> י לט/</u>	<u>ч</u>	5	T+7	NR	11	 \/	ORT	HE	'EN'	<	ST/	472	S	20 Pc	CCE	G CH	eck i C n	4 C
OR	- Gr	id or Si	treet No.	Street	or Roa	id Name		0		A	DDRESS					<u></u>	1			<u> </u>		<u> </u>
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4. Distan	ice in f	eet from	m well ⁸	Building	Sa	nitary Bldg. C	Drain	Sani	tary E	Bldg.	Sewer		Floo	or Drai	n Fo:		Storm 8	lidg, (Drain	510	orm B	lag. 1
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Street S	ewer	Oth	er Sewers	Founda	tion C	rain Connect		Sewage	e Surr		Clearw	ater		IC HO	Iding	Sewa	Ige Abs	orptic	on Unit	1 D : Manu		pper c
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NOA Privy D	NE	Dit. N		Or.	i etian i	Sump	1				Animal	10 -		1	1010	Seep	age Tre	nch		1		-
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-		Pamp Tank			i				1	1		I			Τ.		T				1	
Temporar Stack or F	ry Man Platfor	ure V m N	Vatertight Manure Tar	Liquid ik or	Manu	ure Subsurf. ure Gasolin	ace iv	Naste Po Disposal	ond or Unit	r Lan	d Ma	nure	Stora	ge Basi	n.		Other (C	Descri	be)			
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WELL CONSTRUCTION REPORT WISCONSIN STATE BOARD OF HEALTH WELL DRILLING DIVISION JUN 27 1939

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WELL CONSTRUCTOR'S REPORT TO WISCONSIN STATE BOARD OF HEALTH See Instructions on Reverse Side

1. County ASLLAIND Town [] Village [] City [4 2. Location Frot of 7th ASE, W ASLLAND Wis Native of street and number of premise or Section. Town and Range numbers 4-5 3. Owner [] or Agent [] _ Reiss Coal Co 4. Mail Address 65 and W. Front Str. EYGINGOR 5. From well to nearest: Building_40_ft; sewer_60_ft; drain_60_ft; septic tank_100_ft;_____ dry well or filter bed 125 ft; abandoned well 200 ft. 6. Well is intended to supply water for: Plant ____ 7. DRILLHOLE: **10. FORMATIONS:** Dia. (in.) | From (ft.) | To (ft) || Dia. (in.) | From (ft) | To (ft.) From (IL) To ([L) Kind 5 20 6 0 20 81 34 0 yellow Clay 34 61 8. CASING AND LINER PIPE OR CURBING: lo1 75 Dia. (In.)] Kind and Weight From (ft.)] To ((L) 75 81 Ъ Standard Wei ଟା ٥ 9. GROUT: Kind From (IL) To (ft.) 0 20 Construction of the well was completed on: 7-31 _____ 1948 **11. MISCELLANEOUS DATA:** 11. MIDULIUM Hrs. at _50 GPM. Vield test: Howing Hrs. at _50 GPM. The well is terminated ______I6_____ inches Dabove, below T the permanent ground surface. Depth from surface to water-level: Was the well disinfected upon completion? Water-level when pumping: 12 Pump_ft. Yes____No Water sample was sent to the state laboratory at: Was the well sealed watertight upon completion? Superior on 8-4 - 1948 Yes____No 1104-Front Str. W. Cohland Win Signature 7.A. 1 Registered Well Driller Complete Mail Address Please do not write in space below 10 ml10 ml 10 ml 10 ml 10 ml Rec'd__ Ans'd ____ Gas-24 hrs. 48 hrs. Interpretation _____ -----Confirm B. Coli Examiner_

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AFK 10 1942 WELL CONSTRUCTION REPORT WISCONSIN STATE BOARD OF HEALTH WELL CONSTRUCTION DIVISION Note: Section 31 of the Wisconsin Well Construction Code, having the force and effect of law, provides that within thirty days after comple-tion of every well the driller shall submit a report covering all essential details of construction to the State Board of Health on a form provided by the Board. Driller_ Owner_ Street or RF Post Office Post Office Z Date Permit No. LOCATION OF PREMISES The square below represents a section of land divided into 40 acre tracts. Mark the position of the premises in the section. Town County Sec. N Describe further by subdivision, plat, district, lake, lot. Twp. 1 × block, nearest principal highway, etc., whichever apply. Range DIAGRAM OF PREMISES See Well Construction Report bulletin. In making the diagram in the space below consider 10 ft. as the distance between lines. Be sure to indicate NORTH. 15 SW M pe /ż=/? 12

Additional copies of this form may be obtained in lots of 12 for 25c. Send remittance with order to State Board of Health, Well Construction Division, Madison, Wis.

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WELL LOG and REPORT For method of making report, refer to bulletin entitled "Well Construction Report." 7-5-39. WELL DIAGRAM In this column indicate the kind In this column state the kind of formations penetrated, their thickness in Use a red line to show caring or liner pipe. Use black for drill Record of Df casing, liner, shoe and other accessories used. FINAL feet and if water bearing. or borehoue. Pumping test Diameter Inches "" std Depth 2 3 4 5 6 8 10 12 14 16 18 Duration of test Hours 10 rillon spec ell pipe sandy clay Pumping rate 25 90 G.P.M.____ Depth of pump in well. FL 60 50 Standing water-level (from surface) FL Some Boulden Druty sand 75 Water-level when pumping Ft. 25 tel shoe 96 Water. End of test. & Parley Clear 100 10 Plean sand Cloudy Turbid screen 119 ~ Bettom Bal Was the woll sterilized? 150 Yes. Mo. To which laboratory was sample sent? 200 Date 720/ 1: -41 Was the well sealed on completion? Yes No. 400 How high did you leave the casing-pipe above grade? iN : 1 800 1 1. . ្រា 14 . 4 . . . Well was completed Date Oct 29-41 . . . 1200 Draw the diagram to show the antin right half only Signatur

		Mineral Poi	nt Road	• M	adison, WI 5	3705						206F.	-7-ns-2	OT.
Iwell name Wisconsin Bell, Inc. Well #1 County: Ashland R. City of Ashland Completed3/28/85 T. Imer Wisconsin Bell, Inc. Field check. T. Imer Wisconsin Bell, Inc. Field check. T. Imer Wisconsin Bell, Inc. Field check. T. Imer Wisconsin Bell, Inc. Altitude655' ETM 48 Imer Robert T. Melin Static w.l33' N. Imagineer. Spec. cap7 GPM/ft Sec.3 Imagineer: N ¹ / ₂ , SE ¹ / ₂ , SE ¹ / ₂ , SW ¹ / ₂ , SW ¹ / ₂ , sec. 33, T48N, R4W Quad. Ashland West 7 ¹ / ₂ '									R.4W					
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í	▝▝▕	<u> </u>	N.U.0.0	0	Gravel	11	Gran	Gran/M peb	Quartz.felds	par, volc	abbro	.ss.trap.chert. M	ch sand,s	ilt.clay
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-		<u>75</u> 75 _ _80	000	0	<u>Clay & sand</u> Gravel	<u>Dk rd bn</u> Red brown	Gran	Gran/S peb	Dolomitic(cl Quartz.felds	ay). Muc	ch grave	el(Gran/S peb),sil p.ss.trap.chert. M	t. ch sand.s	ilt,clay
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APPENDIX B

GRAIN SIZE ANALYSIS

CENTRAL WISCONSIN ENGINEERS, INC.

P.O. Box 107 * Schofield, WI 54486

P.0	. Box 107 * Schotield, V	WI 54486
	Project	E–scan, Queam Oil, Soil Analysis
	Job No.	17829600
	Boring No.	GP-2
Standard Practice for	Sample No.	
Description and Identification of Soils	Depth of Sample	10–12'
(Visual–Manual Procedure) ¹	Date of Testing	1/22/96
TABLE 13 - C	HECKLIST FOR DES	CRIPTION OF SOILS
Percent of cobbles or boulders, or both (by volume)	·····	

Percent of gravel, sand, or fines, or all three	Gravel	Coarse			
(by dry weights)		Fine	1%		
	Sand	Coarse			
		Medium			
		Fine	23%		
	Fines		76%		
Particle angularity: angular, subangular, subro	ounded, rounded				
Particle shape: (if appropriate) flat, elongated	, flat and elongated				
Maximum particle size or dimension			3/8"		
Hardness of coarse sand and larger particles			HARD		
Plasticity of fines:	nonplastic, low medi	um, high	HIGH	=	CH
Dry strength:	none, low, medium, l	high, very high	HIGH	=	CH
Dilatancy:	none, slow, rapid		NONE	=	CH
Toughness:	low, medium, high		HIGH	=	CH
Color (in moist condition)			REDDISH BROW	٧N	
Odor (mention only if organic or unusual)			NONE		
Moisture: dry, moist, wet			MOIST		
Reaction with HC1: none, weak, strong			STRONG		
For Intact Samples					
Consistency (fine-grained soils only): very so	ft, soft, firm, hard, ver	y hard	SOFT		
Structure: stratified, laminated, fissured, slick	ensided, lensed, homo	geneous	HOMOGENEOU	rs	
Cementation: weak, moderate, strong		-	STRONG		
Local name					
Geologic interpretation					
Additional Comments: presence of roots or resurface coatings on coarse – grained particles, or trench sides, difficulty in augering or excava	bot holes, presence of caving or sloughing of ating etc.	mica gypsum, etc., auger hole			

Soil Descriptions: REDDISH BROWN SANDY CLAY W/ TRACE F. GRAVEL

Remarks:			Table 12 – Identif	ication of Inorganic Fine from Manual Tests	-Grained Soils
		Soil Symbol	Dry Strength	Dilatancy	Toughness
		ML	None to low	Slow to rapid	Low or thread cannot be formed
		CL	Medium to high	None to slow	Medium
		MH	Low to medium	None to slow	Low to medium
USCS:	CH	СН	High to very high	None	High
				G:\SOILS\FORMS\T	TABLE13



GRAIN SIZE DISTRIBUTION TEST DATA Test No.: 18 ate: 1/24/96 Project No.: 17829600 roject: E-SCAN, QUEAM OIL, SOIL ANALYSIS Sample Data Location of Sample: GP-2, DEPTH 10-12' ample Description: SANDY CLAY W/ TRACE F. GRAVEL **BCS Class: CL-CH** Liquid limit: AASHTO Class: Plasticity index: Notes _ _ _ _ _ _ _ _ _ _ Remarks: ATTERBERG TESTING WOULD MAKE USCS MORE DEFINED ig. No.: 1 _____ Mechanical Analysis Data _____ Initial After wash ry sample and tare= 256.80 119.30 are = 74.80 74.80 ry sample weight = 182.00 44.50 Minus #200 from wash= 75.5 % ieve tare method Sieve Weight Sieve Percent retained tare finer 0.375 inches 0.00 0.00 100.0 # 4 1.90 0.00 99.0 # 10 1.70 0.00 98.0 # 40 8.40 0.00 93.4 # 100 19.80 0.00 82.5 # 200 12.30 0.00 75.8 ieve tare method ------Hydrometer Analysis Data _____ Separation sieve is number 40 Dercent -# 40 based on complete sample= 93.4 bight of hydrometer sample: 50.3 lalculated biased weight= 53.85 Automatic temperature correction Composite correction at 20 deg C =-6.5 Meniscus correction only= 1 pecific gravity of solids= 2.75 pecific gravity correction factor= 0.978 Hydrometer type: 152H Effective depth L= 16.294964 - 0.164 x Rm

Elapsed	Temp,	Actual	Corrected	K	Rm	Eff.	Diameter	Percent
time, min	deg C	reading	reading			depth	mm	finer
1.0	21.0	42.0	35.7	0.0131	43.0	9.2	0.0398	64.8
2.0	21.0	40.0	33.7	0.0131	41.0	9.6	0.0286	61.2
4.0	21.0	38.5	32.2	0.0131	39.5	9.8	0.0205	58.5
8.0	21.0	36.5	30.2	0.0131	37.5	10.1	0.0147	54.8
16.0	21.0	35.0	28.7	0.0131	36.0	10.4	0.0105	52.1
32.0	21.0	33.0	26.7	0.0131	34.0	10.7	0.0076	48.5
64.0	21.0	31.0	24.7	0.0131	32.0	11.0	0.0054	44.8
128.0	21.0	29.0	22.7	0.0131	30.0	11.4	0.0039	41.2
256.0	21.0	27.0	20.7	0.0131	28.0	11.7	0.0028	37.6
512.0	21.0	24.5	18.2	0.0131	25.5	12.1	0.0020	33.0
			Fractional	L Compone	ents			
Javel/Sand 1 Jand/Fines ba	oased or ased or	on #4 siev 1 #200 sie	/e eve					
% + 3 in. = SILT = 31.9	0.0 9 %	% GRAVEI CLAY = 43	u = 1.0 % 3.9	sand =	23.2			
D85= 0.19	D60=	0.025 I	0.009	Ð				

CENTRAL WISCONSIN ENGINEERS, INC.

OLIN		ov 107 *	Schofield M/	54486	.			
Standard Practice for Description and Identification of S (Visual–Manual Procedure) ¹	Soils	Project Job No. Boring N Sample Depth of Date of	lo. No. f Sample Testing	E-scan, Queam Oil, Soil Analysis 17829600 GP-1 10-12' 1/22/96				
TABLE 13	B – CHE	CKLIST	FOR DESCR	RIPTION OF S	OILS			
Percent of cobbles or boulders, or both (by vol	lume)							
Percent of gravel, sand, or fines, or all three		Gravel	Coarse					
(by dry weights)			Fine	0%				
		Sand	Coarse	••••				
			Medium	<u> </u>				
			Fine	23%				
		<u>Fines</u>		77%				
Particle angularity: angular, subangular, subro	ounded, roun	nded						
Particle shape: (if appropriate) flat, elongated	, flat and elo	ngated						
Maximum particle size or dimension				#4				
Hardness of coarse sand and larger particles				HARD				
Plasticity of fines:	nonplastic,	low mediur	n, high	HIGH	=	CH		
Dry strength:	none, low, i	medium, hi	gh, very high	HIGH	=	CH		
Dilatancy:	none, slow,	rapid		NONE	=	CH		
Toughness:	low, mediu	m, high		HIGH	=	CH		
Color (in moist condition)				REDDISH BROW	WN			
Odor (mention only if organic or unusual)				NONE				
Moisture: dry, moist, wet				MOIST				
Reaction with HC1: none, weak, strong				STRONG				

SOFT

STRONG

HOMOGENEOUS

For Intact Samples

Consistency (fine-grained soils only): very soft, soft, firm, hard, very hard Structure: stratified, laminated, fissured, slickensided, lensed, homogeneous Cementation: weak, moderate, strong Local name

Geologic interpretation

Additional Comments: presence of roots or root holes, presence of mica gypsum, etc., surface coatings on coarse – grained particles, caving or sloughing of auger hole or trench sides, difficulty in augering or excavating etc.

Soil Descriptions: REDDISH BROWN SANDY CLAY

Remarks:			Table 12 – Identification of Inorganic Fine–Grained Soils from Manual Tests								
·····	<u> </u>	Soil Symbol	Dry Strength	Dilatancy	Toughness						
······································		ML	None to low	Slow to rapid	Low or thread cannot be formed						
		CL	Medium to high	None to slow	Medium						
		MH	Low to medium	None to slow	Low to medium						
USCS:	СН	CH	High to very high	None G:\SOILS\FORMS\7	High FABLE13						



GRAIN SIZE DISTRIBUTION TEST DATA Test No.: 19 ______ $\exists te: 1/24/96$ Project No.: 17829600 Troject: E-SCAN, QUEAM OIL, SOIL ANALYSIS _____ Sample Data _____ Location of Sample: GP-1, DEPTH 10-12' ample Description: SANDY CLAY SCS Class: CL-CH Liquid limit: Plasticity index: AASHTO Class: Notes _____ Remarks: ATTERBERG TESTING WOULD MAKE USCS MORE DEFINED ig. No.: 2 _____ Mechanical Analysis Data _____ Initial After wash Dry sample and tare= 355.30 138.90 are = 74.90 ry sample weight = 280.40 74.90 64.00 Minus #200 from wash= 77.2 % ieve tare method Sieve Weight Sieve Percent retained tare finer 0.375 inches 0.00 0.00 100.0 # 4 0.10 0.00 100.0 # 10 3.40 0.00 98.8 # 40 12.80 0.00 94.2 # 100 31.20 0.00 83.1 # 200 16.40 0.00 77.2 Leve tare method Hydrometer Analysis Data Separation sieve is number 40 Nercent -# 40 based on complete sample= 94.2 eight of hydrometer sample: 50.5 alculated biased weight= 53.62 Automatic temperature correction Composite correction at 20 deg C =-6.5 Meniscus correction only= 1 _______pecific gravity of solids= 2.75 pecific gravity correction factor= 0.978 Hydrometer type: 152H Effective depth L= 16.294964 - 0.164 x Rm

Elapsed time, min	Temp, deg C	Actual reading	Corrected reading	K	Rm	Eff. depth	Diameter mm	Percent finer
1.0	21.0	43.0	36.7	0.0131	44.0	9.1	0.0394	66.9
2.0	21.0	40.5	34.2	0.0131	41.5	9.5	0.0285	62.4
4.0	21.0	40.0	33.7	0.0131	41.0	9.6	0.0202	61.5
8.0	21.0	38.0	31.7	0.0131	39.0	9.9	0.0146	57.8
16.0	21.0	36.5	30.2	0.0131	37.5	10.1	0.0104	55.1
32.0	21.0	35.0	28.7	0.0131	36.0	10.4	0.0075	52.3
64.0	21.0	33.0	26.7	0.0131	34.0	10.7	0.0054	48.7
128.0	21.0	31.0	24.7	0.0131	32.0	11.0	0.0038	45.0
256.0	21.0	29.0	22.7	0.0131	30.0	11.4	0.0028	41.4
512.0	21.0	26.5	20.2	0.0131	27.5	11.8	0.0020	36.8
			Fractional	l Compone	ents			
ravel/Sand band/Fines ba	based of ased of	on #4 siev n #200 sie	ve eve					
% + 3 in. = SILT = 29.3	0.0 3 %	% GRAVE CLAY = 4'	L = 0.0 7.9	SAND =	22.8			
D85= 0.18	D60=	0.017 I	0.00	5				

APPENDIX C

SOIL SAMPLING AND PRESERVATION PROCEDURES

SOIL SAMPLING AND PRESERVATION PROCEDURES (Rev. 8/94)

The following procedures conform to Wisconsin Department of Natural Resources' July 1993 Leaking Underground Storage Tank (LUST) and Petroleum Analytical and Quality Assurance Guidance, and Release News, Vol. 4, No. 3, July 1994.

- I. For soils sampled for:
 - Percent Solids
 - Lead
 - Cadmium
 - Polynuclear Aromatic Hydrocarbon (PAHs)
 - Sieve analysis
 - Bioremediation Characterization
 - Polychlorinated Biphenyls (PCBs)
 - Dry Bulk Density

Soil samples are to be placed on ice, but do not need to be field preserved with methanol. The soil sample collection procedure for these analyses is as follows, using one jar per analysis:

- 1. A soil sample is transferred from the sampling tool (i.e., split-spoon or backhoe bucket) into an appropriate, clean, laboratory-supplied jar.
- 2. The soil is packed into the jar with a nitrile-gloved hand to minimize headspace. However, if there is not enough soil for all required analyses, an attempt will be made to place as much soil as possible into the jars for other analyses.
- 3. The jar is sealed with a Teflon-lined, screw cap.
- 4. The sample is placed in a cooler with ice.
- 5. The procedure is repeated until samples are collected for all required analyses.
- 6. Field personnel will decide which samples are to be laboratory analyzed based upon field instrument readings and other field observations, such as petroleum odor and soil staining. Only the samples that will be laboratory analyzed are left in the cooler. All other samples are discarded.
- II. For soil samples collected for:
 - Volatile organic compound (VOC)
 - Petroleum volatile organic compound (PVOCs)
 - Diesel range organic (DRO)
 - Gasoline range organic (GRO)
 - GRO/PVOCs

Soil will be transferred from the sampling tool into clean, laboratory-supplied jars by the following soil sampling procedure, using two jars per analysis:

- 1. The brass tube is capped on both ends, labeled, and placed in a cooler with ice.
- 2. Within two hours of sample collection, the field personnel will decide which samples are to be laboratory analyzed. This decision is based upon field instrument readings and other field observations, such as petroleum odor and soil staining. Only the samples that will be laboratory analyzed are extracted and placed in jars. All other samples are discarded.
- 3. The soil is quickly extracted from the brass tube using a nitrile-gloved hand, syringe, or spatula, and placed into a pre-tared sample jar.
- 4. Approximately 25 grams of soil will be added to the jar.
- 5. The laboratory-analyzed DRO soil samples do not need to be field-preserved. The laboratory preserves the DRO sample within the DNR-required time frame. The GRO, GRO/PVOC, and VOC soil samples must be field-preserved when the decision is made to have the sample laboratory analyzed. The procedure is as follows:
 - The proper amount (25 ml) of purge-and-trap grade methanol is transferred into the jars containing the soil samples. A 1:1 ratio of grams of soil to mls of methanol is required.
 - The jars are capped with a Teflon-lined septum, screw cap and the contents are agitated to coat the soil particles with methanol.
 - The jars are placed in the cooler with ice.

A Percent Solids analysis must always accompany GRO, DRO, GRO/PVOC, VOC, and PVOC analyses.

All soil samples remain in a cooler with ice until transported to a laboratory.

APPENDIX D

HEADSPACE SCREENING PROCEDURES

Standard Operating Procedure: Soil Sample Headspace Screening Using Field Instruments

Organic vapor concentrations in the headspace of a bag or jar partially filled with soil shall be measured using the procedure described below.

A. All field instruments must be maintained and calibrated following a schedule recommended by the manufacturer. MSA uses either a Foxboro Model 128 OVA (FID), a Thermo Environmental Instruments Model 580B OVM (PID), or HNU Model PI 101 (PID).

The initial OVA calibration is done by the manufacturer using methane in air. Additional calibration is required following repairs. Calibration for specific organic vapors is not necessary for screening samples because the Model 128 OVA is capable of responding to the organic vapors of interest. The intent of headspace screening is to measure relative concentrations between different samples, not absolute concentrations of specific compounds. If absolute vapor concentrations of specific compounds are required, then commercial standards for that compound <u>in an air matrix</u> shall be used to calibrate the instrument (according to the procedure given on page 10 of the instrument instruction manual).

The OVA calibration should be checked twice daily. The concentration should read to within 10 percent of the actual concentration. If not, the filters should be cleaned, the sample line should be checked for air leaks, and the calibration should be rechecked.

Routine maintenance of the Model 128 OVA shall be performed as necessary to enable proper air flow through the instrument for combustion of the sample. Procedures for cleaning filters and sampling fixtures are given on page 15 of the instrument instruction manual. Although not specified by the manufacturer, filters shall be cleaned at least annually, when background concentrations appear to be unusually high, or when air flow through the instrument is below normal.

The OVM calibration shall be checked at least twice daily using zero air and a 100 ppm isobutylene standard.

The HNU calibration shall be checked at least twice daily using a 100 ppm isobutylene standard in an air matrix.

- B. Start the OVA, OVM, and HNU following the instructions provided with the instrument. Adjust the "Calibrate Adjust" knob on the OVA or the "Zero Set" control on the HNU to "zero out" background concentrations at the location the headspace analysis is performed. If background fluctuations make this impractical, the field technician will adjust the background as nearly as possible to an arbitrary datum, 1 ppm for example, and subtract this datum from each reading. (All readings should reflect the concentration of vapor in the headspace of the sample without including background concentrations.) The OVM should be operated in the "MAX HOLD" mode.
- C. If a sample is to be screened using a field instrument and possibly submitted for laboratory analysis, then two containers must be filled with sample collected from the same location. The first sample must be collected, labeled and cooled according to the established protocol for the applicable analyses. The second sample, collected for headspace measurements, shall be collected by filling one-half of a clean jar fitted with a tight-fitting, capped septum or a quart size

Ziploc bag. Background concentrations in the jars shall be measured at the start of the job to verify that jars are free of vapors.

- D. Once collected and sealed, the headspace samples shall be agitated to break the soil clods and release the vapors, unless the soil is moist and cohesive. Headspace samples in containers sealed with aluminum foil shall first be capped to allow agitation without damage to the foil seal. Foil seals shall be left in place during warming and shall not be pierced until the headspace is analyzed.
- E. Headspace samples must be allowed to equilibrate prior to analysis. Minimum equilibration times are dependent upon ambient air temperature and shall conform to the following specifications:

<u>Ambient Air Temp.</u>	Min. Equilibration Time
<40°F	40 min.
41° - 55°	20 min.
56° - 69°	10 min.
> 70°	5 min.

During equilibration, the jar should be placed in a warm place but out of direct sunlight. Equilibration times can be reduced to 10 minutes if samples are placed in a 70° water bath.

- F. Measure the vapor concentration by puncturing the aluminum foil or plastic bag with the field instrument probe and inserting the probe half-way between the foil or top of bag and soil surface. Record the highest reading observed on the instrument, less the background concentration.
- G. Minimum requirements for documenting organic vapor field screening are as follows:
 - 1. Record weather conditions, including outside temperature, temperature where samples are stored during equilibration, and general weather conditions (i.e., sunny, partly cloudy, light rain, windy, blizzard, etc.).
 - 2. Record instrument data, including make and model, date of last factory calibration, type of calibration gas and concentration used to check calibration, date and time of last field calibration, lamp energy in Ev, instrument gain setting (if applicable), erratic readings (if applicable), and field repairs (if applicable).
 - 3. Record field observations for each sample, including maximum concentration of each sample, relative moisture, noticeable odors, stains, and instrument quenching.
- References: Attachment 2, "Closure Assessments for Underground Storage Tanks," WDNR, September 1990, and ILHR 10, May 1991.

Leaking Underground Storage Tank (LUST) and Petroleum Analytical and Quality Assurance Guidance, WDNR, July 1993.

APPENDIX E

SOIL BORING LOGS AND BOREHOLE ABANDONMENT FORMS

Facility/Project Name Durage of Oil Company Licessoftemu(Monutoring Number Boring Number Boring Number Boring Number Boring Number Clip 1 Boring Ditied By (Pim name and name of one of the Oil / J/ J Date Diting Stand Oil / J/ J Date Diting Complexity	State o Depart	of Wisc tment o	consin of Natu	ıral Res	ources	Route To Solid Emerg Waste	o: Waste gency Respon: water fund	se 🖾 Ur □ W	az. Was xlergro 'ater Re her	te und Ta source	nks s	S	OIL Form 4	BORI 400-12	NG L 22	.OG I Page	NFOR	MAT Rev.	10N 5-92 2
Borng Drilled By (Film name and num of crew wheth) Data Drilled Surf of the product product of the product product of the product of the pro	Facilit	у/Ртоје	ect Na	me					Licen	se/Perr	nit/Mo	nitorin	g Num	ber	Boring	Numb	xer (3P-1	
Inverticity Woll Not Michael With Charles With State Plane Suffice Elevel Suffic	Boring	, Drille ETCO/	d By (/Mar	Firm na	ime and name	of crew ch	y uef) ore		Date I Ol M N	$\frac{1}{1}$	Started 7/ D	1 96 7 Y	Date D Ol M M	$\frac{1}{1}$	Comp 7_/9 D_7	leted 96 7 Y	Drillin Geo Bor	g Meth prob ing	lod De
Borne Location N. E S/C/N Lat. 0 Coal Grid Location (If applicable) Site Plane 0	DINK	racility	/ Well	NO.W	I Unique Well	Na.	Common We	il Name	Final 3	N/A	Feet M	evel SL	Surface	e Eleva	uion _Feet l	MSL	Borcho	$\frac{10}{10}$ ir	meter nches
SM 14 of SR0 1/4 of SR0 1/4 of Section 33 , T 48 N, R 4 EAV Long 9 Feet IS	Boring State H	Locati lane _	ion		N			_E S/C/	N L	.at	• •		Local (Grid La	ocation	(lf app N	olicable)	
County DNR County Cede Unit Town Cuty of Yunge Ashland OO Ashland OO Ashland Soil Properties Blind drilled through frost Soil Properties Interview Soil Proper	SW	_ 1/4 o	f _SW	_ 1/4 o	of Section <u>3</u>	<u>3_, T</u> _	<u>48 n. r</u>	4_ E/	N Lor	1g	0 '			F	eet 🗖	<u>s</u>		Feet	
Sample Soil/Rock Description add Collegic Origin For Each Major Unit Soil/Rock Description add Collegic Origin For Each Major Unit Soil/Rock Description add Collegic Origin For Each Major Unit Soil/Rock Description 1	Count	y		Ash]	land				County	Code	Civil	Iown/ As	hlan	r villa d	ge				
and Coolegic Origin And Coolegic Origin For Each Major Unit S<	Sam	iple													Soil	Prop	erties		
Image: Strong odd Image: Strong	Number and Type	Length Att. & Recovered (in	Blow Counts	Depth in Feel	A	Soil/Rock and Geolo Each N	c Description gic Origin Fo Aajor Unit	r		USCS	Graphic Log	Well Diagram	PIDFID	Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
5 PID GRO 24 Pb Pb 12 Thereby ceitlify that the information on this form is true and correct to the best of my knowledge. Signature This form (a authorized by Chapters 144 147 and 162 Wis State Completion of this second is mandatory. Penaltice: Explain not hors	l PID 2 PID GRO VOC Pb 3 PID 4 PID				Reddish- sand wi fill m d <u>3" black</u> Reddish- sand wi fill ma Dark red	-brown ith gra teria wediu -brown ith gra ateria d clay	medium-q avel (US 1) m-grained medium- avel (US 1) (2.5 YR	graine I back d sand graine I back 4/4)	d ed :	SW Vel CL			12.8 9.6 0.0						Strong odor Strong odor Very slight odor
This form (s authorized by Chapters 144 147 and 162 Wis State Completion of this separt is mandatory Denalties: Forfait not loss	5 PID GRO VOC Pb <u>I hero</u> Signat	24 eby gr	entlify	11 11 12 12 12 12	the information	Tion on	this form is	s true a	and co	prrect	to the	e bes	0.0 t_of_r	ny kn	M	lge.			No odor
THE INTERA MANDALIAN DV V.DAUGLA 1999, 1997 AND 1117. WE STARS VADIOUTION IN DIVISION IN DISCOURSES FOR THE DRV	This fo	orra le	<u>uthor</u>	ized by	Chapteren 44	4	162 Wie Sta	its. Com	pletion	of this	remort	is ma	idatori	Pen	alties	Forfei	t not le	\$5	

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both for each violation. Each day of continued violation is a separate offense, pursuant to ss 144.99 and 162.05, Wis. Stats.

State o Depart	of Wisc ment o	onsin f Natu	ral Res	ources	Route To	: Waste ency Respons water		iz. Was idergro ater Re	te Ind Ta source:	nics s	S F	OIL Form 4	BORI 400-12	NG L 2	OG I	NFOR 1	MAT Rev.	1 TION
Facilit	у/Ртоје	ct Na	ne	<u></u>				Licen	e/Pem	nit/Mo	nitorin	g Num	ber	Boring	Numb	er		<u> </u>
Boring ME	Drille ETCO/	d By ('Marl	<u>Oue</u> Firm na k Hof	earm Oil me and name	<u>Company</u> e of crew ch Ryan Sho	y lief) ore		Date I Ol M N	nilling /_1 I_D	Started 7 / D	1 96 7 Y	Date D 01 M M	$\frac{1}{1}$	Compi 7/ <u>9</u> DY	leted 96 7 Y	Drillin Geo Bor	GP- g Meil prol	hod be
DNR I	acility	Well	No.W	Unique We	ll Na.	Common We	ll Name	Final S	itatic V N/A	Vater L Feet M	ævei ISL	Surfac	e Eleva	ition _Feet N	MSL	Boreho	le Dia	meter nches
Boring State P SW	Locati lane	on f SW	1/4 0	N,	33 т.	48 N.R	E S/C/		at	0 ·		Local (Grid Lo		(lf app N	licable) Feet	
County	/		Ashl	Land	<u> </u>		DNR	County	Code	Civil '	Town/C As	City/o hlan	r Villa d	ge				
Sam	ple % (u	য	et		Soil/Rock	Description		1					e)	Soil	Prop	erties		
Number and Type	Length Att Recovered (Blow Coun	Depth in Fe		And Geolo Each M	gic Origin For Iajor Unit	r 		uscs	Graphic Log	Well Diagram	PIDFID	Compressiv Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
			ոլու	Blind d	drilled	through	frost											
L PID	X		uluu Na s															
	12			Dark re	ed clay	(2.5 YR	4/4)		CL			0.0		м				
PID	12		115 1111						- - 			p.0		м				No c
3 PID	24											p.0		м				No o
1	X	-									-							
PID GRO /OC	18											p.0		М				No o
o eve nple	18				- -							p.0		м				No o
l here	ebv c	ertlify		Eob/@]	ation on	this form is	true ?	und cr		to th	e bes	t of r	ny kn	owled	ae.			
Signati	ure	h	~	Yagn	<u></u>			Firm					<u></u>					

than \$10 nor more than \$5,000 for each violation. Fined not less than \$10 or more than \$100 or imprisoned not less than 30 days, or both for each violation. Each day of continued violation is a separate offense, pursuant to ss 144.99 and 162.06, Wis. Stats.

State o Depart	of Wisc tment o	xonsin of Nan	iral Res	ources	Route To: Solid Waste Emergency Res Wastewater Superfund	ponse		iz. Was idergrou 'ater Re	te und Ta source	nics s	S	OIL Form 4	BORI 400-12	NG L 2	.OG I Page	NFOR	MAT Rev.	ION 5-92
Facilit	у/Ртоје	ct Na	me					Licen	se/Perr	nit/Mo	nitorin	g Num	ber	Boring	Numb	xer (
Boring	Drille	d By (<u>Oue</u> Firm na	arm Oil	Company of crew chief)			Date I	 Drilling	Starter		Date D	rilling	Comp	leted	G Drillin	P-3 g Meth	lod
м	ີ	Mar	k Hof	fman & I	an Shore				$\frac{1}{1}$	$\frac{7}{2}$	96 7 - -	$\frac{01}{1}$	$\frac{1}{2}$	$\frac{7}{5}$	96	Geo	prot)e
DNR	Facility	Well	No.W	LUnique We	Na. Common	ı Well	Name	Final S	Static \	Water L	evei	Surfac	e Eleva	uion		Borcho	ing le Dia	meter
						•		<u> </u>	N/A	Feet M	ISL		<u> </u>	Feet 1	MSL	<u>1</u> .	<u>0</u> ir	iches
State F	lane	.01	<u> </u>	N,			E S/C/	N L	.at	• •		Local	Gnd La		i (it app I N	plicable)	ΠE
SW	_ 1/4 o	fSW	1/4 c	f Section	<u>33, t_48_n,</u>	R	4_ E/V	V)Lor	1g	0 '			F	eet 🗖	<u>s</u> _		Feet	
Count	y		Ash.	land			DNR ⁻	County _02	· Code	Civil	rown/ As	City/o hlan	r Villa đ	ge				
Sam	ple													Soil	Prop	erties		
	Att. & d (in)	unts	Feet		Soil/Rock Descrip	tion n For							sive					s
Type	gth / overe	K K	îh in		Each Major Uni	it		6	CS	Pic.	ll gram	(HID	ngth	sture		ticity X	8	D/ nutcu
n Nu	Ren Rec	Blo	Def						ns	Log Gal	Ŋ. Dia		Stre	NO N	55	Plas Inde	P 2(No. No. No. No. No. No. No. No. No. No.
			F	Blind o	drilled throu	igh 1	frost											
1 PID GRO Voc Pb 2 PID 3 PID 4	18 18 24			<u>3" Pea (</u> Dark) 2" Dark Dark re	gravel (Pipir red clay (2.5 gray sand & d clay	g ti 5 YR	grav	BF) vel	GP CL GP CL			× 1.3 × .8						No odor No odor No odor No odor
PID GRO VOC Pb	18		1-9 1-10									1.9		M				No odor
PID	\square		E11							arphi		$ \bigtriangleup$	ł	\swarrow				
	18		E, 1:	EOF C) 12'	<u></u>						.2		M				
I her	ebý cj	brtlif	that	the inform	ation on this for	m is	true a	and co	orrect	to th	e bes	t of r	ny kn	owled	lge.			
Signat		hu		Kinga				l'um										
This f	orn is	author	rized by	Chapters 14	4.147 and 162, Wis	. Stats	. Com	pletion	of this	s report	is ma	ndatory	. Pen	alties:	Forfei	t not le	ss	

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than \$10 nor more than \$5,000 for each violation. Fined not less than \$10 or more than \$100 or imprisoned not less than 30 days, or both for each violation. Each day of continued violation is a separate offense, pursuant to ss 144.99 and 162.05, Wis. Stats.

State o Depart	of Wisc tment o	onsin f Natu	ral Res	ources	Route To: Solid Waste Emergency Respon Wastewater Superfind		az. Was ndergro Vater Re	und Ta source	nks s	S	SOIL Form 4	BORI 400-12	NG L 22	.OG I	INFOR	MAT Rev.	1 1 1 1 1
Facilit	y/Proje	ct Na	ne				Licen	se/Perr	nit/Mo	nitorin	g Num	ber	Boring	z Numi	Der		
Boring	g Drille	d By (<u>Oue</u> Firm na	arm Oil me and name	Company of crew chief)	·····	Date I	Drilling	Starte	<u> </u>	Date [Trilling	Comp	leted	Drillin	g Met	hod
M	ETCO/	'Marl	k Hof	fman & R	yan Shore			$\frac{1}{4} / \frac{1}{D}$	<u>7</u> /	96 7 Y	$\frac{01}{M N}$		$\frac{7}{D}$	96 7 7	Geo	ina	be
DNR	Facility	Well	No.W	Unique Well	Na. Common W	ell Name	Final :	Static V N/A	Water L Feet M	ævel ISL	Surfac	e Eleva	ition Feet l	MSL	Boreho	le Dia	imeter nches
Boring State F	Locati lane	on		N, _		_E S/C/	NL	at	•••		Local	Grid L		i (lf apj I N	plicable)	ΠE
SW	<u> </u>	f _SW	1/4 o	f Section _3	<u>3, t 48 n, r</u>		W Lor	1g				F	eet	IS		Feet	
	,		Ash]	and			02			As	hlan	đ	50				
Sam	iple 생 근	S			Soil/Rock Description	-							Soil	Prop	erties		4
Number and Type	Length Att. Recovered (i	Blow Count	Depth in Fe		And Geologic Origin F Each Major Unit	or		USCS	Graphic Log	Well Diagram	PIDFID	Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
1 PID GRO VOC Pb 2 PID 3 PID	12 18 24			Blind d <u>3" blac</u> Dark re	rilled through <u>k stained clay</u> d clay (2.5 YF	4/4)		CL			721 251 37		M M M				Strong odor Petrole odor Slight odor
4 None			1119 111111111111111111111111111111111	No reco Dark re	overy ed clay (2.5 Y	R 4/4)											
PID GRO VOC Pb	18				7						1.8		м				Possibl slight odor
l her Signa			that	the information of the second se	ation on this form	is true a	Firm	of this	to th	e bes	st of r	ny kn		fge.	it not le	<5	

than \$10 nor more than \$5,000 for each violation. Fined not less than \$10 or more than \$100 or imprisoned not less than 30 days, or both for each violation. Each day of continued violation is a separate offense, pursuant to ss 144.99 and 162.05, Wis. Stats.

State o Depart	• [·] of Wisc trnent o	onsin f Nati	ural Res	ources	Route To: Solid Waste Emergency Response Wastewater Surgerfund		az. Was ndergro /ater Re	te und Ta source	nks s	S	SOIL Form 4	BORI 400-12	NG L 2	.OG I Page	NFOR	MAT Rev.	ION 5-92	
Facilit	у/Ртоје	ct Na	me				Licen	se/Perr	nit/Mo	nitorin	g Num	ber	Boring	z Numt	per			
Boring	Drille	i By (<u>Oue</u> Firm na	earm Oil	Company of crew chief)		Date I	 Drilling	Starte	1	Date D	Filling	Сотр	leted	Drillin	<u>GP–5</u> 9 Metl	iod	
M		Mar	k Vot	ffman & F	wan Shore			$\frac{1}{4} - \frac{1}{5}$	$\frac{7}{2}$	<u>96</u>		$\frac{1}{2}$	$\frac{7}{5}$	96	Geo	prot	be	
DNR	Facility	Wel	No.W	LUnique Wel	No. ICommon Wel	l Name	Final S	Static V	Nater I	evel	Surfac	e Eleva	tion		Borcho	ing de Dia	meter	
			_		·			N/A	Feet M	ISL	_		_Feet 1	MSL	1.	.0 _{ir}	nches	
Boring State F	Locati lane _	on		N,		E S/C/	NL	.at	• •	•	Local	Grid L	cation	i (lf apj i N	olicable)	n F	
SW	_ 1/4 o	f _Sh	<u> </u>	of Section	<u>33 , t 48 n. r _</u>	<u>4</u> EX	W) Lor	1g	• •	<u> </u>		F	eet 🗖	<u> </u>		Feet		
Count	y		λch	land		DNR	County 02	• Code	Civil '	Town/ As	City/o	r Villa ð	ge					
San	ple								<u> </u>				Soil	Prop	erties			
Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth in Feet		Soil/Rock Description And Geologic Origin For Each Major Unit		•	USCS	Graphic Log	Well Diagram	FIDFID	Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments	
l PID 2 PID 3 PID GRO VOC Pb 4 NONI				Blind dr Dark red 1/2" re Dark re No reco	d med. grained a d clay (2.5 YR 4 d clay (2.5 YR 4 d clay (2.5 YR 4	frost 4/4) sand 4/4)	lens	CL SP CL			0.0 0.0 0.0		M				No No	odor odor odor
D PID	24			Dark re	d clay (2.5 YR	4/4)					0.0		M				No	odor
<u>I her</u> Signat		ertlity	1/ Ihat		ation on this form is	true a	Firm	orrect	to th	e_bes	st of r	ny kr		ge.				
This f than 8 both f	orm is 10 nor or each	autho more viola	rized by than \$2 ition. E	y Chapters 14 5,000 for each ach day of co	4.147 and 162, Wis. Stat violation. Fined not les ntinued violation is a sep	ts. Com is than S parate of	pletion 10 or n fense, j	of this nore th pursua	s report an \$10 nt to ss	t is ma)0 or ir 144.99	ndatory nprisor 9 and 1	y. Pen ned not 62.05,	alties: t less tl Wis. S	Forfei han 30 Stats.	it not le days, o	ss or		

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State o Depart	- of Wisc tment o	xonsin of Nan	ıral Res	ources	Route To: Solid Wast Emergency Wastewater	e 🛛 Response 🖾	Haz. W Underg Water I	aste round Ta Resource	nks s	S F	OIL Form 4	BORI 400-12	NG L 2	.OG I Page	NFOR 1	MAT Rev.	ION 5-92 1	
Facilit	y/Proje	ect Na	me			U	Lice	ense/Perr	nit/Mo	nitoring	g Num	ber	Boring	s Numb	er	<u></u> GP-6	<u></u> -	1
Boring	Drille	d By (Oue Firm na	me and n	1 Company ame of crew chief)		Date	Drilling	Started	1	Date D	Drilling	Comp	leted	Drillin	g Meth	od	•
M	ETCO/	/Mar	k Hoi	ffman 8	Ryan Shore		M	M D	ר' ם	Ϋ́	MN	<u>ז'</u> ד	D'3	Ϋ́Υ	Bor	ing		
DNR I	Facility	/ Well	No.W	L Unique	Well Na. Com	imon Well Nan	ne Fina	I Static N/A	Nater L Feet M	evei ISL	Surfac	e Eleva	uion _Feet l	MSL	Borcho	le Dia <u>0</u> in	meter iches	
Boring State F	Locati lane _	ion			N,	E S/	/C/N	Lat	0 •		Local	Grid L	ocation	i (lf app I N	licable)		,
SW	<u>_ 1/4 o</u>	f_SW	1/4 c	of Section	<u>33</u> . т <u>48</u>	<u>N. R 4 1</u>		ong				F	eet	is _		Feet		•
County	, 		Ash.	land			02		CIVII	As	hlan	d d	8c					
_Sam	w ि भू	s			Soil/Pock Des	resistion							<u>Soil</u>	Prop	erties			
Number and Type	Length Att. Recovered (i	Blow Count	Depth in Fee		And Geologic C Each Major	Drigin Fo r Unit		USCS	Graphic Log	Well Diagram	PIDFID	Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments	
1	X		mpmy m	Blind	drilled thr	ough fros	t		1-				X	· · ·				,
PID	18			Dark	red clay (2.	5 YR 4/4)		CL			0.0		M				No	odor
2 PID GRO VOC	24										0.0		M				No	odor =
			10 10 10 10 10 10 10 10 10 10 10 10 10 1	EOB @	6'													
Signat	ure onn is	author	nized by	Chapter	144.147 and 162.	Wis. Stats. Co		n on of this	s report	is ma	ndatory	y. Pen	alties:	Forfei	t not le	ss		
than/S both f	10 nor or each	more viola	than SS tion. E	,000 for e ach day o	each violation. Fin	ed not less than on is a separate	n S10 or offense	more th , pursua	an \$10 nt to ss)0 or in 144.99	nprison and 1	ned not 62.06,	t less tl Wis. S	han 30 Stats.	days, o	r		_

State o Depar	of Wisc tment c	consin of Natu	ral Res	ources	Route To:	aste ncy Response ater		iz. Wasi idergrou ater Res	te Ind Ta source	nks s	S	SOIL Form 4	BORI 400-12	NG L 22	.OG I Page	NFOR 1	MAT Rev.	ION 5-92
Facilit	y/Proje	ct Na	me		<u> </u>			Licens	e/Perr	nit/Mo	nitorin	g Num	ber	Boring	z Numi	ber	CD_7	,
Boring	Drille	d By (<u>Oue</u> Firm na	me and name	Company e of crew chie	:f)		Date D	 Drilling	Started	<u> </u>	Date I	rilling	Comp	leted	Drillin	g Met	nod
M	ETCO,	/Mar	k Hof	fman & 1	Ryan Sho	re			(<u>1</u>	7/ D/3	96 7 Y			$\frac{7}{D}$	96 7 7	Geo	prob	be
DNR	Facility	Well	No.W	l Unique We	Il No. C	ommon Well	Name	Final S	static V	Water L	evel	Surfac	e Eleva	noin		Borcho	le Dia	meter
Boring	Locati	on						<u> </u>		Feet M	ISL	Local (Grid L	_Feet l	MSL	licable	$\frac{0}{10}$ in	iches
State F	lane_			N.		¹	E S/C/	N L	at	<u> </u>					N		, 	ΞE
SW Count	<u> 1/4 o</u> y	f <u>_SW</u>	_ 1/4 c	of Section	<u>33 T_4</u>	<u>8 N. R </u>	4 E/V	VI Lon County	Code	Civil '	 Fown/	City/ o	F r Villa	eet 🗖	<u> S</u>		Feet	
			Ash	land				02			As	hlan	d					
Sam	ର୍ଷ <u>ଅ</u>	Ŋ	t t		Soil/Rock	Description								Soil	Prop	erties		
Number and Type	Length Att. Recovered (i	Blow Count	Depth in Fe		And Geologi Each Ma	ic Origin For ajor Unit			USCS	Graphic Log	Well Diagram	PIDFID	Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comnents
l PID GRO VOC PD 2 PID GRO VOC PD	18 24			Blind of Dark r	drilled ed clay 6'	through a	frost					7.9		M				Possible slight odor No odor
<u>I her</u>	eby c	erility	that	r the inform	ation on th	nis form is	true a	and co	L prrect	to th	e bes	st of r	ny kr	nowled	lge.	I	L	L
Signat	ure	h	fu	F	que			Firm										
This for than \$	orm is 10/201	author more	tized by	Chapters 14	4.147 and 10 violation.	62, Wis. Stats Fined not less	. Com than S	pletion	of this	s report an \$10	t is ma 00 or ir	ndator; npriso	y. Pen ned not	alties: t less ti	Forfei han 30	t not le days, c	ss r	

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both for each violation. Each day of continued violation is a separate offense, pursuant to ss 144.99 and 162.06, Wis. Stats.

State o Depart	- ⁻ of Wisc ment o	consin of Nam	ral Res	ources	Route To Solid V Emerg Wastev	vaste cacy Respons vater md		az. Was xiergrou fater Re-	te und Ta source	nks s	S F	OIL orm 4	BORI 400-12	NG L 2	.OG I Page	NFOR	MAT Rev.	ION 5-92 1	
Facilit	у/Ртоје	ct Na	ne		Li Subari			Licens	e/Pern	nuvMor	นเอกกรู	g Numi	ber	Bormg	Numb	xer			
Bonne	Drille	d By (Oue Firm na	earm_Oil	Company	r iet)		Date [)rilling	Starter		Date D	rilling	Comp	leteri	GE	P-8		
					Dung Sha			01	<u>_/_1</u>	7/	96	01	$\frac{1}{1}$		96	Geo	prot)e	
M	ETCO/	Mar.	K HOI	Iman & P	kyan Sho WNaam		II Name	M N		D 1 Nater I	evel	M N			Y Y	Borh	ing		
			···· _			Common ,			N/A	Feet M	SL	-		_Feet 1	MSL	_1.	<u>0</u> ir	iches	
Boring State F	Locati	ion					E S/C/	N L	at	• •		Local	Grid La	ocation	i (lf app i Ni	licable)		
SW	_ 1/4 o	f_SW	_ 1/4 c	of Section	<u>33</u> .т.	<u>48 n. r</u>	4_E	W Lon	ıg	• •			F		IS		Fect		
County	1		Nch'	land			DNR	County	Code	Civil	Γown/C	City/o blan	r Villa d	ge					
Sam	ple		ASII.											Soil	Prop	erties			
lumb er nd Type	ength Att. &	llow Counts	Jepth in Feet		Soil/Rock And Geolog Each M	Description gic Origin For lajor Unit	r		ISCS	raphic og	Vell Jiagram	IDFID	ompressive trength	Aoisture Content	iquid imit	lasticity ndex	200	QD/ omments	
<u> </u>		<u> </u>										Θ	0S	20			4	<u> ~0</u>	
1 PID 2 PID GRO VOC PD 3 PID 4 PID	18 18 18 18 24			Blind d Dark re EOB @	ad clay	through (2.5 YR	frost 4/4)		CL			0.0 2.4 0.0						No No No	- Odor - odor - odor
<u>I her</u>	eby c	ertify	that	the inform	ation on	this form is	s true a	and co	orrect	to th	e bes	t of r	ny kn	owled	dge.		······		•
		Ja	hu	/	ya								<u> </u>						
This f than S both f	orm /s 10/nor or/each	author more viola	than \$5 than £5 tion. E	Chapters 14 5,000 for each ach day of co	4.147 and h violation. ontinued vio	162, Wis. Sta Fined not le plation is a se	ts. Com ss than S parate of	pletion 10 or n fense, p	of this tore th pursua	s report an \$10 nt to ss	is mai 0 or in 144.99	ndatory nprison 9 and 1	y. Pen. ned not 62.05,	alties: t less t Wis. S	Forfei han 30 Stats.	t not le days, c	iss or		•

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Facility/Project N Boring Drilled By METCO/Ma DNR Facility W Boring Location State Plane SW 1/4 of _C County Sample SW 1/4 of _C County Sample SW 1/4 of _C County Sample SW 1/4 of _C County Sample Sample SW 1/4 of _C County Sample Sample SW 1/4 of _C County Sample Sample SW 1/4 of _C County Sample Sample SW 1/4 of _C County Sample Sample Sample Sample SW 1/4 of _C County Sample Sample SW 1/4 of _C County Sample Sample Sample SW 1/4 of _C County Sample Sample Sample SW 1/4 of _C County Sample Sample SW 1/4 of _C Sample Sample Sample SW 1/4 of _C County Sample Samp	Name Oue By (Firm nz lark Hof Vell No W SW 1/4 c Ash. Deby in Lee Ash.	arm Oil Compa me and name of crew fman & Ryan S Unique Well No. N,	ny chief) hore Common We <u>48 N. R</u> ck Description logic Origin For Major Unit d through	ll Name E S/C/ DNR frost	Licent Date I 01 M N Final : V Lor County 02	se/Perm Drilling / 1 A D Static V N/A at Code	Startec 7 / 9 D Y Water L Feet M 0 • Civil 1	i 96 7 V evel SL SL Fown/C Asl	Numt Date D Ol M M Surface Local (rilling / 1 Eleva Grid Lo Villa	Boring Comp 7 / <u>9</u> D 3 Ution _Feet 1 cation ge	Numb leted 96 7 Y MSL (If app 1 N 1 S Prop	Drillin Geo Bor Borcho 1.	GP-9 g Meth opcol- ing ile Dia .0 in) Feet	nod De meter nches E E W
Boring Drilled By METCO/Ma DNR Facility W Boring Location State Plane SW 1/4 of _C County Sample UN 1/4 of _C County Sample UN 1/4 of _C County Sample UN 1/4 of _C County Sample Sample SW 1/4 of _C County Sample	Oue By (Firm nz lark Ho1 Vell No W SW 1/4 c Ash: Debth in Heet	arm Oil Compa me and name of crew fman & Ryan S Unique Well No. N, f Section33_, T .and Soil/Ro And Geo Each Blind drille	ny chief) hore Common We <u>48 N. R</u> ck Description logic Origin For Major Unit d through	Il Name E S/C/ DNR DNR	Date I Ol M N Final : V Lor County O2	Drilling / 1 T Staric V N/A s Code S D S	Startec 7 / 9 D Y Water L Feet M 0 '	I 96 7 V evel SL Fown/C Asi	Date D Ol M M Surface	rilling / 1 Eleva Grid Lo Villa d	Comp 7 / 9 D 3 ution _Feet 1 ccation ge	leted 96 7 MSL (If app 1 N 1 S Prop	Drillin Geo Bor 1. Dicable	g Methoprof	nod De meter nehes I E I W
METCO/Ma DNR Facility W Boring Location State Plane SW 1/4 of _S County Sample sd(L pure body Hilling Body Hilling Sample sd(L pure PID GRO VOC Pb 2 PID 3 PID	Iark Hot Well No W SW 1/4 c Ash. Debth in Leet	fman & Ryan S Unique Well No. N, f Section <u>33</u> , T and Soil/Ro And Geo Each Blind drille	hore Common We <u>48</u> N, R ck Description logic Origin For Major Unit d through	E S/C/ <u>4</u> E/X DNR	O1 M N Final : V Lor County O2	A D Static V N/A at V Code	7 / 9 D Y Water L Feet M 0 · Civil 1	96 7 Y evel SL SL Fown/C Asl	Ol M M Surface	/ <u>1</u> Eleva Grid Lo Fe Villa d	7 / 9 D 3 Luion _Feet 1 pocation ge	96 7 MSL (If app N S S	Geo Bor Borcho 1.	pprob ing ble Dia .0 in .0 in	De meter tehes E E W
DNR Facility W Boring Location State Plane SW 1/4 of _S County Sample add Up add Up Ad	Vell No. W I III III Depth in Feet	Unique Well No. Unique Well No. N, f Section33_, T and Soil/Ro And Geo Each Blind drille	Common We <u>48</u> N, R ck Description logic Origin For Major Unit d through	Il Name E S/C/ DNR frost	Final S N L V Lor County 02	at	Water L Feet M O · O ·	evel SL Fown/C Asl	Surface Local (City/ or hland	Eleva Grid Lo Fe Villa d	ttion _Feet I pocation ge Soil	MSL (If app N S Prop	Borcho Borcho 1.	Feet	meter nches E W
Boring Location State Plane <u>SW</u> 1/4 of _S County Sample und Liput Brow Counts I PID GRO VOC Ph 2 PID 3 PID	Depth in Feet	N, f Section <u>33</u> , T and Soil/Ro And Geo Each Blind drille	<u>48</u> N, R ck Description logic Origin For Major Unit d through	E S/C/ 4_E/ DNR	N Lor V Lor County 02	N/A at r Code	Feet M O O Civil 1 Civil 1	SL 	Local C	Grid La Fe Villa d	_Feet I coation eet ge Soil	MSL (If app N S Prop	 plicable erties	<u>.0</u> in	
Sample	Ash. Ash. Debth in Feet	NN f Section <u>33</u> , T and Soil/Ro And Geo Each Blind drille	2 <u>48</u> N, R_ ck Description logic Origin For Major Unit d through	E S/C/ <u>4</u> E/X DNR frost	N Lor V Lor County 02	at ig Code	o · O · Civil 1	Fown/C Asl	Local C	Fe Villa			erties	_ Feet	
SW 1/4 of County Sample Number Sample Number Sample	Ash. Ash. Depth in Feet	f Section <u>33</u> , T and Soil/Ro And Geo Each Blind drille	ck Description logic Origin For Major Unit d through	<u>4</u> E/	V Lor County 02	V Code	Civil	Fown/C Asl	City/ or	For Villa	eet □ ge Soil	Prop	erties	_ Feet	
Sample Number Sample Number and Type Samo Samo Samo Samo Samo Samo Samo Samo	Ash. Depth in Feet	and Soil/Ro And Geo Each Blind drille	ck Description logic Origin For Major Unit d through	frost	02	IS C S	civit	Asl	hland		soil	Prop	erties		
Sample Number and Type and Typ	Blow Counts	Soil/Ro And Geo Each Blind drille	ck Description logic Origin For Major Unit d through	frost		ISCS	hic	E		sive	Soil	Prop	erties		
CIACONSTRATE CIACONSTRATE CIACONSTRATE CIACONSTRATE Recovered (in) Blow Counts	Depth in Feet	Soil/Ro And Geo Each Blind drille	ck Description logic Origin For Major Unit d through	frost		ISCS	hic	E		sive		1	1		
1 PID GRO VOC Pb 2 PID 3 PID		Blind drille	d through	frost			Grap Log	Well Diagra	PIDFII	Compres Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
PID GRO VOC Pb 2 PID 3 PID	Ē										×				
з		Dark red cla	y (2.5 YR	4/4)		CL			189 3.5		M M				Slight odor Slight odor
		<u> </u>				ļ	\mathbb{Z}		X		\boxtimes				
GRO VOC		<u>3" black coa</u> Dark red cla	urse_sand_s Ny (2.5 YR	seam 4/4)		SP CL			1.3		м				No odo
Pb		EOB @ 8'													
I hereby certi Signature	tlify that	the information of	n this form is d 162, Wis. Sta	s true a	Firm pletion	orrect	to the	e bes	t of r	ny kn v. Pena	alties:	forfei	it not le	 	

■ abandonment work shall be performed in accordance with the provisions of Chapters NR 111, NR 112 or NR 141, Wis. Admin. Code, whichever is applicable. Also, see instructions on back.

	GENERAL INFORMATION		(2) F	ACILI	TYNAME			
	Well/Drillhole/Borehole	County	Or	iginai	Weil Owner	(If Known)		
	Location GP-1	Ashland		uear	m Oil Co	ompany		
		Γιε	Pr	esent \	Well Owner			
	<u>SW</u> 1/4 of <u>SW</u> 1/4 of Sec. 3	<u>13</u> ; T. <u>48</u> N: R. <u>4</u> 🕅 W	Q	lear	m Oil Co	mpany		
	(If applicable)		So	reet or	Route			
_	Gov't Lot	Grid Number	6	31 E	ast McLe	od Avenue		
	Grid Location		Ci	ry, Su	ate, Zip Code	2		
	ft. 🗌 N. 🔲 S.,	ft. [] E. [] W.	I	ronw	rood, MI	49938		
	Civil Town Name		Fa	cility \	Well No. and	or Name (If App	MI Unique Wei	INo.
_	Ashland			GP-1				
	Street Address of Well		Re	ason i	for Abandoni	nent		
	105 West	6th Street	N	<u>o lo</u>	nger nee	eded		
	City, Village		Da	te of A	Abanconment			
	Ashland		0	1/17	/96			
WI	ELL/DRILLHOLE/BOREHOLE	INFORMATION	_					
	Original Well/Drillhole/Borehole C	onstruction Completed On	(4) De	pth to	Water (Feet)) <u>N/A</u>		
	(Date) 01/17/96		Pu Pu	mp &	Piping Remo	oved? 🗌 Y	es 🔲 No 🕅 Not App	licable
			Li	ner(s)	Removed?	י ם	(es 🗌 No 🕅 Not App	licable
	Monitoring Well	Construction Report Available?	Sc.	reen R	emoved?		es 🔲 ^{No} 🕅 Not App	licable
	Water Well	🖾 Yes 🗖 No	Ca	sing L	eft in Place?	<u>и</u> П	(es 🔲 No	
	X Drillhole		IfI	No, Ez	cplain			
	D Borehole	•	<u></u>					
				as Cas	ing Cut Off I	Selow Surface?		
	Construction Type:			d Seal	ing Material	Rise to Surface?		
	Drilled Driven	(Sandpoint)	יטן	a Mau 'f Vae	War Hole D	atomned?		
	X Other (Specify) Geoprob	e boring		116,	Was Hole K	emppeur		
	Econotics Trees		(5) Re	quired	Method of P	lacing Sealing M	laterial	•
	Formation Type:	D. Pastanda		Cond	uctor Pipe-G	ravity 🔲 C	onductor Pipe-Pumped	
	LXI Unconsolidated Formation	L Berrock		Dum	p Bailer		Other (Explain) Gravity	I
	Total Well Depth (ft.) 14	Casing Diameter (ins.) N/A	(6) Se	aling l	Materials		For monitoring wells and	<u>d</u>
	(From groundsurface)			Neat	Cement Grou	ut .	monitoring well borehol	es only
				Sand	-Cement (Co	ncrete) Grout		
	Casing Depth (ft.) <u>N/A</u>			Conc	rete		Bentonite Pellets	
				Clay	-Sand Slurry	I	X Granular Bentonite	_
	Was Well Annular Space Grouted?	🔲 Yes 🛄 No 🛄 Unknown		Bent	onite-Sand Sl	шпу	Bentonite - Cement (Irout
	If Yes, To What Depth?	Feet	🗆	Chip	ped Bentoniu			,
				(F)	T . (T .)	No. Yards,	Mir Ratio or Mud Wat	oht
.,	Sealing Mater	nal Used	From	(Ft.)	10(FL)	or Volume	MIX Kallo of Midd We	
			Surf	ace				
	Granular bent		Jui		14'	140 oz		
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_	Name of Person Firm Duing Kan	ling Work	1	(10)	FOR		OUNTY USE ONLY	
				Date	Received/Inst	ected	District/County	
	MYCHState Associates	LDC.						
	Very, Just			Revi	ewer/Inspecto	C.		
	Street or Route	Telephone Number	1					
		(715)362-3244		Follo	w-up Necess	ary		
ć	City, State, Zin Code	1 110 000 0044						
	Rhinelander, WI 5450)1						

abandonment work shall be performed in accordance with the provisions of Chapters NR 111, NR 112 or NR 141, Wis. Admin. Code, whichever is applicable. Also, see instructions on back.

WellDrillbeleBoeneid Courty Ashland Onpart Well Owner (IK Known)
Location GP-2 Ashland Quearm 0il Company SN 1/4 of SN 1/4 of Sec. 33 : T. 46 N R. 4 X N Presen Wall Onner Strett or Koulz Grid Location Govt Lot Grid Number Gil Sast. McLeod Avenue Grid Location N S
S8 14 of S8 14 of S8 15 Present Weil Owner (if applicable) Govt Lot Grid Mumber G31 Company Grid Location Grid Mumber G31 Cast Ap Case Civil Torm Name Ashland Ir Ornwood, NII 49938 Street Address of Weil Reason For Abandonnent No 1onger needed 105 West 6th Street No 1onger needed Not Applicable 105 West 6th Street No 1onger needed Not Applicable 01/17/96 Data of Abandonnent 01/17/96 Monitoring Weil Construction Report Available? Water Weil Not Applicable Monitoring Weil Construction Report Available? Yes No 1onger Needed Monitoring Weil Construction Report Available? Yes No 1onger Needed Water Weil Construction Report Available? Yes No 1onger Needed Street Address of Weil Construction Completed On Oil Applicable Street Address of Street Street Monitoring Weil Construction Report Available? Yes No 1onger Needed Yes No 1Applicable Street Address of Marker? Det Not Applicable Street Removef? Yes
SN 14 of SN Street of Nouze Gird Location Civil Town Name Civi
If applicanie) Govt Lot Gid Number Strets of Roluz Gid Location Gid Number G31 East McLeod Avenue Gid Location R. C. E. W. G31 East McLeod Avenue Civil Town Name Ashland Ironwood, MI 49938 Smeet Address of Well Reason For Abandonment WI LAURING WALL ALAGOT Name (I Applicable) Givil Town Name Ashland GP-2 Smeet Address of Well Reason For Abandonment No Longer needed Givil Town Name Ashland Ol (1/17/96 Civy. Village Ashland Ol (1/17/96 WELL/DRILLHOLE/BOREHOLE INFORMATION (4) Depth to Water (Feet) N/A (7) Case) Ol/17/96 Yes IN Not Applicable Water Well Construction Completed On (4) Depth to Water (Feet) N/A Water Well Construction Report Available? Scaing Cur Off Below Surface? Yes IN Not Applicable Diblod Driven (Sandpoint) Dug Yes IN Not Mapplicable Not Applicable Construction Type: Driven (Sandpoint) Dug Yes IN Not Mapplicable Yes IN Not Mapplicable Did Guing Material Kite to Surface? Yes IN Not Mapplicable <td< td=""></td<>
Gevi Lot Grid Number 631 East McLeod Avenue Grid Location h E W Civil Town Name Ashland Cirvi Town Name (If Appusatio) Withing Well Monitoring Well Monitoring Well No. Street Address of Well No Scenaria Cirvi Town Name (If Appusatio) Withing Well Monitoring Well Monitoring Well Cirvi Town Name Ashland Cirvi Town Received Monitoring Well Monitoring Well Monitoring Well Monitoring Well Monitoring Well Monitoring Well Monitoring Well Monitoring Well Monitoring Well Monitoring Well Monitoring Well Monitoring Well Monitoring Well Monitoring Well Monitoring Well Monitoring Well Monitoring Well Monitoring Well Monitoring Mell Construction Report Available? Marce Mell Monitoring Monitoring Monitoring Melli Monitoring Material Step Staff Monitoring Material Step Staff Monitoring Material Step Staff Monitoring Material Step Staff Monitoring Material Material Method of Placing Staff Monitoring Material Material Method Material Material Material Material Material Material Material Method Material Step Staff Monitoring Wells Monitoring Wells Monitoring Material Material Method Material Step Staff Monitoring Well Monitoring Well Monitoring Material Material Method Material Step Staff Monitoring Wells Monitoring Well Material Method Material Step Staff Monitoring Wells Material Method Matering Material Step Staff Monitoring Wells Ma
Grid Location Curry State, 2005 C 1005 C
A
Civil Town Name Ashland Fachuy Well No. andor Name (II Applicable) WI Unque Well No. Street Address of Well Reason for Abandomment No. andor Name (II Applicable) WI Unque Well No. Civy Village 105 West 6th Street No. Ionger needed Date of Abandomment NetLUDRILLHOLEBOREHOLE INFORMATION (d) Depth to Warr (Feet) N/A (Date) 01/17/96 (e) Depth to Warr (Feet) N/A (Date of Abandomnent Not Applicable Screen Removed? Ys No X Applicable (Date of Abandomnent Not Applicable Screen Removed? Ys No X Applicable (G) Depth to Warr (Feet) N/A Warr (Feet) No X Applicable Not Applicable (Goatporthy Feederity) Construction Report Available? Was Casing Cut Off Below Surface? Ys No X No Applicable (Date of Specify) Geoprobe boring Dus Ys No No No (Goatportfy) G
Ashland GP-2 Street Address of Weil Reason For Abandomment 105 West 6th Street No Longer needed City, Village Ashland WELL/DRILLHOLE/BOREHOLE INFORMATION Ol/17/96 Organal Weil/Delinole/Borehole Construction Completed On No Longer needed Chargenal Weil/Delinole/Borehole Construction Report Available? (6) Depth to Water (Feet) NA Water Weil Construction Report Available? Screen Removed? Ys No X Not Applicable Monitoring Weil Construction Report Available? Screen Removed? Ys No X Not Applicable Screen Removed? Ys No X No X Applicable Monitoring Weil Construction Report Available? Screen Removed? Ys No X Material Scile After 24 Hour? Ys No X No Applicable Screen Removed? Ys No X No Explain Wast Weil Driven (Sandpoint) Dug Us Material Scile After 24 Hour? Ys No X Montoorsing weil Borchole (6) Required Method of Placing Sealing Material For monitoring weil Borchole Screen Removed? Ys No X Granual Depth (ft.) N/A (6) Sealing Material Scie After 24 Hour? To Granular Bentonice <
Street Address of Well IOS West 6th Street No Longer needed Lips West 6th Street No Longer needed City, Village Date of Abandomment Oll/17/96 Ol/17/96 WELL/DRILLHOLE/BOREHOLE Construction Completed On (Date) Ol/17/96 Monitoring Well Construction Completed On (Date) (4) Depth to Water (Feet) N/A Pump & Piping Removed? Yes No [Not Applicable Screen Removed?] Yes No [Not Applicable Casing Left in Place?] Main Construction Type: Dilloid Driven (Sandpoint) Dug Water Yell Water Yell Not Applicable Construction Type: Driven (Sandpoint) Dug Dug Not Monterer Not Applicable Dilloid Driven (Sandpoint) Dug Water Yell Homs? Yes No Gother (Specify) Geoporabe bocing If Yes, Water Homs? Yes No Gother (Specify) Geoporabe bocing If Yes No No Sealing Material Casing Depth (ft.) N/A Bedrock For monitoring wells and monitoring
105 West 6th Street No Longer needed City, Village Ashland WELL/DRILLHOLE/BOREHOLE INFORMATION Ol/17/96 Organal Well/Dillhole/Borehole Construction Completed On (a) Dept is Water (feet) No X Applicable Monitoring Well Construction Report Available? (b) Enging Removed? Yes No X Applicable Water Well Construction Report Available? (a) Dept is Water (feet) No X Not Applicable Construction Type: Dillad Driven (Sandpoint) Dug Ves No Monitor Type: Driven (Sandpoint) Dug Dug Ves No No Karplicable Construction Type: Driven (Sandpoint) Dug Dug Ves No No No Ves No Yes Driven (Sandpoint) Dug Other (Specify) Geoprobe boring (b) Sealing Material Scale After 24 Houser Yes No Formation Type: Conductor Fipe-Orange (c) Required Method of Placing Sealing Material Scale After 24 Houser (c) Required Method of Placing Sealing Material Scale After 24 Houser (c) Not Applicable Was Weil Annular Space Grouted? Yes No (c) Sealing Material Scale After 24 Houser
City, Village No. Longer. needed
Ashland Ol/17/96 WELL/DRILLHOLE/BOREHOLE INFORMATION Ol/17/96 Original Well/Dillibole/Borehole Construction Completed On (Date) (a) Deph to Water (Feet) N/A Maintoring Well Construction Report Available? Ye No [X] Not Applicable Water Well [X] Ye No Not Applicable Double [X] Ye No Not Applicable Construction Type: [X] Other (Specify) Geoprobe boring Dug If Yes, To What Formation Detrock [S] Required Method of Planeng Scaling Material Formation Type: [X] Unconsolidated Formation Betrock [X] Unconsolidated Formation Betrock [S] Required Method of Planeng Scaling Material [X] Unconsolidated Formation Betrock [S] Required Method of Planeng Scaling Material [X] Unconsolidated Formation Betrock [S] Granular Bentonite [S] Granular Bentonite [X] Sealing Material State Sourcer (ins.) N/A [S] Granular Bentonite [S] Granular Bentonite [X] Sealing Material State Sourcer [S] Concrete [S] Granular Bentonite [S] Granular Bentonite [X] Other (Specify) Geouted? Yes No [M] Information
Ashland 01/17/96 WELL/DRILLHOLE/BOREHOLE INFORMATION 01/17/96 Original Well/Drillhole/Borehole Construction Completed On (Dam) 01/17/96 Monitoring Well Construction Report Available? Ye No II Not Applicable Water Well Construction Report Available? Ye No II Not Applicable Dilloite II Ye No Not Applicable Construction Type: II Onlino I Dutg Ye No Dilled Driven (Sandpoim) Dug Did Sanig Material Rise to Surface? Yes No Formation Type: Dill Genig Material Rest Pripe, Removed? Yes No Not Applicable Gotter (Specify) Geoprobe boring Dug Ves Casing Cut Off Below Surface? Yes No Formation Type: Gotter (Specify) Geoprobe boring So Required Method of Placing Sealing Material Conductor Pipe-Pumped Dump Bailer II Onerete Ropped? Yes No No Granular Space Groute? Yes No So Casing Material Surp Form monitoring wells and in or Volume Max Well Annular Space Groute?
WELLDORILHOLE/BOREHOLE INFORMATION Original Well/Dilliole/Borehole Construction Report Available? Main Well Construction Type: Dillid Driven (Sandpoint) Dillod Driven (Sandpoint) Durg Other (Specify) Genomentation Type: Dillod Dother (Specify) Geoprobe boring Material Set to Surface? Yes Dild Geoprobe boring Driven (Sandpoint) Durg Diffield Gromation Type: Sealing Material Set to Surface? Xi Unconsolidated Formation Bethock Total Well Depth (ft.) 12' Casing Depth (ft.) N/A Was Well Annular Space Grouted? Yes Was Well Annular Space Grouted? Yes Sealing Material Used From (Ft.) To (Ft.) Sack Scalant Max Sealing Material Used From (Ft.) To (Ft.) Sack Scalant Mix Ratio or Mud Weight I/2 1/20 oz
(Dag) 01/17/96 (Dag) 01/17/96 (Dag) 01/17/96 (Dag) 01/17/96 (Dag) 01/17/96 (Dag) 01/17/96 (Dag) (Construction Completed On (Dag) (Dag) (Construction Report Available? (Dag) (Construction Report Available? (Dag) (Construction Type: (Dillod (Construction Type: (Dillod (Sondpoint) (Dillod (Sondpoint) (Dillod (Sondpoint) (Construction Type: (Sondpoint) (Dillod (Sondpoint) (Dillod (Sondpoint) (Dillod (Sondpoint) (Construction Type: (Sondpoint) (Conductor Pipe-Clavity (Conductor Pipe-Pumped) (Sondpoint (f.t) 12' (Casing Depth (f.t.) N/A (Mass Well Annular Space Grouted? Yes (Yes, To What Depth? Yes (Song Canullar bentonite (Songpoint) (Song Depth (f.t.) N/A (Song Canullar bentonite (Songpoint)
I'' (Dae) 01/17/96 Monitoring Well Construction Report Available? Water Well Construction Report Available? Water Well I'' Yes Drillhole I'' Yes Drillhole I'' Yes Drillhole I'' Yes Drillhole I'' Yes Drillod Driven (Sandpoint) D''' Yes No Yes No Yes No Yes No D''' Yes No D''' Yes No Monitoring Well Construction Report Available? Construction Type: I'' Yes D''' Yes No Monitoring Yes: Ves Yes No Yes No Yes No Yes No Yes No Other (Specify) Geoptrobe boring Formation Type: I'' Yes Xi Unconsolidated Formation Bedrock Total Well Depth (ft.) 12' Casing Depth (ft.) N/A Was Well Annular Space Grou
Monitoring Well Construction Report Available? Liner(s) Removed? Yes No Mot Applicable Streen Removed? Yes No Mot Applicable Screen Removed? Yes No Mot Applicable Drillhole Borehole Streen Removed? Yes No Mot Applicable Construction Type: Drilled Drilled Driven (Sandpoint) Dug Mot Applicable Formation Type: Drilled Driven (Sandpoint) Dug If Yes, Was Casing Cut Off Below Surface? Yes No Formation Type: Other (Specify) Geoprobe bor:ing Geoprobe Yes No Mot Applicable Matterial Well Depth (ft.) 12' Casing Diameter (ins.) N/A Go Required Method of Placing Sealing Material Gorductor Pipe-Gravity Conductor Pipe-Pumped Sand-Cement (Concrete) Grout Sand-Cement (Concrete) Grout Sand-Cement (Concrete) Grout Sand-Cement (Concrete) Grout Sand-Cement Grout Sand-Sealing Material Bentonite Pellets Goravitry Sand-Sealing Material Sealing Material Sand-Cement Grout Sand-Sealing Material Mot Applicable Was Well Annular Space Grouted? Yes No Unknown Bentonit
Monitoring Well Construction Report Available? Screen Removed? Yes No Xot Applicable Water Well Xir Yes No Yes No Not Applicable Borehole Xir Yes No Yes No Not Applicable Construction Type: Drilled Driven (Sandpoint) Dug Was Casing Cut Off Below Surface? Yes No Formation Type: Conductor Pipe-Caravity Geoptrobe Screen Removed? Yes No Id Unconsolidated Formation Bedrock Screen Removed? Yes No Formation Type: Conductor Pipe-Caravity Conductor Pipe-Pumped Dump Bailer Yes No Yes No Daterial Scala formation Bedrock Sand-Cement (Concrete) Grout Sand-Cement (Concrete) Grout Sand-Cement (Concrete) Grout Casing Depth (ft.) N/A Sand-Cement (Concrete) Grout Bentonite Peltets Sand-Cement (Concrete) Grout Sand-Cement Grout Bentonite Peltets Was Well Annular Space Grouted? Yes No Unknown Bentonite Sand Slurry Bentonite - Cement Grout Sealing Material Used Form (Ft.) To (Ft.)
Water Well Yes No Water Well Yes No Drillhole Sechole Construction Type: Drilled Driven (Sandpoint) Drilled Driven (Sandpoint) Dug If Yes No Waterial Rise to Surface? Yes No Drilled Driven (Sandpoint) Dug Uf Yes No Did Selling Material Rise to Surface? Yes No Formation Type: Goodenet Storing Yes No N
X Drillhole Borchole If No, Explain Construction Type: Didled Deilled Driven (Sandpoint) Duilled Driven (Sandpoint) X Other (Specify) Geoprobe boring Dug Formation Type: Yes X Unconsolidated Formation Bedrock Sealing Material Total Well Depth (ft.) 12' Casing Depth (ft.) N/A (From groundsurface) Sand-Cement (Concrete) Grout Was Well Annular Space Grouted? Yes Yes, To What Depth? Yes Sealing Material Used From (Ft.) Total Veri Depth? Yes Was Well Annular Space Grouted? Yes Yes, To What Depth? Feet Sealing Material Used From (Ft.) Granular bentonite Surface 12' 120 oz
Borehole Construction Type: Dilled Driven (Sandpoint) Dilled Driven (Sandpoint) Dilled Driven (Sandpoint) Duilled Driven (Sandpoint) Geoprobe boring Second the formation Formation Type: Geoprobe boring Other (Specify) Geoprobe boring Formation Type: Geoprobe boring Other (Specify) Geoprobe boring Formation Type: Geoprobe boring Other (Specify) Geoprobe boring Formation Type: Geoprobe boring Granular Spece Grouted? NA (6) Required Method of Placing Sealing Material Granular bentonite? Granular Bentonite Was Well Annular Space Grouted? Yes No If Yes, To What Deph? Yes No Granular bentonite Surface 12 ' Granular bentonite Surface 12 ' Image:
Construction Type: Driven (Sandpoint) Dug Was Casing Cut Off Below Surface? Yes No Drilled Driven (Sandpoint) Dug Did Material Rise to Surface? Yes No Portlad Geoprobe boring If Yes, Was Hole Retorped? Yes No Formation Type: (S) Required Method of Placing Sealing Material Conductor Pipe-Pumped [] Unconsolidated Formation Bedrock (S) Required Method of Placing Sealing Material [] Conductor Pipe-Oravity Conductor Pipe-Oravity Conductor Pipe-Pumped [] Dump Bailer [] Other (Explain) Gravity [] Conductor Pipe Oravity Granular Bentonite (ins.) N/A [] Granular Bentonite [] Yes No Material Sard Slurry [] Was Well Annular Space Grouted? [] Yes No Unknown [] If Yes, To What Depth? Feet To (Ft.) Sack Sealant Mix Ratio or Mud Weight Granular bentonite Surface 12 ' 120 oz I/2 I/2 oz
Construction Type: Driven (Sandpoint) Dug Drilled Driven (Sandpoint) Dug Mid Sealing Material Rise to Surface? X Yes No Portilled Depth (ft.) Sealing Material Rise to Surface? Yes No Formation Type: (S) Required Method of Placing Sealing Material Conductor Pipe-Gravity Conductor Pipe-Gravity Conductor Pipe-Gravity Total Well Depth (ft.) 12 ¹ Casing Diameter (ins.) N/A (G) Sealing Materials For monitoring wells and Casing Depth (ft.) N/A (G) Sealing Material Seale Conductor Pipe-Gravity Goranular Bentonite Pellets Casing Depth (ft.) N/A (G) Sealing Material Seale Context monitoring wells and Was Well Annular Space Groute? Yes No Unknown Bentonite E Granular Bentonite Sealing Material Used From (Ft.) To (Ft.) Sack Sealant or Volume Mix Ratio or Mud Weight Granular bentonite Surface 12 ¹ 120 oz I20 oz
Dilled Driven (Sandpoint) Dug Dilled Driven (Sandpoint) Dug Mathematical Deep Contender Did Material Sette After 24 Hours? Yes Formation Type: Did Material Sette After 24 Hours? Yes Mathematical Deep Contender Did Material Sette After 24 Hours? Yes Formation Type: Did Material Sette After 24 Hours? Yes Mathematical Deep Contender Did Material Sette After 24 Hours? Yes Formation Type: Did Material Sette After 24 Hours? Yes Mathematical Deep Contender Did Material Sette After 24 Hours? Yes Mathematical Deep Contender Did Material Sette After 24 Hours? Yes Mathematical Deep Contender Did Material Sette After 24 Hours? Yes Mathematical Deep Contender Did Material Sette After 24 Hours? Yes Mathematical Deep Contender Did Material Sette After 24 Hours? Yes Mathematical Deep Contender Did Material Sette After 24 Hours? Yes Mathematical Deep Contender Mathematical Deep Contender Mothematical Deep Contender Casing Depth (ft.) N/A No Partical Sette After 24 Hours? Mathema
Driven (Sandpoint) Disk Diven (Sandpoint) Disk Disk Diven (Sandpoint) Disk Diven (Sandpoint) Disk Disk Diven (Sandpoint) Disk
Image: Index Number Num Number Num Number Number Num Number Number Number Nu
Formation Type: (5) Required Method of Placing Sealing Material Image: Sealing Material Well Depth (ft.) 12' Casing Diameter (ins.) N/A (From groundsurface) (6) Sealing Material Image: Sealing Material Image: Sealing Material Was Well Annular Space Grouted? Yes No Unknown Image: Sealing Material Used Image: Sealing Material Used Granular bentonite Surface 12' 120 oz
Yonnation Type: X Unconsolidated Formation Bechrock Casing Depth (ft.) 12' Casing Depth (ft.) N/A (From groundsurface) (6) Sealing Materials For monitoring wells and monitoring wells and Neat Cement Grout Casing Depth (ft.) N/A Was Well Annular Space Groute? Yes Yes No Unknown Granular Bentonite Sealing Material Used From (Ft.) To (Ft.) Satk Sealant or Volume Granular bentonite Surface 12' 120 oz
Lit Unconsolidated Formation
Total Weil Depth (ft.) 12' Casing Diameter (ins.) N/A (6) Sealing Materials For monitoring wells and monitoring wells and monitoring wells only Casing Depth (ft.) N/A (a) Neat Cement Grout monitoring wells only Casing Depth (ft.) N/A (c) Sealing Materials For monitoring wells and monitoring wells only Was Well Annular Space Grouted? Yes No Unknown Clay-Sand Slurry (c) If Yes, To What Depth? Yes No Unknown Feet Chipped Bentonite Mix Ratio or Mud Weight Granular bentonite Surface 12' 120 oz Image: Surface Image: Surface Image: Surface Comments: Oromments: Oromments: Image: Surface Image: Sur
(From groundsurface) Neat Cement Grout monitoring well boreholes only Casing Depth (ft.) N/A Sand-Cement (Concrete) Grout Bentonite Pellets Was Well Annular Space Grouted? Yes No Unknown Bentonite-Sand Slurry Bentonite - Cement Grout If Yes, To What Depth? Feet Chipped Bentonite Mix Ratio or Mud Weight Granular bentonite Surface 12' 120 oz Ocomments: Ocomments: Ocomments: Ocomments:
Casing Depth (ft.) N/A
Casing Depth (ft.) N/A
Was Well Annular Space Grouted? Yes No Unknown Clay-Sand Slurry Granular Bentonite If Yes, To What Depth? Feet Chipped Bentonite Bentonite Clay-Sand Slurry Sealing Material Used From (Ft.) To (Ft.) Sacks Sealant or Volume Mix Ratio or Mud Weight Granular bentonite Surface 12 ' 120 oz
Was Well Annular Space Grouted? Yes No Unknown Bentonite-Sand Slurry Bentonite - Cement Grout If Yes, To What Depth? Feet Chipped Bentonite Mix Ratio or Mud Weight Granular bentonite Surface 12' 120 oz Or Comments: Or Comments: Or Comments: Or Comments:
If Yes, To What Depth?
It is, to marbeplai
Image: Material Used From (Ft.) To (Ft.) No. Yards, Sacks Sealant or Volume Granular bentonite Surface 12' 120 oz
Granular bentonite Surface 12' 120 oz
Granular bentonite Surface 12' 120 oz
Orandrat Dencontree Orande 12 120 02 J Comments:
Comments:
) Comments:
) Comments:
) Comments:
) Comments:
) Comments:
) Comments:
Name of Person or Firm Doing Sealing Work (10) FOR DNR OR COUNTY USE ONLY
Mid-State Associates, Inc. Date Received/Inspected
Signature/of Person Dojng Work Date Signed
Reviewer/Inspector
المحمد <u>محمد من المحمد من المحم</u>
Street or Route / / Telephone Number
Street or Route 1 Telephone Number (715)362-3244 Follow-up Necessary
Street or Route 1 Telephone Number P_O_Box 1026 (715)362-3244 Follow-up Necessary

An abandonment work shall be performed in accordance with the provisions of Chapters NR 111, NR 112 or NR 141, Wis. Admin. Code, whichever is applicable. Also, see instructions on back.

2	GENERAL INFORMATION	(2) FACIL	ITY NAME		
	Well/Drillhole/Borehole County	Origina	u Weil Owner	(If Known)	
	Location GP-3 Ashland	Quea	orm Oil C	omoany	
_		Present	Weil Owner	Ompany	
	_SW 1/4 of SW 1/4 of Sec. 33 · T 48 N: R 4	0103	rm Oil C		
	(If applicable)				
	Govision				
	Grid Location	631	Last MCL	eoa Avenue	
		City, S	tate, Zip Cod	c	
_		Iron	wood, MI	49938	
	CIVIL I OWN IVAME	Facility	Weil No. and	/or Name (II Apj	plicable) WI Unique Well No.
	Ashland	GP-	-3		
	Street Address of Well	Reason	For Abandon	ment	
	105 West 6th Street	No 1	onger nee	eded	
	City, Village	Date of	Abandonmen	ζ	
	Ashland	01/1	7/96		
WI	ELL/DRILLHOLE/BOREHOLE INFORMATION				
FI	Original Well/Drillhole/Borehole Construction Completed On	(4) Depth t	o Water (Feet) N/A	
	(Dom) 01/17/96		b Di-i D		
		Fump a	2 riping Kem		
		Liner(s)	Removed?		Yes No X Not Applicable
	Monitoring Well Construction Report Available?	Screen	Kemoved?		les No X Not Applicable
	Water Well X Yes I No	Casing	Left in Place?	י ם	(es 🔲 No
	X Drillhole	If No. E	xplain		
	Borehole				
		Was Ca	sing Cut Off I	Below Surface?	Yes No
	Construction Type:	Did Sea	ling Material	Rise to Surface?	
	Drilled Driven (Sandroint) Dug	Did Ma	terial Settle A	fter 24 Hours?	
	X Other (Specify) Geoprobe boring	If Yes	, Was Hole R	etopped?	
	Formation Type:	(5) Require	d Method of P	lacing Sealing M	laterial
	V Unconsolidated Formation		ductor Pipe-G	ravity 🔲 C	Conductor Pipe-Pumped
		Dun	p Bailer	<u> </u>	Other (Explain) Gravity
	Total Well Depth (ft.) 12' Casing Diameter (ins.) N/A	(6) Sealing	Materials		For monitoring wells and
	(From groundsurface)	□ Nea	t Cement Grou	11	monitoring well boreholes only
			1-Cement (Cor	acrete) Grout	
	Casing Depth (f_L) N/A				Bentonite Pallate
			Sand Shume	1	
			ionite-Sand Si	ury i	Bentonite - Cement Grout
Ш	In res, to what Depth? Feet		pea Bentonite	· · · · · · · · · · · · · · · · · · ·	•
रा				No. Yards,	
••	Sealing Material Used	From (FL)	To (FL)	Sacks Sealant	Mix Katio or Mud Weight
	Granular bentonite	Surface	12'	140 oz	
L		<u> </u>			
	······································	<u> </u>			
		1	1		
		ļ			
┼╞	·	<u> </u>			
11	Comments:				······
	\land				
	Name of Person or Firm Doing Sealing Work	(10)	FOR	DNR OR CO	DUNTY USE ONLY
	Mid-State Associates. Inc.	Date	Received/Inso	ected	District/County
	Signature of Person Doing Work Date Signed		- F		
	Mhy You	Revi	ewer/Inspector		
	Street or Route / Telenhone Number				
	(<u>P.O. Box 1026</u> / 15/362-3244	Folk	w-up Necessa	ıy	
0	City, State, Lip Code				
	Rhinelander, WI 54501				
abandonment work shall be performed in accordance with the provisions of Chapters NR 111, NR 112 or NR 141, Wis. Admin. Code, whichever is applicable. Also, see instructions on back.

	GENERAL INFORMATION	Lo		17737 2 4 4 4 7		
÷	SEITERAL INFORMATION	(2)	FACIL	ITY NAME		
_	Vell/Drilhole/Borchole County		Ingina	i Weil Owner	(If Known)	
	GP-4 Ashland		Quea	rm Oil C	ompany	
	2 🗋		resent	Well Owner		
	<u>SW</u> 1/4 of <u>SW</u> 1/4 of Sec. <u>33</u> ; T. <u>48</u> N; R. <u>4</u> \overline{X} W	1	Quea	cm Oil Co	ompany	
	(If applicable)		treet o	r Route		
	Gov't Lot Cod Number		<pre>col :</pre>			
_			031 1	LASE MCL	eoa Avenue	
		1 '	-1 fy , 5	tate. Lip Cod	e	
	fffff		Iron	wood, MI	49938	
	Civil Town Name	F	acility	Well No. and	for Name (If Ap	plicable) WI Unique Well No.
	Ashland		GP-	4		
	Street Address of Well		leason	For Abandon	ment	
	105 Wost 6th Street					
	Cirv. Village	<u> </u>		Onger ne	eded	
		-		Abanconmen	L	
- <u></u>	Ashland		01/1	7/96		
<u></u>	ELL/DRILLHOLE/BOREHOLE INFORMATION					
1	Original Well/Drillhole/Borehole Construction Completed On	(4) I	Depur u	o Water (Feet) N/A	
111	(Dame) 01/17/96	l P	umo &	Piping Rem	aved?	Kes 🔲 No 🖾 Not Applicable
		l i	iner(s)	Removed?		
				amound?	닏.	Not Applicable
	Construction Report Available?		Cieen r			res No X Not Applicable
	Water Well X Yes No		asing l	Left in Place?		(es 🔲 No
	X Drillhole	L L	No, E	xplain		
	Borehole	1				
		ν	Vas Ca	sing Cut Off I	Below Surface?	T Yes T No
	Construction Type:	Г	hid Sea	ling Material	Rise to Surface?	
				amie I Camie A	Hase W Sullace:	
		"	TE Var	West Ists D	tier 24 Hours?	
	IXI Other (Specify) Geoprobe boring		II Ies	, was note R	empped:	
	• · · ·	IS R	equired	1 Method of P	lacing Sealing N	laterial
	Formation Type:			hunter Dires C		See durate a Direc Dorman d
	I Unconsolidated Formation Bedrock			iucur Pipe-G		onductor Pipe-Pumped
] Dum	p Bailer		Other (Explain) Gravity
	Total Well Depth (ft.) <u>12'</u> Casing Diameter (ins.) <u>N/A</u>	(6) S	ealing.	Materials		For monitoring wells and
	(From groundsurface)] Neat	: Cement Grou	ıt	monitoring well boreholes only
		ΙĒ	Sand	I-Cement (Con	ncrete) Grout	
	Casing Depth (ft.) N/A	1 F		rete		Bentonite Pellets
			I Clav	-Sand Slurry		V Granular Bentonite
	Was Well Appular Space Constant?] C	-oak Stuly		
		_		onite-Sand Si	urry	Benionite - Cement Grout
Ш	I I I I I I I I I I I I I I I I I I I	I L		ped Bentonite	· · · · · ·	· · · · · · · · · · · · · · · · · · ·
		[1	No. Yards,	
v7	Sealing Material Used	Fron	1 (Ft.)	To (Ft.)	Sacks Sealant	Mix Ratio or Mud Weight
					or volume	
	Granular bentonite	Sur	face	121	230 07	
				1		
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-						
	Comments:			1		
	······································					
-			C			
	Name of Person or Firm Doing/Sealing Work		(10)	FOR	DNR OR CO	DUNTY USE ONLY
	Mid-State Associates, Inc.		Date	Received/Insp	ected	District/County
	Signature of Person Doing Work Date Signed					
I	Juke 144		Revie	ewer/Inspector		
1	Street or Route			·		
$ _{P}$						
1/	P.O. Box 1026 115,362-3244		rolio	w-up Necess	цÀ	
V	City, State, Lip Code			ere Adala		
	Rhinelander, WI 54501					

abandonment work shall be performed in accordance with the provisions of Chapters NR 111, NR 112 or NR 141, Wis. Admin. Code, whichever is applicable. Also, see instructions on back.

•	GENERAL INFORMATION		10	ACUL	TVNAME				
÷	W TO THE OR I I	Course		ACILI		(6 V)			
	Veil/Drillhole/Borenole	County		Jinginai	Well Owner	(II Known)			
-	GP-5	Ashland		Quea	cm Oil C	ompany			
			F	resent '	Weil Owner				
	<u>SW 1/4 of SW 1/4 of Sec. 3</u>	<u>3</u> ; T. <u>48</u> N. R. <u>4</u> X w		Quear	m Oil Co	mpany			
	(If applicable)		I S	treet or	Route			****	
Ш	Gov't Lot	Grid Number		< 21 E	Cost Mol	Avonua			
-	Crid Logation	Gid Henda	<u> </u>	<u></u>	ast NCLe	ou Avenue			
••				- ILY, 3L					
-	ft. [] N. [] S.,	ft. [] E. [] W.		Ironw	rood, MI	49938			
	Civil Town Name		"	actury '	Well No. and	or Name (II App	incapie)	WI Unique	Well No.
	Ashland			GP-	·5				
_	Street Address of Well		R	leason	For Abandon	nent		A	
	105 West	6th Street	1		nger ne	hehe			
	Cirv. Village		i		Abandonment	,			
						•			
_	Ashland			01/1/	/96		·		
WI	ELL/DRILLHOLE/BOREHOLE	INFORMATION							
f n -	Original Well/Drillhole/Borehole Co	onstruction Completed On	(4) [Depth to	Water (Feet) <u>N/A</u>			
	(Date) 01/17/96		l P	ump &	Piping Rem	oved? \Box Y	′es ∏ N	6 X Not	Applicable
		······	Īī	iner(s)	Removed?				A1! 1.1 _
		G	1 3	Common D	amound?	느님(Applicable
	Monitoring Well	Construction Report Available?					<u>е П.</u>	Not Not	Applicable
	U Water Well	K∐Yes L∐No		lasing L	Left in Place?		∝ ∏ N	0	
	X Drillhole		U	[No, E:	xplain				
	Borehole		i						
			v	Vas Cas	ing Cut Off I	Below Surface?		es [] No	
	a m			12 Cast		Dies to Sumfano?			
	Construction Type:			No Seal	ing Material	Rise to Surface:	- 臣 :		
		(Sandpoint) U Dug	L L	hd Mat	erial Settle A	tter 24 Hours?	Ľľ	es IX No	
	X Other (Specify) Geoprobe	e boring		If Yes,	Was Hole R	etopped?	х	(es 🗌 No	
				- anniar d	Mathed of B	leaine Sealine M	atomial		
	Formation Type:		(0) ^	- -	I WELLOU UI P		alliat		•
	V Unconcolidated Ecomotion	T Reduck		Cond	luctor Pipe-G	ravity 🔲 C	onductor P	Pipe-Pumpec	i
	[X] Unconsolidated Formation	Berock	Г	Dum	p Bailer	[X] C)ther (Expl	ain) Grav	/ity
	Total Well Depth (ft.) 12' (Casing Diameter (ins.) N/A	(6) S	ealing	Materials		For mor	itoring well	ls and
	(From groundsurface)		l' ř	7 Near	Cement Cro		monitor	ing well boy	mbolec only
	(I Iom groundsurace)		=		Cement Gro		montai	nig wen ooi	choics only
					-Cement (Co	ncrete) Grout			
	Casing Depth (ft.) <u>N/A</u>		L	_ Conc	rete	1	Bent	onite Pellet	5
			I C	Clay-	-Sand Slurry	1	👿 Gran	ular Benton	ite
	Was Well Annular Space Grouted?	Yes No Unknown	Γ	Benu	onite-Sand Sl		Bent	onite - Cern	ent Grout
	If Yes To What Denth?	Feet	17		ned Bentonite	, i			
₩L			<u> </u>			-			
ŢŢ		• • • • •	_	/ .	T . C >	No. Yards,	M:- P	nia ar Mud	Weight
	Sealing Mater		FIOL	n (rc)	10(FC)	or Volume	. MIX K		
		· _ · · · · · · · · · · · · · · · · · ·		-					
	Granular bent	onite	Su	rface	יכו	140 07			
لگا			<u> </u>		<u> </u>	140 02			
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			1						
						[
			l		t				
=	Comments:								
			<u>.</u>	1.220				UCD ONIT	V eren (1997)
	Name of Person or Firm Doing Seal	ling Work		(10)	FOR	DNR OR CO	JUNIX	USEONE	T
	Mild-State Associates	Inc.		Date	Received/Insp	xcted	Distr	ict/County	
	Signature of Person Doirg Work	Date Signed	1						
	Kh. I'm.			Revie	wer/Inspecto	6			
		Telephone Number	ł			-			
	precet of Route - '			*****					
H	P.O. Box 1026/	(715/362-3244]	Follo	w-up Necess	ny			
V	City, State, Zip Code		I						
	Rhinelander, WT 5450	1							
		-							

abandonment work shall be performed in accordance with the provisions of Chapters NR 111, NR 112 or NR 141, Wis. Admin. Code, whichever is applicable. Also, see instructions on back.

	GENERAL INFORMATION	1C	D FACIL	ITY NAME	<u>مراجع المراجع ا</u>	
1	Well/Drillbole/Borehole County		Ongina	i Weil Owner	(If Known)	
	Location		Oligun		(II MIOWII)	
—	GP-6 Ashland		Quea	rm Oil C	ompany	
		Ξ	Present	well Owner		
	<u></u>	W	Quea	rm Oil Co	ompany	
	(II applicable)		Street o	r Route		
_	Gov't Lot Grid Number		631	East McL	eod Avenue	
	Grid Location		Ciry, S	tate, Zip Cod	c	
	ft. □ N. □ S., ft. □ E. □ W	<i>7</i> .	Tron	wood MT	49938	
	Civil Town Name		Facility	Well No. and	Vor Name (If Am	dicable) WI Unique Well No
	Ashland			c		int singles in childs.
	Street Address of Weil		GP-	-0 For Abandon	ment	
	JOE West Eth Chrost		NL- 1			
1	City Village			onger ne	eaea	
				Abandonimen	L	
₩			01/1	//96		
71	Carrel Well (Della La					
	Original well/Drillhole/Borehole Construction Completed On	(4) Depth t	o Water (Feet) <u>N/A</u>	
111	(Dame) 01/17/96		Pump &	Piping Rem	oved?	res 🔲 No 🔀 Not Applicable
		-1	Liner(s)	Removed?		Yes No IX Not Applicable
	Monitoring Well Construction Report Available?	1	Screen H	Removed?	H,	Kes No IVI Not Applicable
		ł	Casing	Left in Place?		
			If No F		L	
			H 110, D	~p.an.		······································
			West Co			
			Was Ca	sing Cut Off	Below Surface?	
	Construction Type:		Did Sea	ling Material	Rise to Surface?	X Yes No
	Drilled Driven (Sandpoint) Dug		Did Ma	terial Senle A	fter 24 Hours?	Yes X No
	X Other (Specify) Geoprobe boring		If Yes	, Was Hole R	etopped?	🔲 Yes 🛄 No
		7	Required	d Method of P	lacing Sealing N	laterial
	Formation Type:	٣		tuetes Dias C		Senderster D' D d
	X Unconsolidated Formation Bedrock			incrit Libe-C		onductor Pipe-Pumped
				p Baller	<u>[A</u> (Jther (Explain) Gravity
	Total Well Depth (ft.) <u>61</u> Casing Diameter (ins.) <u>N/A</u>	(0) Sealing	Materials		For monitoring wells and
	(From groundsurface)			Cement Gro	ut	monitoring well boreholes only
-			Sanc	l-Cement (Co	ncrete) Grout	
	Casing Depth (fr.) <u>N/A</u>			rete	!	Bentonite Pellets
			Clay	-Sand Slurry	i	Granular Bentonite
	Was Well Annular Space Grouted? Yes 🗌 No 🗍 Unknow	m	Bent	onite-Sand Sl	urry	Bentonite - Cement Grout
	If Yes, To What Depth? Feet			ped Bentonite	, i	
╈					No Varda	·
41	Sealing Material Used	1,	From (FL)	To (FL)	Sacks Sealant	Mix Ratio or Mud Weight
		1.			or Volume	
	Granular bentonite		Surface			
				0.	90 OZ	
					[
					1	
				1		1
		-1-				
T	Comments:				<u> </u>	
	Name of Personar Firm Dairs Scaling Work	-1-	E(10)-		DNDODOC	HNTV USE ONLY
	Mane of resolver run Doing Seamig Work		(10)	P	DITROKE	
	Mid-State Associates, Inc.		Date	Received/Insp		District/County
	Signature of Person Doing Work Date Signed					
	Jemi 199		Revi	ewer/inspecto	r:	
	Street or Route (Telephone Number					
D	P.O. Box 1026 (715)362-3244		Follo	w-up Necessa	шy	
	City, State, Zip Code					
	Phinelander WI 54501					

I abandonment work shall be performed in accordance with the provisions of Chapters NR 111, NR 112 or NR 141, Wis. Admin. Code, whichever is applicable. Also, see instructions on back.

	CENEDAL INFORMATION			TV N MAR		
-	GENERAL INFORMATION		(2) FACIL	ITT NAME		
_	Well/Drillhole/Borehole	ounty	Ongina	I Weil Owner	(If Known)	
_	GP-7	Ashland	Quea	rm Oil Co	ompany	
			Present	Well Owner		
	<u>_SW 1/4 of SW 1/4 of Sec. 33</u>	<u>; T. 48 N; R. 4</u> X W	Quear	cm Oil Co	mpany	
	(If applicable)		Street o	r Route		
_	Gov't Lot	Grid Number	631	East McLe	eod Avenue	
	Grid Location		City, S	tate, Zip Code	•	
	fr. 🗌 N. 🔲 S.,	ft, [] E, [] W.	Iron	wood, MI	49938	
	Civil Town Name		Facility	Well No. and	or Name (If App	bucable) WI Unique Well No.
	Ashland		CP-7			
	Street Address of Well		Reason	For Abandon	ment	
	105 West 6	th Street	Nol	nner nee	ded	
	City, Village		Date of	Abanconment		· · · · · · · · · · · · · · · · · · ·
-	Achland		01/1	7/96		
WE		INFORMATION		// 90		
7	Original Well/Drillhole/Borehole Cor	Introduction Completed On	(4) Denth +	Water (Feet) NT / A	
		Buildin Completed On				
1 11	(Dame) 01/1//96		Pump o	Piping Remo	oved?	
	— .		Liner(s)	Removed?	<u>с</u> л	(es No X Not Applicable
	Monitoring Well	Construction Report Available?	Screen I	Removed?	Y 🖸	es No X Not Applicable
	Water Well	X Yes No	Casing	Left in Place?		es 🗋 No
	X Drillhole		If No, E	xplain		
	Borehole					
			Was Ca	sing Cut Off I	Below Surface?	
	Construction Type:		Did Sea	ling Material I	Rise to Surface?	🗶 Yes 🗌 No
	Drilled Driven (S	Sandpoint) 🔲 Dug	Did Ma	terial Settle Al	fter 24 Hours?	
	X Other (Specify) Geoprobe	boring	If Yes	, Was Hole R	etopped?	
		•••••••••••••••••••••••••••••••••••••••	C Dervier	J Markad of D	lasian Saulian M	
	Formation Type:		(5) Kequire			
	X Unconsolidated Formation	Bedrock		fuctor Pipe-Gi	ravity $\Box C$	onductor Pipe-Pumped
				p Bailer	<u>X</u>	Other (Explain) Gravity
	Total Well Depth (ft.) _6' Ca	using Diameter (ins.) N/A	(6) Sealing	Materials		For monitoring wells and
	(From groundsurface)		Nea Nea	t Cement Grou	ut	monitoring well boreholes only
-				I-Cement (Cor	ncrete) Grout	_
	Casing Depth (fL) N/A			crete	1	Bentonite Pellets
			Clay	-Sand Slurry	1	X Granular Bentonite
	Was Well Annular Space Grouted?	🗌 Yes 🗌 No 🔲 Unknown	🗌 Ben	tonite-Sand Sl	шту і	Bentonite - Cement Grout
	If Yes, To What Depth?	Feet	Chir	ped Bentonite	^ا د	
#=			;	T	No. Yards.	r
U	Sealing Materia	1 Used	From (FL)	To (FL)	Sacks Sealant	Mix Ratio or Mud Weight
				<u> </u>	or volume	
	Granular bento	nite	Surface	6'	80.07	
				<u> </u>		
			l			
			1		1	
			ļ	1		
<u></u>						
			<u>I</u>	<u> </u>	I	<u> </u>
	Comments:					
	Name of Person or Firm Doing Sealir	ng Work	(10)	FOR	DNR OR CO	OUNTY USE ONLY
I	Mid-State Associates.	Inc.	Date	Received/Insp	pected	District/County
	Signature of Person Doing Work	Date Signed				
	When I'ru.		Rev	ewer/Inspecto	c:	
I	Street or Route	Telephone Number	1 🕅			
1	P.O. Por 1025	(715)362-3244	Foll	w-up Necess	ary	
V	City, State, Zip Code					
	Rhinelander, WI 54501					

State of Wisconsin Department of Natural Resources

abandonment work shall be performed in accordance with the provisions of Chapters NR 111, NR 112 or NR 141, Wis. Admin. Code, whichever is applicable. Also, see instructions on back.

5	GENERAL INFORMATION		(2) FACILI	TY NAME		
	Well/Drillhole/Borehole	County	Onginal	Weil Owner	(lf Known)	
	Location GP-8	Ashland	Ouea	rm Oil Co	ompany	
_			Present	Well Owner		
	<u>SW</u> 1/4 of <u>SW</u> 1/4 of Sec. 3	33 : T. 48 N. R. 4 X W	Ouear	m Oil Co	mpany	
	(If applicable)		Street or	Route		
	Gov't Lot	Grid Number	631 6	Cast McLe	od Avenue	
-	Grid Location		City, St	ate. Zip Code		
		fr [] E. [] W	Trony	TM . Front	49938	
	Civil Town Name		Facility	Well No. and	or Name (If App	licable) WI Unique Well No
	Lebland					
-	Street Address of Well		GP-8 Reason	For Abandon	nent	
			Nola			
	LUD West	oth Street		Abandonment		
	City, Village					
W.		INFORMATION		/90		
70	CELIDRILLAULE/BOREHOLE		L(4) Denth to	Water (Frat)	N1 / N	
	Original Well/Drillhole/Borenole C	ionstruction Completed On	(4) Deput in	water (reet)		
	(Date) 01/17/96		Pump &	Piping Remo	oved?	es No X Not Applicable
		•	Liner(s)	Removed?	ג 🗆	(es No X Not Applicable
	Monitoring Well	Construction Report Available?	Screen R	lemoved?		es No X Not Applicable
	Water Well		Casing I	Left in Place?		es 🗌 No
	X Drillhole		If No, E	xplain		
	Borehole	1				
			Was Cas	sing Cut Off H	Below Surface?	
	Construction Type:		Did Seal	ling Material I	Rise to Surface?	X Yes 🗌 No
	Drilled Driven	(Sandpoint) Dug	Did Mat	erial Settle Af	fter 24 Hours?	
-	X Other (Specify) Geoprob	e boring	If Yes	Was Hole Re	etopped?	
			C. Permisso	A Mathed of D	lasing Seeling M	
	Formation Type:		(5) Required	i Method of P	lacing Sealing M	
	X Unconsolidated Formation	Conductor Pipe-Gravity Conductor Pipe-Pumped				
			Dum	p Bailer	<u>[X]</u>	Other (Explain) Gravity
	Total Well Depth (ft.) <u>10'</u>	Casing Diameter (ins.) N/A	(6) Sealing	Materials		For monitoring wells and
	(From groundsurface)		📔 🗌 Neat	Cement Grou	11	monitoring well boreholes only
_			Sand	-Cement (Cor	ncrete) Grout	
	Casing Depth (ft.) N/A			rete	1	Bentonite Pellets
			Clay	-Sand Slurry	I	🗴 Granular Bentonite
	Was Well Annular Space Grouted?	Yes No 🗍 Unknown	Bent	onite-Sand Sl	urry i	Bentonite - Cement Grout
	If Yes, To What Depth?	Feet	Chip	ped Bentonite	, i	
ll⊧	·····			1	No. Yards	
W	Sealing Mater	ial Used	From (FL)	To (FL)	Sacks Sealant	Mix Ratio or Mud Weight
-					or Volume	
	Granular bent	onite	Surface	101	150 07	
			ļ	10	150 02	
			1			
			1			
				<u> </u>	<u> </u>	
±			1	l		
🖷	Comments:					
	//					
	Name of Person or Firm Doing Sea	ling Work	(10)	FOR	DNR OR CO	JUNIY USE ONLY
	Mid-State Associates,	Inc.	Date	Received/Insp	xected	District/County
	Signature of Person Doing Work	Date Signed				
	Jami 1 ml		Revi	ewer/Inspector	r .	
	Street or Route	Telephone Number] [
Ľ	P.O. Boy 1026	(715)362-3244	Folk	w-up Necess	ary	
1	City, State, Zip Code		1 🕅			
	Rhinelander, WI 5450	1				

Il abandonment work shall be performed in accordance with the provisions of Chapters NR 111, NR 112 or NR 141, Wis. Admin. Code, whichever is applicable. Also, see instructions on back.

I)	GENERAL INFORMATION	(2) F	ACILI	TY NAME		
	Well/Drillhole/Borehole County	C	riginal	Well Owner	(lf Known)	
	Location GP-9 Ashland		Quear	cm Oil Co	ompany	
		P	resent	Well Owner		
	<u>SW</u> 1/4 of <u>SW</u> 1/4 of Sec. <u>33</u> ; T. <u>48</u> N; R. <u>4</u> X w		uear	m Oil Co	mpany	
	(If applicable)	S	reet or	Route		
	Gov't Lot Grid Number	6	531 E	ast McLe	od Avenue	
	Grid Location	Ċ	ity, St	ate, Zip Code		
	ft. \Box N. \Box S., ft. \Box E. \Box W.	1 1	ronw	nood, MI	49938	
	Civil Town Name	F	cility	Well No. and	or Name (If App	blicable) WI Unique Well No.
	Ashland		3P_9			
	Street Address of Well	R	eason l	For Abandon	nent	
	105 West 6th Street	۲ I	lo lo	nger nee	eded	
	City, Village	D	ate of A	Abandonment		
	Ashland		01/17	7/96		
WI	ELL/DRILLHOLE/BOREHOLE INFORMATION			/		
73	Original Well/Drillhole/Borehole Construction Completed On	(4) D	epth to	Water (Feet)	N/A	
	(D_{20}) 01/17/96	Р	• 1000 &	Pining Remo	$\frac{1}{1}$ yed?	es I No IXI Not Applicable
• •		L	iner(s)	Removed?		
	Monitoring Well Construction Report Available?	S	reen R	emoved?		
		c c	asing I	eft in Place?	님 것	
		If	No. E	olain		
	Borehole			·····	· · · · · · ·	
		<u></u>	as Cas	ing Cut Off I	Below Surface?	T Yes T No
	Construction Type	ם	id Seal	ing Material 1	Rise to Surface?	
	Drilled Driver (Sectoriat) Dug		id Mat	erial Settle Af	fter 24 Hours?	
	X Other (Specify) Cooprobe boring	_	If Yes.	Was Hole R	etopped?	
	A other (sparty)					
	Formation Type:	(5) R	equired	Method of P	lacing Sealing M	atenal
	V Unconsolidated Formation		Cond	uctor Pipe-G	ravity C	onductor Pipe-Pumped
			Dum	p Bailer	X	Other (Explain) Gravity
	Total Well Depth (ft.) <u>8'</u> Casing Diameter (ins.) <u>N/A</u>	(6) S	aling l	Viaterials		For monitoring wells and
	(From groundsurface)		Neat	Cement Grou	lt	monitoring well boreholes only
] Sand	-Cement (Cor	ncrete) Grout	_
	Casing Depth (ft.) N/A		Conc	rete	1	Bentonite Pellets
] Clay	Sand Slurry	1	Granular Bentonite
	Was Well Annular Space Grouted?		Bent	onite-Sand Sl	urry i	Bentonite - Cement Grout
	If Yes, To What Depth? Feet	ļĽ] Chip	ped Bentonite	; 1	
		Í.			No. Yards,	
(7	Sealing Material Used	From	(FL)	To (Ft.)	or Volume	Mix Karlo or Mud weight
	Granular bentonite	Sur	lace	81	110 oz	
					1	·
		1				
<u> </u>		1				
					L	[
5)	Comments:					
	~					
	Name of Person or Firm Doing Sealing Work		(10)	FOR	DNR OR CO	OUNTY USE ONLY
	Mid-State Associates. Inc		Date	Received/Insp	ected	District/County
	Signature of Person Doing Work Date Signed	1				
	Jahry Jager		Revie	wer/Inspector	c	
Ι.	Street or Route Telephone Number	1				
¥,	P.O. Box 1026 (715)362-3244	1	Follo	w-up Necess:	ry	
\mathcal{V}	City, State, Zip Code	1				
	Phinolandor WI 54501	l				

APPENDIX F

SOIL SAMPLE ANALYTICAL RESULTS AND CHAIN OF CUSTODY REPORTS

February 1, 1996

ENVIRONMENTAL AND ANALYTICAL SERVICES

Mid-State Associates 1835 N. Stevens Street P.O. Box 1026 Rhinelander, WI 54501

Attn: John Sager

Re: 212365

Please find enclosed the analytical results for the samples received January 19, 1996.

All analyses were completed in accordance with appropriate EPA and Wisconsin methodologies. Methods and dates of analysis are included in the report tables.

The chain of custody document is enclosed. If you have any questions about the results, please call. Thank you for using Enviroscan Corp. for your analytical needs.

Sincerely,

Enviroscan Corp.

Laurie M. Fietrouchi

Laurie M. Pietrowski Analytical Chemist KECEIVED MID-STATE ASSOCIATES

FEB 2 1009

NALAYIN CAMPRIDPORT

Mid-State Associates 1835 N. Stevens Street P.O. Box 1026 Rhinelander, WI 54501 CUST NUMBER: 212365 SAMPLED BY: Client DATE REC'D: 01/19/96 REPORT DATE: 02/01/96 PREPARED BY: LMP Jul REVIEWED BY:

Attn: John Sager

1

		Reporting	GP-1 4-6'		Date
1	Units	<u>Limit</u>	01/17/96	<u>Qualifier</u>	<u>s Analyzed</u>
ED3 160 2					
Tetal Colide	9.		06.04		
IOCAL SOLIDS	5	-	86.04		01/22/96
EPA 6010					
Lead	mg/kg	5.8	х		01/23/96
EPA 8021					
Benzene	mg/kg	0.10	х		01/26/96
Bromobenzene	mg/kg	0.10	Х		01/26/96
Bromodichloromethane	mg/kg	0.10	х		01/26/96
n-Butvlbenzene	mg/kg	0.10	7.70		01/26/96
sec-Butylbenzene	mg/kg	0.10	0.488		01/26/96
tert-Butylbenzene	mg/kg	0.10	0.151		01/26/96
Carbon Tetrachloride	mg/kg	0.10	х		01/26/96
Chlorobenzene	mg/kg	0.10	Х		01/26/96
Chlorodibromomethane	mg/kg	0.10	Х		01/26/96
Chloroethane	mg/kg	0.10	Х	CSL SPL	01/26/96
Chloroform	mg/kg	0.10	Х		01/26/96
Chloromethane	mg/kg	0.10	Х	CSL SPL	DUP01/26/96
o-Chlorotoluene	mg/kg	0.10	Х		01/26/96
p-Chlorotoluene	mg/kg	0.10	Х		01/26/96
1,2-Dibromo-3-chloropropane	mg/kg	0.10	х		01/26/96
1,2-Dibromoethane	mg/kg	0.10	Х		01/26/96
1,2-Dichlorobenzene	mg/kg	0.10	Х		01/26/96
1,3-Dichlorobenzene	mg/kg	0.10	Х		01/26/96
1,4-Dichlorobenzene	mg/kg	0.10	Х		01/26/96
Dichlorodifluoromethane	mg/kg	0.10	X	CSL SPL	01/26/96
1,1-Dichloroethane	mg/kg	0.10	Х		01/26/96
1,2-Dichloroethane	mg/kg	0.10	Х		01/26/96
1,1-Dichloroethylene	mg/kg	0.10	Х	SPL	01/26/96
cis-1,2-Dichloroethylene	mg/kg	0.10	X		01/26/96
trans-1,2-Dichloroethylene	mg/kg	0.10	Х	SPL	01/26/96
1,2-Dichloropropane	mg/kg	0.10	Х		01/26/96
1,3-Dichloropropane	mg/kg	0.10	Х		01/26/96
2,2-Dichloropropane	mg/kg	0.10	Х	SPL	01/26/96
Ethylbenzene	mg/kg	0.10	0.139		01/26/96
Hexachlorobutadiene	mg/kg	0.10	Х		01/26/96
Isopropylbenzene	mg/kg	0.10	0.163		01/26/96
Isopropyl Ether	mg/kg	0.10	х		01/26/96
p-Isopropyltoluene	mg/kg	0.10	0.232		01/26/96
Methyl tert Butyl Ether	mg/kg	0.10	х	CSL SPL	01/26/96
Methylene Chloride	mg/kg	0.10	Х	SPL	01/26/96
Naphthalene	mg/kg	0.10	1.02		01/26/96

Analytical No.:

58948

X = Analyzed but not detected. Results calculated on a dry weight basis.

ll analyses conducted in accordance with Enviroscan Quality Assurance Program.

Attn: John Sager

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TICAL REPOR

Samawar Sta

CUST NUMBER:	212365
SAMPLED BY:	Client
DATE REC'D:	01/19/96
REPORT DATE:	02/01/96
PREPARED BY:	LMP ?m?
REVIEWED BY:	TR-
	\mathcal{T}

-	Units	Reporting Limit	GP-1 4-6' 01/17/96	Qualifiers	Date <u>Analyzed</u>
n-Propylbenzene	mg/kg	0.10	0.452		01/26/96
Tetrachloroethylene	mg/kg	0.10	Х		01/26/96
1,1,2,2-Tetrachloroethane	mg/kg	0.10	Х		01/26/96
Toluene	mg/kg	0.10	Х		01/26/96
1,2,3-Trichlorobenzene	mg/kg	0.10	Х		01/26/96
1,2,4-Trichlorobenzene	mg/kg	0.10	X		01/26/96
1,1,1-Trichloroethane	mg/kg	0.10	Х	SPL	01/26/96
1,1,2-Trichloroethane	mg/kg	0.10	X		01/26/96
Trichloroethylene	mg/kg	0.10	Х		01/26/96
Trichlorofluoromethane	mg/kg	0.10	X	SPL	01/26/96
1,2,4-Trimethylbenzene	mg/kg	0.10	9.89		01/26/96
1,3,5-Trimethylbenzene	mg/kg	0.10	4.10		01/26/96
Vinvl Chloride	mg/kg	0.10	Х	CSL SPL	01/26/96
m- & p-Xvlene	mg/kg	0.10	0.813		01/26/96
o-Xylene & Styrene	mg/kg	0.10	0.437	CSL	01/26/96

Analytical No.:

58948

Mid-State Associates 1835 N. Stevens Street P.O. Box 1026 Rhinelander, WI 54501

Attn: John Sager

	Units	Reporting Limit	GP-1 10-12' 01/17/96	Qualifier	Date S Analyzed
				Vadizziici	<u>Anaryzeu</u>
EPA 160.3					
Total Solids	8	-	80.98		01/22/96
EPA 6010					
Lead	mg/kg	6.2	х		01/23/96
EPA 8021					
Benzene	ma/ka	0.025	x		01/26/96
Bromobenzene	mg/kg	0.025	x		01/26/96
Bromodichloromethane	mg/kg	0.025	x		01/26/96
n-Butvlbenzene	mg/kg	0.025	X		01/26/96
sec-Butvlbenzene	mg/kg	0.025	x		01/26/96
tert-Butvlbenzene	mg/kg	0.025	х		01/26/96
Carbon Tetrachloride	mg/kg	0.025	Х		01/26/96
Chlorobenzene	mg/kg	0.025	Х		01/26/96
Chlorodibromomethane	mg/kg	0.025	х		01/26/96
Chloroethane	mg/kg	0.025	Х	CSL SPL	01/26/96
Chloroform	mg/kg	0.025	Х		01/26/96
Chloromethane	mg/kg	0.025	Х	CSL SPL	DUP01/26/96
o-Chlorotoluene	mg/kg	0.025	Х		01/26/96
p-Chlorotoluene	mg/kg	0.025	Х		01/26/96
1,2-Dibromo-3-chloropropane	mg/kg	0.025	Х		01/26/96
1,2-Dibromoethane	mg/kg	0.025	Х		01/26/96
1,2-Dichlorobenzene	mg/kg	0.025	Х		01/26/96
1,3-Dichlorobenzene	mg/kg	0.025	Х		01/26/96
1,4-Dichlorobenzene	mg/kg	0.025	Х		01/26/96
Dichlorodifluoromethane	mg/kg	0.025	х	CSL SPL	01/26/96
1,1-Dichloroethane	mg/kg	0.025	х		01/26/96
1,2-Dichloroethane	mg/kg	0.025	Х		01/26/96
1,1-Dichloroethylene	mg/kg	0.025	x	SPL	01/26/96
cis-1,2-Dichloroethylene	mg/kg	0.025	Х		01/26/96
trans-1,2-Dichloroethylene	mg/kg	0.025	Х	SPL	01/26/96
1,2-Dichloropropane	mg/kg	0.025	Х		01/26/96
1,3-Dichloropropane	mg/kg	0.025	X		01/26/96
2,2-Dichloropropane	mg/kg	0.025	Х	SPL	01/26/96
Ethylbenzene	mg/kg	0.025	x		01/26/96
Hexachlorobutadiene	mg/kg	0.025	Х		01/26/96
Isopropylbenzene	mg/kg	0.025	Х		01/26/96
Isopropyl Ether	mg/kg	0.025	Х		01/26/96
p-Isopropyltoluene	mg/kg	0.025	х		01/26/96
Methyl tert Butyl Ether	mg/kg	0.025	х	CSL SPL	01/26/96
Methylene Chloride	mg/kg	0.025	X	SPL	01/26/96
Naphthalene	mg/kg	0.025	Х		01/26/96

Analytical No.:

58949

CUST NUMBER: 212365

SAMPLED BY: Client

REVIEWED BY:

DATE REC'D: 01/19/96

REPORT DATE: 02/01/96 PREPARED BY: LMP Jr?

X = Analyzed but not detected. Results calculated on a dry weight basis.

In analyses conducted in accordance with Enviroscan Quality Assurance Program.

Mid-State Associates 1835 N. Stevens Street P.O. Box 1026 Rhinelander, WI 54501

Attn: John Sager

1

CUST NUMBER:	212365
SAMPLED BY:	Client
DATE REC'D:	01/19/96
REPORT DATE:	02/01/96
PREPARED BY:	LMP 2n?
REVIEWED BY:	qu
	7 -

-	Units	Reporting Limit	GP-1 10-12' 01/17/96	Qualifiers	Date <u>Analyzed</u>
n-Propylbenzene	mg/kg	0.025	x		01/26/96
Tetrachloroethylene	mg/kg	0.025	x		01/26/96
1,1,2,2-Tetrachloroethane	mg/kg	0.025	Х		01/26/96
Toluene	mg/kg	0.025	x		01/26/96
1,2,3-Trichlorobenzene	mg/kg	0.025	Х		01/26/96
1,2,4-Trichlorobenzene	mg/kg	0.025	х		01/26/96
1,1,1-Trichloroethane	mg/kg	0.025	x	SPL	01/26/96
1,1,2-Trichloroethane	mg/kg	0.025	Х		01/26/96
Trichloroethylene	mg/kg	0.025	Х		01/26/96
Trichlorofluoromethane	mg/kg	0.025	Х	SPL	01/26/96
1,2,4-Trimethylbenzene	mg/kg	0.025	Х		01/26/96
1,3,5-Trimethylbenzene	mg/kg	0.025	x		01/26/96
Vinyl Chloride	mg/kg	0.025	Х	CSL SPL	01/26/96
m- & p-Xylene	mg/kg	0.025	Х		01/26/96
o-Xylene & Styrene	mg/kg	0.025	0.0494	CSL MB	01/26/96

Analytical No.:

58949

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CUST NUMBER: 212365 SAMPLED BY: Client DATE REC'D: 01/19/96 REPORT DATE: 02/01/96 PREPARED BY: LMP Jrd REVIEWED BY: Ju

Attn: John Sager

and an included

		Reporting	GP-2 10-12'		Date
	Jnits	<u>Limit</u>	01/17/96	<u>Qualifie</u>	<u>rs Analyzed</u>
EPA 160.3	0		04 70		
Total Solids	5	-	84.30		01/22/96
EPA_6010_					
Lead	mg/kg	5.9	x		01/23/96
EPA 8021					
Benzene	mg/kg	0.026	х		01/26/96
Bromobenzene	mg/kg	0.026	Х		01/26/96
Bromodichloromethane	mg/kg	0.026	Х		01/26/96
n-Butvlbenzene	mg/kg	0.026	х		01/26/96
sec-Butvlbenzene	ma/ka	0.026	х		01/26/96
tert-Butvlbenzene	ma/ka	0.026	х		01/26/96
Carbon Tetrachloride	ma/ka	0.026	x		01/26/96
Chlorobenzene	ma/ka	0.026	x		01/26/96
Chlorodibromomethane	mg/kg	0.026	x		01/26/96
Chloroethane	ma/ka	0.026	x	CSL SPL	01/26/96
Chloroform	mg/kg	0.026	x		01/26/96
Chloromethane	ma/ka	0.026	x	CSL SPL	DUP01/26/96
o-Chlorotoluene	ma/ka	0.026	x		01/26/96
p-Chlorotoluene	ma/ka	0.026	x		01/26/96
1.2-Dibromo-3-chloropropane	ma/ka	0.026	X		01/26/96
1.2-Dibromoethane	ma/ka	0.026	x		01/26/96
1.2-Dichlorobenzene	ma/ka	0.026	X		01/26/96
1.3-Dichlorobenzene	ma/ka	0.026	х		01/26/96
1.4-Dichlorobenzene	mg/kg	0.026	x		01/26/96
Dichlorodifluoromethane	ma/ka	0.026	x	CSL SPL	01/26/96
1,1-Dichloroethane	mg/kg	0.026	х		01/26/96
1,2-Dichloroethane	mg/kg	0.026	х		01/26/96
1,1-Dichloroethvlene	mg/kg	0.026	х	SPL	01/26/96
cis-1,2-Dichloroethylene	mg/kg	0.026	х		01/26/96
trans-1,2-Dichloroethylene	ma/ka	0.026	х	SPL	01/26/96
1.2-Dichloropropane	ma/ka	0.026	х		01/26/96
1.3-Dichloropropane	ma/ka	0.026	х		01/26/96
2,2-Dichloropropane	ma/ka	0.026	x	SPL	01/26/96
Ethylbenzene	mg/kg	0.026	x		01/26/96
Hexachlorobutadiene	mg/kg	0.026	x		01/26/96
Tsopropylbenzene	mg/kg	0.026	x		01/26/96
Isopropyl Ether	mg/kg	0.026	x		01/26/96
n-Isopropyltoluene	mg/kg	0.026	x		01/26/96
Methyl tert Butyl Ether	ma/ka	0.026	x	CSL SPL	01/26/96
Methylene Chloride	mg/kg	0.026	x	SPL	01/26/96
Naphthalene	ma/ka	0.026	x		01/26/96
	·····				

Analytical No.:

58950

X = Analyzed but not detected. Results calculated on a dry weight basis.

ICAL REPOR

CUST NUMBER: 212365 SAMPLED BY: Client DATE REC'D: 01/19/96 REPORT DATE: 02/01/96 PREPARED BY: LMP/m? REVIEWED BY:

Attn: John Sager

		Reporting	GP-2 10-12'		Date
	Units	Limit	01/17/96	<u>Qualifiers</u>	<u>Analyzed</u>
_					
n-Propylbenzene	mg/kg	0.026	Х		01/26/96
Tetrachloroethylene	mg/kg	0.026	x		01/26/96
1,1,2,2-Tetrachloroethane	mg/kg	0.026	х		01/26/96
Toluene	mg/kg	0.026	Х		01/26/96
1,2,3-Trichlorobenzene	mg/kg	0.026	X		01/26/96
1,2,4-Trichlorobenzene	mg/kg	0.026	x		01/26/96
1,1,1-Trichloroethane	mg/kg	0.026	X	SPL	01/26/96
1,1,2-Trichloroethane	mg/kg	0.026	x		01/26/96
Trichloroethylene	mg/kg	0.026	Х		01/26/96
Trichlorofluoromethane	mg/kg	0.026	X	SPL	01/26/96
1,2,4-Trimethylbenzene	mg/kg	0.026	X		01/26/96
1,3,5-Trimethylbenzene	mg/kg	0.026	X		01/26/96
Vinyl Chloride	mg/kg	0.026	x	CSL SPL	01/26/96
m- & p-Xylene	mg/kg	0.026	Х		01/26/96
o-Xylene & Styrene	mg/kg	0.026	0.0546	CSL MB	01/26/96

Analytical No.:

58950

NALAYINGAL REPORT

Mid-State Associates 1835 N. Stevens Street P.O. Box 1026 Rhinelander, WI 54501

Attn: John Sager

t.

والمتحد فالتعادينات

CUST NUMBER:	212365
SAMPLED BY:	Client
DATE REC'D:	01/19/96
REPORT DATE:	02/01/96
PREPARED BY:	LMP In
REVIEWED BY:	AN .
	// <u></u>

EPA 160.3 Total Solids % - 85.00 01/22/96 EPA 6010 Lead mg/kg 5.9 X 01/23/96 EPA 6021 Benzene mg/kg 0.026 X 01/26/96 Bromobenzene mg/kg 0.026 X 01/26/96 r-Butylbenzene mg/kg 0.026 X 01/26/96 Carbon Tetrachloride mg/kg 0.026 X 01/26/96 Chlorobenzene mg/kg 0.026 X 01/26/96 1,2-Dichorobenzene mg/		<u>Units</u>	Reporting Limit	GP-3 2-4' 01/17/96	<u>Quali</u>	fier	Date <u>s Analyzed</u>
Total Solids * - \$5.00 01/22/96 EPA 6010 Lead mg/kg 5.9 X 01/23/96 EPA 6021 Benzene mg/kg 0.026 X 01/26/96 Bromobenzene mg/kg 0.026 X 01/26/96 Bromodichloromethane mg/kg 0.026 X 01/26/96 n-Butylbenzene mg/kg 0.026 X 01/26/96 sec-Butylbenzene mg/kg 0.026 X 01/26/96 Chlorobenzene mg/kg 0.026 X 01/26/96 1,2-Dibromoethane	EPA 160.3						
EPA 6010 Lead mg/kg 5.9 X 01/23/96 EPA 8021 Benzene mg/kg 0.026 X 01/26/96 Bromobenzene mg/kg 0.026 X 01/26/96 sec-Butylbenzene mg/kg 0.026 X 01/26/96 Carbon Tetrachloride mg/kg 0.026 X 01/26/96 Chlorobenzene mg/kg 0.026 X 01/26/96 Chlorobenzene mg/kg 0.026 X 01/26/96 Chlorobthromomethane mg/kg 0.026 X 01/26/96 Chlorobtoluene mg/kg 0.026 X 01/26/96 Chlorobtoluene mg/kg 0.026 X 01/26/96 1,2-Dibromoethane mg/kg 0.026 X 01/26/96 1,2-Dichlorobenzene	Total Solids	99	-	85.00			01/22/96
Lead mg/kg 5.9 X 01/23/96 EPA 8021 Benzene mg/kg 0.026 X 01/26/96 Bromobenzene mg/kg 0.026 X 01/26/96 Bromobenzene mg/kg 0.026 X 01/26/96 Bromodichloromethane mg/kg 0.026 X 01/26/96 sec-Butylbenzene mg/kg 0.026 X 01/26/96 Carbon Tetrachloride mg/kg 0.026 X 01/26/96 Chlorobenzene mg/kg 0.026 X 01/26/96 Chlorobenzene mg/kg 0.026 X 01/26/96 Chlorobenzene mg/kg 0.026 X 01/26/96 Chlorobrom mg/kg 0.026 X 01/26/96 Chlorobruene mg/kg 0.026 X 01/26/96 Chlorobruene mg/kg 0.026 X 01/26/96 1,2-Dibromo-3-chloropropane mg/kg 0.026 X 01/26/96 1,2-Dichlorobenz	EPA 6010						
EPA 8021 Benzene mg/kg 0.026 X 01/26/96 Bromobenzene mg/kg 0.026 X 01/26/96 Bromodichloromethane mg/kg 0.026 X 01/26/96 n-Butylbenzene mg/kg 0.026 X 01/26/96 sec-Butylbenzene mg/kg 0.026 X 01/26/96 Carbon Tetrachloride mg/kg 0.026 X 01/26/96 Chlorobenzene mg/kg 0.026 X 01/26/96 Chlorobutene mg/kg 0.026 X 01/26/96 Chlorobutene mg/kg 0.026 X 01/26/96 1,2-Dibromo-3-chloropropane mg/kg 0.026 X 01/26/96 1,2-Dibromo-3-chloropropane mg/kg 0.026 X 01/26/96 <td>Lead</td> <td>mg/kg</td> <td>5.9</td> <td>x</td> <td></td> <td></td> <td>01/23/96</td>	Lead	mg/kg	5.9	x			01/23/96
Benzene mg/kg 0.026 X 01/26/96 Bromodenzene mg/kg 0.026 X 01/26/96 Bromodichloromethane mg/kg 0.026 X 01/26/96 n=Butylbenzene mg/kg 0.026 X 01/26/96 sec-Butylbenzene mg/kg 0.026 X 01/26/96 Carbon Tetrachloride mg/kg 0.026 X 01/26/96 Chlorobenzene mg/kg 0.026 X 01/26/96 Chlorodibromomethane mg/kg 0.026 X 01/26/96 Chlorobenzene mg/kg 0.026 X 01/26/96 cl.2-Dibromo-3-chloropropane <td>EPA_8021</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>	EPA_8021						
Bromobenzene mg/kg 0.026 X 01/26/96 Bromodichloromethane mg/kg 0.026 X 01/26/96 n-Butylbenzene mg/kg 0.026 X 01/26/96 sec-Butylbenzene mg/kg 0.026 X 01/26/96 carbon Tetrachloride mg/kg 0.026 X 01/26/96 Chlorobenzene mg/kg 0.026 X 01/26/96 1,2-Dibromo-3-chloropropane mg/kg 0.026 X 01/26/96 1,2-Dibromo-3-chloropropane mg/kg 0.026 X 01/26/96 1,2-Dichlorobenzene mg/kg 0.026 X 01/26/96 <t< td=""><td>Benzene</td><td>ma/ka</td><td>0.026</td><td>Х</td><td></td><td></td><td>01/26/96</td></t<>	Benzene	ma/ka	0.026	Х			01/26/96
Bromodichloromethane mg/kg 0.026 X 01/26/96 n-Butylbenzene mg/kg 0.026 X 01/26/96 sec-Butylbenzene mg/kg 0.026 X 01/26/96 carbon Tetrachloride mg/kg 0.026 X 01/26/96 Carbon Tetrachloride mg/kg 0.026 X 01/26/96 Chlorobenzene mg/kg 0.026 X 01/26/96 Chlorobethane mg/kg 0.026 X 01/26/96 Chlorotothuene mg/kg 0.026 X 01/26/96 1,2-Dibromo-3-chloropropane mg/kg 0.026 X 01/26/96 1,2-Dibrlorobenzene mg/kg 0.026 X 01/26/96 1,2-Dichlorobenzene mg/kg 0.026 X 01/26/96 1,1-Dichlorobenzene mg/kg 0.026 X 01/26/96	Bromobenzene	ma/ka	0.026	х			01/26/96
n-Butylbenzene mg/kg 0.026 X 01/26/96 sec-Butylbenzene mg/kg 0.026 X 01/26/96 cert-Butylbenzene mg/kg 0.026 X 01/26/96 Carbon Tetrachloride mg/kg 0.026 X 01/26/96 Carbon Tetrachloride mg/kg 0.026 X 01/26/96 Chlorobersene mg/kg 0.026 X 01/26/96 Chlorodibromomethane mg/kg 0.026 X 01/26/96 Chlorobethane mg/kg 0.026 X 01/26/96 Chlorobethane mg/kg 0.026 X 01/26/96 Chlorobuene mg/kg 0.026 X 01/26/96 1,2-Dibromo-3-chloropropane mg/kg 0.026 X 01/26/96 1,2-Dibromo-3-chloropropane mg/kg 0.026 X 01/26/96 1,2-Dibromo-3-chloropergane mg/kg 0.026 X 01/26/96 1,2-Dibromobarzene mg/kg 0.026 X 01/26/96 1,3-Dichlorobenzene mg/kg 0.026 X 01/26/96	Bromodichloromethane	ma/ka	0.026	x			01/26/96
sec-Butylbenzene mg/kg 0.026 X 01/26/96 tert-Butylbenzene mg/kg 0.026 X 01/26/96 Carbon Tetrachloride mg/kg 0.026 X 01/26/96 Chlorobenzene mg/kg 0.026 X 01/26/96 Chlorobenzene mg/kg 0.026 X 01/26/96 Chlorobethane mg/kg 0.026 X CSL SPL 01/26/96 Chlorobethane mg/kg 0.026 X 01/26/96 Chlorobethane mg/kg 0.026 X 01/26/96 o-Chlorotoluene mg/kg 0.026 X 01/26/96 1,2-Dibromo-3-chloropropane mg/kg 0.026 X 01/26/96 1,2-Dibromo-3-chloropropane mg/kg 0.026 X 01/26/96 1,2-Dibromo-3-chloropropane mg/kg 0.026 X 01/26/96 1,2-Dichlorobenzene mg/kg 0.026 X 01/26/96 1,3-Dichlorobenzene mg/kg 0.026 X 01/26/96	n-Butvlbenzene	ma/ka	0.026	x			01/26/96
tert-Butylbenzene mg/kg 0.026 X 01/26/96 Carbon Tetrachloride mg/kg 0.026 X 01/26/96 Chlorobenzene mg/kg 0.026 X 01/26/96 Chlorobenzene mg/kg 0.026 X 01/26/96 Chlorobetane mg/kg 0.026 X 01/26/96 Chlorotothane mg/kg 0.026 X 01/26/96 Chlorotoluene mg/kg 0.026 X 01/26/96 o-Chlorotoluene mg/kg 0.026 X 01/26/96 p-Chlorotoluene mg/kg 0.026 X 01/26/96 1,2-Dibromo-3-chloropropane mg/kg 0.026 X 01/26/96 1,2-Dibromo-3-chloropropane mg/kg 0.026 X 01/26/96 1,2-Dichlorobenzene mg/kg 0.026 X 01/26/96 1,2-Dichlorobenzene mg/kg 0.026 X 01/26/96 1,4-Dichlorobenzene mg/kg 0.026 X 01/26/96 1,1-Dichloroethane mg/kg 0.026 X 01/26/96	sec-Butylbenzene	ma/ka	0.026	x			01/26/96
Carbon Tetrachloride mg/kg 0.026 X 01/26/96 Chlorobenzene mg/kg 0.026 X 01/26/96 Chlorodibromomethane mg/kg 0.026 X 01/26/96 Chlorodibromomethane mg/kg 0.026 X 01/26/96 Chloroform mg/kg 0.026 X CSL SPL 01/26/96 Chlorotoluene mg/kg 0.026 X CSL SPL 01/26/96 p-Chlorotoluene mg/kg 0.026 X 01/26/96 1, 2-Dibromo-3-chloropropane mg/kg 0.026 X 01/26/96 1, 2-Dichlorobenzene mg/kg 0.026 X 01/26/96 1, 2-Dichlorobenzene mg/kg 0.026 X 01/26/96 1, 4-Dichlorobenzene mg/kg 0.026 X 01/26/96 1, 1-Dichloroethane mg/kg 0.026 X 01/26/96 1, 1-Dichloroethane mg/kg 0.026 X 01/26/96 1, 1-Dichloroethane mg/kg 0.026 X 01/26/96 1, 2-Dichloropethylene mg/kg 0.	tert-Butvlbenzene	ma/ka	0.026	x			01/26/96
Chlorobenzene mg/kg 0.026 X 01/26/96 Chlorodibromomethane mg/kg 0.026 X CSL SPL 01/26/96 Chlorodibromomethane mg/kg 0.026 X CSL SPL 01/26/96 Chlorodthane mg/kg 0.026 X CSL SPL 01/26/96 Chloromethane mg/kg 0.026 X 01/26/96 o-Chlorotoluene mg/kg 0.026 X 01/26/96 p-Chlorotoluene mg/kg 0.026 X 01/26/96 1,2-Dibromo-3-chloropropane mg/kg 0.026 X 01/26/96 1,2-Dibromoethane mg/kg 0.026 X 01/26/96 1,2-Dibromoethane mg/kg 0.026 X 01/26/96 1,2-Dichlorobenzene mg/kg 0.026 X 01/26/96 1,1-Dichlorobenzene mg/kg 0.026 X 01/26/96 1,1-Dichlorobethane mg/kg 0.026 X 01/26/96 1,2-Dichlorobethylene mg/kg 0.026 X 01/26/96 1,2-Dichloropthylene mg/kg	Carbon Tetrachloride	ma/ka	0.026	x			01/26/96
Chlorodibromomethanemg/kg0.026X01/26/96Chloroethanemg/kg0.026XCSL SPL01/26/96Chloroethanemg/kg0.026XCSL SPL01/26/96Chloromethanemg/kg0.026XCSL SPLDUP01/26/96o-Chlorotoluenemg/kg0.026X01/26/96j.2-Dibromo-3-chloropropanemg/kg0.026X01/26/96j.2-Dibromo-3-chloropropanemg/kg0.026X01/26/96j.2-Dibromoethanemg/kg0.026X01/26/96j.3-Dichlorobenzenemg/kg0.026X01/26/96j.4-Dichlorobenzenemg/kg0.026X01/26/96j.4-Dichlorobenzenemg/kg0.026X01/26/96j.1-Dichloroethanemg/kg0.026X01/26/96j.1-Dichloroethanemg/kg0.026X01/26/96j.1-Dichloroethanemg/kg0.026X01/26/96j.3-Dichloroethylenemg/kg0.026X01/26/96j.3-Dichloroethylenemg/kg0.026X01/26/96j.3-Dichloroethylenemg/kg0.026X01/26/96j.3-Dichloropropanemg/kg0.026X01/26/96j.3-Dichloropropanemg/kg0.026X01/26/96j.3-Dichloropropanemg/kg0.026X01/26/96j.3-Dichloropropanemg/kg0.026X01/26/96j.3-Dichloropropanemg/kg0.026	Chlorobenzene	mg/kg	0.026	x			01/26/96
Chloroethane mg/kg 0.026 X CSL SPL 01/26/96 Chloroform mg/kg 0.026 X CSL SPL 01/26/96 Chlorotoluene mg/kg 0.026 X CSL SPL 01/26/96 p-Chlorotoluene mg/kg 0.026 X 01/26/96 1,2-Dibromo-3-chloropropane mg/kg 0.026 X 01/26/96 1,2-Dibromo-3-chloropropane mg/kg 0.026 X 01/26/96 1,2-Dibromoethane mg/kg 0.026 X 01/26/96 1,2-Dichlorobenzene mg/kg 0.026 X 01/26/96 1,4-Dichlorobenzene mg/kg 0.026 X 01/26/96 1,1-Dichlorobenzene mg/kg 0.026 X 01/26/96 1,1-Dichloroethane mg/kg 0.026 X 01/26/96 1,2-Dichloroethane mg/kg 0.026 X 01/26/96 1,2-Dichloroethylene mg/kg 0.026 X 01/26/96 1,2-Dichloroethylene mg/kg 0.026 X 01/26/96 1,2-Dichloropropane mg/kg	Chlorodibromomethane	ma/ka	0.026	x			01/26/96
Chloroform mg/kg 0.026 X 01/26/96 Chloromethane mg/kg 0.026 X CSL SPL DUP01/26/96 o-Chlorotoluene mg/kg 0.026 X 01/26/96 p-Chlorotoluene mg/kg 0.026 X 01/26/96 1,2-Dibromo-3-chloropropane mg/kg 0.026 X 01/26/96 1,2-Dibromo-3-chloropropane mg/kg 0.026 X 01/26/96 1,2-Dichlorobenzene mg/kg 0.026 X 01/26/96 1,3-Dichlorobenzene mg/kg 0.026 X 01/26/96 1,4-Dichlorobenzene mg/kg 0.026 X 01/26/96 1,1-Dichloroethane mg/kg 0.026 X 01/26/96 1,1-Dichloroethane mg/kg 0.026 X 01/26/96 1,1-Dichloroethylene mg/kg 0.026 X 01/26/96 1,2-Dichloroethylene mg/kg 0.026 X 01/26/96 1,3-Dichloroptylene mg/kg 0.026 X 01/26/96 1,3-Dichloropropane mg/kg 0.026 X <td< td=""><td>Chloroethane</td><td>mg/kg</td><td>0.026</td><td>x</td><td>CSL</td><td>SPL</td><td>01/26/96</td></td<>	Chloroethane	mg/kg	0.026	x	CSL	SPL	01/26/96
Chloromethanemg/kg0.026XCSL SPL DUP01/26/96o-Chlorotoluenemg/kg0.026X01/26/96p-Chlorotoluenemg/kg0.026X01/26/961,2-Dibromo-3-chloropropanemg/kg0.026X01/26/961,2-Dibromoethanemg/kg0.026X01/26/961,2-Dichlorobenzenemg/kg0.026X01/26/961,4-Dichlorobenzenemg/kg0.026X01/26/961,4-Dichlorobenzenemg/kg0.026X01/26/961,1-Dichloroethanemg/kg0.026X01/26/961,1-Dichloroethanemg/kg0.026X01/26/961,1-Dichloroethanemg/kg0.026X01/26/961,1-Dichloroethylenemg/kg0.026X01/26/961,2-Dichloroethylenemg/kg0.026X01/26/961,2-Dichloroethylenemg/kg0.026X01/26/961,2-Dichloropropanemg/kg0.026X01/26/961,3-Dichloropropanemg/kg0.026X01/26/961,3-Dichloropropanemg/kg0.026X01/26/961,3-Dichloropropanemg/kg0.026X01/26/961,3-Dichloropropanemg/kg0.026X01/26/961,3-Dichloropropanemg/kg0.026X01/26/961,2-Dichloropropanemg/kg0.026X01/26/961,2-Dichloropropanemg/kg0.026X01/26/961,2	Chloroform	ma/ka	0.026	x			01/26/96
o-Chlorotoluene mg/kg 0.026 X 01/26/96 p-Chlorotoluene mg/kg 0.026 X 01/26/96 1,2-Dibromo-3-chloropropane mg/kg 0.026 X 01/26/96 1,2-Dibromoethane mg/kg 0.026 X 01/26/96 1,2-Dichlorobenzene mg/kg 0.026 X 01/26/96 1,3-Dichlorobenzene mg/kg 0.026 X 01/26/96 1,4-Dichlorobenzene mg/kg 0.026 X 01/26/96 1,1-Dichloroethane mg/kg 0.026 X 01/26/96 1,2-Dichloroethane mg/kg 0.026 X 01/26/96 1,2-Dichloroethane mg/kg 0.026 X 01/26/96 1,1-Dichloroethane mg/kg 0.026 X 01/26/96 1,2-Dichloroethane mg/kg 0.026 X 01/26/96 1,2-Dichloroethylene mg/kg 0.026 X 01/26/96 1,2-Dichloropropane mg/kg 0.026 X 01/26/96 Hexachlorobutadiene mg/k	Chloromethane	ma/ka	0.026	x	CSL	SPL	DUP01/26/96
p-Chlorotoluenemg/kg0.026X01/26/961,2-Dibromo-3-chloropropanemg/kg0.026X01/26/961,2-Dibromoethanemg/kg0.026X01/26/961,2-Dichlorobenzenemg/kg0.026X01/26/961,3-Dichlorobenzenemg/kg0.026X01/26/961,4-Dichlorobenzenemg/kg0.026X01/26/961,4-Dichlorobenzenemg/kg0.026X01/26/961,1-Dichloroethanemg/kg0.026X01/26/961,2-Dichloroethanemg/kg0.026X01/26/961,1-Dichloroethanemg/kg0.026X01/26/961,2-Dichloroethylenemg/kg0.026X01/26/961,2-Dichloroethylenemg/kg0.026X01/26/961,3-Dichloropropanemg/kg0.026X01/26/961,2-Dichloroptopanemg/kg0.026X01/26/961,3-Dichloropropanemg/kg0.026X01/26/961,3-Dichloropropanemg/kg0.026X01/26/961,3-Dichloropropanemg/kg0.026X01/26/961,3-Dichloropropanemg/kg0.026X01/26/961,3-Dichloropropanemg/kg0.026X01/26/961,3-Dichloropropanemg/kg0.026X01/26/961,3-Dichloropropanemg/kg0.026X01/26/961,3-Dichloropropanemg/kg0.026X01/26/961,3-D	o-Chlorotoluene	ma/ka	0.026	x		-	01/26/96
1,2-Dibromo-3-chloropropane mg/kg0.026X01/26/961,2-Dibromoethanemg/kg0.026X01/26/961,2-Dichlorobenzenemg/kg0.026X01/26/961,3-Dichlorobenzenemg/kg0.026X01/26/961,4-Dichlorobenzenemg/kg0.026X01/26/96Dichlorodifluoromethanemg/kg0.026X01/26/961,1-Dichloroethanemg/kg0.026X01/26/961,2-Dichloroethanemg/kg0.026X01/26/961,1-Dichloroethylenemg/kg0.026X01/26/961,2-Dichloroethylenemg/kg0.026X01/26/961,2-Dichloroethylenemg/kg0.026X01/26/961,2-Dichloroethylenemg/kg0.026X01/26/961,2-Dichloropropanemg/kg0.026X01/26/961,2-Dichloropropanemg/kg0.026X01/26/961,3-Dichloropropanemg/kg0.026X01/26/961,2-Dichloropropanemg/kg0.026X01/26/961,2-Dichloropropanemg/kg0.026X01/26/961,3-Dichloropropanemg/kg0.026X01/26/961,2-Dichloropropanemg/kg0.026X01/26/961,2-Dichloropropanemg/kg0.026X01/26/961,2-Dichloropropanemg/kg0.026X01/26/961,2-Dichloropropanemg/kg0.026X01/26/961,	p-Chlorotoluene	mg/kg	0.026	x			01/26/96
1,2-Dibromoethanemg/kg0.026X01/26/961,2-Dichlorobenzenemg/kg0.026X01/26/961,3-Dichlorobenzenemg/kg0.026X01/26/961,4-Dichlorobenzenemg/kg0.026X01/26/961,4-Dichlorobenzenemg/kg0.026X01/26/961,1-Dichloroethanemg/kg0.026X01/26/961,2-Dichloroethanemg/kg0.026X01/26/961,2-Dichloroethanemg/kg0.026X01/26/961,1-Dichloroethylenemg/kg0.026X01/26/961,2-Dichloroethylenemg/kg0.026X01/26/961,2-Dichloroethylenemg/kg0.026X01/26/961,2-Dichloropropanemg/kg0.026X01/26/961,3-Dichloropropanemg/kg0.026X01/26/962,2-Dichloropropanemg/kg0.026X01/26/962,2-Dichloropropanemg/kg0.026X01/26/96Ethylbenzenemg/kg0.026X01/26/96Isopropylbenzenemg/kg0.026X01/26/96Isopropyl Ethermg/kg0.026X01/26/96Methyl tert Butyl Ethermg/kg0.026X01/26/96Methyl tert Butyl Ethermg/kg0.026X01/26/96Methylene Chloridemg/kg0.026X01/26/96	1.2-Dibromo-3-chloropropane	mg/kg	0.026	x			01/26/96
1,2-Dichlorobenzene mg/kg 0.026 X 01/26/96 1,3-Dichlorobenzene mg/kg 0.026 X 01/26/96 1,4-Dichlorobenzene mg/kg 0.026 X 01/26/96 Dichlorodifluoromethane mg/kg 0.026 X 01/26/96 1,1-Dichloroethane mg/kg 0.026 X 01/26/96 1,2-Dichloroethane mg/kg 0.026 X 01/26/96 1,1-Dichloroethane mg/kg 0.026 X 01/26/96 1,1-Dichloroethylene mg/kg 0.026 X 01/26/96 1,1-Dichloroethylene mg/kg 0.026 X 01/26/96 1,2-Dichloroethylene mg/kg 0.026 X 01/26/96 1,2-Dichloropropane mg/kg 0.026 X 01/26/96 1,3-Dichloropropane mg/kg 0.026 X 01/26/96 1,3-Dichloropropane mg/kg 0.026 X 01/26/96 2,2-Dichloropropane mg/kg 0.026 X 01/26/96 1,3-Dichloroptopane mg/kg 0.026 X <td< td=""><td>1,2-Dibromoethane</td><td>ma/ka</td><td>0.026</td><td>X</td><td></td><td></td><td>01/26/96</td></td<>	1,2-Dibromoethane	ma/ka	0.026	X			01/26/96
1,3-Dichlorobenzenemg/kg0.026X01/26/961,4-Dichlorobenzenemg/kg0.026X01/26/96Dichlorodifluoromethanemg/kg0.026XCSL SPL01/26/961,1-Dichloroethanemg/kg0.026X01/26/961,2-Dichloroethanemg/kg0.026X01/26/961,1-Dichloroethylenemg/kg0.026X01/26/961,1-Dichloroethylenemg/kg0.026X01/26/961,2-Dichloroethylenemg/kg0.026X01/26/961,2-Dichloroethylenemg/kg0.026X01/26/961,2-Dichloropropanemg/kg0.026X01/26/961,3-Dichloropropanemg/kg0.026X01/26/961,3-Dichloropropanemg/kg0.026X01/26/962,2-Dichloropropanemg/kg0.026X01/26/961,3-Dichloropropanemg/kg0.026X01/26/962,2-Dichloropropanemg/kg0.026X01/26/96Ethylbenzenemg/kg0.026X01/26/96Isopropylbenzenemg/kg0.026X01/26/96Isopropyl Ethermg/kg0.026X01/26/96P-Isopropyltoluenemg/kg0.026X01/26/96Methyl tert Butyl Ethermg/kg0.026XSPL01/26/96Methylene Chloridemg/kg0.026XSPL01/26/96	1,2-Dichlorobenzene	mg/kg	0.026	х			01/26/96
1,4-Dichlorobenzenemg/kg0.026X01/26/96Dichlorodifluoromethanemg/kg0.026XCSL SPL01/26/961,1-Dichloroethanemg/kg0.026X01/26/961,2-Dichloroethanemg/kg0.026X01/26/961,1-Dichloroethylenemg/kg0.026X01/26/961,1-Dichloroethylenemg/kg0.026X01/26/961,2-Dichloroethylenemg/kg0.026X01/26/961,2-Dichloroethylenemg/kg0.026X01/26/961,2-Dichloropropanemg/kg0.026X01/26/961,3-Dichloropropanemg/kg0.026X01/26/962,2-Dichloropropanemg/kg0.026X01/26/962,2-Dichloropropanemg/kg0.026X01/26/96Ethylbenzenemg/kg0.026X01/26/96Isopropylbenzenemg/kg0.026X01/26/96Isopropyl Ethermg/kg0.026X01/26/96p-Isopropyltoluenemg/kg0.026X01/26/96Methyl tert Butyl Ethermg/kg0.026X01/26/96Methylene Chloridemg/kg0.026XSPL01/26/96Methylene Chloridemg/kg0.026XSPL01/26/96	1,3-Dichlorobenzene	mg/kg	0.026	x			01/26/96
Dichlorodifluoromethanemg/kg0.026XCSL SPL01/26/961,1-Dichloroethanemg/kg0.026X01/26/961,2-Dichloroethanemg/kg0.026X01/26/961,1-Dichloroethylenemg/kg0.026XSPL01/26/961,2-Dichloroethylenemg/kg0.026X01/26/96trans-1,2-Dichloroethylenemg/kg0.026XSPL01/26/961,2-Dichloropropanemg/kg0.026X01/26/961,3-Dichloropropanemg/kg0.026X01/26/961,3-Dichloropropanemg/kg0.026X01/26/962,2-Dichloropropanemg/kg0.026X01/26/962,2-Dichloropropanemg/kg0.026X01/26/96Ethylbenzenemg/kg0.026X01/26/96Isopropylbenzenemg/kg0.026X01/26/96Isopropyl Ethermg/kg0.026X01/26/96p-Isopropyltoluenemg/kg0.026X01/26/96Methyl tert Butyl Ethermg/kg0.026X01/26/96MethyleneCSL SPL01/26/9601/26/96MethyleneCSL SPL01/26/9601/26/96	1.4-Dichlorobenzene	ma/ka	0.026	x			01/26/96
1,1-Dichloroethanemg/kg0.026X01/26/961,2-Dichloroethanemg/kg0.026X01/26/961,1-Dichloroethylenemg/kg0.026XSPLcis-1,2-Dichloroethylenemg/kg0.026X01/26/96trans-1,2-Dichloroethylenemg/kg0.026XSPL1,2-Dichloropropanemg/kg0.026X01/26/961,3-Dichloropropanemg/kg0.026X01/26/962,2-Dichloropropanemg/kg0.026X01/26/962,2-Dichloropropanemg/kg0.026X01/26/96Ethylbenzenemg/kg0.026X01/26/96Hexachlorobutadienemg/kg0.026X01/26/96Isopropyl Ethermg/kg0.026X01/26/96p-Isopropyltoluenemg/kg0.026X01/26/96Methyl tert Butyl Ethermg/kg0.026XSPLMethylene Chloridemg/kg0.026XSPLMethyleneChloridemg/kg0.026XSPL01/26/96MethyleneChloridemg/kg0.026XMethyleneChloridemg/kg0.026XSPL01/26/96MethyleneChloridemg/kg0.026XMethyleneChloridemg/kg0.026XSPL01/26/96MethyleneChloridemg/kg0.026X	Dichlorodifluoromethane	ma/ka	0.026	x	CSL	SPL	01/26/96
1,2-Dichloroethanemg/kg0.026X01/26/961,1-Dichloroethylenemg/kg0.026XSPL01/26/96cis-1,2-Dichloroethylenemg/kg0.026X01/26/96trans-1,2-Dichloroethylenemg/kg0.026XSPL01/26/961,2-Dichloropropanemg/kg0.026X01/26/961,3-Dichloropropanemg/kg0.026X01/26/962,2-Dichloropropanemg/kg0.026X01/26/962,2-Dichloropropanemg/kg0.026X01/26/96Ethylbenzenemg/kg0.026X01/26/96Hexachlorobutadienemg/kg0.026X01/26/96Isopropyl Ethermg/kg0.026X01/26/96p-Isopropyltoluenemg/kg0.026X01/26/96Methyl tert Butyl Ethermg/kg0.026X01/26/96Methylene Chloridemg/kg0.026XSPL01/26/96Methylene Chloridemg/kg0.026XSPL01/26/96	1.1-Dichloroethane	mg/kg	0.026	x			01/26/96
1,1-Dichloroethylenemg/kg0.026XSPL01/26/96cis-1,2-Dichloroethylenemg/kg0.026X01/26/96trans-1,2-Dichloroethylenemg/kg0.026XSPL01/26/961,2-Dichloropropanemg/kg0.026X01/26/961,3-Dichloropropanemg/kg0.026X01/26/962,2-Dichloropropanemg/kg0.026X01/26/962,2-Dichloropropanemg/kg0.026X01/26/96Ethylbenzenemg/kg0.026X01/26/96Hexachlorobutadienemg/kg0.026X01/26/96Isopropylbenzenemg/kg0.026X01/26/96Isopropyl Ethermg/kg0.026X01/26/96P-Isopropyltoluenemg/kg0.026X01/26/96Methyl tert Butyl Ethermg/kg0.026X01/26/96Methylene Chloridemg/kg0.026XSPL01/26/96Methylene Chloridemg/kg0.026XSPL01/26/96	1.2-Dichloroethane	ma/ka	0.026	x			01/26/96
cis-1,2-Dichloroethylene mg/kg 0.026 X 01/26/96 trans-1,2-Dichloroethylene mg/kg 0.026 X SPL 01/26/96 1,2-Dichloropropane mg/kg 0.026 X 01/26/96 2,2-Dichloropropane mg/kg 0.026 X 01/26/96 Ethylbenzene mg/kg 0.026 X 01/26/96 Hexachlorobutadiene mg/kg 0.026 X 01/26/96 Isopropylbenzene mg/kg 0.026 X 01/26/96 Isopropyl Ether mg/kg 0.026 X 01/26/96 P-Isopropyltoluene mg/kg 0.026 X 01/26/96 Methyl tert Butyl Ether mg/kg 0.026 X 01/26/96 Methylene Chloride mg/kg 0.026 X SPL 01/26/96	1.1-Dichloroethylene	mg/kg	0.026	x		SPL	01/26/96
trans-1,2-Dichloroethylenemg/kg0.026XSPL01/26/961,2-Dichloropropanemg/kg0.026X01/26/961,3-Dichloropropanemg/kg0.026X01/26/962,2-Dichloropropanemg/kg0.026X01/26/962,2-Dichloropropanemg/kg0.026X01/26/96Ethylbenzenemg/kg0.026X01/26/96Hexachlorobutadienemg/kg0.026X01/26/96Isopropylbenzenemg/kg0.026X01/26/96Isopropyl Ethermg/kg0.026X01/26/96p-Isopropyltoluenemg/kg0.026X01/26/96Methyl tert Butyl Ethermg/kg0.026X01/26/96Methylene Chloridemg/kg0.026XSPL01/26/96Methylene Chloridemg/kg0.026XSPL01/26/96	cis-1.2-Dichloroethylene	mg/kg	0.026	x			01/26/96
1,2-Dichloropropanemg/kg0.026X01/26/961,3-Dichloropropanemg/kg0.026X01/26/962,2-Dichloropropanemg/kg0.026XSPL2,2-Dichloropropanemg/kg0.026X01/26/96Ethylbenzenemg/kg0.026X01/26/96Hexachlorobutadienemg/kg0.026X01/26/96Isopropylbenzenemg/kg0.026X01/26/96Isopropyl Ethermg/kg0.026X01/26/96p-Isopropyltoluenemg/kg0.026X01/26/96Methyl tert Butyl Ethermg/kg0.026XCSL SPLMethylene Chloridemg/kg0.026XSPL01/26/96Methylene Chloridemg/kg0.026XSPL01/26/96Methylene Chloridemg/kg0.026XSPL01/26/96Methylene Chloridemg/kg0.026XSPL01/26/96Methylene Chloridemg/kg0.026XSPL01/26/96Methylene Chloridemg/kg0.026XSPL01/26/96Methylene Chloridemg/kg0.026XSPL01/26/96Methylene Chloridemg/kg0.026XSPL	trans-1.2-Dichloroethylene	ma/ka	0.026	x		SPL	01/26/96
1,3-Dichloropropanemg/kg0.026X01/26/962,2-Dichloropropanemg/kg0.026XSPL01/26/96Ethylbenzenemg/kg0.026X01/26/96Hexachlorobutadienemg/kg0.026X01/26/96Isopropylbenzenemg/kg0.026X01/26/96Isopropyl Ethermg/kg0.026X01/26/96p-Isopropyltoluenemg/kg0.026X01/26/96Methyl tert Butyl Ethermg/kg0.026X01/26/96Methylene Chloridemg/kg0.026XSPL01/26/96Methylene Chloridemg/kg0.026XSPL01/26/96	1 2-Dichloropropane	mg/kg	0.026	x			01/26/96
2,2-Dichloropropanemg/kg0.026XSPL01/26/96Ethylbenzenemg/kg0.026X01/26/96Hexachlorobutadienemg/kg0.026X01/26/96Isopropylbenzenemg/kg0.026X01/26/96Isopropyl Ethermg/kg0.026X01/26/96p-Isopropyltoluenemg/kg0.026X01/26/96Methyl tert Butyl Ethermg/kg0.026X01/26/96Methylene Chloridemg/kg0.026XSPL01/26/96	1.3-Dichloropropane	mg/kg	0.026	x			01/26/96
Ethylbenzenemg/kg0.026X01/26/96Hexachlorobutadienemg/kg0.026X01/26/96Isopropylbenzenemg/kg0.026X01/26/96Isopropyl Ethermg/kg0.026X01/26/96p-Isopropyltoluenemg/kg0.026X01/26/96Methyl tert Butyl Ethermg/kg0.026X01/26/96Methylene Chloridemg/kg0.026XSPL01/26/96	2,2-Dichloropropane	mg/kg	0.026	x		SPL	01/26/96
Hexachlorobutadienemg/kg0.026X01/26/96Isopropylbenzenemg/kg0.026X01/26/96Isopropyl Ethermg/kg0.026X01/26/96p-Isopropyltoluenemg/kg0.026X01/26/96Methyl tert Butyl Ethermg/kg0.026X01/26/96Methylene Chloridemg/kg0.026XSPL01/26/96Methylene Chloridemg/kg0.026XSPL01/26/96Methylene Chloridemg/kg0.026XSPL01/26/96Methylene Chloridemg/kg0.026XSPL01/26/96Methylene Chloridemg/kg0.026XSPL01/26/96Methylene Chloridemg/kg0.026XSPL01/26/96Methylene Chloridemg/kg0.026XSPL01/26/96Methylene Chloridemg/kg0.026XSPL01/26/96Methylene ChlorideMethylene ChlorideSPL01/26/96	Ethylbenzene	mg/kg	0 026	x			01/26/96
Isopropylbenzenemg/kg0.026X01/26/96Isopropyl Ethermg/kg0.026X01/26/96p-Isopropyltoluenemg/kg0.026X01/26/96Methyl tert Butyl Ethermg/kg0.026X01/26/96Methylene Chloridemg/kg0.026XSPL01/26/960.026XSPL01/26/96	Hexachlorobutadiene	mg/kg	0.026	x			01/26/96
Isopropyl Ethermg/kg0.026X01/26/96p-Isopropyltoluenemg/kg0.026X01/26/96Methyl tert Butyl Ethermg/kg0.026XCSL SPLMethylene Chloridemg/kg0.026XSPL01/26/96	Isopropylbenzene	mg/kg	0.026	x			01/26/96
p-Isopropyltoluene mg/kg 0.026 X 01/26/96 Methyl tert Butyl Ether mg/kg 0.026 X CSL SPL 01/26/96 Methylene Chloride mg/kg 0.026 X SPL 01/26/96	Isopropyl Ether	mg/kg	0.026	x			01/26/96
Methyl tert Butyl Ethermg/kg0.026XCSL SPL01/26/96Methylene Chloridemg/kg0.026XSPL01/26/96	n-Isopropyltoluere	ma/ka	0 026	Y Y			01/26/96
Methylene Chloride mg/kg 0.026 X SPL 01/26/96	Methyl tert Butyl Ether	mg/kg	0.026	x	CST.	SDT.	01/26/96
	Methylene Chloride	ma/ka	0 026	x		SPT.	01/26/96
Naphthalene $m \alpha / k \alpha = 0.026$ X $0.1/26/96$	Naphthalene	mg/kg	0.026	x		~	01/26/96

Analytical No.:

58952

X = Analyzed but not detected. Results calculated on a dry weight basis.

analyses conducted in accordance with Enviroscan Quality Assurance Program.

TICAL REPOR

Attn: John Sager

CUST NUMBER:	212365
SAMPLED BY:	Client
DATE REC'D:	01/19/96
REPORT DATE:	02/01/96
PREPARED BY:	LMP
REVIEWED BY:	R.
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		Reporting	GP-3 2-4'		Date
_	<u>Units</u>	Limit	01/17/96	<u>Qualifiers</u>	<u>Analyzed</u>
n-Propylbenzene	mg/kg	0.026	x		01/26/96
Tetrachloroethylene	mg/kg	0.026	х		01/26/96
1,1,2,2-Tetrachloroethane	mg/kg	0.026	Х		01/26/96
Toluene	mg/kg	0.026	Х		01/26/96
1,2,3-Trichlorobenzene	mg/kg	0.026	Х		01/26/96
1,2,4-Trichlorobenzene	mg/kg	0.026	X		01/26/96
1,1,1-Trichloroethane	mg/kg	0.026	X	SPL	01/26/96
1,1,2-Trichloroethane	mg/kg	0.026	Х		01/26/96
Trichloroethylene	mg/kg	0.026	Х		01/26/96
Trichlorofluoromethane	mg/kg	0.026	X	SPL	01/26/96
1.2.4-Trimethylbenzene	mg/kg	0.026	X		01/26/96
1.3.5-Trimethylbenzene	mg/kg	0.026	Х		01/26/96
Vinvl Chloride	mg/kg	0.026	X	CSL SPL	01/26/96
m- & p-Xylene	ma/ka	0.026	Х		01/26/96
o-Xylene & Styrene	mg/kg	0.026	0.0329	CSL MB	01/26/96

Analytical No.:

58952

Mid-State Associates 1835 N. Stevens Street P.O. Box 1026 Rhinelander, WI 54501 CUST NUMBER: 212365 SAMPLED BY: Client DATE REC'D: 01/19/96 REPORT DATE: 02/01/96 PREPARED BY: LMP/n/ REVIEWED BY: LMP/n/

Attn: John Sager

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فسرب وتغاينك

		Reporting	GP-3 8-10'		Date
	<u>Units</u>	<u>Limit</u>	01/17/96	<u>Qualifier</u>	s Analyzed
TD1 160 3					
EPA 160.3	0.		05 00		01/00/00
Total Solids	5	-	85.00		01/22/96
EPA 6010_					
Lead	mg/kg	5.9	x		01/23/96
EPA 8021					
Benzene	mg/kg	0.027	0.186		01/26/96
Bromobenzene	mg/kg	0.027	Х		01/26/96
Bromodichloromethane	mg/kg	0.027	Х		01/26/96
n-Butylbenzene	mg/kg	0.027	Х		01/26/96
sec-Butylbenzene	mg/kg	0.027	X		01/26/96
tert-Butylbenzene	mg/kg	0.027	X		01/26/96
Carbon Tetrachloride	mg/kg	0.027	Х		01/26/96
Chlorobenzene	mg/kg	0.027	Х		01/26/96
Chlorodibromomethane	mg/kg	0.027	х		01/26/96
Chloroethane	mg/kg	0.027	Х	CSL SPL	01/26/96
Chloroform	mg/kg	0,027	Х		01/26/96
Chloromethane	mg/kg	0.027	Х	CSL SPL	DUP01/26/96
o-Chlorotoluene	mg/kg	0.027	х		01/26/96
p-Chlorotoluene	mg/kg	0.027	х		01/26/96
1,2-Dibromo-3-chloropropane	mg/kg	0.027	Х		01/26/96
1,2-Dibromoethane	mg/kg	0.027	X		01/26/96
1,2-Dichlorobenzene	mg/kg	0.027	X		01/26/96
1,3-Dichlorobenzene	mg/kg	0.027	X		01/26/96
1,4-Dichlorobenzene	mg/kg	0.027	х		01/26/96
Dichlorodifluoromethane	mg/kg	0.027	х	CSL SPL	01/26/96
1,1-Dichloroethane	mg/kg	0.027	X		01/26/96
1,2-Dichloroethane	mg/kg	0.027	Х		01/26/96
1,1-Dichloroethylene	mg/kg	0.027	Х	SPL	01/26/96
cis-1,2-Dichloroethylene	mg/kg	0.027	Х		01/26/96
trans-1,2-Dichloroethylene	mg/kg	0.027	X	SPL	01/26/96
1,2-Dichloropropane	mg/kg	0.027	Х		01/26/96
1,3-Dichloropropane	mg/kg	0.027	Х		01/26/96
2,2-Dichloropropane	mg/kg	0.027	X	SPL	01/26/96
Ethylbenzene	mg/kg	0.027	X		01/26/96
Hexachlorobutadiene	mg/kg	0.027	X		01/26/96
Isopropylbenzene	mg/kg	0.027	X		01/26/96
Isopropyl Ether	mg/kg	0.027	Х		01/26/96
p-Isopropyltoluene	mg/kg	0.027	X		01/26/96
Methyl tert Butyl Ether	mg/kg	0.027	X	CSL SPL	01/26/96
Methylene Chloride	mg/kg	0.027	x	SPL	01/26/96
Naphthalene	mg/kg	0.027	х		01/26/96

Analytical No .:

58953

X = Analyzed but not detected. Results calculated on a dry weight basis.

It analyses conducted in accordance with Enviroscan Quality Assurance Program.

Mid-State Associates 1835 N. Stevens Street P.O. Box 1026 Rhinelander, WI 54501 CUST NUMBER: 212365 SAMPLED BY: Client DATE REC'D: 01/19/96 REPORT DATE: 02/01/96 PREPARED BY: LMP/m/ REVIEWED BY: 52

Attn: John Sager

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	••	Reporting	GP-3 8-10'	Qualifiers	Date
-	Units		01/1/90	QUALILIEIS	Anaryzea
n-Propylbenzene	mg/kg	0.027	x		01/26/96
Tetrachloroethylene	mg/kg	0.027	Х		01/26/96
1.1.2.2-Tetrachloroethane	mg/kg	0.027	х		01/26/96
Toluene	mg/kg	0.027	Х		01/26/96
1.2.3-Trichlorobenzene	mg/kg	0.027	Х		01/26/96
1,2,4-Trichlorobenzene	mg/kg	0.027	Х		01/26/96
1,1,1-Trichloroethane	mg/kg	0.027	Х	SPL	01/26/96
1,1,2-Trichloroethane	mg/kg	0.027	Х		01/26/96
Trichloroethylene	mg/kg	0.027	Х		01/26/96
Trichlorofluoromethane	mg/kg	0.027	Х	SPL	01/26/96
1 2 A-Trimethylbenzene	mg/kg	0.027	Х		01/26/96
1 3 5-Trimethylbenzene	mg/kg	0.027	Х		01/26/96
Vinvl Chloride	mg/kg	0.027	X	CSL SPL	01/26/96
	mg/kg	0.027	X		01/26/96
o-Xylene & Styrene	mg/kg	0.027	0.0412	CSL MB	01/26/96

Analytical No.:

58953





Attn: John Sager

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CUST NUMBER:	212365
SAMPLED BY:	Client
DATE REC'D:	01/19/96
REPORT DATE:	02/01/96
PREPARED BY:	LMP m
REVIEWED BY:	1pm
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_	Units	Reporting Limit	GP-4 2-4' 01/17/96	<u>Quali</u>	fier	Date <u>s Analyzed</u>
EPA 160.3						
Total Solids	왕	-	80.89			01/22/96
EPA 6010	ma /ka	6 2	v			01/22/06
Dead	mg/kg	0.2	Λ			01/23/90
EPA 8021						
Benzene	mg/kg	5.1	Х			01/26/96
Bromobenzene	mg/kg	5.1	х			01/26/96
Bromodichloromethane	mg/kg	5.1	Х			01/26/96
n-Butylbenzene	mg/kg	5.1	89.1			01/26/96
sec-Butylbenzene	mg/kg	5.1	Х			01/26/96
tert-Butylbenzene	mg/kg	5.1	х			01/26/96
Carbon Tetrachloride	mg/kg	5.1	Х			01/26/96
Chlorobenzene	mg/kg	5.1	Х			01/26/96
Chlorodibromomethane	mg/kg	5.1	Х			01/26/96
Chloroethane	mg/kg	5.1	х	CSL	SPL	01/26/96
Chloroform	mg/kg	5.1	Х			01/26/96
Chloromethane	mg/kg	5.1	Х	CSL	SPL	DUP01/26/96
o-Chlorotoluene	mg/kg	5.1	Х			01/26/96
p-Chlorotoluene	mg/kg	5.1	Х			01/26/96
1,2-Dibromo-3-chloropropane	e mg/kg	5.1	Х			01/26/96
1,2-Dibromoethane	mg/kg	5.1	Х			01/26/96
1,2-Dichlorobenzene	mg/kg	5.1	х			01/26/96
1,3-Dichlorobenzene	mg/kg	5.1	х			01/26/96
1.4-Dichlorobenzene	ma/ka	5.1	х			01/26/96
Dichlorodifluoromethane	ma/ka	5.1	х	CSL	SPL	01/26/96
1.1-Dichloroethane	ma/ka	5.1	х			01/26/96
1.2-Dichloroethane	mg/kg	5.1	x			01/26/96
1.1-Dichloroethvlene	mg/kg	5.1	x		SPL	01/26/96
cis-1.2-Dichloroethvlene	mg/kg	5.1	X		_	01/26/96
trans-1.2-Dichloroethvlene	ma/ka	5.1	X		SPL	01/26/96
1.2-Dichloropropane	mg/kg	5.1	x			01/26/96
1.3-Dichloropropane	mg/kg	5.1	x			01/26/96
2.2-Dichloropropane	mg/kg	5.1	x		SPL	01/26/96
Ethylbenzene	mg/kg	5.1	32.0			01/26/96
Hexachlorobutadiene	mg/kg	5.1	x			01/26/96
Isopropylbenzene	mg/kg	5.1	x			01/26/96
Isopropyl Ether	mg/kg	5.1	6.80			01/26/96
p-Isopropyltoluene	mg/kg	5.1	x			01/26/96
Methyl tert Butyl Ether	mg/kg	5,1	x	CSL	SPT.	01/26/96
Methylene Chloride	ma/ka	5,1	x		SPT.	01/26/96
Naphthalene	mg/kg	5.1	22.7			01/26/96
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Analytical No.:

58954

X = Analyzed but not detected. Results calculated on a dry weight basis.

 $\vec{\uparrow}$ Ill analyses conducted in accordance with Enviroscan Quality Assurance Program.



CUST NUMBER: 212365 SAMPLED BY: Client DATE REC'D: 01/19/96 REPORT DATE: 02/01/96 PREPARED BY: LMP/rr? REVIEWED BY: Jt-

Attn: John Sager

		Reporting	GP-4 2-4'		Date
_	<u>Units</u>	Limit	_01/17/96_	<u>Qualifiers</u>	<u>Analyzed</u>
n-Propylbenzene	mg/kg	5.1	9.52		01/26/96
Tetrachloroethylene	mg/kg	5.1	Х		01/26/96
1,1,2,2-Tetrachloroethane	mg/kg	5.1	Х		01/26/96
Toluene	mg/kg	5.1	X		01/26/96
1,2,3-Trichlorobenzene	mg/kg	5.1	х		01/26/96
1,2,4-Trichlorobenzene	mg/kg	5.1	Х		01/26/96
1.1.1-Trichloroethane	mg/kg	5.1	Х	SPL	01/26/96
1,1,2-Trichloroethane	mg/kg	5.1	х		01/26/96
Trichloroethvlene	mg/kg	5.1	Х		01/26/96
Trichlorofluoromethane	mg/kg	5.1	Х	SPL	01/26/96
1.2.4-Trimethylbenzene	mg/kg	5.1	262.		01/26/96
1.3.5-Trimethylbenzene	mg/kg	5.1	98.0		01/26/96
Vinvl Chloride	ma/ka	5.1	Х	CSL SPL	01/26/96
m- & p-Xylene	ma/ka	5.1	233.		01/26/96
o-Xylene & Styrene	ma/ka	5.1	141.	CSL	01/26/96

Analytical No.:

58954

X = Analyzed but not detected.

ll analyses conducted in accordance with Enviroscan Quality Assurance Program. Inviroscan Corp., 303 West Military Rd., Rothschild, WI 54474 1/800/338-SCAN Wisconsin Lab Certification No. 737053130





CUST NUMBER: 212365 SAMPLED BY: Client DATE REC'D: 01/19/96 REPORT DATE: 02/01/96 PREPARED BY: LMP Int REVIEWED BY:

Attn: John Sager

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		Reporting	GP-4 10-12'			Date
	<u>Jnits</u>	<u>Limit</u>	01/17/96	<u>Qualif</u>	iers	<u>Analyzed</u>
EDA 160 2						
Total Solida	e		02 00			01/00/00
Iotal Solids	6	-	03.89			01/22/96
EPA_6010_						
Lead	mg/kg	6.0	x			01/23/96
EPA 8021						
Benzene	mg/kg	0.026	X			01/26/96
Bromobenzene	mg/kg	0.026	х			01/26/96
Bromodichloromethane	mg/kg	0.026	х			01/26/96
n-Butvlbenzene	mg/kg	0.026	x			01/26/96
sec-Butylbenzene	mg/kg	0.026	х			01/26/96
tert-Butylbenzene	mg/kg	0.026	Х			01/26/96
Carbon Tetrachloride	ma/ka	0.026	x			01/26/96
Chlorobenzene	mg/kg	0.026	х			01/26/96
Chlorodibromomethane	mg/kg	0.026	Х			01/26/96
Chloroethane	mg/kg	0.026	Х	CSL SI	PL	01/26/96
Chloroform	ma/ka	0.026	x			01/26/96
Chloromethane	mg/kg	0.026	х	CSL SI	PL DU	JP01/26/96
o-Chlorotoluene	mg/kg	0.026	х			01/26/96
p-Chlorotoluene	mg/kg	0.026	x			01/26/96
1,2-Dibromo-3-chloropropane	mg/kg	0.026	x			01/26/96
1,2-Dibromoethane	mg/kg	0.026	Х			01/26/96
1,2-Dichlorobenzene	mg/kg	0.026	Х			01/26/96
1,3-Dichlorobenzene	mg/kg	0.026	Х			01/26/96
1,4-Dichlorobenzene	mg/kg	0.026	Х			01/26/96
Dichlorodifluoromethane	mg/kg	0.026	X	CSL SI	PL	01/26/96
1,1-Dichloroethane	mg/kg	0.026	Х			01/26/96
1,2-Dichloroethane	mg/kg	0.026	Х			01/26/96
1,1-Dichloroethylene	mg/kg	0.026	X	SI	PL	01/26/96
cis-1,2-Dichloroethylene	mg/kg	0.026	X			01/26/96
trans-1,2-Dichloroethylene	mg/kg	0.026	х	SI	PL	01/26/96
1,2-Dichloropropane	mg/kg	0.026	Х			01/26/96
1,3-Dichloropropane	mg/kg	0.026	X			01/26/96
2,2-Dichloropropane	mg/kg	0.026	Х	SI	PL	01/26/96
Ethylbenzene	mg/kg	0.026	Х			01/26/96
Hexachlorobutadiene	mg/kg	0.026	X			01/26/96
Isopropylbenzene	mg/kg	0.026	Х			01/26/96
Isopropyl Ether	mg/kg	0.026	х			01/26/96
p-Isopropyltoluene	mg/kg	0.026	X			01/26/96
Methyl tert Butyl Ether	mg/kg	0.026	X	CSL SI	PL	01/26/96
Methylene Chloride	mg/kg	0.026	х	SI	PL	01/26/96
Naphthalene	mg/kg	0.026	х			01/26/96
Naphthalene	mg/kg	0.026	x		-	01/26/96

Analytical No.:

58955

X = Analyzed but not detected. Results calculated on a dry weight basis.

II analyses conducted in accordance with Enviroscan Quality Assurance Program.

Mid-State Associates 1835 N. Stevens Street P.O. Box 1026 Rhinelander, WI 54501

Attn: John Sager

CUST NUMBER:	212365
SAMPLED BY:	Client
DATE REC'D:	01/19/96
REPORT DATE:	02/01/96
PREPARED BY:	LMPml
REVIEWED BY:	92
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		Reporting	GP-4 10-12'		Date
_	<u>Units</u>	<u>Limit</u>	01/17/96	<u>Qualifiers</u>	<u>Analyzed</u>
n-Propylbenzene	mg/kg	0.026	X		01/26/96
Tetrachloroethylene	mg/kg	0.026	х		01/26/96
1,1,2,2-Tetrachloroethane	mg/kg	0.026	x		01/26/96
Toluene	mg/kg	0.026	х		01/26/96
1,2,3-Trichlorobenzene	mg/kg	0.026	Х		01/26/96
1,2,4-Trichlorobenzene	mg/kg	0.026	x		01/26/96
1,1,1-Trichloroethane	mg/kg	0.026	Х	SPL	01/26/96
1,1,2-Trichloroethane	mg/kg	0.026	Х		01/26/96
Trichloroethylene	mg/kg	0.026	x		01/26/96
Trichlorofluoromethane	mg/kg	0.026	Х	SPL	01/26/96
1.2.4-Trimethylbenzene	mg/kg	0.026	x		01/26/96
1,3.5-Trimethylbenzene	mg/kg	0.026	Х		01/26/96
Vinvl Chloride	mg/kg	0.026	x	CSL SPL	01/26/96
m- & p-Xvlene	ma/ka	0.026	Х		01/26/96
o-Xylene & Styrene	mg/kg	0.026	0.0334	CSL MB	01/26/96

Analytical No.:

58955

Mid-State Associates 1835 N. Stevens Street P.O. Box 1026 Rhinelander, WI 54501 CUST NUMBER: 212365 SAMPLED BY: Client DATE REC'D: 01/19/96 REPORT DATE: 02/01/96 PREPARED BY: LMP/mr REVIEWED BY:

Attn: John Sager

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		Reporting	GP-5 6-8'		Date
	<u>Units</u>	<u>Limit</u>	01/17/96	<u>Qualifie</u>	ers Analyzed
EDN 160 2					
EPA 100.3	۹.		04 CF		07/00/06
Total Solids	5	-	84.65		01/22/96
EPA_6010_					
Lead	mg/kg	5.9	x		01/23/96
EPA 8021					
Benzene	mg/kg	0.026	х		01/26/96
Bromobenzene	mg/kg	0.026	х		01/26/96
Bromodichloromethane	mg/kg	0.026	х		01/26/96
n-Butylbenzene	mg/kg	0.026	X		01/26/96
sec-Butylbenzene	mg/kg	0.026	Х		01/26/96
tert-Butylbenzene	mg/kg	0.026	X		01/26/96
Carbon Tetrachloride	mg/kg	0.026	х		01/26/96
Chlorobenzene	mg/kg	0.026	х		01/26/96
Chlorodibromomethane	mg/kg	0.026	X		01/26/96
Chloroethane	mg/kg	0.026	х	CSL SPI	01/26/96
Chloroform	mg/kg	0.026	Х		01/26/96
Chloromethane	mg/kg	0.026	Х	CSL SPI	DUP01/26/96
o-Chlorotoluene	mg/kg	0.026	х		01/26/96
p-Chlorotoluene	mg/kg	0.026	Х		01/26/96
1,2-Dibromo-3-chloropropane	mg/kg	0.026	Х		01/26/96
1,2-Dibromoethane	mg/kg	0.026	Х		01/26/96
1,2-Dichlorobenzene	mg/kg	0.026	Х		01/26/96
1,3-Dichlorobenzene	mg/kg	0.026	х		01/26/96
1,4-Dichlorobenzene	mg/kg	0.026	X		01/26/96
Dichlorodifluoromethane	mg/kg	0.026	X	CSL SPI	J 01/26/96
1,1-Dichloroethane	mg/kg	0.026	X		01/26/96
1,2-Dichloroethane	mg/kg	0.026	X		01/26/96
1,1-Dichloroethylene	mg/kg	0.026	x	SPI	J 01/26/96
cis-1,2-Dichloroethylene	mg/kg	0.026	X		01/26/96
trans-1,2-Dichloroethylene	mg/kg	0.026	х	SPI	J 01/26/96
1,2-Dichloropropane	mg/kg	0.026	X		01/26/96
1,3-Dichloropropane	mg/kg	0.026	x		01/26/96
2,2-Dichloropropane	mg/kg	0.026	X	SPI	J 01/26/96
Ethylbenzene	mg/kg	0.026	х		01/26/96
Hexachlorobutadiene	mg/kg	0.026	x		01/26/96
Isopropylbenzene	mg/kg	0.026	x		01/26/96
Isopropyl Ether	mg/kg	0.026	X		01/26/96
p-Isopropyltoluene	mg/kg	0.026	X		01/26/96
Methyl tert Butyl Ether	mg/kg	0.026	x	CSL SPI	. 01/26/96
Methylene Chloride	mg/kg	0.026	х	SPI	01/26/96
Naphthalene	mg/kg	0.026	X		01/26/96

Analytical No.:

58956

X = Analyzed but not detected. Results calculated on a dry weight basis.

All analyses conducted in accordance with Enviroscan Quality Assurance Program.

Mid-State Associates 1835 N. Stevens Street P.O. Box 1026 Rhinelander, WI 54501 CUST NUMBER: 212365 SAMPLED BY: Client DATE REC'D: 01/19/96 REPORT DATE: 02/01/96 PREPARED BY: LMP) REVIEWED BY: D

Attn: John Sager

	•••	Reporting	GP-5 6-8'	a	Date
-	Units		01/1//96	Qualifiers	Analyzed
n-Propylbenzene	mg/kg	0.026	x		01/26/96
Tetrachloroethylene	mg/kg	0.026	х		01/26/96
1,1,2,2-Tetrachloroethane	mg/kg	0.026	х		01/26/96
Toluene	mg/kg	0.026	x		01/26/96
1,2,3-Trichlorobenzene	mg/kg	0.026	х		01/26/96
1,2,4-Trichlorobenzene	mg/kg	0.026	Х		01/26/96
1,1,1-Trichloroethane	mg/kg	0.026	Х	SPL	01/26/96
1,1,2-Trichloroethane	mg/kg	0.026	Х		01/26/96
Trichloroethylene	mg/kg	0.026	X		01/26/96
Trichlorofluoromethane	mg/kg	0.026	X	SPL	01/26/96
1,2,4-Trimethylbenzene	mg/kg	0.026	Х		01/26/96
1,3,5-Trimethylbenzene	mg/kg	0.026	X		01/26/96
Vinyl Chloride	mg/kg	0.026	Х	CSL SPL	01/26/96
m- & p-Xylene	mg/kg	0.026	Х		01/26/96
o-Xylene & Styrene	mg/kg	0.026	0.0343	CSL MB	01/26/96

Analytical No.:

58956

X = Analyzed but not detected.

ll analyses conducted in accordance with Enviroscan Quality Assurance Program.



Mid-State Associates 1835 N. Stevens Street P.O. Box 1026 Rhinelander, WI 54501

Attn: John Sager

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CUST NUMBER:	212365
SAMPLED BY:	Client
DATE REC'D:	01/19/96
REPORT DATE:	02/01/96
PREPARED BY:	LMP m?
REVIEWED BY:	9ª
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	Reporting		GP-6 4-6'			Date
	<u>Units</u>	<u>Limit</u>	01/17/96	Quali	fier	s Analyzed
EPA 160 3						
Total Solids	ş	_ ·	82.49			01/22/96
						01,22,30
EPA 6010						
Lead	mg/kg	6.1	x			01/23/96
EPA 8021						
Benzene	ma/ka	0.026	х			01/26/96
Bromobenzene	ma/ka	0.026	x			01/26/96
Bromodichloromethane	mg/kg	0.026	x			01/26/96
n-Butvlbenzene	ma/ka	0.026	x			01/26/96
sec-Butylbenzene	mg/kg	0.026	x			01/26/96
tert-Butylbenzene	mg/kg	0.026	x			01/26/96
Carbon Tetrachloride	mg/kg	0.026	x			01/26/96
Chlorobenzene	mg/kg	0.026	x			01/26/96
Chlorodibromomethane	mg/kg	0.026	Y			01/26/96
Chloroethane	mg/kg	0.026	Y	CST	SDT.	01/26/96
Chloroform	mg/kg	0.026	Y	CDH		01/26/96
Chloromethane	mg/kg	0.026	Y	CST.	CDT.	
o-Chlorotoluene	mg/kg	0.020	X Y	COL	OFI	$\frac{1}{20}$
n-Chlorotoluene	mg/kg	0.026	x X			01/26/96
1 2-Dibromo-3-chloropropage	mg/kg	0.020	x v			01/20/90
1,2-Dibromoethane	mg/kg	0.026	x v			01/20/90
1,2-Dichlorobengene	mg/kg	0.020	x v			01/20/90
1,2-Dichlorobenzene	mg/kg	0.026	A V			01/20/90
1, 3-Dichiorobenzene	mg/kg	0.028	A V			01/20/90
Dighlorodifluoromothano	mg/kg	0.026	A V	CCT	CDT	01/26/96
1 1 Dichlemethane	mg/kg	0.026	A V		SPL	01/20/90
1,1-Dichioroethane	mg/kg	0.026	A			01/26/96
1,2-Dichloroethale	mg/kg	0.026	A V		0.07	01/26/96
i, 1-Dichloroethylene	mg/kg	0.026	A V	i	SPL	01/26/96
trang 1 2 Dichloroethylene	mg/kg	0.026	A V		~ ~~	01/26/96
Light and the second se	mg/kg	0.026	X	i	SPL	01/26/96
1,2-Dichloropropane	mg/kg	0.026	X			01/26/96
1,3-Dichioropropane	mg/kg	0.026	X			01/26/96
2,2-Dichioropropane	mg/kg	0.026	X	i	SPL	01/26/96
Etnylbenzene	mg/kg	0.026	X			01/26/96
Hexachlorobutadiene	mg/kg	0.026	X			01/26/96
Isopropylbenzene	mg/kg	0.026	X			01/26/96
Isopropyl Ether	mg/kg	0.026	X			01/26/96
p-Isopropyltoluene	mg/kg	0.026	X			01/26/96
Metnyi tert Butyl Ether	mg/kg	0.026	x	CSL	SPL	01/26/96
Methylene Chloride	mg/kg	0.026	X		SPL	01/26/96
Naphthalene	mg/kg	0.026	x			01/26/96

Analytical No.:

58957

X = Analyzed but not detected. Results calculated on a dry weight basis.

Il analyses conducted in accordance with Enviroscan Quality Assurance Program.

Mid-State Associates 1835 N. Stevens Street P.O. Box 1026 Rhinelander, WI 54501 CUST NUMBER: 212365 SAMPLED BY: Client DATE REC'D: 01/19/96 REPORT DATE: 02/01/96 PREPARED BY: LMP/m² REVIEWED BY:

Attn: John Sager

	Units	Reporting Limit	GP-6 4-6' 01/17/96	Qualifiers	Date Analyzed
•	011202			<u>Leasener</u>	
n-Propylbenzene	mg/kg	0.026	х		01/26/96
Tetrachloroethylene	mg/kg	0.026	х		01/26/96
1,1,2,2-Tetrachloroethane	mg/kg	0.026	х		01/26/96
Toluene	mg/kg	0.026	x		01/26/96
1,2,3-Trichlorobenzene	mg/kg	0.026	X		01/26/96
1,2,4-Trichlorobenzene	mg/kg	0.026	X		01/26/96
1,1,1-Trichloroethane	mg/kg	0.026	х	SPL	01/26/96
1,1,2-Trichloroethane	mg/kg	0.026	Х		01/26/96
Trichloroethvlene	mg/kg	0.026	x		01/26/96
Trichlorofluoromethane	mg/kg	0.026	х	SPL	01/26/96
1.2.4-Trimethylbenzene	mg/kg	0.026	x		01/26/96
1,3,5-Trimethylbenzene	mg/kg	0.026	х		01/26/96
Vinvl Chloride	mg/kg	0.026	x	CSL SPL	01/26/96
m- & p-Xvlene	mg/kg	0.026	x		01/26/96
o-Xylene & Styrene	mg/kg	0.026	0.0277	CSL MB	01/26/96

Analytical No.:

58957





Attn: John Sager

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CUST NUMBER:	212365
SAMPLED BY:	Client
DATE REC'D:	01/19/96
REPORT DATE:	02/01/96
PREPARED BY:	LMPm
REVIEWED BY:	9E
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	Units	Reporting	GP-7 2-4'	Qualifier	Date Date
				Vuuiiiiei	<u>Anaryzeu</u>
EPA 160.3					
Total Solids	ક	-	85.54		01/22/96
EPA_6010_					
Lead	mg/kg	5.8	х		01/23/96
EPA 8021					
Benzene	mg/kg	0.051	Х		01/26/96
Bromobenzene	mg/kg	0.051	Х		01/26/96
Bromodichloromethane	mg/kg	0.051	х		01/26/96
n-Butylbenzene	mg/kg	0.051	0.409		01/26/96
sec-Butylbenzene	mg/kg	0.051	0.576		01/26/96
tert-Butylbenzene	mg/kg	0.051	0.234		01/26/96
Carbon Tetrachloride	mg/kg	0.051	Х		01/26/96
Chlorobenzene	mg/kg	0.051	Х		01/26/96
Chlorodibromomethane	mg/kg	0.051	Х		01/26/96
Chloroethane	mg/kg	0.051	Х	CSL SPL	01/26/96
Chloroform	mg/kg	0.051	Х		01/26/96
Chloromethane	mg/kg	0.051	х	CSL SPL	DUP01/26/96
o-Chlorotoluene	mg/kg	0.051	Х		01/26/96
p-Chlorotoluene	mg/kg	0.051	х		01/26/96
1,2-Dibromo-3-chloropropane	mg/kg	0.051	х		01/26/96
1,2-Dibromoethane	mg/kg	0.051	Х		01/26/96
1,2-Dichlorobenzene	mg/kg	0.051	х		01/26/96
1,3-Dichlorobenzene	mg/kg	0.051	Х		01/26/96
1,4-Dichlorobenzene	mg/kg	0.051	х		01/26/96
Dichlorodifluoromethane	mg/kg	0.051	Х	CSL SPL	01/26/96
1,1-Dichloroethane	mg/kg	0.051	Х		01/26/96
1,2-Dichloroethane	mg/kg	0.051	Х		01/26/96
1,1-Dichloroethylene	mg/kg	0.051	Х	SPL	01/26/96
cis-1,2-Dichloroethylene	mg/kg	0.051	X		01/26/96
trans-1,2-Dichloroethylene	mg/kg	0.051	Х	SPL	01/26/96
1,2-Dichloropropane	mg/kg	0.051	Х		01/26/96
1,3-Dichloropropane	mg/kg	0.051	Х		01/26/96
2,2-Dichloropropane	mg/kg	0.051	Х	SPL	01/26/96
Ethylbenzene	mg/kg	0.051	0.098		01/26/96
Hexachlorobutadiene	mg/kg	0.051	Х		01/26/96
Isopropylbenzene	mg/kg	0.051	0.145		01/26/96
Isopropyl Ether	mg/kg	0.051	х		01/26/96
p-Isopropyltoluene	mg/kg	0.051	0.167		01/26/96
Methyl tert Butyl Ether	mg/kg	0.051	х	CSL SPL	01/26/96
Methylene Chloride	mg/kg	0.051	х	SPL	01/26/96

Analytical No.:

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58958

X = Analyzed but not detected. Results calculated on a dry weight basis.

All analyses conducted in accordance with Enviroscan Quality Assurance Program.



CUST NUMBER: 212365 SAMPLED BY: Client DATE REC'D: 01/19/96 REPORT DATE: 02/01/96 PREPARED BY: LMP /m? REVIEWED BY:

Attn: John Sager

	IInite	Reporting	GP-7 2-4' 01/17/96	Oualifiers	Date Analvzed
Naphthalene n-Propylbenzene Tetrachloroethylene 1,1,2,2-Tetrachloroethane Toluene 1,2,3-Trichlorobenzene 1,2,4-Trichloroethane 1,1,1-Trichloroethane 1,1,2-Trichloroethane Trichloroethylene Trichlorofluoromethane 1,2,4-Trimethylbenzene 1,3,5-Trimethylbenzene Vinyl Chloride m-& p-Xylene o-Xylene & Styrene	Units mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg	Limit 0.051	<u>01/17/96</u> 0.388 0.222 X X X X X X X X X X 0.221 0.111 X X X X	<u>Qualifiers</u> SPL SPL CSL SPL CSL	Analyzed 01/26/96 01/26/96 01/26/96 01/26/96 01/26/96 01/26/96 01/26/96 01/26/96 01/26/96 01/26/96 01/26/96 01/26/96 01/26/96 01/26/96

Analytical No.:

58958





CUST NUMBER: 212365 SAMPLED BY: Client DATE REC'D: 01/19/96 REPORT DATE: 02/01/96 PREPARED BY: LMP m? REVIEWED BY:

Attn: John Sager

1_

		Reporting	GP-7 4-6'		Date
	Units	<u> Limit </u>	01/17/96	<u>Qualifier</u>	<u>s Analyzed</u>
<u>EPA 160.3</u>	0.		05 60		
Total Solids	5	-	85.68		01/22/96
EPA 6010					
Lead	ma/ka	5.8	х		01/23/96
					,,
EPA 8021					
Benzene	mg/kg	0.029	X		01/26/96
Bromobenzene	mg/kg	0.029	х		01/26/96
Bromodichloromethane	mg/kg	0.029	х		01/26/96
n-Butylbenzene	mg/kg	0.029	Х		01/26/96
sec-Butylbenzene	mg/kg	0.029	Х		01/26/96
tert-Butylbenzene	mg/kg	0.029	х		01/26/96
Carbon Tetrachloride	mg/kg	0.029	х		01/26/96
Chlorobenzene	mg/kg	0.029	Х		01/26/96
Chlorodibromomethane	mg/kg	0.029	X		01/26/96
Chloroethane	mg/kg	0.029	х	CSL SPL	01/26/96
Chloroform	mg/kg	0.029	х		01/26/96
Chloromethane	mg/kg	0.029	Х	CSL SPL	DUP01/26/96
o-Chlorotoluene	mg/kg	0.029	Х		01/26/96
p-Chlorotoluene	mg/kg	0.029	х		01/26/96
1,2-Dibromo-3-chloropropane	mg/kg	0.029	х		01/26/96
1,2-Dibromoethane	mg/kg	0.029	Х		01/26/96
1,2-Dichlorobenzene	mg/kg	0.029	Х		01/26/96
1,3-Dichlorobenzene	mg/kg	0.029	х		01/26/96
1,4-Dichlorobenzene	mg/kg	0.029	Х		01/26/96
Dichlorodifluoromethane	mg/kg	0.029	х	CSL SPL	01/26/96
1,1-Dichloroethane	mg/kg	0.029	Х		01/26/96
1,2-Dichloroethane	mg/kg	0.029	х		01/26/96
1,1-Dichloroethylene	mg/kg	0.029	Х	SPL	01/26/96
cis-1,2-Dichloroethylene	mg/kg	0.029	х		01/26/96
trans-1,2-Dichloroethylene	mg/kg	0.029	х	SPL	01/26/96
1,2-Dichloropropane	mg/kg	0.029	х		01/26/96
1,3-Dichloropropane	mg/kg	0.029	х		01/26/96
2,2-Dichloropropane	mg/kg	0.029	х	SPL	01/26/96
Ethylbenzene	mg/kg	0.029	х		01/26/96
Hexachlorobutadiene	mg/kg	0.029	Х		01/26/96
Isopropylbenzene	mg/kg	0.029	х		01/26/96
Isopropyl Ether	mg/kg	0.029	х		01/26/96
p-Isopropyltoluene	mg/kg	0.029	х		01/26/96
Methyl tert Butyl Ether	mg/kg	0.029	х	CSL SPL	01/26/96
Methylene Chloride	mg/kg	0.029	х	SPL	01/26/96
Naphthalene	mg/kg	0.029	x		01/26/96

Analytical No.:

58959

X = Analyzed but not detected. Results calculated on a dry weight basis.



CUST NUMBER: 212365 SAMPLED BY: Client DATE REC'D: 01/19/96 REPORT DATE: 02/01/96 PREPARED BY: LMP/m? REVIEWED BY: P

Attn: John Sager

		Reporting	GP-7 4-6'		Date
-	Units	Limit	01/17/96	Qualifiers	Analyzed
n-Propylbenzene	mg/kg	0.029	x		01/26/96
Tetrachloroethylene	mg/kg	0.029	X		01/26/96
1,1,2,2-Tetrachloroethane	mg/kg	0.029	x		01/26/96
Toluene	mg/kg	0.029	X		01/26/96
1,2,3-Trichlorobenzene	mg/kg	0.029	X		01/26/96
1,2,4-Trichlorobenzene	mg/kg	0.029	x		01/26/96
1,1,1-Trichloroethane	mg/kg	0.029	х	SPL	01/26/96
1,1,2-Trichloroethane	mg/kg	0.029	X		01/26/96
Trichloroethylene	mg/kg	0.029	Х		01/26/96
Trichlorofluoromethane	mg/kg	0.029	х	SPL	01/26/96
1,2,4-Trimethylbenzene	mg/kg	0.029	х		01/26/96
1,3,5-Trimethylbenzene	mg/kg	0.029	x		01/26/96
Vinyl Chloride	mg/kg	0.029	Х	CSL SPL	01/26/96
m- & p-Xylene	mg/kg	0.029	Х		01/26/96
o-Xylène & Styrene	mg/kg	0.029	0.0572	CSL MB	01/26/96

Analytical No.:

58959





CUST NUMBER: 212365 SAMPLED BY: Client DATE REC'D: 01/19/96 REPORT DATE: 02/01/96 PREPARED BY: LMP Jord REVIEWED BY: Jord

Attn: John Sager

		Reporting	GP-8 4-6'		Date
	Units	<u>Limit</u>	01/17/96	<u>Qualifier</u>	<u>s</u> <u>Analyzed</u>
EDA 160 3					
Total Colida	9 -	_	95 70		01/00/00
IOCAL SOLIUS	70	-	05.75		01/22/96
<u>EPA 6010</u>					
Lead	mg/kg	5.8	х		01/23/96
EPA 8021					
Benzene	mg/kg	0.026	Х		01/26/96
Bromobenzene	mg/kg	0.026	Х		01/26/96
Bromodichloromethane	ma/ka	0.026	X		01/26/96
n-Butvlbenzene	ma/ka	0.026	X		01/26/96
sec-Butvlbenzene	ma/ka	0.026	х		01/26/96
tert-Butvlbenzene	mg/kg	0.026	х	•	01/26/96
Carbon Tetrachloride	mg/kg	0.026	X		01/26/96
Chlorobenzene	mg/kg	0.026	x		01/26/96
Chlorodibromomethane	mg/kg	0.026	Х		01/26/96
Chloroethane	ma/ka	0.026	х	CSL SPL	01/26/96
Chloroform	ma/ka	0.026	Х		01/26/96
Chloromethane	ma/ka	0.026	х	CSL SPL	DUP01/26/96
o-Chlorotoluene	ma/ka	0.026	х		01/26/96
p-Chlorotoluene	mg/kg	0.026	X		01/26/96
1.2-Dibromo-3-chloropropane	mg/kg	0.026	X		01/26/96
1,2-Dibromoethane	ma/ka	0.026	x		01/26/96
1,2-Dichlorobenzene	ma/ka	0.026	X		01/26/96
1,3-Dichlorobenzene	ma/ka	0.026	X		01/26/96
1.4-Dichlorobenzene	ma/ka	0.026	x		01/26/96
Dichlorodifluoromethane	mg/kg	0.026	X	CSL SPL	01/26/96
1.1-Dichloroethane	ma/ka	0.026	х		01/26/96
1,2-Dichloroethane	mg/kg	0.026	х		01/26/96
1,1-Dichloroethvlene	mg/kg	0.026	х	SPL	01/26/96
cis-1,2-Dichloroethvlene	mg/kg	0.026	Х		01/26/96
trans-1.2-Dichloroethylene	ma/ka	0.026	х	SPL	01/26/96
1.2-Dichloropropane	ma/ka	0.026	х		01/26/96
1.3-Dichloropropane	ma/ka	0.026	x		01/26/96
2.2-Dichloropropane	mg/kg	0.026	x	SPL	01/26/96
Ethylbenzene	mg/kg	0.026	x		01/26/96
Hexachlorobutadiene	mg/kg	0.026	x		01/26/96
Isopropylbenzene	mg/kg	0.026	x		01/26/96
Isopropyl Ether	mg/kg	0.026	x		01/26/96
p-Isopropyltoluene	mg/kg	0.026	x		01/26/96
Methyl tert Butyl Ether	mg/kg	0.026	x	CSL SPL	01/26/96
Methylene Chloride	ma/ka	0.026	x	SPI.	01/26/96
Naphthalene	ma/ka	0.026	x		01/26/96
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Analytical No.:

58960

X = Analyzed but not detected. Results calculated on a dry weight basis.

Il analyses conducted in accordance with Enviroscan Quality Assurance Program.



CUST NUMBER: 212365 SAMPLED BY: Client DATE REC'D: 01/19/96 REPORT DATE: 02/01/96 PREPARED BY: LMP7w? REVIEWED BY: S

Attn: John Sager

		Reporting	GP-8 4-6'		Date
_	Units	<u>Limit</u>	01/17/96	<u>Qualifiers</u>	<u>Analyzed</u>
n-Propylbenzene	mg/kg	0.026	x		01/26/96
Tetrachloroethylene	mg/kg	0.026	x		01/26/96
1,1,2,2-Tetrachloroethane	mg/kg	0.026	х		01/26/96
Toluene	mg/kg	0.026	Х		01/26/96
1,2,3-Trichlorobenzene	mg/kg	0.026	Х		01/26/96
1,2,4-Trichlorobenzene	mg/kg	0.026	Х		01/26/96
1,1,1-Trichloroethane	mg/kg	0.026	X	SPL	01/26/96
1,1,2-Trichloroethane	mg/kg	0.026	х		01/26/96
Trichloroethylene	mg/kg	0.026	Х		01/26/96
Trichlorofluoromethane	mg/kg	0.026	Х	SPL	01/26/96
1.2.4-Trimethylbenzene	mg/kg	0.026	X		01/26/96
1.3.5-Trimethylbenzene	mg/kg	0.026	Х		01/26/96
Vinvl Chloride	mg/kg	0.026	Х	CSL SPL	01/26/96
m- & p-Xvlene	mg/kg	0.026	Х		01/26/96
o-Xvlene & Stvrene	mg/kg	0.026	Х	CSL	01/26/96

Analytical No.:

58960

X = Analyzed but not detected.

■ analyses conducted in accordance with Enviroscan Quality Assurance Program. Enviroscan Corp., 303 West Military Rd., Rothschild, WI 54474 1/800/338-SCAN Wisconsin Lab Certification No. 737053130 NADYDICAD REPORT





Mid-State Associates 1835 N. Stevens Street P.O. Box 1026 Rhinelander, WI 54501

Attn: John Sager

1

CUST NUMBER:	212365
SAMPLED BY:	Client
DATE REC'D:	01/19/96
REPORT DATE:	02/01/96
PREPARED BY:	LMP 2nd
REVIEWED BY:	mi
	7

		Reporting	GP-9 2-4'		Date
	Units	<u>Limit</u>	01/17/96	Qualifier	s Analyzed
EPA 160.3	•				
Total Solids	5	-	84.13		01/22/96
EPA 6010_					
Lead	mg/kg	5.9	х		01/23/96
EPA 8021					
Benzene	ma/ka	2.6	x		01/26/96
Bromobenzene	mg/kg	2.6	x		01/26/96
Bromodichloromethane	mg/kg	2 6	x		01/26/96
n-Butyl benzene	mg/kg	2.0	103		01/26/96
sec-Butylbenzene	mg/kg	2.0	5 82		01/26/96
tert-Butylbengene	mg/kg	2.0	J.02		01/26/96
Carbon Totrachlorido	mg/kg	2.0	x v		01/26/96
Chlerebergere	mg/kg	2.0	Ň		01/26/96
Chlorodibuomonothemo	mg/kg	2.0	A V		01/26/96
Chlorodibromomethane	mg/kg	2.6	X	007 007	01/26/96
Chloroetnane	mg/kg	2.6	X	CSL SPL	01/26/96
Chlorotorm	mg/kg	2.6	X		01/26/96
Chloromethane	mg/kg	2.6	X	CSL SPL	DUP01/26/96
o-Chlorotoluene	mg/kg	2.6	X		01/26/96
p-Chlorotoluene	mg/kg	2.6	X		01/26/96
1,2-Dibromo-3-chloropropane	mg/kg	2.6	\mathbf{X}		01/26/96
1,2-Dibromoethane	mg/kg	2.6	X		01/26/96
1,2-Dichlorobenzene	mg/kg	2.6	Х		01/26/96
1,3-Dichlorobenzene	mg/kg	2.6	Х		01/26/96
1,4-Dichlorobenzene	mg/kg	2.6	X		01/26/96
Dichlorodifluoromethane	mg/kg	2.6	X	CSL SPL	01/26/96
1,1-Dichloroethane	mg/kg	2.6	X		01/26/96
1,2-Dichloroethane	mg/kg	2.6	Х		01/26/96
1,1-Dichloroethylene	mg/kg	2.6	Х	SPL	01/26/96
cis-1,2-Dichloroethylene	mg/kg	2.6	Х		01/26/96
trans-1,2-Dichloroethylene	mg/kg	2.6	х	SPL	01/26/96
1,2-Dichloropropane	mg/kg	2.6	X		01/26/96
1,3-Dichloropropane	ma/ka	2.6	x		01/26/96
2,2-Dichloropropane	ma/ka	2.6	x	SPL	01/26/96
Ethylbenzene	mg/kg	2.6	16.1		01/26/96
Hexachlorobutadiene	mg/kg	2.6	x		01/26/96
Tsopropylbenzene	mg/kg	2 6	3 45		01/26/96
Isopropyl Ether	mg/kg	26	x		01/26/96
p-Isopropyltoluene	mg/kg	2.5	X		01/26/96
Methyl tert Butyl Ether		2.0	A Y	CGL CDL	01/26/96
Methylene Chloride	mg/rg	2.0	v v		01/20/90
Nanhthalene	mg/kg	2.0	20 1	380	01/20/30
Maphenatene	iiig/kg	2.0	27.4		01/20/90

Analytical No.:

58961

X = Analyzed but not detected. Results calculated on a dry weight basis.

analyses conducted in accordance with Enviroscan Quality Assurance Program.

Mid-State Associates 1835 N. Stevens Street P.O. Box 1026 Rhinelander, WI 54501

Attn: John Sager

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212365
Client
01/19/96
02/01/96
LMP Inf
92

		Reporting	GP-9 2-4'		Date
-	Units	Limit	01/17/96	<u>Qualifiers</u>	<u>Analyzed</u>
		2 6	16 4		01/26/26
n-Propyidenzene	mg/kg	2.6	10.4		01/20/90
Tetrachloroethylene	mg/kg	2.6	X		01/26/96
1,1,2,2-Tetrachloroethane	mg/kg	2.6	x		01/26/96
Toluene	mg/kg	2.6	4.52		01/26/96
1,2,3-Trichlorobenzene	mg/kg	2.6	X		01/26/96
1,2,4-Trichlorobenzene	mg/kg	2.6	X		01/26/96
1,1,1-Trichloroethane	mg/kg	2.6	X	SPL	01/26/96
1,1,2-Trichloroethane	mg/kg	2.6	X		01/26/96
Trichloroethylene	mg/kg	2.6	Х		01/26/96
Trichlorofluoromethane	mg/kg	2.6	Х	SPL	01/26/96
1,2,4-Trimethylbenzene	mg/kg	2.6	175.		01/26/96
1,3,5-Trimethylbenzene	mg/kg	2.6	58.4		01/26/96
Vinyl Chloride	mg/kg	2.6	X	CSL SPL	01/26/96
m- & p-Xylene	mg/kg	2.6	103.		01/26/96
o-Xylene & Styrene	mg/kg	2.6	51.5	CSL	01/26/96

Analytical No.:

58961



Mid-State Associates 1835 N. Stevens Street P.O. Box 1026 Rhinelander, WI 54501 CUST NUMBER: 212365 SAMPLED BY: Client DATE REC'D: 01/19/96 REPORT DATE: 02/01/96 PREPARED BY: LMP)m? REVIEWED BY: 2000

Attn: John Sager

	Inita	Reporting	GP-9 6-8'	0		Date
			01/1//90	Qualli	. ters	Analyzed
EPA 160.3						
Total Solids	8	-	85.17			01/22/96
						,,
EPA 6010						
Lead	mg/kg	5.9	Х			01/23/96
EPA 8021						
Benzene	ma/ka	0.025	0.0456			01/26/96
Bromobenzene	mg/kg	0.025	X			01/26/96
Bromodichloromethane	mg/kg	0.025	x			01/26/96
n-Butvlbenzene	mg/kg	0.025	0.289			01/26/96
sec-Butvlbenzene	ma/ka	0.025	X			01/26/96
tert-Butvlbenzene	mg/kg	0.025	х			01/26/96
Carbon Tetrachloride	ma/ka	0.025	х			01/26/96
Chlorobenzene	mg/kg	0.025	X			01/26/96
Chlorodibromomethane	mg/kg	0.025	х			01/26/96
Chloroethane	mg/kg	0.025	Х	CSL S	SPL	01/26/96
Chloroform	mg/kg	0.025	Х			01/26/96
Chloromethane	mg/kg	0.025	Х	CSL S	SPL E	UP01/26/96
o-Chlorotoluene	mg/kg	0.025	х			01/26/96
p-Chlorotoluene	mg/kg	0.025	Х			01/26/96
1,2-Dibromo-3-chloropropane	mg/kg	0.025	Х			01/26/96
1,2-Dibromoethane	mg/kg	0.025	х			01/26/96
1,2-Dichlorobenzene	mg/kg	0.025	Х			01/26/96
1,3-Dichlorobenzene	mg/kg	0.025	х			01/26/96
1,4-Dichlorobenzene	mg/kg	0.025	х			01/26/96
Dichlorodifluoromethane	mg/kg	0.025	Х	CSL S	SPL	01/26/96
1,1-Dichloroethane	mg/kg	0.025	Х			01/26/96
1,2-Dichloroethane	mg/kg	0.025	Х			01/26/96
1,1-Dichloroethylene	mg/kg	0.025	Х	5	SPL	01/26/96
cis-1,2-Dichloroethylene	mg/kg	0.025	Х			01/26/96
trans-1,2-Dichloroethylene	mg/kg	0.025	Х	5	SPL	01/26/96
1,2-Dichloropropane	mg/kg	0.025	х			01/26/96
1,3-Dichloropropane	mg/kg	0.025	Х			01/26/96
2,2-Dichloropropane	mg/kg	0.025	х	5	SPL	01/26/96
Ethylbenzene	mg/kg	0.025	0.0446			01/26/96
Hexachlorobutadiene	mg/kg	0.025	Х			01/26/96
Isopropylbenzene	mg/kg	0.025	Х			01/26/96
Isopropyl Ether	mg/kg	0.025	x			01/26/96
p-Isopropyltoluene	mg/kg	0.025	X			01/26/96
Methyl tert Butyl Ether	mg/kg	0.025	X	CSL S	SPL	01/26/96
Methylene Chloride	mg/kg	0.025	X	5	SPL	01/26/96
Naphthalene	mg/kg	0.025	0.135			01/26/96

Analytical No.:

58962

X = Analyzed but not detected. Results calculated on a dry weight basis.

Ill analyses conducted in accordance with Enviroscan Quality Assurance Program.



Attn: John Sager

4

CUST NUMBER:	212365
SAMPLED BY:	Client
DATE REC'D:	01/19/96
REPORT DATE:	02/01/96
PREPARED BY:	LMP
REVIEWED BY:	m2
L	·

		Reporting	GP-9 6-8'		Date
_	Units	<u>Limit</u>	_01/17/96_	<u>Qualifiers</u>	Analyzed
n-Propylbenzene	mg/kg	0.025	0.0756		01/26/96
Tetrachloroethylene	mg/kg	0.025	x		01/26/96
1,1,2,2-Tetrachloroethane	mg/kg	0.025	x		01/26/96
Toluene	mg/kg	0.025	x		01/26/96
1,2,3-Trichlorobenzene	mg/kg	0.025	Х		01/26/96
1,2,4-Trichlorobenzene	mg/kg	0.025	x		01/26/96
1,1,1-Trichloroethane	mg/kg	0.025	x	SPL	01/26/96
1,1,2-Trichloroethane	mg/kg	0.025	x		01/26/96
Trichloroethylene	mg/kg	0.025	Х		01/26/96
Trichlorofluoromethane	mg/kg	0.025	x	SPL	01/26/96
1,2,4-Trimethylbenzene	mg/kg	0.025	х		01/26/96
1,3,5-Trimethylbenzene	mg/kg	0.025	0.106		01/26/96
Vinvl Chloride	ma/ka	0.025	х	CSL SPL	01/26/96
m- & p-Xylene	ma/ka	0.025	X		01/26/96
o-Xvlene & Styrene	mg/kg	0.025	0.02676	CSL MB	01/26/96
					, _, , , , , ,

Analytical No.:

58962


Mid-State Associates 1835 N. Stevens Street P.O. Box 1026 Rhinelander, WI 54501

CUST NUMBER: 212365 SAMPLED BY: Client DATE REC'D: 01/19/96 REPORT DATE: 02/01/96 PREPARED BY: LMP >>>> REVIEWED BY:

Attn: John Sager

Qualifier Descriptions

CSL	Check standard for this analyte exhibited a low bias. Sample results may also be biased low. Non-detects were verified by comparison with a low standard.
SPL	The matrix spike included with this analytical batch had a low recovery. Since that sample matrix appears similar to your sample, your result may also be low.
DUP	Result of duplicate analysis in this quality assurance batch exceeds the limits for precision. Sample results may also show a degree of variability.
MB	Analyte was observed in the method blank. Sample results may be biased high.

Il analyses conducted in accordance with Enviroscan Quality Assurance Program. Enviroscan Corp., 303 West Military Rd., Rothschild, WI 54474 1/800/338-SCAN Wisconsin Lab Certification No. 737053130



Mid-State Associates 1835 N. Stevens Street P.O. Box 1026 Rhinelander, WI 54501 CUST NUMBER: 212365 SAMPLED BY: Client DATE REC'D: 01/19/96 REPORT DATE: 02/01/96 PREPARED BY: LMP/m/ REVIEWED BY:

Attn: John Sager

Modified Gasoline Range Organics (GRO) Parameter # 78920

					Date	Analytical
		GRO	Qua	lifiers	_Analyzed_	NO
GP-1	4-6'	103.	G3	G6	01/22/96	58948
GP-1	10-12'	х		DUP	01/19/96	58949
GP-2	10-12'	х		DUP	01/20/96	58950
GP-3	2-4'	х		DUP	01/20/96	58952
GP-3	8-10'	х		DUP	01/20/96	58953
GP-4	2-4'	5,800.	G8	G5	01/22/96	58954
GP-4	10-12'	x		DUP	01/20/96	58955
GP-5	6-8'	х		DUP	01/20/96	58956
GP-6	4-6'	х		DUP	01/20/96	58957
GP-7	2-4'	26.4	G3	G6	01/22/96	58958
GP-7	4-6'	х			01/22/96	58959
GP-8	4-6'	х			01/22/96	58960
GP-9	2-4'	1,740.	G2	G5	01/23/96	58961
GP-9	6-81	x			01/23/96	58962

Reporting Limit 5.0 Units mg/kg

X = Analyzed but not detected. Results calculated on a dry weight basis.

Qualifiers: Only above indicated qualifiers apply.

- (G1) The chromatogram is characteristic for gasoline.
- (G2) The chromatogram has characteristics of an aged gasoline sample.
- (G3) The chromatogram is not characteristic for either gasoline or aged gasoline. However, it has a reportable concentration of peaks/area within the GRO window.
- (G4) The chromatogram contains a single compound which accounts for most of the GRO result.
- (G5) The chromatogram contains a significant number of peaks outside the GRO window.
- (G6) The chromatogram contains a significant number of peaks and a raised baseline outside the GRO window.
- (G7) The chromatogram is characteristic for gasoline, however either additional peaks are present or PVOC peaks are not proportional to gasoline, indicating the presence of additional compounds.
- (G8) The chromatogram is characteristic for aged gasoline, however either additional peaks are present or PVOC peaks are not proportional to aged gasoline indicating the presence of additional compounds.
- (DUP) Result of duplicate analysis in this quality assurance batch exceeds the limits for precision of 20%. Sample results may also show a degree of variability. DUP = 20.4%.

The entire area within the GRO window was quantitated.

The replicate spike recovery of this batch of samples was found to be 112% & 91.2% and 91.3% & 111%.

ll analyses conducted in accordance with Enviroscan Quality Assurance Program.

Enviroscan Corp., 303 West Military Rd., Rothschild, WI 54474 1/800/338-SCAN Wisconsin Lab Certification No. 737053130

	Sample Receipt Report
Clier	nt: <u>Midstelle</u> Date Received: <u>119196</u>
Anal	ytical No.: <u>58948</u> Through <u>58962</u>
Chee	k all deviations from EPA or WDNR sample protocol.
[]	Sample(s) received at°C which is above the EPA and WDNR limit of 4°C.
[]	VOC vial(s) received with headspace. Explain:
[]	Sample(s) received in bottles not furnished by Enviroscan. Preservation method, if used, is
[]	Sample(s) not properly preserved per EPA/WDNR protocol for the following:
[]	Sample(s) received beyond EPA holding time for:
[]	Sample date/time not supplied by client. Actual holding time unknown.
[]	GRO/PVOC/VOC/DRO (circle appropriate) sample(s) are <19.5 gms and this report is the flag for that information. Sample(s) under-weight:
¥	GRO/PVOC/VOC (circle appropriate) sample(s) were between 26.4-35.4 gms so methanol was added in a 1:1 ratio. Sample(s) included: <u>58948-aded 2mc</u> <u>58954-</u> <u>58960-added 2ml</u> <u>58961-3ml</u> <u>added</u> meat
[]	GRO/PVOC/VOC/DRO (circle appropriate) sample(s) were >35.4 gms and are required to be rejected. Sample(s) included:
[]	Other:
Clie	nt contact concerning the above deviations:

[] Do NOT proceed with analyses.

analyses conducted in accordance with Enviroscan Quality Assurance Program. Inviroscan Corp., 303 West Military Rd., Rothschild, WI 54474 1/800/338-SCAN Wisconsin Lab Certification No. 737053130

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303 W. MILITARY RD. ROTHSCHILD, WI 54474 1-800-338-SCAN

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